THE IMPACT OF DIALECTICAL BEHAVIOR THERAPY ON SELF-DESTRUCTIVE CONDUCT, EMOTION REGULATION, AND COGNITIVE EMOTION CONTROL IN AGGRESSIVE ADOLESCENTS

Esmail Parsayee Manesh[1], Mohammad Hossein Zamani Lari[2], Melika Dorri[3], Zahra Mohammadi[4]

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Abstract

The goal of this research was to examine the impact of dialectical behavior therapy on self-destructive behaviors and emotional cognitive regulation in aggressive teenagers. With an intervention group and a control group, this study was regarded as a randomized controlled clinical trial. 50 obnoxious adolescent guys were divided into two groups at random after being referred to Jahrom City's Rahgosha psychiatric clinic. In three parts of this study—the pre-test, post-test, and follow-up—the emotional regulation questionnaire (ERQ) and Klonsky and Glenn's self-destructive questionnaire were implemented. This coefficient was calculated as 0.79 and 0.81, respectively, to test the reliability of the questionnaires using Cronbach's alpha. Spss software version 22 was employed to acquire the study's findings. The frequency table and central tendency scales were applied in the section on descriptive statistics. Due to the parametric test requirements in the statistics subsection on dependent variables in the inferential post-test to investigate the impact of dialectical treatment and follow-up, the analysis of variance test with repeated measurements and for the equality of variances in the study groups and the normality of the distribution of scores from the Mauchly's test and normal distribution Kolmogorov-Smirnov test were used. Each level of the variables also employed the analysis of covariance test. According to the findings, during a 2-month follow-up period, the intervention group's cognitive-emotional regulation scores significantly outperformed those of the control group. After the dialectical therapy intervention and the two-month follow-up period, the intervention group's self-destructiveness score also showed a substantial decline.

Keywords: Dialectical Behavior Therapy, emotion regulation strategies, self-destructive behaviors, aggression.

[1] Esmail Parsayee Manesh, Medical-surgical nursing, faculty member, Gerash University of medical science. gerash, Iran, parsamanesh@gerums.ac.ir

[2] Mohammad Hossein Zamani Lari, Master of educational psychology, Iran, mhmdhnzamani@gmail.com

[3] Melika Dorri, Bachelor of general Psychology, Jahrom, Iran, melikadorri7880@gmail.com

[4] Zahra Mohammadi, Bachelor of General Psychology, Jahrom, Iran, zrimammadi@gmail.com

Corresponding Author : Melika Dorri

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Introduction

Adolescence is a period of great importance and also a time of many highs and lows. Teenagers' aggressive behaviour goes beyond simply being disrespectful. Teenagers commonly experience anger, which can be a healthy emotional response to circumstances outside of oneself. Anger can take the form of destructive activities. Emotional control is therefore crucial during this time. Self-destructive conduct is characterised by the willful change or destruction of bodily tissues that results in tissue harm. This phrase refers to a variety of indirect bodily harms as well as self-inflicted actions. Investigating why a certain behaviour is established, at a specific moment, under a specific result, and by a specific individual is done in order to understand self-destructive behaviours (Saimoto, 2021). There is given a thorough model of four self-destructive behavior functions. According to this paradigm, a person who engages in self-harming conduct must go through one or more of the four processes listed below:

1) Automatically reinforcing negativity to ease anxiety or another emotional condition,

2) Automatic reinforcement of positive behavior to produce a desired physiological condition

3) To get other people's attention, use social positive reinforcement.

4) Negative social reinforcement to avoid duties or expectations placed on one's time with others (Lilwood Richardston et al., 2007).

