

Investigating the Effect of Dialectical Behavior Therapy on Attachment Styles and Dimensions of Identity Transformation in Adolescents

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Abstract

Introduction: Adolescence is an important period of social, psychological and physical development and they make important choices about health, growth, attitudes and health behaviors that affect their adulthood. Therefore, this research was conducted with the aim of investigating the effect of dialectical behavior therapy on attachment styles and dimensions of identity transformation in adolescents.

Research method: The research method was semi-experimental with a pre-test-post-test design and follow-up with a control group. The research population included all adolescent girls between the ages of 13 and 16 in district 1 of Baharestan city who studied in the 7th to 10th grades in the academic year of 2022-2023, who were referred to the education counseling center in 2022, and out of this number, 2 A group of 20 people was selected by available sampling method and randomly divided into experimental group and control group, and Hazen and Shiver attachment styles questionnaire and Berzonsky identity dimensions questionnaire in three pre-test, post-test and follow-up sessions answered. The subjects of the experimental group were subjected to dialectical behavior therapy, 1 session of 60 minutes per week, but no training was given to the control group. The data were statistically analyzed with SPSS software and using the analysis of variance test with repeated measurements and a significant level of $p < 0.05$.

Findings: The results showed that dialectical behavior therapy is significant on attachment styles and dimensions of identity transformation.

Conclusion: According to the results of this research, it can be said that the goal of dialectical behavior therapy is to increase behaviors that probably lead to safe and healthy attachment style and healthy identity transformation in teenagers, and these rewards are internal or external.

Keywords: Adolescent, Attachment Styles, Dialectical Behavior Therapy, Identity Transformation

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Introduction:

Entering adolescence is one of the most important periods of transition in life. At this stage, the teenager faces significant tensions by leaving the safe and familiar environment of home and facing academic challenges. According to Erikson (1), schools provide an environment for teenagers to explore the available opportunities, regardless of responsibilities, and discover the roles that they can handle, and the best option that matches their talents, interests and needs choose (2).

In the process of assimilation, the person incorporates new information into the old information, while in adaptation, the person changes the old information to match the new information. People with informational style absorb new information and change their identity based on new information (3). In this way, they will have a correct understanding of reality and their compatibility will increase. In other words, from a cognitive point of view, people with information orientation, by checking the reality, realize the effect of emotion on their own and others' behavior. People with a normative style commit to the goal without checking the available options and therefore mainly use attraction. These people do not use their emotions to shape their identity and instead regulate or control their emotions defensively (4). Avoidant-confused people also lack a coherent and stable identity, and in response to environmental needs, without considering the consequences of behavior, they mainly use the adaptation process. In other words, these people are not able to manage their emotions effectively or are not aware of the impact of their behavior on the emotional responses of others (5).

Therefore, emotion regulation is a process that plays a significant role in the formation of coherent identity and through it, people manage their emotions in order to achieve desirable outcomes (6). In addition, emotion regulation strategies are the main focus of understanding the behavioral and emotional correlates of stress and negative emotional events. In other words, in some aspects of order seeking, excitement is similar to confrontation (7). Researches show that adaptive emotion regulation strategies improve interaction with others and academic performance and will lead to mental health (8); on the other hand, maladaptive emotion regulation strategies play a significant role in the formation and continuation of mental injuries (9). Different theorists believe that people who cannot manage their emotional responses when faced with everyday events will experience severe emotional disorders, including borderline personality disorder, major depressive disorder (10) and generalized anxiety disorder (11) cited. Therefore, emotion regulation strategies can act as risk or protective factors against psychological injuries. People use different methods to regulate their emotions, one of the most common of which is the use of cognitive emotion regulation strategies (12). These strategies are cognitive processes that people use after experiencing a stressful event to manage their emotions and emphasize the cognitive aspect of coping. Among the strategies of cognitive emotion regulation, we can mention the strategy of self-blame, rumination, blame of others, catastrophizing and positive re-evaluation, acceptance and refocusing on planning, each of these strategies will have consequences on people's mental health. (13).

In this way, the lack of emotion regulation, on the other hand, plays a significant role in the occurrence of psychological injuries. Research results show that people with an information orientation use more problem-oriented coping when dealing with daily stressful events, cope better

with stress and anxiety, and suffer from anxiety disorders less often and establish a better emotional relationship with others (14). Due to the importance of adolescence and its important role in the formation of a healthy personality, as well as considering the cognitive strategies of emotional regulation at this age and the resulting costs for the family and society, there should be a suitable treatment for the formation of a healthy identity and appropriate emotions in addition to attachment. to be healthy in the society (15).

