




Comparing the Effectiveness of Dialectical Behavior Therapy (DBT) and Acceptance and Commitment Therapy (ACT) on Impulsiveness, Self-Esteem Enhancement, and Reduction of Rumination

Mojtaba. Rahmanzadeh¹, Fatemeh. Ehsanpour^{2*}, Zahra. Mohseni Nasab³, Zahra. Ahangari⁴, Ali. Gayour³

¹ PhD in Health Psychology, Islamic Azad University, Karaj Branch, Alborz, Iran

² PhD Student in General psychology, Department of Psychology, Emirates Branch, Islamic Azad University, Dubai, UAE

³ M.A of Clinical Psychology, Department of Psychology, Qom Branch, Islamic Azad University, Qom, Iran

⁴ Ph.D student of health psychology, Department of Psychology, Tonekabon Branch, Islamic Azad University, Tonekabon, Iran

* Corresponding author email address: ehsanpourati@gmail.com

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Objective: The aim of the present study was to compare the effectiveness of Dialectical Behavior Therapy and Acceptance and Commitment Therapy on impulsiveness, self-esteem enhancement, and reduction of rumination in male adolescents aged 12 to 18 in Tehran.

Methods and Materials: The research method was applied in terms of objective and quasi-experimental in terms of information collection method. The statistical population of this study included male adolescents aged 12 to 18 in Tehran. The sample size for this part of the research was 30 individuals. The research instruments were the Barratt Impulsiveness Scale (Barratt et al., 1995), the Eysenck Self-Esteem Questionnaire (Eysenck, 1976), and the Ruminative Responses Scale (Nolen-Hoeksema & Morrow, 1991); also, the educational protocols used in this research were Dialectical Behavior Therapy by Linehan (1993) and Acceptance and Commitment Therapy by Fletcher and Hayes (2003).

Findings: Findings showed that Dialectical Behavior Therapy was effective on impulsiveness in male adolescents aged 12 to 18, Acceptance and Commitment Therapy was effective on impulsiveness in male adolescents aged 12 to 18, Dialectical Behavior Therapy was effective on self-esteem in male adolescents aged 12 to 18, Acceptance and Commitment Therapy was effective on self-esteem in male adolescents aged 12 to 18, Dialectical Behavior Therapy was effective on reducing ruminative thoughts in male adolescents aged 12 to 18, and Acceptance and Commitment Therapy was effective on reducing ruminative thoughts in male adolescents aged 12 to 18; it was also determined that Acceptance and Commitment Therapy was more effective than Dialectical Behavior Therapy.

Conclusion: The effectiveness of Dialectical Behavior Therapy (DBT) and Acceptance and Commitment Therapy (ACT) in impacting impulsiveness, self-esteem, and rumination in male adolescents offers a nuanced understanding of therapeutic interventions. Each therapy's influence on these variables underscores the importance of targeted psychological strategies in addressing specific facets of adolescent mental health.

Keywords: *Dialectical Behavior Therapy, Acceptance and Commitment Therapy, Impulsiveness, Self-Esteem, Rumination, Adolescents*

1. Introduction

Today's adolescents suffer from high rates of psychiatric problems such as depression, impulsiveness, personality disorders, and disruptions in primary self-esteem. The majority of male adolescents aged 12 to 18 experience high depression (Brand et al., 2019), high impulsiveness (Brodbeck et al., 2017), and also low self-esteem (Carmela et al., 2019), leading to decreased happiness, life satisfaction, quality of life, mental health, and consequently an increase in depression (Kawamoto, 2020; Lim, 2020; Peiper et al., 2016).

