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Comparison of the Effectiveness of Self-Repair Training and Acceptance and Commitment Training on Self-Acceptance and Affective Capital in Women with Symptoms of Borderline Personality Disorder

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A B S T R A C T

Purpose: The present study was conducted with the aim of comparing the effectiveness of self-repair training and acceptance and commitment training on self-acceptance and affective capital in women with symptoms of borderline personality disorder.

Methods and Materials: The study employed a quasi-experimental design with three phases: pretest, posttest, and follow-up, including a control group. The statistical population consisted of women with symptoms of borderline personality disorder in the city of Isfahan during the summer of 2025 who refer to four active centers in this field. From this population, 60 women were purposively selected and assigned to two experimental groups and one control group (20 participants in each group). The Self-Acceptance Questionnaire (Chamberlain & Haaga, 2001) and the Affective Capital Questionnaire (Golparvar, 2016) were used to measure the dependent variables across the three phases. The self-repair training group and the acceptance and commitment training group each received their respective interventions separately over 10 sessions, while the control group received no training. Data were analyzed using repeated measures analysis of variance and Bonferroni post hoc test via SPSS version 26.

Findings: The results indicated that there were significant differences between the self-repair training group and the acceptance and commitment training group compared to the control group in terms of self-acceptance and affective capital ($p < .05$). However, no significant difference was observed between the two intervention groups regarding their effectiveness on self-acceptance and affective capital ($p > .05$).

Conclusion: Based on the findings, both self-repair training and acceptance and commitment-based training can be utilized to enhance the levels of self-acceptance and affective capital in women with symptoms of borderline personality disorder.

Keywords: *self-repair training, acceptance and commitment training, self-acceptance, affective capital, women with symptoms of borderline personality disorder*

1. Introduction

Borderline personality disorder is one of the most clinically challenging personality disorders because it involves pervasive instability in affect regulation, self-image, interpersonal relationships, and impulse control. Contemporary psychopathology literature describes this disorder as a pattern of emotional, cognitive, and relational dysregulation that is often accompanied by intense fluctuations in identity, unstable attachments, chronic feelings of emptiness, interpersonal hypersensitivity, and maladaptive behavioral responses under stress (Trull & Hepp, 2023). Current etiopathogenic models also indicate that borderline pathology should not be reduced to a single explanatory factor; rather, it emerges through the interaction of multiple biological, developmental, interpersonal, and socio-emotional vulnerabilities across time (Cavicchioli et al., 2024). In parallel, recent narrative reviews have shown that the manifestation of borderline personality disorder can differ across genders in symptom presentation, help-seeking patterns, interpersonal burden, and associated affective experiences, making focused research on women especially important (Bozzatello et al., 2024). In the Iranian context as well, the presence of personality disorder symptoms in adolescent and clinical populations has been documented, suggesting that borderline-related symptoms are neither rare nor negligible and should be addressed through culturally sensitive intervention models (Aghaei & Golparvar, 2014; Farnoush et al., 2016).

Among women with symptoms of borderline personality disorder, the disturbance is not limited to mood instability or impulsive responding; it also penetrates the structure of the self. Qualitative and conceptual studies have repeatedly shown that women with borderline features often report a fragmented, unstable, and vulnerable sense of self, along with deep uncertainty about who they are, how they should evaluate themselves, and how they can maintain coherence in their personal identity over time (Agnew et al., 2016; Koivisto et al., 2022). Related evidence suggests that self-concept in borderline pathology is often characterized by inconsistency, negative content, and weak internal integration, which may distinguish this population not only from psychologically healthy individuals but also from people with other forms of psychological distress such as depression (Evans et al., 2015). Research on possible selves likewise indicates that borderline pathology is associated with maladaptive future self-representations, unstable personal goals, and poorly consolidated self-expectations, all of which can intensify emotional suffering and behavioral dysregulation (Janis et al., 2006). Accordingly, interventions that merely target surface-level symptoms without addressing damage to the self may leave core vulnerabilities unresolved.

One of the most relevant protective constructs in this context is self-acceptance. Self-acceptance refers to a person's capacity to acknowledge, value, and relate to the self without excessive conditionality, harsh self-rejection, or rigid performance-based worth. The classic distinction proposed by Chamberlain and Haaga emphasizes unconditional self-acceptance as a psychologically health-promoting orientation in which personal worth is not entirely dependent on success, approval, or external validation (Chamberlain & Haaga, 2001). More recent work has further connected self-acceptance to broader well-being, suggesting that it functions not only as a defensive tolerance of one's imperfections but as a deeper state of inner contentment and psychological integration (Cordaro et al., 2024). Studies in general and vulnerable populations have shown that greater self-acceptance is associated with better coping, stronger psychological well-being, more adaptive decision-making, greater hope, and lower distress (Esmailbeigi et al., 2021; Rohmah et al., 2024). Self-acceptance has also been linked to lower stress-related disturbance and better sleep-related outcomes, indicating that its protective role extends across multiple domains of mental health and everyday functioning (Tao et al., 2023). In conceptual terms, awareness, acceptance, and alignment with the self appear to constitute interrelated foundations of adaptive functioning, making self-acceptance not only a clinical outcome but also a mechanism of recovery (Klussman et al., 2022).

