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The Efficacy of Acceptance and Commitment Therapy on Distress Tolerance, Interpersonal Sensitivity and Depression in Students with Body Dysmorphic Disorder

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Abstract

Introduction: Body Dysmorphic Disorder (BDD) is a mental health condition characterized by an obsessive focus on perceived flaws or defects in physical appearance, which are often unnoticeable to others. This study aims to investigate the effects of Acceptance and Commitment Therapy (ACT) on distress tolerance, interpersonal sensitivity, and depression among students diagnosed with BDD.
Method: This study used a semi-experimental, pre-test-post-test design with a control group. The statistical population consisted of students diagnosed with BDD at the University of Ardabil during the 2023-2024 academic year. Thirty-six students with BDD were selected through purposive sampling and divided into experimental (n=18) and control (n=18) groups. The experimental group participated in eight 90-minute ACT sessions, while the control group received no intervention. Data collection involved questionnaires on BDD, distress tolerance, interpersonal sensitivity, and depression. The data were analyzed using multivariate analysis of covariance in SPSS-24.
Results: Findings indicated that ACT significantly increased tolerance (F=41.72), attraction (F=34.73), assessment (F=44.43), and regulation (F=29.40) while reducing interpersonal sensitivity (F=67.65) and depression (F=51.58) in students with BDD.
Conclusion: These results underscore the potential of ACT as a valuable therapeutic approach for individuals with BDD, particularly within the college student population.

Keywords: Acceptance and Commitment Therapy, Distress Tolerance, Interpersonal Sensitivity, Depression, Body Dysmorphic Disorder

Introduction

Body Dysmorphic Disorder (BDD) is a mental health condition characterized by an obsessive focus on perceived flaws or defects in one's physical appearance [1]. BDD is a relatively common yet underrecognized condition, with prevalence rates estimated between 1.7% and 2.9% in the general population [2]. Studies specifically focusing on student populations indicate similar or slightly higher prevalence rates, likely due to the heightened self-consciousness and social comparison typical of adolescence and early adulthood [3]. BDD affects both genders, though the manifestation of symptoms can differ, with females often preoccupied with weight and shape, while males may focus on body build and muscle mass [4]. The core symptoms of BDD include an excessive preoccupation with perceived defects or flaws in physical appearance, repetitive behaviors (such as mirror checking, grooming, or skin picking), and significant distress or impairment in daily functioning [5]. In Iran, a study by Aflakseir et al. [6] found that approximately 77% of college students were dissatisfied with at least one aspect of their bodies.

A crucial aspect of managing BDD involves understanding and improving distress tolerance [7]. Distress tolerance refers to an individual's ability to withstand and effectively manage emotional distress without resorting to maladaptive coping strategies [8]. It encompasses skills such as mindfulness, acceptance, and adaptive emotion regulation techniques. High distress tolerance is associated with better psychological well-being, while low distress tolerance is linked to increased vulnerability to mental health problems, including anxiety disorders and depression [9]. For individuals with BDD, poor distress tolerance can amplify the cycle of negative thoughts and compulsive behaviors, as they may struggle to cope with the intense emotional distress triggered by their appearance concerns [10]. Several studies have explored the relationship between BDD and distress tolerance, highlighting the significant impact of low distress tolerance on the severity and maintenance of BDD symptoms [11]. Individuals with BDD often exhibit heightened emotional reactivity to appearance-related triggers, leading to intense distress and difficulty regulating emotions [12]. This heightened emotional sensitivity may contribute to the development and persistence of BDD symptoms, as individuals struggle to cope with the distress associated with their appearance concerns [13].