Incorrect use of cognitive emotion regulation procedures can lead to a lack of understanding of the language of emotions and an inability to control them, in addition to the previously described issues. The use of cognition to process emotional data and control the information received in this direction are cognitive emotion regulation procedures. In fact, when someone is under psychological stress is the best moment to apply these kinds of methods. The association between cognitive emotion management techniques and psychological illnesses has been demonstrated in experimental research (Mohtadi et al., 2014; Linehan et al., 2008; Furorshi et al., 1400). Additionally, studies show that individuals with emotional-based psychological issues frequently substitute maladaptive coping mechanisms such as catastrophizing and blaming others for adaptive ones such as acceptance and positive reappraisal. These techniques can ultimately worsen patients' mental and physical health by setting up a risky feedback loop and expose them to more serious injuries (Habibi et al., 2016; Zamii et al. colleagues, 2014; Furorshi et al., 1400). Researchers have suggested interventions based on dialectical psychotherapy to improve self-control over people's habitual behaviours in light of the advantages of the dialectical therapy method (Qarawi, 2011). Linehan recognised this therapy as a cognitive-behavioral method to treating those who engage in self-destructive habits. This method blends Eastern teachings and approaches, which are based on the principle of acceptance, with cognitive-behavioral therapy interventions, which are based on the principle of change. As a result, it suggests four intervention components: The elements of change that include acceptance, fundamental awareness, emotional control, and interpersonal effectiveness (Safer, 2018; Masrour and Touzandeh Jani, 2018). Evidence demonstrates that this method has had positive and encouraging outcomes in the treatment of a variety of diseases, aggression, and emotional regulation (Shirasova et al., 2015; Masrour and Touzandeh Jani, 2018). Supportive, cognitive, and behavioural therapies are all combined in dialectical behaviour therapy. This course of treatment is based on behavioural theories and theories of crisis response that emphasise mindfulness practise and present-moment awareness. The dual focus of dialectical behavioural therapy is on behavioural and cognitive elements of cognitive disorders. This treatment aims to lessen abnormal behaviours and disorders and alter their inappropriate life perspectives (Wakes et al., 2018; Masrour and Touzandeh Jani, 2018). This theory holds that persons who are aggressive experience dysregulation owing to their failure to manage negative situations and deal with unhealthy ideas and feelings, which in turn results in increased symptoms. Given the information above and the findings of the studies conducted on the impact of dialectical therapy on lowering self-harming behaviours and emotional control, it appears that

this research's findings can be used to plan for and curtail the activity. Aggressive adolescent self-destructive behaviours and the best emotional control techniques should be applied. The incidence of personal, family, and social implications of these difficulties will be avoided if the results are validated and put into practise as educational workshops for teenagers and their families.

Materials and Procedures

The current investigation included two intervention and control groups in a randomised clinical trial. In order to perform the research, the researcher first spoke with the patients' doctors and psychiatrists, checked the patients' records, and conducted clinical interviews with the patients. Teenagers with aggressive diagnoses who met the requirements for participation in the study were regarded as Rahgosha Psychological Clinic clients in Jahrom City. The participants were informed about the research, randomization, information confidentiality, and the right to withdraw from the study at any time during the initial meeting with the researcher in order to comply with the ethical rules, and their consent to participate in the study was acquired. Additionally, it was emphasised that the control group would not receive any treatment and would instead be put on a waiting list in order to receive dialectical behaviour therapy for them as well following the treatment follow-up period.

Having an aggressive disorder, being willing to participate in the study, being between the ages of 12 and 18, having at least a sixth-grade education, not having any chronic physical illnesses (such as hepatitis, AIDS, etc.) at the time of enrollment, not having a severe spectrum of personality disorders at the time of enrollment, and not having a severe spectrum of psychiatric disorders at the time of enrollment were the requirements for participation. Additionally, failing to complete tasks and missing more than five consecutive therapy sessions in accordance with the treatment protocol were exclusion criteria. The participants were then divided into the intervention and control groups equally and at random. All of the study instruments were used with every participant during the pre-test phase. The patients were then split into two groups, each consisting of 25 people. The intervention group received care in more intimate settings. The control group received no care. Dialectical behavioural therapy sessions for the intervention group lasted 90 minutes twice a week for a total of 16 sessions. Table No. 1 outlines the treatment program's initial 2-hour preliminary meeting, which served to introduce the plan and structure of the therapy, address subjects' questions, and assign homework. At the conclusion of the meeting, participants were given a treatment validity questionnaire to gauge their level of understanding and acceptance. They finished the treatment's reasoning. The surveys were given out once more after the intervention. The two study groups were then tested again during the follow-up phase, 2 months following the post-test, to see if there had been a change and whether it had persisted over time. The informed consent form was also completed by each participant.