The relevance of self-acceptance becomes even clearer in borderline pathology because women with borderline symptoms commonly experience self-criticism, shame, unstable self-definition, chronic invalidation, and difficulty sustaining a coherent positive relationship with themselves. Under such conditions, self-acceptance is not a peripheral variable; it is a fundamental process that can reduce internal conflict, soften self-directed hostility, and create a more stable platform for emotional and behavioral regulation. In fact, the unstable self-representations characteristic of borderline pathology make these individuals especially vulnerable to conditional self-worth, which may fluctuate dramatically in response to interpersonal approval, rejection, perceived failure, or emotional arousal (Agnew et al., 2016; Evans et al., 2015; Koivisto et al., 2022). Therefore, increasing self-acceptance may help interrupt the cycle

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through which emotional pain activates negative self-appraisal, which in turn amplifies dysregulation and maladaptive coping.

A second construct of major importance in the present study is affective capital. Affective capital refers to a reservoir of positive emotional resources that enable individuals to maintain vitality, constructive engagement, psychological energy, and adaptive functioning under the demands of daily life (Golparvar, 2016). This construct is not reducible to momentary positive mood; rather, it encompasses more enduring affective resources such as positive affect, felt energy, and happiness that can support coping, resilience, and interpersonal functioning. Structural and interventional findings in Iranian samples suggest that affective capital is meaningfully associated with adaptive psychological functioning and lower psychosomatic complaints (Enayati & Golparvar, 2018). It has also been shown to be responsive to psychological interventions, including mindfulness-based and cognitive-behavioral approaches, which indicates that affective capital can be strengthened rather than treated as a fixed disposition (Golparvar & Tabatabaei Nejad, 2020). This is clinically significant because women with borderline symptoms frequently show intense negative affect, reduced access to stable positive emotions, and difficulty preserving emotional balance in the face of stress.

The emotional lives of individuals with borderline symptoms have been widely documented as highly reactive, unstable, and often biased toward distress. Studies on affective processes show that borderline traits are associated not only with elevated negative affect but also with disturbances in the experience, regulation, and maintenance of positive affect (Chu et al., 2016; Geschwind et al., 2019). Daily diary evidence indicates that positive and negative emotions are closely tied to ego-resiliency and quality of life in borderline personality disorder, suggesting that treatment should address not only the reduction of negative emotionality but also the restoration of adaptive positive emotional functioning (Harpøth et al., 2020). Furthermore, positive and negative affect appear to mediate the relationship between ego-resiliency and borderline pathology, reinforcing the idea that emotional resources such as affective capital are central to recovery and not merely secondary byproducts of symptom reduction (Harpøth et al., 2021). Since affective capital includes energy, positivity, and happiness-related resources, it may serve as an especially relevant therapeutic target for women whose borderline symptoms undermine emotional stability and resilience.

On this basis, interventions for women with borderline symptoms should ideally target both damaged self-organization and depleted emotional resources. One promising framework for such work is Acceptance and Commitment Therapy. ACT, as articulated by Hayes, is grounded in the cultivation of psychological flexibility through acceptance of internal experiences, cognitive defusion, present-moment awareness, self-as-context, clarification of values, and committed action (Hayes, 2004, 2005). This model is particularly relevant for borderline-related symptoms because many difficulties in this population are sustained by experiential avoidance, fusion with distressing thoughts, rigid attempts to control private events, and maladaptive escape behaviors. ACT does not seek to eliminate painful emotions directly; instead, it helps individuals relate to them differently, thereby reducing their destructive control over behavior. Group-based ACT has previously shown usefulness in reducing borderline-related symptoms (Morton et al., 2012). In Iranian studies as well, ACT-based training has demonstrated beneficial effects on depression, anxiety, and emotional impulsivity in girls with behavioral problems (Javadi et al., 2020, 2021). In addition, ACT has shown effectiveness in improving clinically relevant dimensions among individuals with borderline personality disorder, including neuroticism and impulsivity (Fathi et al., 2023). Collectively, these findings provide a strong rationale for expecting ACT to improve self-acceptance and affective capital in women with borderline symptoms.

At the same time, although ACT offers a transdiagnostic and process-based model, there remains a need for interventions designed more directly around the repair of self-related damage in borderline pathology. This need is supported by the central role of identity fragmentation, self-alienation, self-criticism, and narrative disorganization in this population (Agnew et al., 2016; Koivisto et al., 2022). Self-repair, in this sense, refers to a structured therapeutic effort to reconstruct and strengthen damaged aspects of the self through processes such as unconditional self-acceptance, self-forgiveness, self-compassion, revision of maladaptive self-beliefs, emotional regulation, identity integration, and meaning reconstruction. The logic behind self-repair is that many borderline symptoms are sustained because the person lacks a stable and compassionate inner framework through which experiences can be processed coherently and adaptively. When the self is experienced as

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fractured, unacceptable, or chronically threatened, even minor interpersonal or emotional disturbances may trigger intense dysregulation.