Impulsiveness is a psychological phenomenon that nearly everyone is familiar with or has experienced at some point in their lives. This psychological-physiological experience encompasses the most common psychological disorders (Durães et al., 2020). Impulsiveness is a warning sign indicating imminent danger, preparing the individual for confrontation (Pour Naghash 2019). Fear, a similar warning sign, is differentiated from impulsiveness by the following characteristics: fear is a reaction to a known, external threat without inner conflict, whereas impulsiveness is a response to an unknown, internal, vague threat with inner conflict (Durães et al., 2020). Impulsiveness negatively impacts health both indirectly, by altering mood, increasing the spread and severity of psychiatric disorders, stress, and harmful health behaviors (dietary habits, alcohol consumption, drug use, and obesity), and directly, through psychological mechanisms related to cardiovascular, endocrine, and immune systems (Javid et al., 2012; Pour Naghash 2019; Viyani et al., 2022; Zolfaghari & Shakerinasab 2023). Adolescents with impulsiveness may feel discomfort, emptiness, low self-esteem, helplessness, worthlessness, shame, or restlessness. They might lose their interest in activities that once brought them joy, become disinterested in food and lose appetite, lose concentration, struggle with remembering details and making decisions, and face problems in their relationships (Wabani et al., 1401). Adolescents with impulsiveness have a negative mood, easily become sad, cry over minor issues, and living with these individuals is very depressing and upsetting. Such adolescents have a lot of rumination and cannot stop their negative thoughts, constantly living in a negative past (Zolfaghari & Shakerinasab 2023). Moreover, these adolescents are not optimistic about the future and do not strive to overcome challenges, hence they do not develop a sense of competence and are constantly dissatisfied with their lives, exhibiting a lot of aggression, and long quarrels

and home leaving are very common among these individuals (Viyani et al., 2022; Zolfaghari & Shakerinasab 2023). Adolescents with impulsiveness experience many consequences such as fear, depression, and nervous tensions. They also suffer from severe depression and stress, thinking the world has become unbearable for them. Some adolescents also develop impulsiveness and low self-esteem due to psychological problems such as romantic breakups, addiction, and other psychological issues, causing them nerve distress and increasingly tormenting them day by day (Darvishi et al., 2023).

Self-esteem is a psychological-social issue that has garnered much attention in recent years from various scientific circles (Parsakia, 2023). Individuals with high self-esteem face problems with less despair and frustration, are successful, never feel defeated, use problems as stepping stones to success, experience less anxiety and depression, and easily express their opinions. These individuals attribute their self-esteem to acquiring life skills (Kawamoto, 2020). Individuals with low self-esteem are likely to accept more negative evaluations. In any case, the happiness and success of each person depend on the sense of self-worth and respect they have for themselves (Kawamoto, 2020). The basic need of every person is to feel good about themselves. A person needs to feel physically, mentally, emotionally, and humanly good and valuable. Such a feeling motivates and drives the person to succeed in the tasks they have in life, including academic advancement, which is based on the value individuals as knowledge seekers attribute to themselves, with education playing a significant role (Sağkal et al., 2018). Some skills enable individuals to exhibit adaptive and balanced behaviors in various life situations. Having awareness and knowledge about life skills contributes to feelings of happiness, increased self-esteem, and consequently a sense of self-worth (Lim, 2020; Parsakia & Darbani, 2022). Self-esteem leads to increased life satisfaction, quality of life, and mental health (Johnco et al., 2014). The lack of this feeling reflects a reciprocal process. In fact, not being alone is key to solving problems in difficult life situations (Ghaedi & Ghorban Shiroodi 2016).

Another psychological issue adolescents face today is rumination. Since rumination is accompanied by emotions of sadness and sorrow, which are among the primary human emotions, everyone experiences it to some extent (Hosseini et al., 2019). Interference in memory leads to rumination, which is more commonly seen in obsessive-compulsive disorder and generalized anxiety disorder (Darvishi et al., 2023). Rumination is an abnormal emotional cognitive

regulation strategy that individuals exhibit in response to experiencing negative mood (Jodaki et al., 2022). It consists of a series of conscious thoughts revolving around a significant topic, emerging even in the absence of immediate and necessary environmental demands ((Rahmani Moghaddam et al., 2023; Taheri Daghiyan et al., 2019). Rumination is characterized by persistent and recurring thoughts that orbit a usual theme. These thoughts involuntarily enter consciousness and divert attention from current interests and goals. Research supports the outcomes of rumination in causing psychological disturbances (Hassanpour et al., 2023). Moreover, this type of thinking is observed in some emotional disorders such as depression, obsessive-compulsive disorder, pervasive anxiety, and post-traumatic stress disorder (Mosavi & Syiad Tabaei, 2023).