One of the most common treatment methods that can be widely used in the field of behavioral disorders and is currently receiving the attention of researchers is dialectical behavior therapy. Dialectical behavior therapy is a cognitive-behavioral approach that was first invented to treat borderline personality disorder. This approach combines interventions related to cognitive, behavioral and support treatments based on the principle of change with the teachings and techniques of Eastern Zen philosophy based on the principle of acceptance, and based on this, it proposes four intervention components in its group therapy method (16). In this treatment, comprehensive awareness and tolerance of suffering and anxiety are the components of acceptance and emotional regulation and interpersonal efficiency as the components of change in dialectical behavior therapy (17). In fact, the theoretical orientation of the dialectical behavior therapy approach is a combination of these three theoretical perspectives, behavioral sciences, dialectical philosophy, and Zen practice. This treatment is an approach that combines the acceptance and empathy of references with cognitive-behavioral problem solving and social skills training (18).

Metacognition is known as a powerful strategy for increasing the behavioral skills of adolescents and also as one of the most important variables and effective strategies in the field of problem solving. Metacognition includes awareness and regulation of one's thinking process. This is a deliberate reflection on cognitive function. Metacognition plays an important role in communication, language comprehension, social cognition, attention, self-regulation, and problem solving and personality development. As a theoretical structure, metacognition is not equivalent to learning or growth, but it is equivalent to the conscious and deliberate regulation of that learning and growth. Metacognition increases with practice. The next logical step in promoting social and emotional health is the deliberate attention to metacognition, not only as an educational strategy, but also as a mental health support strategy facilitated by teachers (19). Metacognitive therapy applies a new paradigm to emotional disorders. This model was formed in order to modify and eliminate the gaps in cognitive theories (20), which were introduced by Wells and Matweez in 1996 by combining the schema approach and information processing, the metacognitive model based on the self-regulation executive function model to explain and treat emotional disorders. 21). In order to understand thinking processes, it is necessary to pay attention to a person's beliefs about thinking and individual strategies about control, and also to emphasize the type of his metacognitive beliefs. What is emphasized in metacognitive therapy are the factors that control thinking and change the state of mind, not challenging thoughts and cognitive errors or long-term and repeated exposure to beliefs about trauma or physical symptoms (22).

Metacognition is any kind of knowledge or cognitive process that participates in evaluating, monitoring or controlling cognition. Therefore, metacognitive beliefs (that people have about their

thinking and cognitive processes and experiences) can be a hidden force motivating harmful thinking styles and lead to long-term emotional distress. Metacognitive therapy includes wide content areas. This means that every disorder within these areas has its own specific content. For example, positive metacognitive beliefs include beliefs related to beneficial engagement in specific cognitive activities such as worry, rumination, etc. On the other hand, negative metacognitive beliefs are beliefs related to the uncontrollability, meaning, importance and dangerousness of cognitive thoughts and experiences. The metacognitive approach is based on the belief that people are caught in the trap of emotional discomfort because their metacognitions lead to a specific pattern of responding to internal experiences, which causes the continuation of negative emotions and the strengthening of negative beliefs. This pattern is called the cognitive symptoms of attention, which includes worry, rumination, fixed attention and self-regulation strategies or maladaptive coping behaviors. Therefore, the present study was conducted with the aim of comparing the effectiveness of dialectical behavior therapy and metacognitive therapy on the cognitive strategies of emotional regulation in adolescents.

Research method:

The research method was semi-experimental with a pre-test-post-test design and follow-up with a control group. The research population included all adolescent girls aged 13 to 16 years in district 1 of Baharestan city who studied in the seventh to tenth grades in the academic year of 2022-2023, who were referred to the education counseling center in 2022, and of these, 30 people was randomly divided into two experimental groups (dialectical behavior therapy and metacognitive therapy) and a control group, which in the research process was divided into dialectical behavior therapy (17 people), metacognitive therapy (18 people) and the control group. (20 people) were reduced) and responded to the cognitive emotion regulation strategies questionnaire, Garnefsky, Kraich and Spinhaven (2002) in three times: pre-test - post-test and 1-month follow-up. The entry criteria included female students aged 13 to 16 who were studying in the seventh to tenth grades and were residents of Baharestan city, and the exit criteria included having more than two absences. It was the lack of cooperation and not doing the assignments specified in the class and the unwillingness to continue participating in the research process.