Interpersonal sensitivity refers to the degree to which individuals are attuned to and affected by interpersonal cues, including the emotions, behaviors, and judgments of others [14]. Research suggests that individuals with BDD often exhibit heightened levels of interpersonal sensitivity, characterized by a heightened awareness of social cues, an increased tendency to perceive criticism or rejection, and a greater emotional reactivity to interpersonal interactions [15]. These interpersonal difficulties can exacerbate the distress associated with BDD and contribute to social isolation, relationship problems, and impaired functioning in various social contexts [16]. Several studies have documented a strong association between BDD and interpersonal sensitivity [17]. Individuals with BDD frequently report heightened levels of interpersonal sensitivity, including increased sensitivity to social cues, heightened fear of negative evaluation, and greater emotional reactivity to interpersonal interactions [18]. These interpersonal difficulties contribute to the maintenance of BDD symptoms and can exacerbate social anxiety, avoidance behaviors, and social isolation [19].

While BDD primarily revolves around body image, its impact extends beyond the realm of appearance to affect various aspects of mental health, including mood disorders like depression [20]. Depression is a mood disorder characterized by persistent feelings of sadness, hopelessness, and loss of interest or pleasure in activities once enjoyed [21]. Research suggests a strong association between BDD and depression, with individuals with BDD experiencing high rates of comorbid depression [22]. The relationship between BDD and depression is complex and bidirectional, with each condition exacerbating the severity of the other [23]. The presence of depression in individuals with BDD is associated with greater functional impairment, increased risk of suicidal ideation, and poorer treatment outcomes [24].

Acceptance and Commitment Therapy (ACT) emphasizes the acceptance of one's thoughts and emotions, rather than trying to control or eliminate them, and encourages individuals to commit to actions aligned with their values [25, 26]. ACT aims to help individuals develop psychological flexibility, allowing them to respond adaptively to challenging thoughts and emotions while pursuing meaningful life goals [27]. The principles of ACT make it particularly well-suited for addressing the core features of BDD, including rigid thought patterns, avoidance behaviors, and impaired quality of life [28]. Research on the effectiveness of ACT for BDD has shown promising results [29, 30]. Several studies have demonstrated significant reductions in BDD symptom severity, improvements in quality of life, and increased psychological flexibility following ACT interventions [31]. ACT helps individuals with BDD develop more adaptive ways of relating to their appearance concerns, reducing avoidance behaviors, and promoting engagement in valued life activities [32]. Additionally, ACT may be particularly beneficial for individuals with BDD who struggle with cognitive fusion, experiential avoidance, and difficulties in emotion regulation [33].

Pickard et al. [25] found that a compassionate and values-based approach was crucial in reducing the suffering linked to shame in individuals with BDD. The study highlighted that the ACT approach, with its non-expert and accepting stance, effectively challenged the client's expectations of conventional treatment, focusing on acceptance of imperfections and tolerance of uncertainty to significantly aid recovery. Linde et al. [26] built on this by showing that ACT with compassion significantly reduced BDD behaviors, self-criticism, and body shame, with these improvements maintained at a six-month follow-up. Additionally, it led to long-term enhancements in overall BDD symptoms, depressive symptoms, quality of life, psychological flexibility, and self-compassion. Givehki et al. [27] further supported these findings by demonstrating that ACT significantly improved body image flexibility and body awareness compared to control groups, with effectiveness evident in both post-test and follow-up assessments. No significant differences were observed in somatic symptoms or demographic variables among the groups.

BDD presents a formidable challenge within psychiatric practice, characterized by distressing fixations on perceived flaws in one's appearance, often resulting in significant impairment across various life domains. While traditional treatment methods have provided relief for many, they may not comprehensively address the core features of BDD or cater to the diverse needs of affected individuals. Thus, it becomes crucial to explore alternative therapeutic avenues, such as ACT, to expand treatment options and enhance outcomes for those grappling with BDD. This study endeavors to delve into the impact of ACT on distress tolerance, interpersonal sensitivity, and depression among students diagnosed with BDD, aiming

to shed light on its efficacy in addressing the multifaceted challenges posed by the disorder.

