



Research Paper: Effectiveness of Acceptance and Commitment Therapy on Suicidal Ideation, Emotional Self-regulation and Psychological Flexibility of Adolescents with Suicidal Ideation Referring to Social Emergency



Fatemeh Haghbin¹, Fatemeh Pooragha^{*2}

¹ M. A. in General Psychology, Department of Psychology, Rahbord Shomal Institute of Higher Education, Rasht, Iran

² Assistant Professor, Department of Psychology, Rahbord Shomal Institute of Higher Education, Rasht, Iran

Citation: Haghbin, F., Pooragha, F. (2023). Effectiveness of Acceptance and Commitment Therapy on Suicidal Ideation, Emotional Self-regulation and Psychological Flexibility of Adolescents with Suicidal Ideation Referring to Social Emergency. *Journal of Modern Psychology*, 3(2), 49-62. <https://doi.org/10.22034/jmp.2023.422983.1079>

 <https://doi.org/10.22034/JMP.2023.422983.1079>

Article info:

Received date:

27 Jan 2023

Accepted date:

23 Mar 2023

Keywords:

Acceptance and commitment therapy, Emotional self-regulation, Psychological flexibility, Suicidal thoughts

Abstract

This study aimed to examine the effectiveness of acceptance and commitment therapy (ACT) on suicidal ideation, emotional self-regulation, and psychological flexibility in adolescents with suicidal ideation who were referred to a social emergency center. The research method was a quasi-experimental pretest-posttest design with a control group. The population of the study included all adolescents with suicidal ideation who visited the counseling center of the social emergency in Astaneh-ye Ashrafiyeh city in 2021. Thirty participants (15 in the control group and 15 in the experimental group) were selected from this population by purposive sampling and randomly assigned to two groups. The experimental group received eight 90-minute sessions of group ACT, while the control group was put on a waiting list. Data were collected using the Acceptance and Action Questionnaire (AAQ-2), the Cognitive Emotion Regulation Questionnaire (CERQ), and the Beck Scale for Suicide Ideation (BSSI). Data were analyzed using the analysis of covariance (ANCOVA) test. The results showed that there was a significant difference between the experimental and control groups in the posttest mean scores of the reappraisal component of emotion regulation and suicidal ideation. However, there was no significant difference in the flexibility and suppression components of emotion regulation. Based on the results of this study, it is recommended that psychologists and psychotherapists working in social emergency centers or with adolescents use the results of this study to improve emotion regulation and reduce suicidal ideation in their adolescent clients.

*** Corresponding author:**

Fatemeh Pooragha

Address: Department of Psychology, Rahbord Shomal Institute of Higher Education, Rasht, Iran

Tel: +98 (901) 412 3512

E-mail: fatemeh.pooragha@rahbordshomal.ac.ir



© 2023, The Author(s). Published by Rahman Institute of Higher Education. This is an open-access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>)

1. Introduction

Every society develops and implements programs to meet the needs of its people and address or alleviate their problems. Our country follows the same principle. One such program is the social emergency program, which is the outcome of the Welfare Organization's several years of activity in the country. It has been operating since 1999 to intervene in personal, family, and social crises. The crisis intervention section of the social emergency provides services to people who experience various types of harm, such as sexual identity disorder, suicidal ideation and behavior, sexual deviance, social harm to women and girls, elder abuse, child abuse, spouse abuse, disability abuse, and running away from home. The aim of these services is to empower people who are at risk or socially harmed and help them return to a healthy life (Mousavi Chalak, 2021).

Adolescents are an important and vulnerable social group that often have suicidal thoughts. These people are more likely to attempt suicide because they do not know how to cope with their problems (Russell et al., 2019). One of the most urgent issues that adolescents face is suicidal thoughts and actions. Research has shown that about 23 percent of high school students experience suicidal ideation (Orri et al., 2020). Suicidal thoughts and ideas are the strongest predictors of self-harm behaviors (Mars et al., 2019). They are not limited to a specific stage of life, but they seem to affect people more when they encounter personal difficulties and feel hopeless (Pan et al., 2017). Suicidal thoughts are a type of mental involvement with death that has not yet

become a reality (Andriessen et al., 2019). They also include a spectrum of vague thoughts about the possibility of ending one's life to complete suicide (Nam et al., 2018). Their tendency increases during puberty. Contrary to what most adults believe, most suicide attempts by adolescents are planned in advance, not impulsive responses to failures (Lian et al., 2017).

