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The Effectiveness of Treatment based on Acceptance and Commitment on Social Adaptation, Academic Self-Regulation and Cognitive Flexibility of Students with Specific Learning Disorders

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The purpose of this research is to study the effectiveness of acceptance and commitment therapy on social adaptation, academic self-regulation and cognitive flexibility of students with special learning disorders. The research method was semi-experimental using a pre-test-post-test design with a control group and a follow-up stage. The statistical population of the present study was made up of female students with learning disabilities in the first secondary level of Sari city, who referred to learning disorder centers in Sari city. In this research, 60 students with specific learning disabilities were selected by purposive sampling and by sampling method They were randomly assigned to two experimental and control groups. In order to collect data, Ryan and Connell's academic self-regulation questionnaires, Bell's social adjustment and Dennis and Vanderwaal's cognitive flexibility questionnaires were used. First, the pre-test was conducted on two groups, then the experimental group underwent acceptance and commitment-based therapy for 8 sessions, each stage lasting 120 minutes and once a week. Then, the post-test was performed on both groups. While checking the preconditions, covariance analysis and repeated measurement were used for data analysis under SPSS22 software. The results of the research showed that there is a significant difference between the scores of quality of life, academic self-discipline, social adaptation, and cognitive flexibility of the two groups after applying therapy based on acceptance and commitment.

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Introduction

Learning disability is one of the most important problems in the learning process. In fact, it can be said that this disorder is a general term in which the basic cognitive processes that play a role in understanding or using oral and written language have problems and in the form of weakness in the acquisition and use of skills such as speaking, listening, reading, They can clearly hear reading, math abilities, and reasoning (Ardeshiri Lordjani, Sharifi, 2018). This term was proposed for the first time by Samuel Kirk in 1963 to describe a group of children who were impaired in the development of language, reading and communication skills. Due to the importance of specific learning disorder, its timely identification, diagnosis and treatment is the main cause of problems. Intensive academic learning is considered one of the main branches of psychology and education of stunted children and educational psychology (Manavi Shad et al., 2019). In DSM-5, learning disorder has been renamed to specific learning disorder, and reading disorder, writing disorder, and math disorder, each of which was previously considered an independent and separate disorder, are now included as a characteristic in specific learning disorder; That means, from now on, psychiatrists or clinical psychologists will not say that this child has a reading disorder; Instead, they will say that he suffers from a specific learning disorder characterized by reading (Ganji, 2012). Most of the students with learning disabilities are identified as passive learners due to their psychological characteristics. These learners cannot use learning strategies to solve their academic problems and do not believe in their abilities because repeated experiences of failure make them frustrated and ineffective. The result of this issue is the formation of a negative perception of one's abilities and a decrease in self-respect and motivation, which provides the basis for various problems (Enaiti Shabkolai et al., 2018). There are many definitions about students with learning disabilities. According to Gartland Strauss-Nider (2017), specific learning disorders are a heterogeneous group of disorders that have characteristics such as difficulty in learning and functioning in listening, speaking, reading, writing, and calculation. These disorders have a neurological basis and a developmental process that starts before elementary school and continues until adulthood. French and Pickett (1997) believe that these types of students have problems in terms of their brains, and the brain failures of these students do not allow them to perform optimal learning activities, and this leads to their escape from learning environments. But in general, specific learning disorder is a neurodevelopmental disorder of biological origin that causes abnormalities at the cognitive level (Molvi et al., 2013). The variables that probably lead to the existence of learning disorders in students are variables such as social adaptation, academic self-regulation and cognitive flexibility. Social adaptation as the most important indicator of mental health is one of the topics that has been the focus of psychologists in recent decades (Zabih Ghasemi et al., 2018). Social adaptation includes the individual's adaptation to his social environment, which may be achieved by changing himself or the environment. Emotional adjustment is good mental health, satisfaction with personal life and harmony between emotions, activities and thoughts. In other words, emotional adjustment means the mechanisms by which a person finds emotional stability. Social and emotional capabilities and competences are considered as determining factors affecting adaptation. (Faust, 2009, Laif Shatiz, Han and Vesey, 2007, Mazaheri et al., 2015) have provided such a definition of social adaptation that the meaning of social adaptation is the degree of adaptation of a person to environmental conditions and changes, which is a change in attitudes. And external behaviors are also visible. The changes caused by adaptation help a person to be more efficient in different situations, and also, individual adaptation is related to the organization and the individual and the behavior related to the individual's personality, and social adaptation is the intellectual structure and relationship between the individual and the social environment.