Method

The current research design was semi-experimental with a pre-test-post-test design and a control group. The study focused on students with BDD enrolled at the University of Ardabil in 2023-2024. After administering the BDD, individuals scoring above 13 were chosen as the final sample. Out of these, 36 students were randomly allocated, via lottery, into either the experimental (n=18) or control group (n=18). The sample size was determined using G*Power software and considering factors relevant to the analysis of covariance [34]. The inclusion criteria for the research included obtaining a cut score on the BDD scale, age 20 to 40 years, not receiving very serious physical and psychological treatments, and personal desire and satisfaction. Also, cases such as missing more than two sessions, creating problems in the program process, lack of appropriate interaction and cooperation, and exacerbation of the illness were considered as exclusion criteria for the research. It is important to state that in the current study, all ethical considerations such as personal consent, personal information preservation, and informed participation were taken into account according to Helsinki's ethical principles. To analyze the research data, descriptive statistics (Mean and Standard Deviation) and covariance analysis were used based on their assumptions with the help of SPSS-24 software. The significance level of these tests was considered 0.05.

The tools used in this study were as follows:

Body Dysmorphic Disorder Questionnaire (BDDQ): This tool was developed by Oosthuizen et al. [35] to assess body dysmorphic disorder. It is a 7-item tool scored on a four-point Likert scale (ranging from "never" = 0 to "much more than others" = 3), with higher scores indicating greater concern about body dysmorphia. The aspects measured by this questionnaire include concerns about physical appearance, belief in being deformed or misshapen, belief in physical dysfunction (such as bad odor), consulting cosmetic specialists despite being told they look normal, and not believing it. The creators of the questionnaire confirmed the single-factor model and internal validity of the questionnaire and reported a significant correlation between the BDDQ and the Beck Depression Inventory (BDI) [35]. In Iran, this questionnaire was standardized by Mohabbat et al. [36]. Factor analysis results indicated confirmation and a good fit of the single-factor model (RAMSE = 0.07). In the present study, Cronbach's alpha coefficient was 0.86.

Distress Tolerance Scale (DTS): This tool, developed by Simons and Gaher [37] is a 15-item self-assessment tool with four subscales: Tolerance, Absorption, Appraisal, and Regulation. Each item is rated on a Likert scale from 1 (strongly disagree) to 5 (strongly agree), resulting in total scores ranging from 15 to 75. Higher scores indicate greater distress tolerance, while lower scores reflect a reduced ability to endure and manage stressful or distressing situations. Each subscale is scored separately by summing the responses to the items related to that subscale, providing a comprehensive measure of an individual's capacity to tolerate distress. In this questionnaire, the alpha coefficients of the subscales are between 0.70 and 0.82 [37]. Modares [38] translated this scale into Persian and validated it in the Iranian population. The reliability of the total scale was 0.71 and the subscales ranged from 0.42 to 0.58. In the present study, Cronbach's alpha coefficient for the total score and subscales of tolerance, attraction, assessment, and regulation was obtained as 0.86, 0.89, 0.81, 0.84, and 0.80 respectively.

Interpersonal Sensitivity Measure (IPMS): This scale, developed by Boyce and Parker [39], measures interpersonal sensitivity or social rejection. It consists of 36 questions, with responses measured on a four-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (4). The total possible score ranges from 36 to 144, with higher scores indicating greater interpersonal sensitivity. Boyce and Parker [39] reported a Cronbach's alpha of 0.85 for the total score, with subscale coefficients ranging from 0.55 to 0.76. The scale's concurrent validity with the Clinical Assessment of Interpersonal Sensitivity was confirmed with a correlation of 0.72. In Iran, Mohammadian et al. [40] found the questionnaire's reliability using Cronbach's alpha to be 0.89. In the current study, the Cronbach's alpha coefficient for this scale was calculated to be 0.84.