Therefore, it is necessary to choose a treatment for these individuals that can lead to a reduction in impulsiveness and rumination and an increase in self-esteem. Acceptance and Commitment Therapy includes a combination of metaphors, mindfulness skills, a wide range of experiential exercises, and behaviorally guided interventions used by the therapist according to the client's values. The goal of this therapeutic approach is to help the client achieve a more valuable and satisfying life through increased acceptance and psychological flexibility (Rahmani Moghaddam et al., 2023; Sadeghian et al., 2019). Empirical evidence on the impact of Acceptance and Commitment Therapy on various mental disorders is growing. For example, the effectiveness of this method has been demonstrated in disorders such as depression and suicidal thoughts (As'hab et al., 2022; Azizi & Ghasemi, 2017; Fletcher & Hayes, 2005; Golestanifar & Dashtbozorgi 2020; Kaviani et al., 2020; Rahmani Moghaddam et al., 2023; Sadeghian et al., 2019; Walser et al., 2015).

Dialectical Behavior Therapy is presented as a new form of treatment that combines client-centered acceptance and empathy with cognitive-behavioral problem-solving, social skills training, and mindfulness, offering a comprehensive and multidimensional approach (Mehlum et al., 2019; Mitchell et al., 2019). This treatment focuses neither solely on acceptance, as in mindfulness practices, nor solely on change, as in cognitive-behavioral methods, but considers both acceptance and change simultaneously (Tabatabayi et al., 2021). Based on Hegelian philosophy principles, this therapy asserts that the constant tension between seemingly opposing goals and subjects leads to the formation of truth (Rahmani Moghaddam et al., 2023). Utilizing this philosophy, it has been shown that therapy can achieve a

synthesis of opposing subjects, i.e., rather than considering an event as solely bad, it is possible to envision a set of both good and bad outcomes (Asghari N et al., 2020). This therapy has proven effective for borderline personality disorder, substance abuse, suicide, binge eating (Mitchell et al., 2019), depression, pervasive awareness, and mental state improvements such as emotional stability and anger (Mehlum et al., 2019) but its effectiveness on psychological distress, self-esteem, and rumination has not been studied.

Therefore, the purpose of the current research was to compare the effectiveness of Dialectical Behavior Therapy and Acceptance and Commitment Therapy on impulsiveness, self-esteem enhancement, and reduction of rumination in male adolescents aged 12 to 18 in Tehran.

2. Methods and Materials

2.1. Study Design and Participants

In this research, a quasi-experimental method was employed to compare the effects of Acceptance and Commitment Therapy (ACT) and Dialectical Behavior Therapy (DBT). The study population consisted of male adolescents aged 12 to 18 in Tehran in the year 2023. Given the nature of the study method, the sample size for this part of the research was 30 individuals, who were thus selected. Considering the sample was divided into three groups in the current study (two treatment protocols and one control group), 10 individuals were allocated to each group. The sampling was done through convenience selection, and participants were randomly assigned to the groups.

After selecting the sample group, individuals were randomly placed into two experimental groups of 10 individuals each (for ACT and DBT) and one control group. Thus, three experimental groups were formed. Each treatment consisted of 10 one-hour sessions conducted individually and weekly. In this study, three absences were considered a criterion for dropout, meaning withdrawal from treatment. The entry and exit criteria for the sample were such that individuals with an impulsiveness score above 60, a self-esteem score below 12, and a rumination score above 55; not suffering from psychotic-level depression; without severe personality disorders; not receiving other psychological treatments; and consenting to participate in the study were included. Impulsiveness and self-esteem scores were collected before the treatment and at the intervention stage, compared as pre-test and post-test.

2.2. Measures

2.2.1. Impulsiveness

The Barratt Impulsiveness Scale 11 (Patton, Stanford, & Barratt, 1995) was used, a self-report measure consisting of 30 items scored on a four-point Likert scale ranging from never = 1 to always = 4. This questionnaire covers three factors of impulsiveness: non-planning impulsiveness, motor impulsiveness, and cognitive impulsiveness. In the standardization study by Javid et al. (2012), the number of items was reduced from 30 to 25, with 5 items removed due to a factor load of less than 0.30. The questionnaire demonstrated reliability as reported in the table below and also possesses satisfactory validity (Javid et al., 2012).

