

The effectiveness of Acceptance and Commitment Therapy on psychological capital and academic buoyancy in adolescents with attention deficit problems

Aghajanpoor Pooriyan Vahid M.,¹ Aghdasi A.N., *² MesrAbadi J.,³ Hashemi NosratAbadi T.⁴

Abstract:

Introduction: Based on the 5th Diagnostic and Statistical Manual of Mental Disorders criteria for attention-deficit/hyperactivity disorder, women have more inattentive characteristics than men., the aim of this study was to determine the effectiveness of Acceptance and Commitment Therapy on psychological capital and academic buoyancy in adolescents with attention deficit disorders.

Methods: The present study was a quasi-experimental study with a pretest-posttest design with a control group. The Statistical population of the study of all female high school students in district 2 of Tabriz in 2021-2022 years to number of 2864 people. The study sample consisted of 40 students who were selected by purposive sampling method taking into account the inclusion criteria. Substitution of subjects was random in the two groups of 20 experimental and control. The Achenbach Adolescent Behavioral Problems Scale (YSR), Lutans Psychological Capital (PCQ) and Academic Vitality Questionnaire (AVS) were used to collect data. In this study, the experimental group underwent Acceptance and Commitment (ACT) for 9 sessions of 90 minutes and the control group was on the waiting list. Data analysis was performed using multivariate analysis of covariance.

Findings: Findings showed that the intervention based on acceptance and commitment leads to a significant difference between groups in the variables of psychological capital (self-efficacy, optimism, hope and resilience) by 58.4% and academic buoyancy by 23%.

Conclusion: Intervention based on acceptance and commitment is effective on improving psychological capital and academic buoyancy in students.

Keywords: attention deficit problems, psychological capital, academic buoyancy, acceptance and commitment therapy.

Received: 1/January /2023

Accepted: 25/February/ 2023

Citation: Aghajanpoor Pooriyan Vahid M., Aghdasi A.N., * MesrAbadi J., Hashemi NosratAbadi T. The effectiveness of Acceptance and Commitment Therapy on psychological capital and academic buoyancy in adolescents with attention deficit problems, Family and health, 2023; 12(94): 163-176

¹ - PhD student, Educational Psychology, Tabriz Branch, Islamic Azad University, Tabriz, Iran marziyeh.aghajanpour@gmail.com, <https://orcid.org/0000-0002-5554-5337>

² - Assistant Professor, Educational Psychology, Tabriz branch, Islamic Azad University, Tabriz, Iran (corresponding author) a.aghdasi@gmail.com, <https://orcid.org/0000-0002-1164-4683>,

³ - Assistant Professor, Educational Psychology, Azarbayjan Shahid Madani University, Tabriz, Iran, Mesrabadi@yahoo.com, <https://orcid.org/0000-0001-7717-2298>

⁴ - Assistant Professor, Educational Psychology, Tabriz University, Tabriz, Iran, <https://orcid.org/0000-0002-8353-6104>, tourajhashemi@yahoo.com

Introduction:

Adolescence is a sensitive period during which neural development, experience, and neurobiological factors interact to shape the brain in such a way that it adapts to the environment and changes behavior. Among the problems that may be considered as an obstacle for the normal development of teenagers in this period are the problems of lack of attention. Attention deficit disorder is one of the most common neurobehavioral disorders. The Fifth Diagnostic and Statistical Manual of Mental Disorders defines attention problems as easy distraction or difficulty completing tasks or concentrating on work (1). A person with attention deficit disorder often avoids doing tasks that require a lot of mental effort for a long time, is easily distracted, usually has difficulty maintaining attention on tasks or play activities, and is frequently distracted from an activity (mental or physical). It changes to another activity (2). Research shows that attention problems are associated with poor school performance, whether in childhood, adolescence, or adulthood. People with attention problems are at greater risk for low scores on achievement and math tests, low GPAs, repeat grades, and placement in There are special education classes that can affect their psychological condition (3). Attention deficits may have consequences for various aspects of adolescent functioning.

One of the important factors that may be damaged due to attention problems and poor academic status of the student is psychological capital. Psychological capital is a personality-based motivational resource rooted in the theoretical framework of positive psychology (4). This positive structure represents a multidimensional structure including hope (persistence in reaching the goal and adapting to the ways to achieve it), self-efficacy (confidence in accepting and trying to complete challenging tasks), optimism (being positive about successes current or future) and resilience (maintaining tenacity and going back to achieve goals in the face of difficulties and setbacks) (5). It has been found that attention problems predict academic failure and are associated with lower levels of positive resources such as resilience and self-efficacy (6).