Beck Depression Inventory (BDI): This scale is a widely used self-report questionnaire designed to assess the severity of depression symptoms in individuals aged 13 and older. It consists of 21 multiple-choice items, each corresponding to a specific symptom of depression. Scores for each item range from 0 to 3, with a total score ranging from 0 to 63. Beck et al. [41] reported the validity of the test as 96.0, with internal consistency ranging from 73.0 to 92.0 and a mean of 86.0. The Cronbach's alpha coefficient for patients and non-patients was reported as 0.86 and 0.81, respectively. In Iran, they reported the reliability of this scale as 0.89 [42]. In the current study, the Cronbach's alpha coefficient for this scale was also calculated and found to be 0.89.

Acceptance and Commitment Therapy (ACT): After selecting the participants in both experimental and control groups, research questionnaires were completed by members of both groups in the form of a pre-test. Due to the unfavorable conditions of the disease, it was tried to collect the pre-test scores in person and online (questionnaire link in Google form). ACT sessions by a therapist specializing in chronic diseases in the psychology clinic were then performed in eight 90-minute weekly group sessions for the experimental group, while the control group did not receive any intervention. To prevent the exchange of information between the members of the groups, they were asked not to discuss the content of the meetings with each other. As a result, there were no dropouts from the groups. The ACT intervention was structured based on the programs proposed by Hayes et al. [43], incorporating key elements of ACT program design (Table 1). To adhere to ethical standards, treatment sessions were also provided to the control group after the post-test data collection.

Table 1. Summary of Sessions Based on the Acceptance and Commitment Therapy [43]

Session	Target	Topic	Change expected behavior
1	Familiarity with group rules and generalities of acceptance and commitment	Familiarity of members with each other and the therapist, group rules, goals and group structure, Therapeutic commitments, introductory talks about acceptance and commitment	Learn about acceptance and commitment
2	Familiarity with some of the therapeutic concepts of acceptance and commitment Including the experience of avoidance, fusion, and psychological acceptance	Assessing clients' problems from the perspective of acceptance and commitment therapy, extracting experience, avoidance, mixing and values of the individual, making a list of advantages, disadvantages, and practices problem control	Do not try to avoid negative emotions
3	Implement acceptance and commitment therapy techniques such as separation Cognitive, psychological awareness, self-embodiment	Specify inefficiency, and control negative events using metaphors, cognitive separation training, psychological awareness, and self-visualization	Accepting negative behaviors and emotions
4	Teaching therapy techniques, emotional awareness, awareness Wisely (metaphor of your victim)	Separating evaluations from personal experiences and taking a position of observing thoughts without judgment To leads to mental flexibility and positive emotions	Pay attention to current experiences and moment-by-moment
5	Teach your healing techniques as a background and practice Mindfulness techniques and distress tolerance training	Connect with the present consider yourself as a field and teach the methods of mind awareness and tolerance of anxiety to accept negative emotions	Accepting negative emotions and thoughts without prejudice and judgment
6	Teaching therapeutic techniques of personal and clear values - Creating values and teaching emotion regulation (metaphor Bad cup)	Identifying the life values of clients and measuring values based on their importance, preparing a list of obstacles in the realization of values, and creating positive emotions	Strive for psychological flexibility
7	Teaching techniques of personal values and practice Commitment and increase interpersonal efficiency (metaphor chess board)	Provide practical solutions to overcome obstacles while using metaphors and planning for a commitment to pursue values and create a sense of meaning in life	Gain psychological flexibility
8	Review and practice therapeutic techniques taught with Emphasis on regulating emotions and a sense of meaning in Real life	A report on the steps of pursuing values, asking clients to explain the results of the sessions and applying the techniques taught in the real world of life to create a sense of meaning and positive emotions	Get rid of emotions and thoughts Negative and gaining psychological flexibility

Results

The mean and standard deviation of the age of the experimental and control groups were 21.84±4.71 and 22.16±5.32, respectively. The mean and standard deviation of pre-test-post-test scores of distress tolerance, interpersonal sensitivity, and depression of students with BDD in the experimental and control groups have been presented in Table 2. Also in this table, the Shapiro-Wilk test (S-W) results are reported to check the normality of the distribution of variables in the two groups. According to this table, Shapiro-Wilk statistics is not significant for all variables. Therefore, it can be concluded that the distribution of variables is normal (Table 2).