The subjects of the experimental group were trained in dialectical behavior therapy and metacognition therapy in a group (in the form of training and skills), for 2 months, 1 session of 90 minutes per week, but no training was given to the control group during this period.

Ethical considerations of this research included the following: a) all participants participated in the research by their choice and desire. b) According to the principles of secrecy and confidentiality of the identity of the participants, they were assured that all information will remain confidential c) At the end, the participants of the research were thanked. d) Participants can withdraw from participation at any time. The data was statistically analyzed with SPSS software and using the analysis of variance test with repeated measurements and a significance level of $p < 0.05$.

In order to collect data, the following tools were used: (1) Emotional Regulation Cognitive Strategies Questionnaire: In the present study, the Cognitive Emotion Regulation Strategies

Questionnaire by Garnofsky, Kraich and Spinhaven (23) was used. This version includes 9 subscales. It represents 9 cognitive regulation strategies of emotion. Each of them has four items of this questionnaire and is scored based on the Likert scale from 1 (never) to 5 (always). The subscales of the Persian version of the cognitive regulation of emotion questionnaire have been reported as 0.76 to 0.92 internal consistency and 0.51 to 0.77 retest methods. Mashhadi et al. (25) evaluated the validity of the test as good and reported the total reliability of the test as 0.87. Cronbach's alpha coefficient in the present study was 0.82.

Treatment protocol based on dialectical behavior therapy: In the present study, dialectical behavior therapy was conducted based on the treatment protocol of Mito McKay, Jeffrey Wood and Jeffrey Brantley (26) during two months in eight sessions, one session every week for one and a half hours.

Table 1. Treatment protocol based on dialectical behavior therapy

Skill	Content of each session
Sessions 1 and 2	In the first session, after getting familiar with the goals and rules, the group members swim with three mental states: logical, emotional, and rational, in the comprehensive awareness skills section. It was explained to the group members that mental states in this plan meant three mental states: logical, emotional, and rational.
Introduction and comprehensive awareness training	This session, in addition to practicing the mental states of the previous session, was dedicated to training the "what" and "how" skills of comprehensive awareness, including observing, describing, and participating, and "how" skills, including adopting a non-judgmental position, being self-aware, and acting efficiently.
Sessions 3 and 4	In this session, in addition to reviewing the exercises of the previous sessions, part of the emotional regulation skills was taught, including the definition of emotion and its components.
Emotional regulation training	In this session, another part of emotional regulation skills was taught, including the pattern of identifying emotions and labeling them, which led to an increase in the ability to control emotions.
Sessions 5 and 6	In this session, part of the distress tolerance component was taught, which was survival strategies in a crisis, including the skills of distraction and self-soothing with the five senses.
Distress tolerance training	In this session, while reviewing the previous pieces of training, the group practically practiced the skills of making the most out of the moments and the technique of profit and loss when faced with failure or feeling angry about survival strategies in a crisis. Moreover, training on how to generalize skills outside the treatment session was considered.
	Interpersonal relationship skills training, key interpersonal skills training, training and practice to identify interpersonal values, identifying obstacles to the use of individual skills, identifying annoying and aggressive strategies and

Sessions 7 and 8	their effectiveness in escalating the problem of interpersonal relationships, practicing registering conflicts and identifying annoying methods, identifying passive relationship strategies (shyness), identifying disturbing emotions, training and practice of warning behaviors and emotions (warning system), training to identify needs and barriers to identifying needs, familiarity with fear and knowing the cause of fear, performing the first exercise of identifying fear (risk assessment), the second exercise of identifying fear (planning for risk-taking), completing the risk-taking form, planning for risk-taking, training courage skills, getting to know the 4 myths that disable relationships.
Interpersonal efficiency training	Self-knowledge training, training to identify your emotions, training to identify what you want, training to value yourself and write your rights, learning about the intensity of desires, practicing adjusting the intensity of desires, learning about the skill of making a simple request, practicing making a simple request.

Metacognitive therapy training: The Metacognitive protocol based on Wells' Metacognitive protocol was conducted in eight weekly 90-minute sessions over two months.