Table 1- Content of dialectical behavior therapy sessions

Meeting	Proceedings
Elementary	Explanation of dialectical therapeutic behavior, principles and goals of therapy, brief introduction of the content of each session, rights and expectations of therapy.
First	Definition of mindfulness, explanation of mindfulness skills, types of mindfulness skills, the importance of learning mindfulness skills, inattention training, concentration training, three-minute recording of thoughts, unfusion of thoughts, emotion description training, conscious breathing
Second	Attention to awareness of emotions, explanation and training of the wise mind technique and its training, explanation and training of the basic acceptance technique, training of negative judgments and initiatory mind, unfusion of judgment, explanation of doing effective work, explanation of the obstacles of mindfulness and dealing with it
Third	Definition of excitement, how emotions work, familiarity with emotions regulation skills
Fourth	Get to know the training and practice of your emotions technique, the exercise of

	recording emotions, the barriers to healthy emotions and how to overcome them.
Fifth	Practicing and recognizing self-harming behaviors, dissonance of thought and excitement
Sixth	Confrontational thoughts, increase in positive emotions, conscious attention to emotions without judgment about emotions
Seventh	Dealing with emotions is the opposite
Eighth	Problem solving and behavioral analysis
Ninth	The basic skills of coping with chaos, explaining the types of self-injury coping strategies and their negative consequences, teaching the basic acceptance technique, practicing basic acceptance through confrontational self-talk
Tenth	Teaching and practicing various techniques of returning attention through enjoyable activities, turning attention to work or another subject, counting, leaving the situation, tasks or daily tasks, divert attention from self-harming thoughts and behaviors, Compilation of the attention program, self-soothing technique training and its types: five senses, relaxation plan compilation
Eleventh	Safe imaging, value recognition, committed action
Twelfth	Living in the present time, self-motivated coping thoughts, developing new coping strategies
Thirteenth	Definition of aggression, common treatments of aggression, investigation of aggressive type of participants, introduction and training of dialectical avoidance technique, examination of pros and cons of avoidance, explanation and investigation of slippage and its cause, explanation of clean mind skill, aggressive mind, types of behaviors due to clean mentality and Aggressive mentality, supportive relationships and preparing a list of supporters
Fourteenth	Teaching bridge burning techniques and creating new healthy relationships, replacing healthy behaviors with aggressive behaviors
Fifteenth	Explanation of communication skills and its types, identification of communication style, compatibility between my desires and the desires of others, practice of speaking, teaching key interpersonal skills, barriers to using interpersonal skills, planning a simple request and practicing it, drafts of boldness and practicing it
Sixteenth	Practicing active listening, studying its obstacles, teaching the skill of "saying no", dealing with resistance and conflicts, practicing how to negotiate, list of effective communication.
Terminati on	An overview of the content of the treatment sessions, questions and answers

Research instruments

Form for collecting demographic data:

During a structured interview, the researcher answered questions on aggression, age, education level, and educational status on this questionnaire. The evaluation phase's admission and exit criteria were met by using the structured clinical interview for aggressiveness, which was also utilised to assess aggression. Emotion Regulation questionnaire (ERQ): This survey is intended to assess individual variations in the regular use of cognitive reappraisal, expressive suppression, and emotion control strategies. The two most potent and well-known techniques for both adaptive and non-adaptive emotional regulation are these two. There are 10 items in the survey, each of which is rated on a 5-point Likert scale. The scores of the questions on each scale are added up to produce two scores for the cognitive reappraisal and suppression measures. Iranian culture has standardised this scale. According to Ghasempour and colleagues, this scale shows positive criterion validity, principal component analysis validity using varimax rotation, correlation between two