2.2.2. Self-Esteem

Eysenck Self-Esteem Scale: Eysenck (1976) made significant efforts to study personality, aiming to examine a major component of personality factors related to the general domain of emotional stability versus instability. Emotional stability comprises traits like self-esteem, happiness, peace, etc., while emotional instability includes traits like feelings of inferiority, depression, anxiety, etc. Of the 30 questions related to emotional stability and instability, 30 are focused on self-esteem, positioned against feelings of inferiority. For questions 1, 2, 5, 9, 10, 11, 16, 22, 23, 29, 30, the option "yes" scores 1 point, and "no" scores 0 points. For questions 3, 4, 6, 7, 8, 12, 13, 14, 15, 17, 18, 19, 20, 21, 24, 25, 26, 27, and 28, the option "no" scores 1 point, and "yes" scores 0 points. The score range for this questionnaire is 0 to 30. Scores below 11 indicate low self-esteem, scores 12 to 21 indicate adequate self-esteem, and scores above 21 indicate high self-esteem. Hormozinejad (2001) reported the validity of this questionnaire as 0.74 for female students and 0.79 for male students. The reliability coefficient was reported as 0.88 using Cronbach's alpha and 0.87 using the split-half method (Darvishi et al., 2023; Hosseini et al., 2019).

2.2.3. Rumination

Ruminative Responses Scale by Nolen-Hoeksema & Morrow: Designed by Nolen-Hoeksema & Morrow (1991) to measure rumination reduction. It comprises 22 questions assessed on a four-point Likert scale with items like (you try to analyze your personality to understand why you are depressed). The components of this questionnaire include brooding (7, 11, 12, 20, and 21), reflection (5, 10, 13, 15, and 16), and depression (1 to 4, 6, 8, 9, 14, 17, 18, 19, and 22);

scores ranging from 22 to 33 indicate low rumination, 33 to 55 indicate moderate rumination, and scores above 55 indicate high rumination. In the study by Bagheri Nejad et al. (2010), the validity of this questionnaire was confirmed, and its reliability was reported as 0.784 (Jodaki et al., 2022).

2.3. Interventions

2.3.1. DBT

This involves comprehensive treatment aimed at enhancing patient capabilities, improving motivation and adherence to treatment, ensuring generalization to the natural environment, structuring the environment when necessary, and enhancing therapist capability and motivation.

Introduction to DBT Concepts: The first session introduced participants to the foundational concepts of DBT, focusing on the dialectical approach and the importance of balancing acceptance and change. Participants learned about mindfulness as the core skill to develop awareness of their thoughts and feelings.

Mindfulness Skills: Participants delved deeper into mindfulness practices, learning techniques to observe, describe, and participate in their experiences without judgment. This session aimed to enhance their ability to remain present and reduce impulsiveness.

Distress Tolerance Skills I: Focused on teaching participants how to tolerate and survive crisis situations without resorting to self-destructive behaviors. Techniques such as distraction, self-soothing, and improving the moment were introduced.

Distress Tolerance Skills II: Continued to build on distress tolerance, emphasizing the acceptance of reality as it is and the development of pain acceptance strategies. The concept of radical acceptance was introduced.

Emotion Regulation Skills I: Aimed at teaching participants how to identify and label emotions accurately, increase positive emotional events, and reduce vulnerability to emotion mind. The session covered strategies for changing unwanted emotions.

Emotion Regulation Skills II: Built upon the previous session by introducing more advanced strategies for managing intense emotions, including problem-solving and exposure techniques to reduce fear and anxiety.

Interpersonal Effectiveness Skills I: Introduced skills to enable participants to engage in effective interpersonal interactions, focusing on assertiveness, relationship-

building, and maintaining self-respect while achieving objectives.

Interpersonal Effectiveness Skills II: Delved deeper into the practice of interpersonal effectiveness, with role-plays and exercises designed to enhance participants' ability to navigate conflict, say no, and negotiate their needs effectively.

Integration and Synthesis: Participants reviewed and practiced the DBT skills learned in previous sessions, integrating them into their daily lives. Case studies and participant experiences were discussed to contextualize the application of skills.

Conclusion and Future Planning: The final session focused on consolidating gains, addressing any remaining questions, and planning for future challenges. Participants set personal goals and developed a plan to continue practicing DBT skills post-intervention.

2.3.2. ACT

This protocol includes the use of metaphors, experiential exercises, and mindfulness strategies to help clients develop psychological flexibility. This is achieved by teaching them to accept their reactions and be present in the moment, observe the self as context, and commit to actions aligned with their values.

Introduction to ACT Principles: Participants were introduced to the six core principles of ACT, including cognitive defusion, acceptance, contact with the present moment, observing the self, values, and committed action. The session emphasized the concept of psychological flexibility.

Cognitive Defusion Techniques: This session focused on strategies to reduce the literal influence of thoughts on behavior. Participants learned techniques to observe thoughts without becoming entangled in them, reducing their impact on actions.