Table 2. Metacognitive therapy protocol

Number of sessions	Content of each session
First session	Introduction of therapist and participant, implementation of pre-tests, preparation and introduction of metacognitive therapy, definition and introduction of attachment style, identity, types of identity and emotion, presentation of metacognitive therapy logic, and presentation of homework.
Second session	Reviewing the assignments of the previous session, getting familiar with the cognitive-attention syndrome and how it affects the persistence of mental disorders, introduction and training of the attention training technique, a selection of the attention training technique summary sheet, and presentation of homework.
Third session	Reviewing the assignments of the previous session, identifying and challenging negative beliefs related to anxiety and uncontrollability and analyzing their advantages and disadvantages, performing the test of losing control in the therapy session, introducing and practicing mindfulness, and providing homework.
Fourth Session	Reviewing the assignments of the previous session, identifying and challenging positive beliefs related to worry and uncontrollability and analyzing their advantages and disadvantages, performing a thought suppression experiment, practicing attention training techniques, increasing the level of difficulty, and providing homework.

Fifth meeting	Reviewing the assignments of the previous session, identifying and challenging positive and negative beliefs related to rumination and analyzing their advantages and disadvantages, identifying the triggers and applying a faulty awareness, and presenting homework.
Sixth session	Reviewing the tasks of the previous session, introducing worry postponement and rumination, coping with worry and active rumination by implementing worry postponement and rumination in the therapy session, practicing attention training techniques, teaching the technique of refocusing attention on the situation, and providing homework.
Seventh session	Reviewing the assignments of the previous session, and presenting a summary of the assignments presented in all therapy sessions.
Eighth session	Answering the questions and problems in using these techniques, giving thanks and getting feedback from the meetings, conducting the post-test.

This research was conducted following ethical considerations. All participants were willing to participate, and they were assured of the confidentiality of their personal information. They were also informed of the possibility of study withdrawal at any research stage. At the end, the participants of the control group were also invited to receive the treatment. This research had the code of ethics IR.IAU.B.REC.1401.025.

The data were analyzed in SPSS22 software using descriptive statistics (mean and standard deviation) and repeated measures ANOVA.

Findings:

In this research, there were 55 participants in three groups of dialectical behavior therapy (17 people), metacognitive therapy (18 people) and control group (20 people). In the metacognitive therapy group, the mean and standard deviation of the age of the participants were 15.17 and 4.08 years respectively, in the dialectical behavior therapy group they were 15.13 and 4.14 years respectively, and in the control group they were 20.20 years respectively. He was 15 and 43.4 years old.

Table 3 shows the average (standard deviation) and the Shapiro-Wilk index (significance level) of the cognitive strategies of emotional regulation in the participants of the research groups, in the three stages of pre-test, post-test and follow-up.

Table 3. Average (standard deviation) and Shapiro-Wilk index (significance level) of emotional regulation cognitive strategies in the three stages of pre-test, post-test and follow-up

Variable	Group	Pretest	Posttest	Follow-up
Mean±SD	DBT	50.72±8.86	71.61 ± 8.31	69.00 ± 9.32
	MCT	53.35 ± +.13	75.47 ± 9.93	79.35 ± 10.11
	Control	52.60 ± 8.47	49.70 ± 7.72	50.90 ± 7.92
Shapiro-Wilk	DBT	0.972 ± 0.829	0.960 ± 0.599	0.916 ± 0.109

MCT	0.968 ± 0.790	0.894 ± 0.054	0.948 ± 0.425
Control	0.946 ± 0.343	0.932 ± 0.171	0.958 ± 0.498

Table 3 shows that in the two experimental groups, the average scores of both variables of emotional regulation cognitive strategies have increased in the post-test and follow-up phases. On the other hand, no similar changes were observed in the mentioned stages in the control group. As Table 3 shows, in order to test the assumption of normality of data distribution, the Shapiro-Wilk values related to the dependent variables were examined for all three groups in the three phases of pre-test, post-test and follow-up, and the results showed that the value of Shapiro-Wilk Wilk related to both dependent variables in all three groups and in all three phases of pre-test, post-test and follow-up is non-significant. This article shows the normal distribution of dependent variables in the three groups and stages of the research.

To evaluate the hypothesis of homogeneity of the error variances of the variables of the cognitive strategies of emotional regulation among the groups, Lune's test was used and the results showed that the difference of the error variance of the scores related to any of the two dependent variables in the groups and in the three stages is not significant. Therefore, the assumption of homogeneity of error variances among the data related to the research variables was maintained. Next, the assumptions of homogeneity of the covariance matrices of the dependent variables were checked using the M. Box statistic and the condition of sphericity using the lag test, the results of which are presented in Table 4.