Excitement regulation is an important factor for health and successful performance, as shown by a review of texts and psychological studies. Emotion regulation is a process that involves both external and internal factors, and it is responsible for reviewing, evaluating, and adjusting emotional reactions, especially their intensity and duration, to achieve a goal (Drach et al., 2021). However, the ability to regulate emotion declines in individuals during adolescence (Ersan, 2020). Many researchers believe that an ineffective style of emotion regulation leads to negative mood states, which cause turmoil in the individual (Pico-Perez et al., 2017). Research also shows that people who have a history of suicidal thoughts and actions display more negative emotions in response to life issues. These findings suggest that problems in cognitive evaluation, especially in moderating and regulating negative emotions, are more related to suicide risk (Pico-Perez et al., 2017; Kudinova et al., 2015).

Psychological flexibility is another factor that can affect adolescents' risk of suicidal thoughts or actions. Flexibility is associated with psychological well-being, according to some studies (Denckla et al., 2018). It is a process or an outcome of adapting well to

challenging situations, allowing people to cope with their negative and unpleasant experiences and keep their equilibrium (Gonzalez et al., 2017). Flexibility involves a range of behaviors that a person engages in according to their values, and it also fosters commitment to action (Hayes, 2016).

Various intervention methods and treatment modalities have been applied to assist adolescents who have suicidal thoughts and are referred to social emergency centers. Acceptance and commitment therapy (ACT) is one of the psychological interventions that has gained much popularity in recent years. It is a third wave behavioral therapy that helps people pursue a rich and meaningful life instead of struggling with unpleasant internal experiences. It uses six fundamental components and its theoretical foundation, Rational Frame Theory (RFT), to achieve this goal (Hayes, 2019). This approach fosters flexibility in clients by employing six main components: acceptance, defusion, observing self, contact with the present moment, values, and committed action (Allmann, 2020). The main premise of ACT is that any attempt to control mental experiences is futile and counterproductive (Kiuru et al., 2021). In acceptance and commitment therapy, people learn to experience their problematic thoughts and emotions in a different way rather than trying to alter their outlook on life (Wynne et al., 2019).

Research suggests that acceptance and commitment therapy (ACT) improves not only physical performance but also various mental health problems (Spidel et al., 2018). Lewin et al. (2021), Kim and Lee (2019), Wersebe et al. (2018), Deval et al. (2017),

Rezai Sharif et al. (2021), and Khorani et al. (2019) found that ACT improved psychological flexibility by reducing experiential avoidance and increasing acceptance ability, connection with the present, and non-coherence in their studies. Esmail zadeh et al. (2021) supported this therapeutic approach and showed that ACT significantly improved emotional regulation problems in adolescents. Halliburton and Cooper (2015) also explored how ACT could be applied and adapted to adolescents and discovered that ACT could help adolescents with chronic pain, anorexia, depression, obsession, stress, behavioral disorders, learning disorders, and autism spectrum disorders and reduce their psychological problems. However, they also noted that adolescents used ACT less than other groups and most studies in this field had small samples and short interventions. Tighe et al. (2018), Walser et al. (2015), and Jamali et al. (2021) concluded that ACT could be an effective intervention to reduce suicidal thoughts and self-harm behaviors in their studies.

Adolescent psychological issues require special attention, and suicide has been increasing among young and adolescent people in recent years. Therefore, it is necessary to address the issue of suicidal thoughts in adolescents, as this issue can affect their life and future in various ways. Moreover, the absence of psychological flexibility and emotional self-regulation can cause problems for individuals at the educational, family, and social levels. Hence, more information is needed on this problem and its treatment methods in the adolescent

group. The aim of the present study was to examine the effectiveness of acceptance and commitment therapy on suicidal thoughts, psychological flexibility, and emotional self-regulation in adolescents with suicidal thoughts.

2. Method

Method This research used a quasi-experimental method with a pre-test-post-test and a control group. The research population included all adolescents who had suicidal thoughts or actions and were referred to the social emergency center of Astaneh Ashrafieh city in 1400. According to the statistics obtained from the social emergency center, there were 94 of them. We used the following sampling method: we selected purposefully 30 adolescents who met the entry criteria out of this number and randomly divided them into two groups (15 people each) of experimental and control. The entry criteria were: having suicidal thoughts, not having severe mental disorders (as diagnosed by the research psychologist), and giving informed consent to participate in the research. The exit criteria were: missing more than two sessions and showing no interest in continuing the treatment. The participants gave their informed consent to take part in the research.