Another variable that is affected by student learning disorders is academic self-regulation. Self-regulation is a personal discipline that enables a person to control his activities and focus on a task according to the goal (Abassi et al., 2017). Self-regulation has valuable consequences in the process of learning, education and even success in life. The main framework of self-regulation learning theory is based on how people organize their learning in terms of metacognitive, motivational and behavioral beliefs. Learning self-regulation means the ability of a person to adjust his behavior according to the conditions and changes of the external and internal environment, and it includes the ability of a person to organize and self-manage his behaviors to achieve various learning goals, and it consists of two components: motivational strategies and learning strategies (Shahidi and Zarbakhsh, 2014). (Shunkov and Phillips, 2000, Shunkov 2000, Paris, 2003) have defined self-regulation in such a way that they defined self-regulation as the child's ability to control bodily functions, manage emotions, and maintain attention and concentration, and they believe that the development of self-regulation It is the basis of early childhood development and it is visible in all aspects of behavior, and self-regulated people are aware of their

nature and have strategies to manage their emotions, and also motivational self-regulation reduces fear and anxiety. The term self-regulation in learning, responsibility and commitment to learning in students has become popular since 1980.

The next variable is cognitive flexibility. Cognitive flexibility refers to the ability of people to focus on the current situation and use the opportunities of that situation to take steps in line with the goals and internal values despite the presence of challenging or unwanted psychological events (Ghiyasabadi Farahani, Jafari Harandi, 2019).

Flexibility gives a person the ability to be efficient in the face of problems. Therefore, the ability to change the path from one cognitive processing to another cognitive processing is a sign of flexibility in cognition (Afroz, 2018). Cognitive flexibility is the ability to be in the present moment with complete awareness and openness to our experiences and perform value-oriented action. More simply, the ability to be present, give space to thoughts and feelings, and do what is important. The higher our ability to be fully conscious, to be open to our experiences and to act based on our values, the higher the quality of our life will be, because we can more effectively respond to the problems and challenges that life inevitably brings with it. . Also, by fully engaging with our lives and allowing our values to guide us, we can increase our sense of meaning and purpose and experience a sense of purpose in life. Vitality is not a feeling but a sense of being fully alive and embracing the here and now; Regardless of how we probably feel right now (Strosal, 2004). (Lezak, 2010, Hayes et al., 2013, Dines and Vanderwaal, 2015) have given such a definition of cognitive flexibility that cognitive flexibility increases a person's ability to choose action between different options that are more appropriate. Also, the ability to fully communicate with the present time, changing or maintaining behavior serves valuable and important goals in life, and the flexibility of people is very decisive in the extent of injuries and the level of their social functioning. In general, the ability to change cognitive cues in order to adapt to changing stimuli is the main element in operational definitions of cognitive flexibility.

Among the psychological treatments that have recently received attention and can have an effect on the treatment of learning disorders, is ACT acceptance and commitment training. In this treatment, a combination of metaphor, paradoxical sentences and awareness skills and a wide range of experiential exercises and behavioral interventions are used. Act's effectiveness has been found in a wide range of mental and physical diseases such as depression, obsession, stress, chronic pain, behavior management in diabetes, anxiety, addiction, and even schizophrenia. ACT is actually a combination of methods of accepting and paying attention to awareness along with commitment and behavior change. In this approach, people learn to accept their thoughts without judgment instead of challenging them, and the goal is for people to identify their goals and values in life and take committed action based on them. The purpose of the act is to help clients to create a rich, complete and meaningful life, while accepting the suffering that life inevitably brings with it (Loma and Legione, 2015). In this approach, unlike traditional cognitive therapy, the content of patients' thoughts and beliefs is not evaluated. Instead, the processes of the formation of psychopathology are addressed in the context and context of the problem (Hayes et al., 2006). The goal of ACT is to create a rich and meaningful life in which one inevitably accepts the suffering that exists in it. This therapy is about taking effective action that is guided by our deepest values while we are fully committed to it. And we are ready. It is only through conscious action that we can build a meaningful and valuable life (Yazdi and Abedi, 2014).