subscales of 0.60, and internal consistency with Cronbach's alpha range of 0.81. (Rezaei et al., 2018, cited) Additionally, the reliability of this scale in this study was determined using the 0.79 Cronbach's alpha coefficient. Self-report personality inventory: The self-report and self-harm checklist developed by Klonsky and Glenn (2009) was used to evaluate self-destructive behaviour and functioning. This self-report questionnaire assesses the frequency and performance of nonsuicidal self-injury behaviours (NSSI). It consists of two parts. The first section of the questionnaire asks participants how frequently they engage in 12 various self-destructive activities, such as punching, biting, burning, tattooing, cutting, manipulating wounds, and rubbing, but not out of suicidal intent. The skin checks for sharp edges, intense itching, insertion of needles into the body, and ingestion of dangerous chemicals. Additionally, the questionnaire assesses several descriptors of non-suicidal harmful behaviours, including the dates of the first and most recent acts of self-harm. The effectiveness of non-suicidal self-injurious behaviours is assessed in the second section of the questionnaire. The performance of 13 self-harming behaviours that have been proven in empirical and theoretical investigations is evaluated in this section (Chapman, Grants, 2006; Klonsky, 2007). These 13 processes are divided into two categories: intrapersonal processes (emotional control, dissociation avoidance, suicide prevention, anxiety, and self-restraint), and interpersonal processes (independence, interpersonal privacy, interpersonal influence, dependence to peers, revenge, self-care, excitement and stubbornness). The choices are organised into a Likert scale with three possible outcomes: (0, absolutely unrelated), (1, somewhat related), and (2). (2, completely related). As a result, the subscales are each given a value between 0 and 6. Additionally, the total of the subscales' scores and their number yields the overall scales' average score. High construct validity is seen in the questionnaire's functional section (Klonsky and Glenn, 2009). In follow-up investigations, the list's functional section demonstrates great internal consistency. since this questionnaire was initially utilised internally after being translated. It was initially tested on a sample of 25 persons for this study, and its Cronbach's alpha reliability was determined to be 0.81. The opinions of the supervisors and advisers were also used to examine and confirm the form and content validity of the questionnaires used in this study. The research findings were obtained using Spss software version 22. Data analysis employed both descriptive and inferential statistics. Both the frequency table and the central tendency scales were applied in the descriptive statistics section. The analysis of variance test with repeated measurements was employed in place of the inferential test to look at the impact of DBT and follow-up due to the parametric test conditions on the dependent variables in the statistics section. The equality of variances in the study groups and the normality of the score distribution in the two groups are prerequisites for conducting the analysis of variance test with repeated measurements. For each level of the variables, the analysis of covariance test was also used.

Findings

In this investigation, 50 hostile youths were examined. Two intervention and control groups each contained twelve participants. There were 25 people in each category. The intervention group received dialectical therapy, but the control group received no treatment at all.

Table No. 2- Demographic characteristics of the studied people

Variables	Status	Control	intervention	statistics	Significance level
Age	Average	2/15	4/15	t=1/15	322/0
	standard deviation	67/4	87/4		
education	Average	10	11	X2 =0/96	406/0
	The standard deviation	00/2	00/1		

The demographic features of the groups' mean, standard deviation, and frequency percentage are shown in Table No. 2. The t test's analysis of the descriptive results reveals that the difference in the means of the quantitative variables was not statistically significant. Additionally, the chi-square test used to analyze the difference in the frequency ratio of qualitative variables revealed that the difference between the two groups is also not significant for these variables. Of course, it should be noted that all research participants shared the same social, economic, and cultural conditions, so assimilation was accomplished in this sense.

Table 3- The results of the Kolmogorov-Smirnov test in the sample

Variables	Number	Kolmogorov-Smirnov standard deviation	Kolmogorov-Smirnov statistic	Significance level
Emotion Regulation	50	34/1	223/1	108/0
self-destructive behavior	50	09/1	301/1	068/0

The claim of normality of the questionnaire items is accepted in table number 3 given that the significance level of the test is higher than 0.05.