2.1. Instruments

Beak Scale for Suicidal Ideation (BSSI): This is a scale that Beck developed in 1961 to measure the intensity of attitudes and planning for suicide. It contains 19 items that use a three-point Likert scale from 0 to 2. Five items are for screening and the person must answer the remaining 14 items if he/she answers item 5 positively; otherwise, there is no need to continue. The person's score can range from zero to thirty-eight. **Beck and Steer (1990)** reported the reliability coefficient and inter-rater reliability of the scale as 0.89 and 0.83, respectively. **Anis et al. (2005)** studied the validity and reliability of the Beck Suicide Ideation Scale with 100 subjects aged 19 to 28. They estimated the validity of the scale to be 0.95 using the Cronbach's alpha method and 0.75 using the two-half method.

Emotional Self-Regulation Questionnaire (CERQ): Gross and John developed this questionnaire in 2003 to measure emotion regulation strategies. The scale has 10 items with two subscales: cognitive reappraisal (6 items) and suppression (4 items). Responses are on a Likert scale (seven-point), ranging from strongly disagree (1) to strongly agree (7). The Cronbach's alpha coefficient for cognitive reappraisal was 0.79 and for suppression was 0.73. The test-retest reliability after three months for the whole scale was 0.69. The correlation coefficients of cognitive reappraisal with positive affect and negative affect were 0.24 and -0.14, respectively. The correlation coefficients of suppression with positive affect and negative affect were -0.15 and 0.04, respectively (**Balzarotti & John, 2010**). The validity of this

questionnaire in the Iranian population was based on the internal consistency method (with Cronbach's alpha range of 0.86 to 0.81) and validity through principal component analysis using varimax rotation. The correlation of the two subscales was -0.13. The validity was desirable (Kayani, 2013).

Acceptance and Action Questionnaire-II (AAQ2-): This questionnaire, developed by Bond and colleagues (2011), is a 10-item version of the original questionnaire that measures experiential avoidance and psychological inflexibility. The questions are on a Likert scale from one (never) to seven (always) and include both positive and negative questions. Questions one, six and ten are reverse scored (Bond et al., 2011). The scores range from 10 to 70 and lower scores indicate higher levels of psychological flexibility (Hayes et al., 2012). Bond et al. (2011) reported a Cronbach's alpha of 0.84 and a test-retest reliability of 0.81 and 0.79 after 3 and 12 months, respectively, for this

questionnaire. They also reported evidence of concurrent, longitudinal and incremental validity for this instrument by reporting the correlation between the scores from this questionnaire and multiple indicators of mental health and indicators such as absenteeism rate in the work environment at present and in the future.

2.2. Procedure

The study used a convenience sampling method to select 30 participants based on the research criteria. They were randomly divided into two groups: experimental and control. Both groups took a pre-test before the intervention. The experimental group received eight sessions of acceptance and commitment therapy (90 minutes per session, twice a week) following the protocol of Zettle et al. (1980). After the intervention, both groups took a post-test. The data were analyzed using SPSS software and the statistical method of covariance analysis.

Table 1
Summary of acceptance and commitment therapy sessions

Objective	Content	Expected behavior change	Homework
Introduction, Treatment explanation, Treatment agreement, Case conceptualization	Completing questionnaires, introduction	Getting familiar with the treatment	Recording problematic behaviors
Creating creative hopelessness, ineffectiveness of previous solutions	Talking about the painful experiences of the clients, using the metaphor of the person fallen in the well and the tug of war Using the jelly doughnut metaphor to explain that controlling oneself causes the problem	Replacing appropriate solutions instead of previous solutions	Writing down thoughts and feelings and reporting weekly events
Labeling control as the problem	Using the jelly doughnut metaphor to explain that controlling oneself causes the problem	Making the clients aware of the futility of controlling	Expressing behaviors that are considered as control. Not avoiding negative thoughts.
Introducing defusion, distancing from thoughts and watching them	Bus passengers metaphor, walking with mind exercise	Familiarity with defusion	Defusion practice throughout the day
Introducing oneself as the context	Observing oneself	Observing thoughts and paying attention to one's experiences Practicing being in the present moment and accepting one's thoughts and emotions	Practicing being an observer
Introducing mindfulness	Focusing on bodily sensations	Understanding values and striving to live a valuable life	Doing meditation at home
Clarifying values	Identifying, assessing and prioritizing values in life	Committing to act according to the life values, accepting the disturbing thoughts and reducing experiential avoidance	Drawing a table of ranking values
Committed action	Making a commitment to do the exercises, summarizing the sessions and doing the post-test		Doing and reviewing the exercises during the therapy sessions