Academic vitality is a positive, constructive and adaptive response to all kinds of challenges and obstacles that are experienced in the continuous and ongoing field of education; refers to (7), which includes all kinds of challenges and obstacles that occur in everyday and normal educational situations. Educational vitality is a construct that arose from positive psychology and refers to the fact that it can enable students to successfully face obstacles and academic challenges such as poor grades, exam pressure, difficult and difficult assignments. Coping occurs during education and school, it also reflects educational vitality, vitality and daily psychological tolerance in school (8). Martin (9) investigated academic vitality among high school students with attention deficit/hyperactivity disorder and showed that this psychological structure positively predicts the level of interaction and enjoyment of students in academic activities. Past research has shown that academic vitality is negatively associated with psychological risks, such as school anxiety and low self-efficacy (10).

Various interventions have been used to improve the positive performance of adolescents, which is one of the most recent promising approaches of intervention based on acceptance and commitment. Acceptance and commitment therapy, as part of the third wave interventions of cognitive behavioral therapy, focuses on the relationship of the individual with his inner

experience instead of the content of the experience. This approach assumes that psychological distress results from efforts to change distressing internal experiences (i.e., thoughts and feelings) that lead to maladaptive behavior. Acceptance and commitment therapy is one of the intervention approaches that can be used to improve the psychological condition of adolescents. This intervention is based on experience, and unlike classical approaches, the goal of this treatment is not to change the shape or frequency of disturbing thoughts and feelings, but its main goal is to strengthen psychological flexibility (11). In a research, Fang and Ding (12) proposed that the acceptance and commitment group showed a significant improvement in psychological capital after the intervention, while no significant improvement was observed in the control group. The findings of Polakanhu et al. (10) indicated that the experimental group showed a significant increase in academic vitality after receiving the acceptance and commitment intervention.

Mushtaghi, Asghari Ebrahimabad and Aghamohamedian Shearhaf (13) showed in a research that therapy based on acceptance and commitment led to the improvement of the psychological capitals of self-efficacy, hope, resilience, optimism and neuroticism in the experimental group compared to the control group. In semi-experimental research, Barkhi Irani, Zare and Abedin (14) proposed that therapy based on acceptance and commitment has a significant effect on improving psychological capital and its dimensions including hope, resilience, optimism and self-efficacy. Fang and Ding (12) research aimed at the effectiveness of a group intervention based on acceptance and commitment on psychological capital and school involvement in Chinese adolescents. After the intervention, the acceptance and commitment group showed a significant improvement in psychological capital, school involvement and psychological flexibility. , while no significant improvement was observed in the control group. Mirsharifa, Mirzaian and Dosti (15) and Fazli Kabria, Khajevand Khoshli, Hassanzadeh and Mirzaian (16) investigated the effectiveness of the intervention of acceptance and commitment on psychological capital and showed that in terms of depression and psychological capital (tolerance, hope, self-efficacy and Optimism) before and after the study, there is a significant difference between the experimental and control groups.

The results of some research indicate the effectiveness of acceptance and commitment therapy on the academic vitality of adolescents. For example, Rashidi, Abdali and Mohammadian (17) showed that the intervention of acceptance and commitment has a significant effect on reducing exam anxiety and academic vitality, and this effect continues in the follow-up phase. In a research, Pulakanho et al. (10) showed the effectiveness of a short web-based acceptance and commitment intervention on the stress level and academic vitality of teenagers.

Binai Khojakini, Tejali and Shariat Bagheri (18) in a study confirmed the effectiveness of teaching acceptance and commitment program on family functioning and academic vitality of students with physical-motor disabilities with normal intelligence. Rashidi et al. (17) showed that the intervention of acceptance and commitment has a significant effect on reducing exam anxiety and academic vitality, and this effect continues in the follow-up phase.

Related positive psychological factors, such as psychological capital and vitality, are rarely reported in the acceptance and commitment therapy literature. Although there is evidence about

the usefulness of acceptance and commitment interventions for adolescents, no previous study has investigated the effectiveness of acceptance and commitment intervention on the psychological processes of adolescents with attention problems. Paying close attention to the limitations of previous researches that were mostly conducted on students and boys, this research seeks to examine adolescent girls with attention problems, because based on the criteria of the fifth Diagnostic and Statistical Manual of Psychiatric Disorders for Attention Deficit/Hyperactivity Disorder, women are more Men have inattentive characteristics (1). Therefore, the aim of this research is to answer the question, is the intervention based on acceptance and commitment effective on psychological capital and academic vitality in adolescents with attention deficit problems?