Research Background

Pourabdol and Sobhi Qaramaleki (2017) in a research titled the effectiveness of education based on acceptance and commitment on improving the social competence of students with specific learning disabilities have come to the conclusion that education based on acceptance and commitment is effective in improving the social competence of students with specific learning disabilities. Also, based on the findings of this research, it can be said that accepting emotions and communication problems instead of avoiding them helps students learn ways to face negative emotions and the consequences of these disorders, one of which It is a deficiency of social sufficiency, prevent it

Ardeshiri Lordjani and Sharifi (2018) in an article titled the effectiveness of acceptance and commitment based therapy on self-concept and emotional regulation of children with learning disabilities have come to the conclusion that this treatment improves self-concept and positive emotional regulation of children with learning disabilities and reduces Their negative emotional regulation has resulted. Also, based on the findings of the present study, it can be said that treatment based on acceptance of commitment by revealing values and committed action and creating psychological flexibility can be used as an efficient method to improve self-concept and emotional regulation of children with learning disabilities. In addition, the treatment method based on acceptance and commitment can positively

affect other cognitive and emotional processes such as emotional regulation.

Manavi Shad et al.(2019) in the meta-analysis research on the effectiveness of therapeutic-educational interventions on the improvement of specific learning disorder have come to the conclusion that the obtained effect size showed the effectiveness of using therapeutic-educational interventions in improving the specific learning disorder of students Also, according to the results of this research that the effect size of Fernald's multisensory method is high, it can be concluded that in designing special treatment packages for students with special learning disorders, it is better to use multisensory treatment methods that take into account the different dimensions of these children's problems. , should be prioritized for treatment.

Narimani et al.(2015) in a research entitled the effectiveness of education based on commitment/acceptance on reducing the social anxiety of students with specific learning disorders have come to the conclusion that education based on commitment/acceptance is effective in reducing the social anxiety of students with specific learning disorders. . Based on the findings of this research, education based on acceptance and commitment can have an important effect on the creation of actions and acceptance of social emotions, this treatment can lead to the reduction of social anxiety in these students.

Enayati Shabkolai et al.(2018) in a research titled the effectiveness of acceptance and commitment based therapy on social adjustment and depression of female students with specific learning disabilities in secondary school in Sari city have come to the conclusion that acceptance and commitment based therapy increases social adjustment and the improvement of depression in female students with learning disabilities became the first.

Methodology

In each research, according to the research topic, the appropriate method is chosen to conduct the research. In this research, we examined the effectiveness of acceptance and commitment-based education (ACT) on improving life (quality of life, academic self-discipline, social adjustment, cognitive flexibility, and depression) of female students with specific learning disorders in the first secondary level of Sari city.

The present research method is semi-experimental with a pre-test and post-test design with a control group. In this research, the treatment variable based on acceptance and commitment is the independent variable and the variables of quality of life, academic self-regulation, social adaptation, cognitive flexibility and depression are the dependent variables.

Diagram of pre-test and post-test plan with control group

examination Group	RE	T1	X	T2	T3
control group	RT	T2	-	T2	T3

The statistical population of the present study was all female students with specific learning disorders in the first secondary level of Sari city who had referred to the learning disorder center in 2017. Among them, 60 people were selected by purposive sampling and randomly assigned to two experimental and control groups. First, a pre-test was conducted on both groups, then the experimental group had 8 sessions, each session lasting 120 minutes. Once a week, they were treated based on acceptance and commitment. While the control group did not receive any intervention. Then the post-test was performed on both groups, and two months later, the questionnaires were completed by the participants in the follow-up phase.

Data Collection

A) Library method: The information contained in the first and second chapters and some theoretical topics and other chapters are collected by the library method, whose sources are given in the list of sources and sources.

b) Field method: in this method, in order to obtain the desired information, Bell's social adjustment questionnaire, Dennis and Vanderwaal's cognitive flexibility, and Ryan and Connell's academic self-regulation questionnaire were used, which were conducted in the natural field of research in three periods: pre-test, post-test and follow-up. It was provided to the students and after completion, the data was collected for analysis.

Intervention implementation method

After thanking the students and their mothers for their cooperation, the goals of forming the group were stated and with their help, rules were formulated. Then, explanations about the questionnaires were given to the experimental and control groups. One week after taking the pre-test, the trainings started for the experimental group in 8 sessions of 120 minutes. During this period, the control group did not receive any training, and one week after the end of the training, a post-test was taken from both control and experimental groups, and two months later, after the end of the intervention sessions, a follow-up was done.

Data Analysis

After the intervention, a post-test was conducted again from the experimental and control groups. Then the data of the questionnaires were extracted; It was coded and after entering the computer, it was analyzed using covariance method and SPSS22 software. Also, in order to analyze the information obtained in this research, the following descriptive and inferential statistics methods were used.