3. Results

The descriptive indices of the research variables are presented in [Table 2](#). Before conducting the covariance analysis test, the

assumptions of the parametric tests were checked. The Kolmogorov-Smirnov normality test for the variables of psychological flexibility, emotion regulation

and its dimensions, and suicidal thoughts indicated that the distribution was normal ($P > 0.05$). The Levene test for assessing the homogeneity of variance of the groups in the components of the dependent variables of the research showed that the significance level

was higher than 0.05. Therefore, the experimental and control groups were roughly equivalent in terms of the variability of scores of these variables and their components in the pre-test phase.

Table 2

Descriptive indices (mean and standard deviation) and normality of research variables in two pre-test and post-test phases

Variable	Group	Pre-test		Post-test		Kolmogorov Smirnov	p	Levene	P
		M	SD	M	SD				
Flexibility	Experiment	44.53	11.40	34.46	6.84	0.116	0.200	1.422	0.243
	control	29.33	8.94	27.73	9.16				
Reappraisal	Experiment	21.26	9.25	26.26	6.60	0.102	0.150	1.983	0.050
	control	23.93	9.36	23.33	9.68				
Suppression	Experiment	13.93	5.78	15.06	4.31	0.109	0.200	0.166	0.687
	control	13.13	4.08	13.20	4.22				
Total score of emotion regulation	Experiment	35.20	12.64	41.33	8.14	0.096	0.200	3.505	0.072
	control	37.06	11.54	36.53	13.2				
Suicidal thoughts	Experiment	23.26	10.08	8.26	5.93	0.150	0.083	1.053	0.314
	control	17.33	10.09	16.53	9.89				

The univariate covariance analysis results in [Table 3](#) showed that, after controlling for the pre-test effect, the experimental and control groups had significantly different mean scores on the post-test for the total score of emotion regulation ($2 \eta^2 = 0.268$ and $P > 0.05$, $F = 9.901$) and suicidal thoughts ($2 \eta^2 = 0.489$ and $P > 0.05$, $F = 25.855$). However, there was no significant difference between the groups for cognitive flexibility ($2 \eta^2 = 0.101$ and $P > 0.05$, $F = 3.042$).

Table 3

Univariate covariance analysis results of the difference between the experimental and control groups in the total scores of cognitive flexibility, emotion regulation and suicidal thoughts

Source	Sum of Squares	DF	Mean Square	F	P	Eta ²
Flexibility						
Corrected model	1665.75	2	832.87	44.53	0.001	0.767
Intercept	79.92	1	79.92	4.27	0.048	0.137
Pre-test	1325.72	1	1325.72	70.88	0.001	0.724
Group	56.88	1	56.88	3.04	0.093	0.101
Error	504.94	27	18.70			
Total	31187.00	30				
Corrected total	2170.70	29				
Emotion regulation						
Corrected model	2754.33	2	1377.168	46.39	0.001	0.775
Intercept	300.77	1	300.77	10.13	0.004	0.273
Pre-test	2581.53	1	2581.53	86.96	0.001	0.763
Group	293.93	1	293.93	9.90	0.004	0.268
Error	801.53	27	29.68			
Total	49030.00	30				
Corrected total	3555.86	29				
Suicidal thoughts						
Corrected model	1410.99	2	705.49	19.756	0.001	0.594
Intercept	4.65	1	5.65	0.158	0.694	0.006
Pre-test	898.46	1	898.46	25.159	0.001	0.482
Group	923.30	1	923.30	25.855	0.001	0.489
Error	964.20	27	35.71			
Total	6988.00	30				
Corrected total	2375.20	29				

Table 4 shows the results of the test that measured how the intervention affected the participants' emotion regulation skills (appraisal and suppression).

Table 4

Multivariate analysis of covariance for examining the effect of group on emotion regulation components

	Value	F	Df1	Df2	P	Effect size
Pillai's trace	0.375	7.515	2	25	0.003	0.375
Wilk's lambda	0.625	7.515	2	25	0.003	0.375
Hotelling's trace	0.601	7.515	2	25	0.003	0.375
Largest root	0.601	7.515	2	25	0.003	0.375

Table 5 presents the results of the multivariate analysis of covariance test for

the emotion evaluation and suppression regulation components.