Table 4. The results of the hypothesis test of variance covariance matrices and equality of errors covariance matrix

Variable	Equality of variance matrix of covariances			Equality of the error covariance matrix		
	M.Box	F	P	Mauchly's	χ^2	P
Cognitive strategies of emotional regulation	6.62	0.51	0.913	0.966	1.77	0.413

According to Table No. 4, the results of the analysis showed that M. Box's statistical index is not significant for any of the two dependent variables. This article shows the establishment of the assumption of homogeneity of the covariance matrices of the dependent variables for the variables of cognitive strategies of emotional regulation. Also, based on the results of Table No. 4, Moheli's test showed that the chi square value of none of the dependent variables is significant. Therefore, the assumption of sphericity was maintained for dependent variables. After evaluating the assumptions of the analysis and making sure that they are established, the data were analyzed using the method of analysis of variance with repeated measurements.

Table No. 5 shows the results of multivariate analysis comparing the effect of metacognitive therapy and dialectical behavior therapy on the cognitive strategies of emotional regulation.

Table 5. Results of multivariate analysis in evaluating the effect of independent variables on cognitive strategies of emotional regulation

Variable	Wilks Lambda	F	df	P	η^2	Power of a test
Cognitive strategies of emotional regulation	0.449	12.57	102, 4	0.001	0.330	1.00

Table No. 5 shows that the effect of implementing independent variables on the cognitive strategies of emotional regulation is significant (Wilks Lambda = 0.449, $\eta^2 = 0.330$, $P = 0.001$, $F = 12.57$). Table 6 shows the results of variance analysis with repeated measures in explaining the effect of implementing metacognitive therapy and dialectical behavior therapy on the cognitive strategies of emotional regulation.

Table 6. Results of analysis of variance with repeated measurement in explaining the effect of independent variables on cognitive strategies of emotional regulation

Variable	Effects	Total roots	Total root error	F	η^2	P
Attachment styles	Group effect	9926.89	4497.89	57.38	0.688	0.001
	Time effect	5514.28	4083.91	70.21	0.575	0.001
	Group \times time	5214.39	7724.80	17.55	0.403	0.001

Table No. 6 shows that in addition to the effect of group and time, the interaction effect of group \times time is significant for the cognitive strategies of emotional regulation ($P = 0.001$, $\eta^2 = 0.403$, $F = 17.55$). These findings indicate that the implementation of independent variables has been significantly affected. Table 7 shows the results of the Ben Feroni test scores related to the cognitive strategies of emotional regulation in three groups and in three stages of implementation.

Table 7. Ben Feroni's post hoc test results for pairwise comparisons of the effect of groups and times on cognitive strategies of emotional regulation

Variable	Times		Difference in averages	Standard error	Probability value
Cognitive strategies of emotional regulation	Pre-test	Post-test	-13.37	1.75	0.001
	Pre-test	Follow- up	-14.19	1.6.9	0.001
	Post-test	Follow- up	-0.82	1.49	1.00
Variable	Differences between groups		Difference in averages	Standard error	Probability value
Cognitive strategies of	MCT	DBT	-5.61	1.82	0.010
	MCT	Control	12.71	1.75	0.001

emotional regulation	DBT	Control	18.33	1.77	0.001
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The results of the Ben Feroni test comparing the effect of time in Table No. 7 show that the difference in the mean scores of the emotional regulation cognitive strategies in the pre-test-post-test and pre-test-follow-up stages is statistically significant, but the difference in the average scores in the post-test stages - The follow-up is meaningless. Also, the results of the Ben Feroni test comparing the effects of the groups in Table 7 show that the difference in the average of the emotional regulation cognitive strategies in the two groups of metacognitive therapy and dialectical behavior therapy is statistically significant compared to the control group. So that the implementation of metacognitive therapy and dialectical behavior therapy caused the average cognitive strategies of emotional regulation to increase in the post-test and follow-up stages compared to the pre-test stage.

The results of the Ben Feroni test comparing the effects of the groups in Table 5 show that the difference in the effect of the two methods of metacognitive therapy and dialectical behavior therapy on the cognitive strategies of emotional regulation is significant ($P=0.019$). So that the treatment of dialectical behavior therapy has significantly increased the cognitive strategies of emotional regulation in students compared to metacognitive therapy.

Discussion and Conclusion:

There is. In fact, in the post-test stage, the adjusted mean difference of the secure attachment style scores of the dialectical behavior therapy experimental group and the control group is 7.557, and this difference is statistically significant at the $p<0.001$ level. This result showed that the experimental group of dialectical behavior therapy performed better in the variable of secure attachment style in the post-test stage compared to the control group. The result of this finding is in line with the findings of Mazaheri Tehrani, Kokli, Swabi-Niri and Bikes Yakani (38) and Nasiri, Mahmoud Alilou and Bakshipour (39).