Multivariate analysis of covariance was used to evaluate the effectiveness of ACT on distress tolerance, interpersonal sensitivity, and depression among students diagnosed with BDD. The results of the Levin test to examine the homogeneity of variance of dependent variables in groups showed that the variance of distress tolerance (F=0.726, P=0.400), interpersonal sensitivity (F=0.688, P=0.413), and depression (F=0.681, P=0.415) were equal in the groups. The results of the box test to evaluate the equality of the covariance matrix of dependent variables between the experimental and control groups also showed that the covariance matrix of the dependent variables is equal (Box M= 33.10, F=1.27, P=0.180). The significance of the box test is greater than 0.05, so this assumption is valid. Also, the results of the Chi-square-Bartlett test to examine the sphericity or significance of the relationship between distress tolerance, interpersonal sensitivity, and depression showed that the relationship between them is significant ($\chi 2$=167.30, df=20, P<0.05). Another important assumption of multivariate analysis of covariance is the homogeneity of regression coefficients. It should be noted that the homogeneity test of regression coefficients was examined through the interaction of dependent variables and independent variables (intervention method) in the pre-test and post-test. The interaction of these pre-tests and post-tests with the independent variable was not significant and indicated the homogeneity of regression slope; therefore, this assumption also holds. Due to the establishment of multivariate analysis of covariance, the use of this test will be allowed. Then, to find out the differences between the groups, a multivariate analysis of covariance was performed (Table 3).

According to Table 3, the results showed the effect of the independent variable on the dependent variables; In other words, experimental and control groups have a significant difference in at least one of the variables of distress tolerance, interpersonal sensitivity, and depression, which according to the calculated effect size, 75% of the total variance of experimental and control groups is due to the effect of the independent variable. In addition, the statistical power of the test was equal to 1, which indicates the adequacy of the sample size. However, to determine in which areas the difference is significant, a univariate analysis of the covariance test was used in the MANCOVA, the results of which have been reported in Table 4.

According to the data presented in Table 4, the F statistics demonstrate significance for tolerance (F=41.72), attraction (F=34.73), assessment (F=44.43), regulation (F=29.40), interpersonal sensitivity (F=67.65), and depression (F=51.58) at the 0.001 level. These results suggest a noteworthy distinction between the groups concerning these factors. Furthermore, the calculated effect sizes reveal that 59% of tolerance, 55% of attraction, 61% of assessment, 51% of regulation, 70% of interpersonal sensitivity, and 65% of depression are independent of the variable's influence. Consequently, it can be inferred that ACT significantly enhances tolerance, attraction, assessment, and regulation while diminishing interpersonal sensitivity and depression among students with BDD.

Table 2. Descriptive Indices of Study's Variables in Control and Experimental Groups

Variables		Groups	Mean	SD	S-W	P
Body Dysmorphic Disorder	Pre-test	Experimental	15.39	1.68	1.21	0.084
		Control	15.25	1.96	1.06	0.094
	Post-test	Experimental	11.86	1.52	1.10	0.066
		Control	15.72	2.30	1.50	0.057
Tolerance	Pre-test	Experimental	8.44	1.49	0.98	0.063
		Control	8.56	1.62	0.89	0.094
	Post-test	Experimental	10.50	1.29	1.35	0.099
		Control	8.33	1.96	1.05	0.078
Attraction	Pre-test	Experimental	9.66	2.07	1.06	0.081
		Control	9.55	2.09	1.11	0.073
	Post-test	Experimental	12.05	1.64	1.10	0.057
		Control	9.78	1.85	1.09	0.071
Assessment	Pre-test	Experimental	12.56	1.94	1.13	1.022
		Control	12.66	1.37	1.09	0.053
	Post-test	Experimental	15.06	1.84	1.34	0.069
		Control	12.44	1.66	1.02	0.072
Regulation	Pre-test	Experimental	8.33	1.82	1.32	0.075
		Control	8.22	1.91	1.00	0.093
	Post-test	Experimental	10.83	1.76	1.05	0.091
		Control	8.45	1.64	1.33	0.054
Interpersonal Sensitivity	Pre-test	Experimental	84.61	2.47	1.06	0.087
		Control	84.50	2.98	1.02	0.063
	Post-test	Experimental	80.61	3.08	0.96	0.059
		Control	84.72	3.14	0.89	0.096
Depression	Pre-test	Experimental	41.55	2.68	1.00	0.083
		Control	41.45	2.91	1.03	0.079
	Post-test	Experimental	38.01	3.01	1.08	0.051
		Control	41.66	2.86	1.09	0.072