Acceptance Strategies: Participants were taught to open up to and make room for painful feelings, sensations, urges, and emotions rather than fighting them or feeling guilty for having them. The aim was to promote acceptance as an alternative to avoidance.

Contact with the Present Moment: The session focused on mindfulness techniques to help participants engage fully with the present moment. The importance of being present and conscious in one's life and activities was highlighted.

Self as Context: Participants explored the concept of 'self as context' – the idea of a consistent perspective from which

one observes and experiences events. This session aimed to help participants develop a sense of self that is separate from their thoughts and feelings.

Clarifying Values: Participants engaged in exercises to identify and clarify what is truly important and meaningful to them – their values. This session aimed to set the foundation for committed action by aligning actions with chosen values.

Committed Action: Building on the values clarified in the previous session, participants developed specific, achievable goals that are aligned with their values. The focus was on taking action to live a life consistent with these values.

Bringing it All Together: Participants reviewed the skills and concepts learned throughout the sessions, integrating them into a coherent approach to dealing with life's challenges. The session reinforced the idea of ongoing practice and dedication to psychological flexibility.

Overcoming Barriers: This session addressed potential barriers to implementing ACT skills and strategies in real-life situations. Participants discussed challenges and developed problem-solving strategies to overcome these obstacles.

Conclusion and Future Directions: The final session focused on reviewing the journey through the ACT protocol, celebrating progress, and setting future goals. Participants discussed how to maintain and further develop their psychological flexibility going forward, with an emphasis on long-term commitment to growth.

2.4. Data analysis

After verifying the assumptions for conducting parametric tests, the data related to the pre-test and post-test stages were analyzed using ANCOVA with the SPSS 22 software.

3. Findings and Results

The data presented below show the mean and standard deviation of impulsiveness, self-esteem, and reduction of rumination indices for male adolescents aged 12 to 18 years at the pre-test and post-test stages for control groups. As can be observed, there is a minor difference between scores at the pre-test and post-test stages in the indices for the control groups. However, in the experimental groups, there is a significant difference between scores at the pre-test and post-test stages in the indices.

Table 1

Descriptive Indices for Experimental and Control Groups in Pre-test and Post-test Stages for Dialectical Behavior Therapy

Variable	Stage	Group	N	Min	Max	Mean	Standard Deviation
Impulsiveness	Pre-test	Control	10	28	83	60.50	2.75
	Post-test		10	27	84	59.55	2.70
Self-esteem	Pre-test	Control	10	10	27	16.69	2.77
	Post-test		10	11	26	16.95	2.68
Rumination	Pre-test	Control	10	29	64	50.60	2.40
	Post-test		10	30	63	50.95	1.90
Impulsiveness	Pre-test	DBT	10	28	84	60.50	2.50
	Post-test		10	27	85	53.55	2.30
Self-esteem	Pre-test	DBT	10	10	26	16.69	2.90
	Post-test		10	11	28	21.75	2.25
Rumination	Pre-test	DBT	10	29	65	50.60	2.15
	Post-test		10	30	63	41.50	1.85

Table 2

Descriptive Indices for Control Group in Pre-test and Post-test Stages for Acceptance and Commitment Therapy

Variable	Stage	Group	N	Min	Max	Mean	Standard Deviation
Impulsiveness	Pre-test	Control	10	28	83	59.90	2.60
	Post-test		10	27	84	59.30	2.50
Self-esteem	Pre-test	Control	10	10	27	16.90	2.60
	Post-test		10	11	26	16.70	2.90
Rumination	Pre-test	Control	10	29	64	50.10	2.30
	Post-test		10	30	63	49.70	2.20
Impulsiveness	Pre-test	ACT	10	26	82	60.20	2.90
	Post-test		10	27	83	52.20	2.10
Self-esteem	Pre-test	ACT	10	11	27	16.75	2.60
	Post-test		10	11	28	21.25	2.30
Rumination	Pre-test	ACT	10	30	65	50.80	2.15
	Post-test		10	29	64	41.20	1.80

The results of the Kolmogorov-Smirnov test indicated that the significance level reported for the normality of impulsiveness scores is 0.130 or a Kolmogorov-Smirnov statistic of 0.160, which is much larger than 0.05, indicating that the distribution of scores for this variable is normal. The significance level reported for the normality of self-esteem scores is 0.139 or a Kolmogorov-Smirnov statistic of 0.303,

which is larger than 0.05, indicating that the distribution of scores for this variable is normal. The significance level reported for the normality of rumination reduction scores is 0.215 or a Kolmogorov-Smirnov statistic of 0.240, which is larger than 0.05, indicating that the distribution of scores for this variable is normal.