Table 5

Results of covariance analysis of difference between experimental and control groups in emotion regulation components

Variable	Sum of squares	DF	Mean square	F	Significance level	Eta ²	Statistical power
Evaluation	194.50	1	194.50	15.48	0.001	0.373	0.966
Repression	21.15	1	21.15	2.408	0.133	0.085	0.321

The results show that the mean scores of the emotion evaluation component in the post-test were significantly different after controlling for the pre-test effect ($P < 0.01$). However, there was no significant difference between the pre-test and post-test scores of the emotion suppression component ($P > 0.01$).

4. Discussion

The aim of this study was to examine the effectiveness of acceptance and commitment therapy (ACT) on suicidal thoughts, psychological flexibility and emotional self-regulation in adolescents with suicidal thoughts. The results of this study indicated that ACT reduced suicidal thoughts in the experimental group. This finding was consistent with the studies of Tighe et al. (2018), Walser et al. (2015), and Jamali et al.

(2021). A possible explanation for this finding is that ACT involves acceptance. Acceptance is a client's intentional and brave state. It allows him or her to fully and non-judgmentally experience his or her psychological aspects (the good, the bad and the ugly). He or she can also express them in society without labeling them as good or bad. Acceptance means experiencing feelings, emotions and thoughts, without any attempt to change them. Acceptance is especially necessary when the experience is not and should not be changeable. This paradoxical state allows the client to be who he or she is and to be where he or she is present, and to reduce his or her desire to change his or her thoughts and feelings (Hayes et al., 2012). ACT helps people to become aware of their emotions and cognition and to abandon their maladaptive strategies, in order to achieve

better and more compatible goals. Therefore, the person is released from the grip of his or her destructive conflicts that he or she is trapped in and that may lead him or her to harm himself or herself and others, to move towards emotional solutions such as risky behaviors, and to achieve psychological compatibility in the person (Hayes, 2016). In addition, the use of the creative hopelessness technique helped adolescents to expand their behaviors in the direction of personal values, instead of cognitively aligning with negative thoughts and trying to change those (Hayes et al., 2012).

In this study, there was also a significant difference in the mean scores of the post-test of the experimental and control groups in the reappraisal component of the emotion regulation dimensions. However, there was no difference in the suppression dimension. This result was consistent with previous studies such as Hubert et al. (2015), Esmail Zadeh et al. (2022). This result could be explained as follows: ACT is one of the solutions to increase emotion regulation. It has mechanisms such as acceptance, increased awareness, and presence in the present moment, non-judgmental observation and committed action based on personal values. These mechanisms help people to align with beliefs and values that give them more control over their emotions. This is especially helpful when they face unpleasant and threatening emotions (Wetherell et al., 2011).

Studies by Kim and Lee (2019), Wersebe et al. (2018), Lutfiazimi (2022), Rezai Sharif et al. (2021), based on the effectiveness of ACT on improving psychological flexibility,

all stated that this approach, which is a behavioral therapy, uses skills such as acceptance, cognitive defusion and mindfulness to increase psychological flexibility (Hayes, 2016).

5. Conclusion

The result of this study contradicted the previous findings and showed that acceptance and commitment therapy (ACT) did not have a significant effect on the flexibility of the target group adolescents. A possible reason for this finding is that the study group, due to having severe suicidal thoughts in the pre-test stage and being in the sensitive period of adolescence, was more resistant to change. Psychological flexibility aims to help the person cope with and evaluate his or her situation (Bond et al., 2006). Adolescents with a history of suicidal thoughts show more fragility in response to life issues and are not able to accept the difficult conditions of life. Therefore, considering the consequences of problems related to suicidal thoughts, they did not show the necessary impact in response to the related questionnaire.

This study provided a suitable framework for treating adolescents with suicidal thoughts through ACT. Therefore, this method is recommended for use in educational centers and schools for the variables of this study and other variables in the adolescent age group who are in the sensitive stage of growth and identity formation. On the other hand, considering the non-significance of the flexibility variable and the suppression dimension of the

emotion regulation dimensions, psychologists and psychotherapists of social emergency centers should pay more attention to the results of this study to improve emotion regulation and flexibility of their adolescent clients. Among the limitations of the present study is the allocation of samples to Astaneh-ye Ashrafiyeh city, which limits the generalization of the result to other cities. On the other hand, the sample under study was only female adolescents, which limits the generalization of the results to male adolescents. It is also advised that more assessments be done during the intervention phase to avoid biasing the mean scores by the treatment period and that a follow-up phase be performed to calculate the effect of the treatment with more certainty. Considering the high percentage of suicidal thoughts in adolescents and their referral to treatment centers, conducting psychological studies related to this harm will significantly help to treat the problems of this group of people.