Table 3. The Results of Multivariate Analysis of Covariance on Mean Post-Test Scores

Test	Value	F	df	Error df	P	Effect Value
Pillai's Trace	0.75	11.93	6	23	0.001	0.75
Wilks Lambda	0.24	11.93	6	23	0.001	0.75
Hotelling Trace	3.11	11.93	6	23	0.001	0.75
Roy's Largest Root	3.11	11.93	6	23	0.001	0.75

Table 4. Results of Univariate Analysis of Covariance on the Mean of Post-Test Scores of Dependent Variables in Experimental and Control Groups

Variables	SS	SS Error	DF	MS	MS Error	F	P	Effect Value
Tolerance	39.48	26.49	1	39.48	0.94	41.72	0.001	0.59
Attraction	37.70	30.40	1	37.70	1.08	34.73	0.001	0.55
Assessment	56.54	35.63	1	56.54	1.27	44.43	0.001	0.61
Regulation	40.64	38.70	1	40.64	1.38	29.40	0.001	0.51
Interpersonal Sensitivity	139.45	57.71	1	139.45	2..06	67.65	0.001	0.70
Depression		59.54	1	109.68	2.12	51.58	0.001	0.65

Discussion

This study aims to investigate the effects of ACT on distress tolerance, interpersonal sensitivity, and depression among students diagnosed with BDD. The current study's findings shed light on how ACT effectively increases distress tolerance in students with BDD. By enhancing their ability to manage and endure emotional discomfort, ACT contributes to significant improvements in their overall psychological resilience. The findings of this study illuminate the role of ACT in enhancing distress tolerance among college students diagnosed with BDD.

Distress tolerance is particularly relevant in the context of BDD, where individuals often experience intense emotional distress related to their perceived physical flaws [8]. ACT offers a unique approach to building distress tolerance by encouraging individuals to develop acceptance of their internal experiences, including distressing thoughts and emotions, while simultaneously committing to actions aligned with their values [26]. By fostering acceptance rather than avoidance, ACT equips individuals with BDD with the skills to navigate their distress more effectively and engage in meaningful activities despite the presence of BDD symptoms [33]. ACT's effectiveness for BDD may be attributed to several mechanisms of change. By promoting acceptance of difficult thoughts and emotions, ACT helps individuals with BDD develop greater psychological flexibility, allowing them to respond more effectively to appearance-related distress [43].

ACT also encourages individuals to identify their values and take meaningful action, which can reduce the impact of appearance concerns on their overall well-being [12]. Additionally, the mindfulness-based components of ACT may help individuals with BDD develop a more present-focused and nonjudgmental awareness of their experiences [25]. The significant increase in distress tolerance observed in this study suggests that ACT interventions effectively address the emotional challenges associated with BDD. By enhancing distress tolerance, ACT may empower individuals to confront their fears, tolerate discomfort, and pursue valued life goals, leading to improved psychological well-being [27].