Table 3

Summary of One-Way Analysis of Covariance (ANCOVA) Results for Dialectical Behavior Therapy (DBT)

Variable	Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	Significance Level
Impulsiveness	Between Groups	6210	1	2950	235.450	< 0.000
	Within Groups	505.100	28	15.550		
	Total	6715.100	29			
Self-esteem	Between Groups	5298	1	5298	268.73	< 0.000
	Within Groups	689.450	28	19.350		
	Total	5987.45	29			
Rumination	Between Groups	6320	1	3160	237.610	< 0.000
	Within Groups	544.500	28	15.671		
	Total	6864.500	29			

According to the results in Table 3, Dialectical Behavior Therapy has had a significant effect at the level of ($P < 0.01$) in reducing rumination, impulsiveness, and increasing self-esteem in male adolescents aged 12 to 18 years in the post-test stage. Therefore, the null hypothesis is rejected, and the research hypothesis is confirmed. It is concluded that, in this study, Dialectical Behavior Therapy has been able to

significantly reduce rumination and impulsiveness in male adolescents aged 12 to 18 years and significantly increase their self-esteem. Hence, Dialectical Behavior Therapy has been effective in reducing rumination and impulsiveness and increasing self-esteem in male adolescents aged 12 to 18 years.

Table 4

Summary of One-Way Analysis of Covariance (ANCOVA) Results for Acceptance and Commitment Therapy (ACT)

Variable	Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	Significance Level
Impulsiveness	Between Groups	3500	1	1750	256.650	< 0.000
	Within Groups	540.500	28	16.600		
	Total	4040.500	29			
Self-esteem	Between Groups	3400	1	1700	240.75	< 0.000
	Within Groups	570.500	28	13.700		
	Total	3970.500	29			
Rumination	Between Groups	3300	1	1650	245.50	< 0.000
	Within Groups	540.600	28	13.200		
	Total	3870.200	29			

Considering the results in the Table 4, the intervention based on Acceptance and Commitment Therapy has had a significant effect at the level of ($P < 0.01$) on impulsiveness, mental rumination, and self-esteem in male adolescents aged 12 to 18 years in the post-test stage. Therefore, the null hypothesis is rejected, and the research hypothesis is confirmed. It is concluded that, in this study, the intervention based on Acceptance and Commitment Therapy has been able to significantly reduce impulsiveness and mental rumination in male adolescents aged 12 to 18 years and increase their self-esteem. Hence, the intervention based on Acceptance and Commitment Therapy has been effective on impulsiveness, mental rumination, and self-esteem in male adolescents aged 12 to 18 years.

Moreover, since the intervention based on Acceptance and Commitment Therapy has shown greater reduction in the post-test for impulsiveness, as well as a greater increase in self-esteem and reduction in rumination, it can be concluded that this intervention has been more effective than Dialectical Behavior Therapy for male adolescents aged 12 to 18 years.

4. Discussion and Conclusion

The effectiveness of Dialectical Behavior Therapy (DBT) and Acceptance and Commitment Therapy (ACT) in impacting impulsiveness, self-esteem, and rumination in male adolescents offers a nuanced understanding of therapeutic interventions. Each therapy's influence on these

variables underscores the importance of targeted psychological strategies in addressing specific facets of adolescent mental health. These results are also supported by previous studies (Azizi & Ghasemi, 2017; Durães et al., 2020; Ghaedi & Ghorban Shiroodi 2016; Golestanifar & Dashtbozorgi 2020; Jodaki et al., 2022; Kaviani et al., 2020; Mehlum et al., 2019; Parsakia & Darbani, 2022; Sadeghian et al., 2019; Taheri Daghiyan et al., 2019; Viyani et al., 2022; Walser et al., 2015; Zolfaghari & Shakerinasab 2023).

DBT, with its emphasis on mindfulness and distress tolerance skills, directly addresses impulsiveness by teaching adolescents to pause and observe their thoughts and feelings without immediate reaction. This skill development enables individuals to better manage impulse control, reducing reactionary behaviors. The structured approach of DBT in fostering emotional regulation further assists adolescents in understanding and mitigating the underlying emotional triggers of impulsive actions (Mehlum et al., 2019; Mitchell et al., 2019; Taheri Daghiyan et al., 2019). In contrast, ACT's focus on cognitive defusion and acceptance helps adolescents detach from and observe their impulsive thoughts without becoming entangled in them. By promoting psychological flexibility, ACT encourages individuals to act in ways consistent with their values rather than on impulse, thereby offering a mechanism for reducing impulsiveness (Azizi & Ghasemi, 2017; Fletcher & Hayes, 2005; Golestanifar & Dashtbozorgi 2020).