Acknowledgments

We would like to thank all the adolescents who cooperated in this study.

Conflict of Interest

The Authors declare that there is no conflict of interest with any organization. Also, this research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

References

- Allmann, A. E., Coyne, L. W., Michel, R., & McGowan, R. (2020). Acceptance and commitment therapy-enhanced exposures for children and adolescents. In *Exposure Therapy for Children with Anxiety and OCD* (pp. 405-431). Academic Press. <https://doi.org/10.1016/B978-0-12-815915-6.00017-2>
- Andriessen, K., Krysinska, K., Kölves, K., & Reavley, N. (2019). Suicide postvention service models and guidelines 2014-2019: A systematic review. *Frontiers in psychology, 10*, 2677. <https://doi.org/10.3389/fpsyg.2019.02677>
- Anis, J., Fathi Ashtiani, A., Salimi, S. H., & Ahmadi Nodeh, K. (2005). Assessing the reliability and validity of the Beck Suicidality Scale in soldiers. *Journal of Military Medicine, 7*(1), 37-33. *SID*. <https://sid.ir/paper/>
- Balzarotti, S., & John, O. (2010). An Italian Adaptation of the Emotion Regulation Questionnaire. *European Journal of Psychological Assessment, 26*(1), 61-67. <http://dx.doi.org/10.1027/1015-5759/a000009>
- Beck, A. T., & Steer, R. A. (1990). *The Beck Anxiety Inventory manual*. San Antonio, TX: Psychological Corporation.
- Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., ... & Zettle, R. D. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire-II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior Therapy, 42*(4), 676-688. <https://doi.org/10.1016/j.beth.2011.03.007>
- Denckla, C. A., Consedine, N. S., Chung, W. J., Stein, M., Roche, M., & Blais, M. (2018). A double-edged sword? Sub-types of psychological flexibility are associated with distinct psychiatric disorders. *Journal of Research in Personality, 77*, 119-125. <https://doi.org/10.1016/j.jrp.2018.10.004>

- Deval, C., Bernard-Curie, S., & Monestès J-L. (2017). Effects of an acceptance and commitment therapy intervention on leaders' and managers' psychological flexibility. *Journal de Thérapie Comportementale et Cognitive*, 27(1), 34-42. <https://doi.org/10.1016/j.jtcc.2016.10.002>
- Drach, R. D., Orloff, N. C., & Hormes, J. M. (2021). The emotion regulatory function of online social networking: Preliminary experimental evidence. *Addictive Behaviors*, 112, 106559. <https://doi.org/10.1016/j.addbeh.2020.106559>
- Ersan, C. (2020). Physical aggression, relational aggression and anger in preschool children: The mediating role of emotion regulation. *The Journal of General Psychology*, 147(1), 18-42. <https://doi.org/10.1016/j.ejon.2017.08.006>
- Esmail zadeh, L., Gholamali Lavasani, M., & Qasimzadeh, S. (2021). Comparing the effectiveness of schema therapy and therapy based on acceptance and commitment on the difficulty of emotional self-regulation of intelligent teenagers. *Social health*, 8(3), 441-452. <https://doi.org/10.22037/ch.v8i3.31232>
- Gonzalez-Fernandez, S, Fernandez-Rodriguez, C., Mota-Alonso, M. J., Garcia-Tejido, P., Pedrosa, I. & Perez-alvarez, M. (2017). Emotional state and psychological flexibility in breast cancer survivors. *European Journal of Oncology Nursing*, 30, 75-83. <https://doi.org/10.1016/j.ejon.2017.08.006>
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85, 348-362. <https://psycnet.apa.org/doi/10.1037/0022-3514.85.2.348>
- Halliburton, A., & Cooper, L. (2015). Applications and adaptations of Acceptance and Commitment Therapy (ACT) for adolescents. *Journal of Contextual Behavioral Science*, 4(1), 1-11. <https://doi.org/10.1016/j.jcbs.2015.01.002>
- Hayes, S. C. (2016). Acceptance and Commitment Therapy, Relational Frame Theory, and the Third Wave of Behavioral and Cognitive Therapies - Republished Article. *Behavior Therapy*, 47(6), 869-85. <https://doi.org/10.1016/j.beth.2016.11.006>
- Hayes, S. C. (2019). *A Liberated Mind How to Pivot Toward What Matters*, Newyork: an imprint of Penguin Random House.
- Hayes, S. C., Strosahl, K. D., & Wilson, K.G. (2012). *Acceptance and Commitment Therapy: The process and practice of mindful change*. New York: Guilford Press.
- Jamali, S., Najafi, M., Qureshi, F. S., & Rahimian Bogar, I. (2021). The effectiveness of acceptance and commitment therapy on suicidal thoughts and psychological flexibility of patients with bipolar disorder. *Psychological studies*, 17(1), 7-22. <https://doi.org/10.22051/psy.2021.34436.2376>
- Khorani, J., Ahmadi, V., Mami, SH, & Valizadeh, R. (2019). The Effects of Acceptance and Commitment Therapy on the Meaning of Life, Life Satisfaction, Cognitive Flexibility, and Suicidal Ideation in Individuals with Depression. *Middle Eastern Journal of Disability Studies*, 10, 112-112. <http://dorl.net/dor/20.1001.1.23222840.1399.10.0.166.5>
- Kiani, A., Ghasemi, N., & Pourabbas, A. (2013). The Comparison of the Efficacy of Group Psychotherapy Based on Acceptance and Commitment Therapy, and Mindfulness on Craving and Cognitive Emotion Regulation in Methamphetamine Addicts. *Etiadpajoji*, 6 (24), 36-27. [file:///C:/Users/NPFEC000916/Downloads/etiadpajoh-v6n24p27-en%20\(2\).pdf](file:///C:/Users/NPFEC000916/Downloads/etiadpajoh-v6n24p27-en%20(2).pdf)
- Kim, I. s. & Lee, J. W. (2019). Effects of Acceptance Commitment Therapy Based Recovery Enhancement Program on psychological Flexibility, Recovery Attitude, and Quality of Life For Inpatients with Mental Illness. *Journal of Korean Academy of psychiatric and Mental Health Nursing*, 28(1), 79-90.