A) Descriptive statistics methods

In fact, it is preparing and adjusting the frequency distribution table and drawing the central and dispersion indicators, average and standard deviation and so on.

b) Inferential statistics methods

In the inferential part, the distribution of the data was checked using the Kolmogorov Smirnov normality test (noting that the sample size was more than 50 people) and in line with the obtained results, the parametric method was used, while checking the preconditions of the covariance analysis (the assumption of equality mean in the pre-test stage, equality of variance, homogeneity of the slope of the regression line and the linearity of the relationship between the variables and the covariate variable) ANCOVA method was used to analyze the data, and repeated measurements were used to determine the significance over time for each group Became.

Also, while examining the main hypothesis, while examining the preconditions for the Mancova analysis, which were mentioned above, the condition of the existence of a relationship between the variables with moderate correlation was also examined, and due to its existence, in the main hypothesis, the Pillai effect was used in reporting. became In addition, the effect size and power were calculated for each of the variables during the measurement process in the univariate and multivariate covariance model. Data analysis was done using SPSS22 software.

Findings

In this study, there were two experimental and control groups, the experimental group received the ACT intervention, the average age of the experimental group was 15.53 ± 0.73 and the average age of the control group was 15.37 ± 0.85 years, which the probability value like the independent T test showed There was no statistically significant difference between the control and experimental groups in terms of average age ($P<0.05$).

Table 1. Descriptive examination of social adaptation, self-regulation and flexibility by groups during the study

variable	group	Pre-test		Post-test		Follow up	
		Average	standard deviation	Average	standard deviation	Average	standard deviation
Social adjustment	test	12/63	3/45	9/40	2/75	9/57	2/26
	Evidence	12/47	3/14	12/30	3/35	12/60	3/18
self-regulation	test	67/43	6/44	95/67	8/14	91/30	7/81
	Evidence	69/53	6/53	71/13	6/48	71/07	5/86
flexibility	Tset	78/60	15/50	102/23	16/07	101/33	15/56
	Evidence	77/97	13/95	76/87	13/90	77/53	13/86

The results showed that the social adjustment variable changed from 12.63 to 9.40 and then to 9.57 during the study in the experimental group. While in the control group, the average social adjustment changed from 12.47 to 12.30 in the post-test stage and to 12.60 in the follow-up stage. The examination of the changes in the average level of self-regulation score also showed that in the experimental group, it went from 67.43 to 67. 95/95 changed in the post-test phase and 30/91 in the follow-up phase. A similar study on the control group showed that the average self-regulation changed from 69.53 to 71.13 in the post-test phase and to 71.07 in the follow-up phase. During the study, the average cognitive flexibility in the experimental group changed from 78.60 in the pre-test stage to 102.23 in the post-test stage and 101.23 in the follow-up stage, and in the control group, the average flexibility changed from 77.97 to 76.87 in the post-test phase and changed to 53/77 in the follow-up phase.

In order to investigate the hypothesis of the research, it is necessary to examine some assumptions, which are presented below as a summary of the examined results. One of the prerequisites for using the covariance test is the normality of the statistical distribution of the research variables. For this purpose, the Kolmogorov Smirnov test was used with z approximation, the assumption of normality of the research variables in the pre-test stage of social adaptation ($P=0.323$), self-regulation ($P=0.655$), flexibility ($P=0.184$) , in the post-test phase of social adaptation ($P=0.245$), self-regulation

(P=0.208), flexibility (P=0.802), in the follow-up phase of social adaptation (P=0.415), self-regulation (P=0.417), flexibility (P=0.749) is accepted. In the pre-test stage, both experimental and control groups were homogenous in terms of average variables and had no statistically significant difference (P=0.635). Also, in the separate examination of the variables, social adaptation (P=0.845), self-regulation (P=0.215), flexibility (P=0.867) were the same. Paying attention to the results of Table 2, it was observed that in the pre-test, post-test and follow-up phase, the assumption of equality of variances was maintained (P<0.05).