Methods:

According to the objectives, the current research was of applied type and according to the method of data collection, it was semi-experimental with a pre-test-post-test design with a control group. The statistical population of the research included all the female students of the second secondary level in the 2nd education district of Tabriz city in the year 1400-1401 in the number of 2864 people. The statistical sample consisted of 40 students who were selected by purposive sampling and considering the inclusion criteria. Subjects were replaced in two groups of 20 people, experimental and control, by random method. Entry criteria include female gender, age range from 13 to 18, a score higher than 8 in the Achenbach Adolescent Behavioral Problems Self-Assessment Form, written parental consent for the child to participate in the research, and exit criteria include the adolescent's reluctance to continue cooperation, taking various psychiatric medications. , taking Ritalin, receiving psychological treatments at the same time.

Assessment system based on Achenbach's experience-self-assessment form of adolescent behavioral problems: Achenbach's self-report scale of adolescent behavioral problems was used to screen adolescents with attention problems. This questionnaire was created by Achenbach in 1991 and was standardized in Iran by Minaei (19) for adolescent samples. This scale can be answered for the ages of 11 to 18 years with a minimum education level of the fifth grade in 15 minutes, which includes two parts of competences and syndromes, which were used in this research, syndromes and the component of attention problems. The syndromes section contains 112 statements, and the subjects are asked according to a three-point scale: not true: (0), partly or sometimes true: (1), completely or mostly true: (2), circle the number that corresponds to their condition. matches, draw a line (20). These scales are: 1- cornering, 2- physical complaints, 3- depression-anxiety, 4- social problems, 5- thinking problems, 6- attention problems, 7- delinquent behavior, 8- aggressive behavior. The component of attention problems in this scale includes questions 1, 4, 8, 10, 13, 17, 41, 61 and 78. The lowest and highest score in this scale is in the range of 0 to 18, and scores higher than 8 are considered to indicate the clinical state of attention problems. The adolescent self-assessment scale has satisfactory reliability and validity. The validity of this questionnaire has been examined repeatedly. Achenbach and Rescorella (21) have reported the validity of the scale using the method of factor analysis and the method of principal components, and obtained the reliability of the scale using Cronbach's alpha for all dimensions in the range of 0.59 and 0.86. are the correlation coefficient of this scale with Eyseng's adolescent personality questionnaire has been

obtained between 0.39 and 0.68. The reliability coefficients of this questionnaire were obtained by Cronbach's alpha method for general problems of 0.85 and 0.93 (22).

Lutans psychological capital scale: This questionnaire was created by Lutans et al. (4) and it contains 24 questions, the 4 dimensions of psychological capital include self-efficacy (questions 1 to 6), optimism (7 to 12), hope (13 to 18) and It measures resilience (19-24) on a 6-point Likert scale (1-strongly disagree to 6-strongly agree). To obtain the score of psychological capital, first, the score of each subscale is obtained separately, and then their sum is considered as the total score of psychological capital. The validity and reliability of the subscales have also been confirmed. Hashemi Nusratabad et al. (23) reported the reliability of the scale using Cronbach's alpha of 0.85. Golperor(24) confirmed the form and content validity of the scale by several experts and its construct validity using exploratory factor analysis in four factors and confirmed the internal consistency of the scale using Cronbach's alpha for self-efficacy, hope, resilience and happiness. reported equal to 0.86, 0.84, 0.72 and 0.60 respectively (25).

Academic Vitality Questionnaire: It is a 9-item instrument developed by Hossein Chari and Dehghanizadeh (26) based on the academic vitality scale of Martin and Marsh (27). The scoring of the questionnaire is based on a 5-point Likert scale ranging from strongly agree to strongly disagree. The minimum and maximum score in this scale is 9 and 45, respectively. High scores in this scale indicate better academic vitality and low scores indicate low academic vitality (26). For the preliminary implementation and elimination of defects, these items were implemented and rewritten on a group of high school students of Mehriz city, and finally 9 items reached the final stage. Some of the items in this questionnaire are: "If one day I get a bad grade in school, I still know that I will have a good and happy day" and if there are many lessons and I don't have enough time, I know how to cope with the situation. and be happy". The results of Hossein Chari and Dehghanizadeh's study (26) showed that the Cronbach's alpha coefficient obtained by removing one item was equal to 0.73. Also, the correlation range of the items with the total score was between 0.51 and 0.68. The present results indicated that the items had satisfactory internal consistency and stability. The validity of the questionnaire in the research of Shahbazian Khonoig (28) was investigated with the method of confirmatory factor analysis and it was confirmed that the structure of the questionnaire has an acceptable fit with the data and all the indicators of the goodness of fit of the model were confirmed. Also, the reliability of the questionnaire was reported as 0.80.