In explaining this finding, it can be said that dialectical behavior therapy is a behavioral cognitive method that was used for the first time to treat borderline patients, and its main core is emotion regulation. Dialectical behavioral therapy techniques include basic techniques used in cognitive-behavioral therapies such as behavioral analysis chain, exposure, emotion recording sheet, and cognitive reconstruction, as well as techniques that are used exclusively in this therapy, such as validation, dialectical thinking, and mindfulness. (13). Mindfulness is defined as living consciously in every moment without attaching to it, judging it or accepting negative feelings and emotions. Mindfulness is the main core of dialectical behavior therapy that facilitates the process of emotion regulation (19). The results of numerous researches indicate the relationship between attachment security and concepts related to mindfulness (13-15). Children with a secure attachment do not feel very distressed when separated from the caregiver. When these children are afraid, they turn to their parents or nurses for comfort. These children accept any contact made by the parent with open arms and react to it with positive behavior. Although these children do not feel much discomfort from the absence of their parents, they clearly prefer them to strangers.

Parents of these children are usually more willing to play with their children. Additionally, these parents respond quickly to their children's needs and are generally more responsive to their children than parents of children with insecure attachment. As adults, those with secure attachments tend to seek more reliable and stable relationships. Other key characteristics of secure attachment in adults include high self-esteem, enjoyment of intimate relationships, seeking social support, and the ability to share feelings with others. In a study, researchers found that women who have a secure attachment style have more positive feelings about their emotional and romantic relationships (27).

Other results of these findings showed that between the experimental group of dialectical behavior therapy and the control group it was -5.563 and this difference is statistically significant at $p < 0.001$ level. This result showed that the experimental group of dialectical behavior therapy performed better in the variable of avoidant attachment style in the post-test stage compared to the control group. Therefore, the research hypothesis has been confirmed. The result of this finding was also in line with the findings of Nasiri, Mahmoud Alilou and Bakshipour (39) and Jalalund, Guderzi, Karimi and Yagoubi (40) that behavioral therapy skills are effective on insecure attachment style. In explaining this finding, it can be said that dialectical behavior therapy is an approach that combines client-centered acceptance and empathy with cognitive-behavioral problem solving and social skills training (37). Also, standard dialectical behavior therapy consists of four types of intervention: structured group therapy sessions (for skill training) for 2 hours per week, individual sessions for 1 hour per week, calls or telephone consultations with the therapist (to reduce suicidal behaviors). and ensuring the generalization of skill training outside therapy sessions) and expert team meetings in order to support dialectical behavior therapists and prevent burnout (39), which is done due to the nature of avoidant attachment style and behaviors similar to those with borderline personality disorder. This treatment has been effective. In other words, the main dialectic in this approach is the integration or unity of acceptance and change. That is, the desire to change any painful experience must be balanced with a similar effort to learn to accept life's inevitable pain. If the client cannot tolerate, at least temporarily, the pain caused by other problems, it is impossible to work on his problems. The inability to accept one's behavior inhibits any ability to change, as it leads to withdrawal and avoidance, or to emotional reactions (eg, anger or impulsivity and extreme shame). It is thought that if the therapist focuses only on change strategies, patients with borderline personality disorder will often feel that their level of distress is not understood and even that they are being blamed for their problems. As a result, they may react with anger towards the therapist or withdraw from treatment. On the other hand, a treatment that is completely focused on acceptance ignores the seriousness of the patient's suffering and the urgent need for change. This is why dialectical behavior therapy combines the change strategies of traditional cognitive behavioral therapy treatments with acceptance strategies derived from Zen teachings and practices (27).

Other results of these findings showed that the difference in the adjusted mean of the ambivalent attachment style scores of the dialectical behavior therapy experimental group and the control group was -4.074 and this difference is statistically significant at the $p < 0.001$ level. This result

showed that the experimental group of dialectical behavior therapy performed better in the variable of ambivalent attachment style in the post-test stage compared to the control group. Therefore, this hypothesis was confirmed. The result of this finding was in line with the findings of Jalalund, Guderzi, Karimi and Yaqoubi (40) and Aghili, Kolte, Babaei (41).