Table 2. The results of homogeneity of variance under Lon's test of the research variables during the study

variable	group		Pre-test		Post-test	
	F statistic	probability value	F statistic	probability value	F statistic	probability value
Social adjustment	0/909	0/344	3/034	0/087	2/834	0/098
self-regulation	0/003	0/960	0/738	0/380	1/397	0/242
flexibility	0/734	0/395	0/908	0/345	0/940	0/336

The existence of correlation between the covariate variable and the dependent variable was also established and a significant correlation was observed during the study and it was significant at the error level of 0.05, so that in the post-test phase, the correlation between the pre-test values and the post-test values in the consistency variable was 654. 0, in self-regulation 0.221 and in flexibility 0.719 and in the follow-up phase also compared to the pre-test in the adaptation variable 0.616, in self-regulation 0.228 and in cognitive flexibility 0.725 and in the follow-up phase also compared The results of the post-test were 0.943 in the adaptation variable, 0.971 in self-regulation and 0.981 in cognitive flexibility, which indicates that these relationships are linear. Also, the assumption of homogeneity of the slope of the regression line is another assumption of covariance analysis that these slopes must be equal, for this purpose, the probability value corresponding to the interaction effect of the pre-test variable score with the group in the post-test stage and the interaction effect of the post-test score with the group in the follow-up stage Also, the interaction effect of the pre-test score with the group in the follow-up phase was greater than 0.05. In order to check the assumption of the absence of outliers among the observations, it was observed by using the Mahalanobis distance and drawing the box plot that this assumption was true and no outliers were detected. There was a moderate linear relationship between the dependent variables so that this relationship did not lead to collinearity between the dependent variables.

Table 3. The results of the homogeneity test of the covariance matrix during the study on the research variables

	Indicator	F value	Degrees of freedom	probability value
Pre-test	4/502	0/708	(6 and 2473/132)	0/643
Post-test	6/814	1/702	(6 and 2473/132)	0/377
Follow up	6/489	1/021	(6 and 2473/132)	0/409

And finally, according to the Mbox test results in Table 3, it was observed that during the study, the assumption of homogeneity of the covariance matrix between the research variables was maintained. Therefore, according to the condition of covariance analysis, this test is used.

Table 4. Summary of the results of multivariate analysis of covariance under Volkens lambda method between the variables during the study

Time	source	Lambda Wilkens index	F statistic	Degrees of freedom	probability value	Effect degree
Pre and post	Pre-adaptation	0/455	21/126	(3 and 53)	<0/001	0/545
	Pre-self-regulation	0/492	18/260	(3 and 53)	<0/001	0/508
	Cognitive pre-flexibility	0/149	100/948	(3 and 53)	<0/001	0/851
	group	0/070	236/244	(3 and 53)	<0/001	0/930
Follow up- pre	Pre-adaptation	0/435	22/980	(3 and 53)	<0/001	0/565
	Pre-self-regulation	0/564	13/668	(3 and 53)	<0/001	0/436
	Cognitive pre-flexibility	0/143	106/023	(3 and 53)	<0/001	0/857

	group	0/079	205/727	(3 and 53)	<0/001	0/921
Follow up-post	Pre-adaptation	0/119	130/340	(3 and 53)	<0/001	0/881
	Pre-self-regulation	0/166	88/835	(3 and 53)	<0/001	0/834
	Cognitive pre-flexibility	0/070	235/508	(3 and 53)	<0/001	0/930
	group	0/924	1/444	(3 and 53)	0/240	0/076

Examining the results from Table 4 showed that in the stages of the research, the effect of the covariate variables of adaptability (P<0.001), self-regulation (P<0.001) and cognitive flexibility (P<0.001) were significant, in the post-test stage. The effect of the group was significant (P<0.001) compared to the pre-harmonic and the effect size of the combined effect on the variables of adaptability, self-regulation and flexibility was 0.930, while the power of the test was 1. In the follow-up phase, it was observed that there were no significant changes compared to the post-test (P=0.240), but there were still significant changes compared to the pre-test (p<0.001).

Table 5. Summary of covariance analysis results of research variables during the study

Valuable	Time	Source	sum of squares	Degrees of freedom	Mean sum of squares	F statistic	probability value	Effect degree
compatibility	pre - post	Pre-test	297/672	1	297/672	68/646	<0/001	0/546
		Group	136/220	1	136/220	31/330	<0/001	0/355
	Follow up-pre	Pre-test	244/781	1	244/788	58/677	<0/001	0/507
		Group	147/532	1	147/532	35/365	<0/001	0/383
	Follow up-post	Post-test	416/752	1	416/752	360/963	<0/001	0/864
		Group	3/028	1	3/028	2/623	<0/001	0/44
self-discipline	pre - post	Pre-test	1630/630	1	1630/630	61/574	<0/001	0/519
		Group	1630/356	1	1630/356	380/00	<0/001	0/870
	Follow up-pre	Pre-test	1201/828	1	1201/828	43/847	<0/001	0/453
		Group	6881/568	1	6881/586	251/066	<0/001	0/853
	Follow up-post	Post-test	2263/004	1	2263/004	257/384	<0/001	0/819
		Group	1/364	1	1/364	0/155	0/695	0/003
flexibility	pre - post	Pre-test	11303/222	1	1130/222	359/611	<0/001	0/863
		Group	9191/330	1	9191/330	292/453	<0/001	0/837
	Follow up-pre	Pre-test	10355/937	1	10355/937	347/454	<0/001	0/859
		Group	8015/478	1	8015/478	268/895	<0/001	0/825
	Follow up-post	Post-test	11303/979	1	1130/979	858/125	<0/001	0/938
		Group	0/150	1	0/150	0/011	0/915	0/0001