Intervention based on acceptance and commitment: To implement the intervention based on acceptance and commitment, the treatment protocol based on acceptance and commitment by Hayes et al. (29) was used. This program is held as a group in 9 sessions of 90 minutes. In this treatment model, 90 minutes per session are devoted to the concepts of acceptance and commitment. These concepts are presented using metaphors and experiential exercises during the sessions. These exercises help people with symptoms of social phobia and pervasive anxiety to move toward a meaningful life instead of controlling or avoiding situations that provoke anxiety and worry by doing valuable activities (29). A brief description of the treatment sessions is provided in Table 1.

Table 1. Content of training sessions based on acceptance and commitment by Hayes and colleagues (29)

Session	Goal	Meeting process
1	Establishing a therapeutic alliance and getting familiar with the therapeutic concepts of acceptance/commitment	Implementation of the pre-test, familiarization with the intervention process; Establishing communication with group members, psychological training and concluding a treatment contract.
2	Creating insight into the problem and challenging control as a problem and control of personal events	Introduction of inefficient control system; Remembering that self-control is problematic. presenting the metaphor of the man in the pit; Chocolate Cake Metaphor Attention to Clients' Passion Homework: Conscious Mind Concern Sheet
3	Addressing the client's experience and strengthening and recognizing that self-control is a problem	the metaphor of tug-of-war with a giant; The lie detector metaphor emphasizes the importance of promoting and cultivating mindfulness; Homework: What is the Worry Performance Sheet?
4	Creating an orientation to develop mindfulness skills as an alternative to worry and introducing the concept of fault	polygraph metaphor, lion, lion, lion, desire metaphor practice as an alternative to two-scale metaphor control; instructions regarding passion; Clear emotions versus ambiguous emotions; introducing mindfulness through mindful breathing practice; Homework: Continue practicing mindfulness.
5	Introducing the importance of values, how to distinguish them from goals and setting simple behavioral goals in order to achieve specific values.	Introduction of values; Discussing the relationship between goals and values, choosing values; Choices versus judgments/decisions; Identifying an action with behavioral goal value (to do during the week); homework; Presenting the values identification sheet, performing a valuable action
6	Continuing to create an orientation towards mindfulness and providing practical ways to cultivate mindfulness	Identifying values: using the tombstone metaphor; Instruction of mindfulness skills; practice increasing mindfulness; Homework: Identify an action with behavioral goal value to complete during the week
7	Attention to the function of emotions, the habit of behavioral avoidance and the distinction between clear and ambiguous emotions	instructions and discussions about the function of emotions; emotional cycle control instructions; emotional avoidance of the hot stove metaphor; Clear emotions versus ambiguous emotions; Homework: practicing mindfulness; Identify a valuable action, set a behavioral goal for the week

8	Introducing the distinction between observer selves and conceptual selves and identifying the relationship between self-conceptualization and anxiety and wordiness	chess board metaphor; the debate about the observer self-versus the conceptual self; the practice of self-observation; identify an action with behavioral goal value to perform during the week; Homework: perform an action with a specific value
9	Presenting the idea of commitment as a tool to move towards specific goals and strengthen choices to achieve those goals	commitment as a process; identifying operational steps of smaller goals in the service of bigger goals; presenting a gardening metaphor; Obstacles to achieving goals and desires to accept them, the metaphor of a bubble on the road; the metaphor of passengers on the bus; the metaphor of climbing to the top; Identify an action with value Behavioral goal to perform during the week Homework: Perform an action with specific value.

In order to analyze the research data and describe the findings, descriptive methods such as mean and standard deviation were used, and multivariate and univariate covariance analysis were used to answer the research hypotheses.

Findings:

The results of examining the average of psychological capital variables showed that the participants of the two experimental and control groups had similar average levels in the pre-test of psychological capital and its dimensions, but in the post-test of psychological capital and the relevant dimensions, the participants of the experimental group had a higher average level than the subjects. They have a control group. Also, the Shapiro-Wilk (z) test to check the normality of data distribution as one of the assumptions of covariance analysis for psychological capital indicated the normality of data distribution for psychological capital and its components ($p>0.05$).

The results of the study of the average variables of academic vitality showed that the participants of the two experimental and control groups have a similar average level in the pre-test of academic vitality, but in the post-test of academic vitality, the participants of the experimental group have a higher average level than the subjects of the control group. The results of the Shapiro-Wilk test indicated the normality of data distribution for academic vitality ($p>0.05$).