Table No. 4 - Mean, standard deviation and analysis of variance with repeated measurement of scores in two intervention and control groups

level of significance	Coefficient η^2	Time interaction	Effects of time	F coefficient	Follow up		After the test		pre-exam		Variable
					Control	intervention	Control	intervention	Control	intervention	
0001/0	72/0	55/0	71/0	8/15	71/2 ±6/8	6/1 ±00/13	22/2 ±4/8	602/1 ±1/13	21/3 ±1/9	702/2 ±1/10	Excitement regulation
0001/0	62/0	52/0	68/0	01/49	3/5 ±87/62	3/7 ±6/39	32/7 ±6/63	8/5 ±8/38	609/4 ±85/61	79/6 ±1/63	Self-destructive behavior

According to Table No. 4's findings, self-destructive conduct was prevalent during the pre-test stage while the mean of the emotion regulation variables was low

in both the intervention and control groups. The mean of the emotional regulation variable is greater and has increased in the intervention group as compared to the control group in the post-test phase, and this trend is continued in the follow-up phase. The self-destructive behavior variable, on the other hand, reduced in the intervention group during the post-test period, and this tendency was also seen throughout the follow-up phase. These findings demonstrate the dialectical behavior therapy's efficacy in the current investigation.

Analysis and Conclusions

Dialectical behavior therapy is one of the appropriate and efficient psychotherapies for treating the psychological issues of aggressive teenagers, according to the results of the study.

Teenagers who were aggressive were treated with dialectical behavior therapy in this study. A considerable improvement in emotional regulation techniques and a decrease in self-destructive behaviors were seen in the intervention group after 16 sessions of dialectical behavior therapy. Previous research has demonstrated that one of the most significant issues with aggressive persons is a lack of access to emotion management tools. Numerous research have looked into how well dialectical behavior therapy treats patients' emotional issues who also have other psychological diseases. In this regard, study by Rezaei et al. (2018) demonstrated the potential of dialectical behavior therapy to improve emotional control. In their study, the intervention group's emotion regulation scores dramatically outperformed the control group after 4 months of intervention. As evidence of this, Furorshi et al. (2021) demonstrated in their study that dialectical behavior therapy significantly improved impulsive and cognitive emotion management techniques (except for blaming others and refocusing on planning, accepting and adopting another point of view). In fact, by utilizing these findings, dialectical behavior therapy, which teaches people how to control their emotions, can be used to lessen impulsivity, aggression, and cognitive emotion regulation. Additionally, additional research findings concur with those of Felice Chaker et al (2011). They demonstrated how adolescents who engage in self-destructive behaviors can benefit from dialectical therapy. Additionally, the findings of this study were in agreement with those of Safarinia et al (2013). They demonstrated that the dialectical behavior therapy program used in a group setting is successful in reducing self-harming behaviors among young people housed in juvenile detention facilities. Additionally, the behavior of dialectical therapy is successful in lowering the intrapersonal and interpersonal functions of self-harming behaviors in young people residing in juvenile detention facilities. Adaptive emotion-oriented skills and strategies, such as recognizing positive and negative emotions, controlling and managing them, and learning how to regulate and manage them, are taught and learned in dialectical behavior therapy, per the findings of Marsha et al. (2015) and Furorshi et al. (2021). It teaches people how to react appropriately to both internal and external stimuli; that is, through developing this kind of control, a person gains the capacity to express mature emotional reactions to trying circumstances. The results indicate that dialectical behavior therapy is effective in helping aggressive teenagers regulate their emotions and deal with their emotional issues. This is likely because dialectical behavior therapy places a strong emphasis on the role of emotions as the primary mechanism of change in psychological problems. Additionally, the findings of the current study suggest that dialectical behavior therapy has a beneficial impact on decreasing aggressive teenagers' self-destructive behaviors. The findings of earlier studies indicate that self-destructive behaviors brought on by upsetting events are one of the key contributors to aggression in people, particularly teens, which increases emotional difficulties and risky behaviors. The self-reporting of the questionnaires, the difficulty of continuing the sessions during the follow-up period, teenagers performing exercises and tasks, using paper and pencil tools, the challenges of transporting combative teenagers from the statistical population to the clinic, and giving intervention group patients more attention are some of the research's limitations. In light of the findings of this study, it is advised that future research be conducted with a bigger sample size. Additionally, it is advised to look at how effectively dialectical therapy works with different age groups, patients, and referrals to psychologists, as well as other psychological factors. Additionally, it is advised that this intervention be assessed and contrasted with other psychotherapy philosophies like cognitive-behavioral therapy, therapies based on the awareness mind, etc. in order to demonstrate the necessary success of various intervention procedures.

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