The results of covariance analysis from Table 5 also showed that in the post-test stage, the pre-test variable was significant as an auxiliary variable in both adaptation, self-regulation and flexibility variables (p<0.001). Also, the effect of treatment on adaptation (P < 0.001), self-regulation (P < 0.001) and cognitive flexibility (P < 0.001) was significant, so that the effect size of treatment on adaptation was 0.355. Self-regulation was 0.870 and flexibility was 0.837, so in the post-test stage, the effectiveness of the treatment based on acceptance and commitment to adaptability, self-regulation and flexibility was significant.

Also, the results in the follow-up phase compared to the pre-test were observed. Act therapy in the follow-up phase compared to the pre-test phase in adaptation (P < 0.001), self-regulation (P < 0.001) and cognitive

flexibility (0.001). P>) was also effective and the effect size of treatment was 0.383 on adaptability, 0.815 on self-regulation and 0.825 on flexibility. Therefore, there was a difference between the control and experimental groups in the follow-up phase compared to the pre-test. In order to determine the stability of the treatment, the follow-up stage was compared to the post-test stage, in which changes occurred in the two groups: adaptability (P=0.11), self-regulation (P=0.695) and flexibility. Cognitive (P=0.915) was not significant, that is, in all three variables of adaptation, self-discipline and flexibility in the follow-up phase compared to the post-test phase.

Conclusion

The results of the present study show that the treatment based on acceptance and commitment is effective on the academic self-regulation of female students with specific learning disorders in the first secondary level, and the increase in academic self-regulation scores after the implementation of the treatment based on acceptance and commitment compared to the control group. This result is consistent with the research results of Pour Abdul et al. Also, the research showed that the treatment based on acceptance and commitment is effective on the social adjustment of female students with specific learning disorders in the first secondary level, and the increase in social adjustment scores was observed after the implementation of the treatment based on acceptance and commitment in Magasieh with the control group. The results of the present study show that the treatment based on acceptance and commitment is effective on the academic self-regulation of female students with specific learning disorders in the first secondary level, and the increase in academic self-regulation scores after the implementation of the treatment based on acceptance and commitment compared to the control group. This result is consistent with the research results of Pour Abdul et al. (2015), Qara Aghaji et al(2015),keshavarz and yousefi(2017), Glick& orsillo(2017) and Wang et al(2017).

Also, the research showed that the treatment based on acceptance and commitment is effective on the social adjustment of female students with specific learning disorders in the first secondary level, and an increase in social adjustment scores was observed after the implementation of the treatment based on acceptance and commitment compared to the control group. Finally, the results of the research indicate that the treatment based on acceptance and commitment is effective on the cognitive flexibility of female students with specific learning disorders in the first secondary level, and the amount of cognitive flexibility in the experimental group has increased significantly compared to the control group. Therapy based on acceptance and commitment, with a special structure that teaches the client to accept thoughts and feelings, teaches him that he can live despite the various feelings he has without the need to control these thoughts, feelings and beliefs or try to eliminate them. With the experience of mindfulness and its techniques, they enjoy the present and perform better, creating flexibility through focusing on the context related to thoughts and feelings leads to desirable behaviors and also reduces the credibility of depressed people. The results of this research showed that treatment based on acceptance and commitment, by implementing treatment processes based on acceptance and commitment, acceptance, self as a context, contact with the present moment, values and committed action increases academic self-regulation, cognitive flexibility, Social adaptation of students with specific learning disabilities has been effective. The main advantage of this method, compared to other psychotherapies, is to consider motivational aspects along with cognitive aspects, in order to increase the effect and continuity of the effectiveness of the treatment. Also, the effectiveness of acceptance and commitment therapy on all kinds of mental health problems and some diseases and disorders has been observed. This therapy can be considered as a supportive and effective tool to improve the quality of life, social adaptation, cognitive flexibility, academic self-regulation, and anxiety reduction.

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