- <https://doi.org/10.12934/jkpmhn.2019.28.179>
- Kiuru, N., Puolakanaho, A., Lappalainen, P., Keinonen, K., Mauno, S., Muotka J, et al. (2021). Effectiveness of a web-based acceptance and commitment therapy program for adolescent career preparation: A randomized controlled trial. *Journal of Vocational Behavior*, 127, 103-578. <https://doi.org/10.1016/j.jvb.2021.103578>
- Kudinova, A. Y., Owens, M., Burkhouse, K. L., Barretto, K. M., Bonanno, G. A., & Gibb, B. E. (2015). Differences in emotion modulation using cognitive reappraisal in individuals with and without suicidal ideation. *Journal of Cognition and Emotion*, 10(2), 221–230. <https://doi.org/10.1080/02699931.2015.1036841>
- Lewin, R. K., Acuff, S. F., Berlin, K. S., Berman, J. S., & Murrell, A. R. (2021). Group-based acceptance and commitment therapy to enhance graduate student psychological flexibility: Treatment development and preliminary implementation evaluation. *Journal of American College Health*, 71(2), 1-10. <http://dx.doi.org/10.1080/07448481.2021.1881522>
- Lian, Q., Zuo, X., Mao, Y., Luo, S., & Zhang, S. (2017). Anorexia nervosa, depression and suicidal thoughts among Chinese adolescents: a national school-based cross-sectional stud. *Environ Health Prev Med*, 22(1), 22-30. <https://doi.org/10.1186/s12199-017-0639-2>
- Lotfi Azimi, A. (2022). The Effectiveness of Acceptance and Commitment Group Therapy on Students' Cognitive Flexibility and Emotional Self-Regulation. *Biquarterly Journal of Cognitive Strategies in Learning*, 10(18), 249-269. <https://doi.org/10.22084/j.psychogy.2021.24788.2361>
- Mars, B., Heron, J., Klonsky, E. D., Moran, P., O'Connor, R. C., Tilling, K., Gunnell, D. (2019). Predictors of future suicide attempt among adolescents with suicidal thoughts or non-suicidal self-harm: a population-based birth cohort study. *The Lancet Psychiatry*, 6(4), 327-337. [https://doi.org/10.1016/s2215-0366\(19\)30030-6](https://doi.org/10.1016/s2215-0366(19)30030-6)
- Mousavi Chalak, S. H. (2021). *Social emergency in Iran from idea to practice*. Shellac Publications.
- Nam, B., Wilcox, H. C., Hilimire, M. & DeVlyder, J. E. (2018). Perceived need for care and mental health service utilization among college students with suicidal ideation. *Journal of American College Health*, 31, 1-8. <https://doi.org/10.1080/07448481.2018.1434779>
- Orri, M., Scardera, S., Perret, L. C., Bolanis, D., Temcheff, C., Séguin, J. R., Boivin, M., Turecki, G., Tremblay, R. E., Côté, S. M., & Geoffroy, M. C. (2020). Mental health problems and risk of suicidal ideation and attempts in adolescents. *Pediatrics*, 146(1). <https://doi.org/10.1542/peds.2019-3823>
- Pan, Y. J., Juang, K. D., Lu, S. R., Chen, S. P., & Wang, Y. F. (2017). Longitudinal risk factors for suicidal thoughts in depressed and non-depressed young adolescents. *Aust N Z J Psychiatry*, 51 (9), 930-937. <https://doi.org/10.1177/0004867417717795>
- Pico-Perez, M., Radua, J., Steward, T., Menchon, J. M., & Soriano-Mas, C. (2017). Emotion regulation in mood and anxiety disorders: A meta-analysis of fMRI cognitive reappraisal studies. *Prog Neuropsychopharmacol Biol Psychiatry*, 79(Pt B), 96-104. <https://doi.org/10.1016/j.pnpbp.2017.06.001>
- Rezai Sharif, A., Sobhi Qara Maleki, N., Pourabdel, S., Zargham Hajbi, M., & Beiki, M. (2021). The effectiveness of treatment based on acceptance and commitment on academic self-regulation and psychological flexibility of students with special learning disabilities. *Psychological studies*, 17(3), 115-136.
- Russell, K., Allan, S., Beattie, L., Bohan, J., MacMahon, K., & Rasmussen, S. (2019). Sleep problem, suicide and self-harm in university students: A systematic review.