The multivariate covariance analysis test was used to evaluate the effectiveness of the intervention based on acceptance and commitment on psychological capital and its dimensions in adolescents with attention deficit problems. The presumptions of homogeneity of variances were investigated with Lune's test and homogeneity of variance-covariance matrix with M-box test. The results of the homogeneity of variances and the homogeneity of the variance-covariance matrix for the dimensions of psychological capital indicated the establishment of

the default homogeneity of variances and the variance-covariance matrix for the dimensions of psychological capital.

The multivariate covariance analysis test was used to evaluate the effectiveness of the intervention based on acceptance and commitment on psychological capital and its dimensions in adolescents with attention deficit problems. The presumptions of homogeneity of variances were investigated with Lune's test and homogeneity of variance-covariance matrix with M-box test. The results of the homogeneity of variances and the homogeneity of the variance-covariance matrix for the dimensions of psychological capital indicated the establishment of the default homogeneity of variances and the variance-covariance matrix for the dimensions of psychological capital.

Table 2. Results of multivariate tests for two groups in psychological capital components

title of exam	Value	F	Significance	Eta coefficient
Pillai effect	0.584	10.87	0.0001	0.584
Wilks Lambda	0.416	10.87	0.0001	0.584
Hotelling's work	1.40	10.87	0.0001	0.584
The largest zinc root	1.40	10.87	0.0001	0.584

According to the results of Table 2, the significance level of the Wilks's Lambda test shows that there is a significant difference in at least one of the psychological capital components in the two experimental and control groups, and that 58.4% of the observed difference in the average components of self-efficacy, optimism, hope and resilience are related to the effect of acceptance and commitment intervention. Therefore, intervention based on acceptance and commitment to the components of psychological capital is effective. Two assumptions of the homogeneity of the slope of the regression line along with the linear relationship between the covariance variable and the dependent variable were investigated, the results of which in Table 3 indicated that these assumptions were established for the dimensions of psychological capital.

Table 3. Results of analysis of covariance of intergroup effects of psychological capital dimensions

Component s	Source of changes	The sum of the squares	Degrees of freedom	Mean square	F	Significance level	Eta coefficient
Efficacy	Pre-test group	9.43	1	9.43	3.86	0.059	0.114
	pre-exam	130.58	1	130.58	44.90	0.0001	0.569
	group	24.12	1	24.12	8.29	0.007	0.196
	error	98.87	34	2.91			

optimism	Pre-test group	5.81	1	5.81	2.62	0.116	0.080
	pre-exam group	170.66	1	170.66	78.96	0.0001	0.699
	error	21.45	1	21.45	9.92	0.003	0.226
		73.48	34	2.16			
Hope	Pre-test group	0.194	1	0.194	0.095	0.760	0.003
	pre-exam group	145.51	1	145.51	73.16	0.0001	0.683
	error	40.74	1	40.74	20.48	0.0001	0.376
		67.62	34	1.89			
Resilience	Pre-test group	0.390	1	0.390	0.138	0.713	0.005
	pre-exam group	75.44	1	75.44	28.94	0.0001	0.460
	error	17.51	1	17.51	6.72	0.014	0.165
		88.62	34	2.61			

The results of Table 3 show that the intervention based on acceptance and commitment led to a significant difference between the groups in the components of self-efficacy ($F=2.196$, $F=5.29$), optimism ($F=0.226$, $F=92.92$), hope ($0.376=2$, $F=20.48$) and resilience ($0.165=2$, $F=6.72$). Therefore, the intervention based on acceptance and commitment has led to an increase in the scores of the subjects of the experimental group in terms of psychological capital compared to the control group.

In order to investigate "the effectiveness of the intervention based on acceptance and commitment on academic vitality in adolescents with attention deficit problems", the results of the presented multivariate covariance analysis test were used. The results of analyzing the assumptions of covariance analysis for academic vitality with Lune's test showed that the results of homogeneity of variance ($P=0.230$, $F=1.48$) and homogeneity of the variance-covariance matrix ($P=0.089$, $F=1.64$) were maintained. In the following, two assumptions of homogeneity of the slope of the regression line along with the linear relationship between the covariate and the dependent variable were investigated, and the results of the homogeneity of the slope of the regression line ($P=0.170$, $F=1.97$) and the linear relationship between the covariate and the dependent variable ($P=0.0001$) = 63/88F) was also established.