On the other hand, the results showed that students with BDD exhibited less interpersonal sensitivity after receiving ACT. This reduction suggests that ACT helps individuals with BDD become less affected by perceived social judgments and more resilient in interpersonal interactions [43]. The findings of this study reveal a significant reduction in interpersonal sensitivity among students with BDD following their participation in ACT. This decrease suggests that ACT effectively mitigates the impact of perceived social judgments on individuals with BDD, leading to improved resilience in interpersonal interactions [28]. Interpersonal sensitivity, a common feature of BDD, often manifests as a heightened awareness of others' perceptions and a tendency to interpret social cues in a negative or threatening manner [17]. This hypersensitivity can contribute to feelings of social inadequacy, withdrawal, and avoidance, exacerbating the distress experienced by individuals with BDD [33]. By targeting acceptance, mindfulness, and values-driven action, ACT equips individuals with BDD with the tools to disengage from maladaptive patterns of social evaluation and respond more adaptively to interpersonal challenges [29].

One possible explanation for these findings is that ACT helps individuals with BDD shift their focus away from rigid beliefs about appearance and social approval [27]. By learning to accept distressing thoughts without trying to eliminate or overly engage with them, participants may experience less anxiety and self-criticism in social interactions [43]. ACT encourages individuals to view their thoughts and feelings as separate from their identity, reducing the influence of negative self-perceptions on their social behavior [25]. This detachment from self-critical thoughts likely contributed to decreased sensitivity to perceived social threats, allowing students to engage more confidently with others [30].

The results from this research offer significant insights into the efficacy of ACT in mitigating symptoms of depression among students grappling with BDD. By addressing underlying issues and promoting psychological flexibility, ACT significantly reduces depressive symptoms in this population. The findings of this research provide valuable insights into the effectiveness of ACT in mitigating symptoms of depression among students with BDD. By targeting underlying issues and promoting psychological flexibility, ACT emerges as a promising intervention for alleviating depressive symptoms in this population [28]. Depression is a common comorbidity of BDD, exacerbating the distress and impairment experienced by individuals grappling with the disorder. Traditional approaches to treating depression often focus on symptom reduction through cognitive restructuring and behavioral activation [32]. However, ACT offers a unique perspective by emphasizing acceptance of internal experiences and commitment to values-driven action [25].

Through acceptance-based strategies such as mindfulness and cognitive diffusion, ACT encourages individuals to develop a different relationship with their depressive thoughts and emotions [24]. Rather than trying to suppress or avoid them, individuals learn to acknowledge and accept these experiences without judgment [30]. This shift in perspective fosters psychological flexibility, enabling individuals to respond more adaptively to their depressive symptoms and engage in meaningful activities aligned with their values [22]. The significant reduction in depressive symptoms observed in this study underscores the potential of ACT as a therapeutic intervention for individuals with BDD [31]. By addressing both the symptoms of BDD and comorbid depression, ACT offers a holistic approach to treatment that promotes overall well-being and quality of life [29].

Limitations of this study include a small sample size, which may limit the generalizability of the findings, and a short follow-up period, leaving long-term effects unassessed. The sample's lack of diversity and the absence of a comparative treatment group also restrict the applicability of the results. Future research should address these

limitations by using larger and more diverse samples, extending follow-up periods, exploring different settings, and comparing ACT with other therapeutic approaches to better understand its effectiveness for BDD.

Conclusion

This study demonstrates that ACT is an effective intervention for improving distress tolerance, reducing interpersonal sensitivity, and alleviating depression in students with BDD. By fostering greater psychological flexibility and promoting acceptance of one's body image and emotional experiences, ACT helps mitigate the negative impacts of BDD on emotional well-being and social functioning. The significant improvements observed in the experimental group highlight ACT's value as a treatment for BDD.

Conflict of Interest

The authors of this study state that they have no conflicts of interest.

Ethical Approval

Ethical principles in writing the article have been observed according to the instructions of the National Ethics Committee and the COPE regulations.

Declaration of Generative AI and AI-Assisted Technologies

During the preparation of this work, the authors used Grammarly in order to enhance the quality of the text by improving grammar, spelling, and clarity. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

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