- Sleep medicine reviews*, 44, 58-69.
<https://doi.org/10.1016/j.smr.2018.12.008>
- Spidel, A., Lecomte, T., & Kealy, D. (2018). Acceptance and Commitment Therapy for Psychosis and Trauma: Improvement in Psychiatric Symptoms, Emotion Regulation, and Treatment Compliance Following a Brief Group Intervention. *Psychology and Psychotherapy: Theory, Research and Practice*, 91, 248-261.
<https://doi.org/10.1111/papt.12159>
- Tighe, J., Nicholas, J., Shand, F. & Christensen, H. (2018). Efficacy of acceptance and commitment therapy in reducing suicidal ideation and deliberate self-harm: systematic review. *JMIR mental health*, 5(2), 1-12.
<https://doi.org/10.2196/10732>
- Walser, R. D., Garvert, D. W., Karlin, B. E., Trockel, M., Ryo, D. M., & Taylor, C. B. (2015). Effectiveness of acceptance and commitment therapy in treating depression and suicidal ideation in veterans. *Journal of Behavior Research and Therapy*, 74, 25-31.
<https://doi.org/10.1016/j.brat.2015.08.012>
- Wersebe, H., Lieb, R., Meyer, A. H., Hofer, P. & Glaster, A. T. (2018). The link between stress, well-being, and psychological flexibility during an Acceptance and Commitment Therapy self-help intervention. *International Journal of Clinical and Health Psychology*, 18(1), 60-68.
<https://doi.org/10.1016/j.ijchp.2017.09.002>
- Wetherell, J. L., Liu, L., Patterson, T. L., Afari, N., Ayers, C.R., Thorp, S. R., Stoddard, J. A., Ruberg, J., Kraft, A., Sorrell, J. T., & Petkus, A. J. (2011). Acceptance and commitment therapy for generalized anxiety disorder in older adults: A preliminary report. *Behavior therapy*, 42(1), 127-134.
<https://doi.org/10.1016/j.beth.2010.07.002>
- Wynne, B., McHugh, L., Gao, W., Keegan, D., Byrne, K., Rowan, C., Hartery, K., Kirschbaum, C., Doherty, G., Cullen, G., & Dooley, B. (2019). Acceptance and commitment therapy reduces psychological stress in patients with inflammatory bowel diseases. *Gastroenterology*, 156(4), 935-945.
<https://doi.org/10.1053/j.gastro.2018.11.030>
- Zettle, Robert., D. & Hayes, Steven C. (1980). Conceptual and Empirical Status of Rational-Emotive Therapy. *Progress in behavior modification*, 9, 125-166.
<https://doi.org/10.1016/B978-0-12-535609-1.50009-X>