Table 4. Results of covariance analysis of intergroup effects of average academic vitality

Component s	Source of change s	The sum of the square s	Degrees of freedom	Mean square	F	Significanc e level	Eta coefficien t
academic life	Pre-test group	9.14	1	9.14	3.49	0.070	0.088
	pre- exam	199.05	1	199.05	71.29	0.0001	65.8
	group	29.13	1	29.13	10.43	0.003	0.220
	error	103.30	37	2.79			

The results of Table 4 show that the intervention based on acceptance and commitment caused a significant difference between the groups in academic vitality ($F=231$, $\eta^2=0.23$). Therefore, the intervention based on acceptance and commitment has led to an increase in the scores of the subjects of the experimental group in academic vitality compared to the control group. Therefore, it can be said that the intervention based on acceptance and commitment is effective in students' academic vitality.

Discussion and conclusion:

The findings of the research showed that the intervention of acceptance and commitment led to an increase of 58.4% scores of psychological capital and its dimensions including self-efficacy, optimism, hope and resilience. Therefore, it can be said that intervention based on acceptance and commitment on the dimensions of psychological capital in students is effective. The findings of the present study are in line with the findings of Mirsharifa et al. (30), Fazli Kabria et al.

In explaining this finding, it can be stated that in this treatment, students learn how not to get mixed up with their disturbing thoughts and can tolerate their feelings and emotions and painful experiences in their lives. In cognitive fusion, event and thought are mixed as if they are inseparable. It can be said that the techniques that increase cognitive impairment also increase and promote the components of acceptance, contact with the present moment, values and self-concept. With the increase of self-efficacy, resilience, hope and humor, the person who previously believed that negative thoughts and feelings prevented him from doing his work can now act in a different way, and performing a committed act causes a change in the person's behavior. This problem causes them to get rid of cognitive confusion and experiential avoidance, which helps them to move towards their values and get more motivation to achieve their future goals, and hope increases in them and the field of increasing. They provide people's resilience and people improve their capacity to bear problems, which leads to an increase in psychological capital. Mindfulness exercises also help people get rid of challenges and

problems in their lives and experience more peace and ultimately resilience and optimism in their lives (30).

The research findings showed that the intervention based on acceptance and commitment caused a significant difference between the groups in academic vitality. Therefore, the intervention based on acceptance and commitment has led to an increase in the scores of the subjects of the experimental group in academic vitality compared to the control group. Therefore, it can be said that the intervention based on acceptance and commitment is effective in students' academic vitality. This finding is in line with the visual findings of Khojagini et al. (18), Rashidi et al. (17) and Pulakanho et al. (10).

Regarding the above explanation, it can be said that the process of contacting the moments of life helps the subjects not to consider the conditions unbearable and to accept the experience of the real moments of their lives. In this research, the subjects were able to realize that what they consider to be serious is just a string of words and does not express a reality by using the exercises, metaphors and explanations that were given in the sessions. Also, in the current research, by encouraging students to determine values and take effective action, instead of avoiding problems, they were helped to take committed action in line with life values and accept responsibility for their lives. Act creates a positive meaning in the person's mind due to the increase in the efforts of the individual, which is focused on personal growth, and increases the efforts of the individual to obtain informational support, tangible and emotional support (31). As a result, they experience more vitality in life.

The results of the present study suggest that the intervention increases self-awareness, acceptance and failure skills related to challenging situations in academic life. It is likely to strengthen the ability to set personal goals as well as the courage to take independent action in life. These, in turn, will increase academic vitality. Also, this method increases the ability to mix, adapt, compromise, cooperate and cope with oneself, the environment and others and makes students have more ability to use their own facilities or participate actively in academic activities and have more resources of use energy; As a result, it brings adaptation and acceptance of academic life conditions to the individual.

Limitation:

According to the findings, the intervention based on acceptance and commitment has led to an increase in the scores of the subjects of the experimental group in psychological capital and academic vitality compared to the control group. Therefore, it can be said that intervention based on acceptance and commitment is effective on psychological capital and academic vitality in students. It seems that the intervention of acceptance and commitment by providing mechanisms such as cognitive flexibility, attention to the present, acceptance, and commitment to individual and social values in students can provide the basis for the effective improvement of various psychological functions.