Secure attachment occurs when parents or other caregivers are available, sensitive, responsive, and receptive. Securely attached children are usually sad when their caregivers leave and happy when their parents return. When these children are scared, they seek comfort from a parent or caregiver. Contact made by parents is readily accepted by children who depend on them, and they welcome the parents' return with positive behavior. While these children can be comforted to some extent by other people in the absence of a parent or caregiver, they clearly prefer parents to strangers, but ambivalently attached children are highly suspicious of strangers. These children show significant distress when separated from their parent or caregiver, but do not seem to find reassurance or comfort when the parent returns. In some cases, the child may passively reject the parent by refusing comfort, or may openly show direct aggression toward the parent. According to Linehan (31), ambivalent attachment is relatively uncommon, with only 7-15% of infants showing this attachment style. Furthermore, they also found that observational research consistently linked ambivalent insecure attachment with low maternal availability. As these children grow older, teachers often describe them as clingy and overly dependent. Since in this type of attachment the child cannot rely on their parent's presence if they feel threatened, they do not easily move away from their parents to explore. The child becomes needier and even clingy, hoping that their exaggerated distress will force the parent to react. In ambivalent attachment, the lack of predictability means that the child eventually becomes needy, angry and distrustful (41). In adulthood, those with an ambivalent attachment style often feel reluctance to approach others and worry that their partner will not reciprocate their feelings, feeling very distressed when the relationship ends. This leads to frequent breakups, often because the relationship seems cold and distant. These people feel distressed especially after the end of a relationship. Ambivalent adults cling to young children as a source of security (40).

In addition, sometimes, parents have difficulty accepting and responding sensitively to their child's needs. Parents instead of comforting the child; minimizes their feelings, rejects their wishes, does not help with difficult tasks, and this leads to avoidant attachment. In addition, the child may be expected to help the parents meet their needs. The child learns that it is better to avoid asking for help. After all, parents don't respond in a helpful way. In avoidant attachment, the child learns that the best option is to shut down his feelings and rely on himself (19) and since dialectical behavior therapy is a maternal approach, its main goals are to teach people how to live in the moment and develop healthy ways to cope with stress, control their emotions, and improve their relationships with others.

The subsequent results of these findings showed that the difference between the adjusted average scores of the informational identity of the experimental group of dialectical behavior therapy and the control group was 4.958 and this difference is statistically significant at the $p < 0.001$ level. This result shows that the experimental group of dialectical behavior therapy performed better in the

informational identity variable in the post-test stage compared to the control group, so the research hypothesis has been confirmed. So far, many researches have been conducted on the effect of dialectical behavior therapy on personality disorders, anxiety and depression, and mood disorders, and one of the most important criteria in these disorders is the informational identity style, but the research that conducted research on this variable alone found It didn't happen.

Informational identity style (knowledge-oriented, data-oriented) is apparently the most adaptive identity style or identity orientation in humans and is a coping mechanism for managing daily situations. Students who enter school with an informational identity style are best positioned to perform successfully in college. They showed high levels of academic independence (26). The use of informational identity style with a sense of need for recognition, cognitive complexity, self-reflection, problem-oriented coping efforts, logical epistemic style, purposeful and conscious decision-making (41), conscientiousness, acceptance, mental well-being (13). Adaptability, conscientiousness, successful identity and agreement show a positive relationship (28) and are related to problem-oriented problem solving, cognitive motivation and openness to other ideas (Eskandari and Qadiri Begejan, 2016). With problem focus, active self-exploration, internal locus of control, high need for cognition, and facilitating anxiety, informational approach is associated with successful coping with stress and anxiety, problem-oriented coping, and positive relational openness, and with direction by others, disempowering effects. Anxiety shows a negative relationship with wishful thinking and emotional distancing (22). Likewise, they use a problem-oriented approach, are conscientious, and have confidence in information related to themselves and are purposeful. Therefore, they do not delay their tasks and actions (41).

In explaining this result, it can be said that dialectical behavior therapy can change a person's identity structure by teaching psychosocial skills, which is an important part of this method of treatment (40) and emphasizing mindfulness, which is a balance between the use of change and acceptance techniques. In fact, dialectical behavior therapy is a set of adaptive skills, including identifying emotions, understanding emotions, controlling impulsive behaviors and using adaptive strategies in relevant situations to regulate emotional responses in order to help patients overcome their fear and avoiding emotions as well as increasing the power of accepting emotional experiences (Leahy, 2022). This therapeutic approach has been effective on identification due to focusing on individual meetings and individual differences, group meetings and companionship in social conditions.

The results of these findings showed that the difference between the adjusted average scores of the normative identity of the experimental group of dialectical behavior therapy and the control group was 7.794 and this difference was statistically significant at the level of $p < 0.001$. The experimental group of dialectical behavior therapy has performed better in the normative identity variable in the post-test stage compared to the control group, as a result of the research hypothesis (dialectical behavior therapy has an effect on the normative identity of adolescents) has been confirmed.