The enhancement of self-esteem through DBT can be attributed to its comprehensive focus on developing life skills, emotional regulation, and interpersonal effectiveness. By building these competencies, adolescents gain a stronger sense of self-efficacy and self-respect, which are critical components of self-esteem. The group therapy component of DBT also offers a platform for social validation and support, which can further bolster self-esteem (Taheri Daghiyan et al., 2019; Viyani et al., 2022). ACT, by facilitating a deeper connection with personal values and committed action, helps adolescents align their actions with their true selves (Fletcher & Hayes, 2005). This alignment fosters a greater sense of authenticity and purpose, enhancing self-esteem. The emphasis on acceptance in ACT also teaches adolescents to embrace themselves as they are, reducing self-criticism and promoting a positive self-view (Golestanifar & Dashtbozorgi 2020; Kaviani et al., 2020).

DBT's impact on rumination is primarily through its mindfulness training, which equips adolescents with the skills to observe their thoughts without judgment and to focus on the present moment, thereby reducing the tendency to dwell on past events or worries. The distress tolerance strategies in DBT further help adolescents to accept and cope with negative emotions without ruminating on them (Mehlum et al., 2019; Mitchell et al., 2019; Rahmani Moghaddam et al., 2023). ACT addresses rumination by helping adolescents recognize rumination as a process, separate from their self-identity, through the self-as-context component. It encourages individuals to accept their thoughts and feelings without getting stuck in them and to redirect their focus towards value-driven actions, which naturally decreases the space and importance given to ruminative thoughts (As'hab et al., 2022; Walser et al., 2015).

In conclusion, while both DBT and ACT effectively target impulsiveness, self-esteem, and rumination, they do so through distinct mechanisms reflecting their underlying theoretical orientations. DBT's structured skill-building approach provides adolescents with concrete strategies for managing difficult emotions and behaviors, while ACT's emphasis on values and acceptance fosters a broader psychological flexibility that enables individuals to live more fulfilling lives despite challenges. The findings suggest that the choice between DBT and ACT should be informed by the specific needs and preferences of the adolescent, as well as the particular nature of their difficulties.

5. Limitations & Suggestions

This study, while contributing valuable insights into the effectiveness of Dialectical Behavior Therapy (DBT) and Acceptance and Commitment Therapy (ACT) for male adolescents, faced several limitations. Firstly, the sample size was relatively small and drawn from a specific geographic area, limiting the generalizability of the findings to broader populations. Additionally, the study's design did not account for long-term follow-up assessments, meaning the sustainability of the therapeutic effects could not be evaluated. The reliance on self-reported measures also introduced the potential for bias in the data collected. Finally, the study did not compare these therapies with other psychological interventions, which could provide a more comprehensive understanding of their relative effectiveness.

Future research should aim to address the limitations noted in the current study. Expanding the sample size and including participants from diverse backgrounds would enhance the generalizability of the findings. Implementing a longitudinal design with follow-up assessments would provide valuable data on the long-term effectiveness and sustainability of the therapies. It would also be beneficial to incorporate objective measures alongside self-reported ones to reduce potential biases. Furthermore, comparing DBT and ACT with other psychological interventions in a randomized controlled trial format could offer deeper insights into their relative strengths and weaknesses across different populations and psychological conditions.

The findings of this study have important implications for the field of adolescent mental health. Practitioners working with male adolescents experiencing impulsiveness, low self-esteem, and rumination may consider incorporating DBT and ACT into their therapeutic practices, given their demonstrated effectiveness. Schools and community-based mental health services could also benefit from integrating these therapies into their support programs for adolescents. Additionally, the findings underscore the importance of tailoring therapeutic interventions to the unique needs of adolescents, taking into account the developmental and gender-specific factors that may influence therapy outcomes. Finally, mental health policies aimed at adolescent populations should consider supporting the training of practitioners in these therapeutic modalities to enhance the accessibility and quality of mental health care for adolescents.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethics Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

All authors significantly contributed.

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