References:

- 1- American Psychiatric Association. Diagnostic and statistical manual of mental disorders (DSM-5®). American Psychiatric Pub; 2013, <https://www.psychiatry.org/psychiatrists/practice/dsm>
- 2- Leeman-Markowski B.A., Adams J., Martin S.P., Devinsky O., Meador K.J. Methylphenidate for attention problems in epilepsy patients: Safety and efficacy. *Epilepsy & Behavior*, 2021; 115, 107627. <https://doi.org/10.1016/j.yebeh.2020.107627>
- 3- Jangmo A., Stålhandske A., Chang Z., Chen Q., Almqvist C., Feldman I., Bulik C.M., Lichtenstein P., D'Onofrio B., Kuja-Halkola R., Larsson H. Attention-Deficit/Hyperactivity Disorder, School Performance, and Effect of Medication. *Journal of the American Academy of Child and Adolescent Psychiatry*, 2019; 58(4): 423–432, <https://doi-org.ezp.semantak.com/10.1016/j.jaac.2018.11.014>
- 4- Luthans F., Youssef-Morgan C.M.. Psychological capital: An evidence-based positive approach. *Annual review of organizational psychology and organizational behavior*, 2017; 4: 339-366, <https://psycnet.apa.org/record/2017-17803-014>
- 5- You J.W. The relationship among college students' psychological capital, learning empowerment, and engagement. *Learning and Individual Differences*, 2016; 49: 17-24. <https://doi.org/10.1016/j.lindif.2016.05.001>
- 6- Dvorsky M.R., Langberg J.M. (2016). A Review of Factors that Promote Resilience in Youth with ADHD and ADHD Symptoms. *Clinical Child and Family Psychology Review*, 2016; 19(4): 368–391, doi:10.1007/s10567-016-0216-z
- 7- Putwain D.W., Wood P., Pekrun R.. Achievement emotions and academic achievement: Reciprocal relations and the moderating influence of academic buoyancy. *Journal of Educational Psychology*, 2020; 8(24): 125-137. DOI:10.1037/edu0000637
- 8- Hoferichter F., Hirvonen R., Kiuru N. (2021). The development of school well-being in secondary school: High academic buoyancy and supportive class- and school climate as buffers. *Learning and Instruction*, 2021; 71: 101-377, DOI:10.1016/j.learninstruc.2020.101377
- 9- Martin A.J. Marsh H.W. Academic buoyancy and its psychological and educational correlates: A construct validity approach. *Psychology in the Schools*, 2013; 43(3): 267-282 DOI:10.1002/pits.20149.
- 10- Puolakanaho A., Lappalainen R., Lappalainen P., Muotka J.S., Hirvonen R., Eklund K. M., Kiuru N. Reducing stress and enhancing academic buoyancy among adolescents using a brief web-based program based on acceptance and commitment therapy: A randomized controlled trial. *Journal of Youth and Adolescence*, 2019; 48(2): 287-305. doi:10.1007/s10964-018-0973-8
- 11- Gloster A.T., Walder N., Levin M.E., Twohig M.P., Karekla M. The empirical status of acceptance and commitment therapy: A review of meta-analyses. *Journal of Contextual Behavioral Science*, 2020; 18: 181-192, <https://doi.org/10.1016/j.jcbs.2020.09.009>
- 12- Fang S., Ding D. The efficacy of group-based acceptance and commitment therapy on psychological capital and school engagement: A pilot study among Chinese adolescents. *J Contextual Behavioral Science*, 2020; 16: 134-143, <https://doi.org/10.1016/j.jcbs.2020.04.005>