So far, many researches have been conducted on the effect of dialectical behavior therapy on borderline personality disorders, the main basis of which is identification, but no research has been found that has conducted research on this variable alone.

In explaining this finding, it can be said that searching and confusion may sometimes be useful. People who have achieved a strong sense of identity after a period of active search, compared to those whose identity was formed without having passed this period, have more independence, are more creative and have more complex thinking. This group also has a greater ability to communicate closely. They have a more stable gender identity, view themselves positively, and provide more developed moral reasoning, while generally having favorable relationships with their parents and becoming significantly more independent from their families. In addition to identification, one of the most important changes during adolescence is changes in emotion, which plays a role in identification and identity formation (11) and the dissociation of identity in adolescence leads people to personality disorder, as patients with personality disorder They are borderline between neuroticism and psychosis and their characteristic is instability of emotional state, disturbed mood, severe fear of being abandoned, tense and unstable relationships and their self-image (41).

One of the most important diagnostic criteria for borderline personality disorder in the form of identity disorder and problems; The clear and permanent instability of the self-image or a person's feeling about himself is treated with dialectical behavior therapy, so it can be said that the reasons for the effectiveness of dialectical behavior therapy are the change of fundamental beliefs and acceptance and mutual understanding along with the change that leads to normative identity.

The final results of these findings showed that the difference in the adjusted average of confused/avoidant identity scores of the experimental group of dialectical behavior therapy and the control group was -5.057 and this difference was statistically significant at the $p < 0.001$ level. . This result shows that the experimental group of dialectical behavior therapy had a better performance in the variable of confused/avoidant identity in the post-test stage compared to the control group. As a result, the hypothesis of the research (dialectical behavior therapy has an effect on confused/avoidant identity of teenagers) was confirmed. .

So far, many researches have been conducted on the effect of dialectical behavior therapy on borderline personality disorders, the main basis of which is identification, but no research has been found that has conducted research on this variable alone.

A confused/avoidant identity style (unconscious, self-motivated, confused/avoidant) symbolizes an evasive approach to problems. Avoidant people procrastinate and try to avoid facing issues related to identity and decision-making as much as possible, that is, they show a tendency to procrastinate and delay personal decisions and avoid dealing with identity issues. In fact, emotion-focused strategies are associated with a low level of commitment and self-confidence, as well as instability of self-concept. People with a confused/avoidant identity style procrastinate and try to avoid dealing with identity and decision issues as much as possible. In decision-making situations, while they have little confidence in their cognitive ability, they usually feel fear and anxiety before making a decision (37) and in making decisions, they usually use inappropriate strategies such as avoiding, making excuses, and making excuses. He always reacts to situational consequences and requests, a loosely organized processing about himself makes him avoid dealing with individual decisions and conflicts (ibid.) Homogenin, confused/avoidant identity style with emotion-oriented

coping strategies, expectations of external control, non-adaptive decision-making strategies, cross-sectional variability, neuroticism and depressive reactions, positive and self-aware relationship, cognitive resistance, conscientiousness and negative relationship well-being indicators shows (39) and dialectical behavior therapy changes weak points and negative patterns by identifying and recognizing the behaviors and emotions of each person. So that this type of behavioral therapy examines the types of negative thoughts of people in different areas and in the same way changes them and improves them in order to create positive thoughts.

Limitations of the Research: time limit, follow-up of time continuity and long-term transfer of skills on performance improvement are among the limitations of this research. In addition, the findings of the research can be generalized to those teenagers who receive the treatment percentage, finally, the sample group consisted of only teenage girls, and therefore, the findings of this research can only be generalized to teenage girls.

Application of the Research: In order to investigate the effectiveness of this approach more accurately, it is suggested to use designs with control and random replacement in future researches and to consider the subgroups of patients. The effectiveness of this approach should be compared with other approaches. A longer follow-up period should be considered, and the effectiveness of this approach in different diseases should be studied.

Ethical Considerations: The present research is taken from the doctoral thesis of the first author in the field of psychology and has been approved by the specialized research council with the ethics code IR.IAU.B.REC.1401.025 of Islamic Azad University, Borujerd branch. The researchers of this study consider it necessary to thank all the participants who helped us in this research and made it possible to conduct the study.

Conflict of Interest: There is no conflict of interest in this research and the contribution of the authors is mentioned in the order of their names in the article.

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