- 13- Mushtaghi M., Asghari Ebrahimabad M.J., Agha Mohammadian Shearbaf H. The effectiveness of therapy based on acceptance and commitment on psychological capital and neuroticism in mothers with children with Down syndrome. J Psychological Achievement, 2019; 27(2): 256-233, https://psychac.scu.ac.ir/article_16213.html [InPersian]
- 14- Barqhi Irani Z., Zare H., Abedin M. Effectiveness of Acceptance and Commitment Therapy (ACT) on psychological capital in patients with esophageal cancer. Scientific-Research Quarterly of Health Psychology, 2014; 4(14): 113-128, https://hpijournals.pnu.ac.ir/article_3318.html , [InPersian]
- 15- Mirsharifa S.M., Mirzaian B., Dousti Y. The Efficacy of Acceptance and Commitment Therapy (ACT) Matrix on Anxiety and Quality Of Life of Patients with Irritable Bowel Syndrome. Int J Med Invest, 2019; 8 (1) :19-30, <http://intjmi.com/article-1-369-en.html>
- 16- Fazeli M., Ehtshamzadeh P., Hashemi Sheikh Shabani S.A. The effectiveness of cognitive behavioral therapy on the cognitive flexibility of depressed people. Journal of Thought and Behavior, 2013; 9(34): 36-27. https://jtbcp.riau.ac.ir/article_105.html
- 17- Rashidi A., Abdali A., Mohammadian M. The effectiveness of treatment based on acceptance and commitment on exam anxiety and academic vitality of female second year high school students. Journal of Sabzevar University of Medical Sciences and Health Services, 2017; 4(25): 580-573, <https://www.magiran.com/paper/1896799> [In Persian]
- 18- Binai Khojagini T., Tejali P., Shariat Bagheri M.M. The effectiveness of teaching acceptance and commitment program on family functioning and academic vitality of students with physical-motor disabilities with normal intelligence. Bimonthly scientific-research H rehabilitation medicine, 2021; 10(1): 79-89, http://medrehab.sbm.ac.ir/article_1101049.html [In Persian]
- 19- Minaei A. Adaptation and standardization of Achenbach's child behavior list, self-assessment questionnaire and teacher's report form. Research in Exceptional Children, 2016; 6(1): 558-529, http://joec.ir/browse.php?a_id=416&sid=1&slc_lang=fa [In Persian]
- 20- Akbari Zardkhane S., Mansour Kimiaei N., Zanganeh A.M., Mahdavi M., Osanlu Sh., Jalalat Danesh M. Constructing and examining the psychometric properties of the preliminary self-report scale of psychological health problems of adolescents in Iran. Research in Psychological Health, 2017; 12(4): 109-94. URL: <http://rph.khu.ac.ir/article-1-3353-en.html>, [In Persian]
- 21- Akbari Zardkhane S., Mansour Kimiaei N., Zanganeh A. M., Mahdavi M., Osanlu Sh., Jalalat Danesh M., Constructing and examining the psychometric properties of the preliminary self-report scale of psychological health problems of adolescents in Iran. Research in Psychological Health, 2017; 12(4): 109-94. D.o.i:10.52547/rph.12.4.94
- 22- Hashemi Nasratabad T., Babapour Khairuddin J., Bahadri Khosrowshahi J. The role of psychological capital in psychological well-being according to the moderating effects of social capital. Social Psychology Research, 2010; 1(4): 123-144.[in Persian]
- 23- Golperor M., Ghasemi M., Mosahebi M.R. The pattern of the role of psychological capital components in life satisfaction and marital satisfaction in the wives of martyrs

- in Kurd city. *Social Psychological Studies of Women*, 2013; 12(1): 119-140.[in Persian]
- 24- Saadat S., Davrpanah S.H., Saeedpour F., Samii F. The role of psychological capital (hope, optimism, self-efficacy and resilience) in students' academic commitment. *Journal of Education Strategies in Medical Sciences*, 2018; 12(3): 2-11. https://edcbmj.ir/browse.php?a_id=1436&sid=1&slc_lang=fa, [In Persian]
 - 25- Martin A.J. Marsh H.W. Academic buoyancy and its psychological and educational correlates: A construct validity approach. *Psychology in the Schools*, 2006; 43(3): 267-282 DOI:[10.1002/pits.20149](https://doi.org/10.1002/pits.20149).
 - 26- Hossein Chari M., Dehghanizadeh M.H. Academic vitality and perception of family communication pattern, the role of mediators of self-efficacy. *J Teaching and Learning Studies*, 2019; 4(2): 22-44. <file:///C:/Users/Negin/Downloads/Documents/20140107151542-9775-22.pdf> [In Persian]
 - 27- Shahbazian Khonoig A., Samimi Z., Habibi Kaliber R. Distinguishing students with high and low academic vitality based on academic optimism and goal orientation. *New Educational Thoughts*, 2017; 14(1): 267-247. https://jontoe.alzahra.ac.ir/article_3210.html, [In Persian]
 - 28- Seyed Jafari J., Motamedi A., Sadr M.M., Ulemaei M., Hashemian S.S. The effectiveness of education based on acceptance and commitment on the resilience of the elderly. *J Psychology of Aging*, 2016; 3(1): 21-29. https://jap.razi.ac.ir/article_735.html
 - 29- Pourkazem F., Eshghi Nogourani R. The effectiveness of treatment based on acceptance and commitment on increasing the psychological well-being of transgender people. *J Cognitive Psychology and Psychiatry*, 2017; 5(1): 29-41. DOI:[10.29252/shenakht.5.1.29](https://doi.org/10.29252/shenakht.5.1.29), [In Persian]
 - 30- De Houwer J., Barnes-Holmes Y., Barnes-Holmes D.. Riding the waves: A functional-cognitive perspective on the relations among behavior therapy, cognitive behavior therapy and acceptance and commitment therapy. *International J Psychology*, 2016; 51(1): 40-44. DOI:[10.1002/ijop.12176](https://doi.org/10.1002/ijop.12176)