The emerging evidence base around self-repair supports the relevance of this approach. A recent qualitative study on women with borderline personality disorder symptoms identified self-repair as a meaningful process involving movement from internal fragmentation toward self-understanding, self-reconstruction, emotional integration, and recovery-oriented identity work (Yekta et al., 2026). This perspective is consistent with broader theoretical and empirical literature showing that psychological improvement in borderline pathology requires more than symptom containment; it requires reorganization of the person's relationship with the self. In this regard, self-repair training may offer a culturally adaptable intervention that directly addresses the wounded self-system underlying low self-acceptance and reduced affective capital. Because this protocol was specifically developed for women with borderline symptoms in the present line of research, evaluating its efficacy alongside a theoretically established intervention such as ACT is both clinically and scientifically valuable.

Despite the importance of these constructs, there are still notable gaps in the literature. First, although self-acceptance has been studied as an important correlate of psychological health and intervention outcome, it has received less direct attention in borderline symptom populations than constructs such as impulsivity, self-harm, or emotion dysregulation (Chamberlain & Haaga, 2001; Cordaro et al., 2024). Second, affective capital, despite its practical relevance for resilience and well-being, has rarely been examined as a treatment outcome in borderline-related research, especially in Iranian samples (Enayati & Golparvar, 2018; Golparvar, 2016; Golparvar & Tabatabaei Nejad, 2020). Third, although ACT has an established theoretical and empirical basis, fewer studies have compared it with newly developed self-focused intervention packages that may better target the self-structure deficits characteristic of borderline symptomatology (Fathi et al., 2023; Morton et al., 2012). Finally, because women with borderline symptoms may show distinct psychosocial burdens and gender-linked patterns of distress, research focused specifically on women is needed rather than assuming that findings generalize uniformly across genders (Bozzatello et al., 2024).

Taken together, the literature suggests a coherent conceptual pathway: borderline symptoms are deeply intertwined with self-disturbance, emotional instability, and deficits in adaptive inner resources (Cavicchioli et al., 2024; Trull & Hepp, 2023). Self-acceptance appears to be a psychologically health-promoting and clinically modifiable construct that may protect against distress and enhance well-being (Klussman et al., 2022; Rohmah et al., 2024; Tao et al., 2023). Affective capital represents an important affective resource that may counterbalance the emotional depletion and instability common in borderline presentations (Golparvar, 2016; Harpøth et al., 2020; Harpøth et al., 2021). ACT provides a strong process-based intervention model for reducing avoidance and increasing psychological flexibility (Hayes, 2004, 2005), while self-repair training may more directly remediate the wounded and fragmented self that lies at the heart of borderline symptom patterns (Yekta et al., 2026). From a clinical standpoint, comparing these two interventions can clarify whether a focused self-repair package offers benefits comparable to, or distinct from, ACT for improving self-acceptance and affective capital in women with borderline symptoms.

The aim of the present study was to compare the effectiveness of self-repair training and acceptance and commitment training on self-acceptance and affective capital in women with symptoms of borderline personality disorder.

2. Methods and Materials

2.1. Study Design and Participants

The present study was a quasi-experimental design with three groups, including a self-repair training group, an acceptance and commitment training group, and a control group, with three phases: pretest, posttest, and a two-month follow-up. The statistical population consisted of women with symptoms of borderline personality disorder in the city of Isfahan during the summer of 2025 who had referred to four active centers in this field. From the aforementioned population, 60 participants (20 per group) were purposively selected based on inclusion criteria and then randomly assigned to the three groups using simple randomization (lottery method). Inclusion criteria included providing written informed consent, diagnosis of borderline personality disorder symptoms through a diagnostic interview based on the criteria of the fifth revised edition of the Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association, willingness to participate in the study, acceptance of and adherence to the principles and rules of group training, absence of chronic psychological disorders, and not receiving concurrent

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training or treatment. Exclusion criteria included lack of cooperation or unwillingness to continue participation in the training sessions, failure to complete assignments, and absence from two or more training sessions. Ethical principles observed in this study included confidentiality, use of data solely for research purposes, complete freedom of participants to continue participation, provision of accurate information about the results upon request, and offering training to the control group after completion of the experimental interventions.

In the data collection process, after the random assignment of women with symptoms of borderline personality disorder into three groups (self-repair training, acceptance and commitment training, and control), participants completed the Self-Acceptance Questionnaire and the Affective Capital Questionnaire at the pretest stage. Subsequently, the self-repair training group and the acceptance and commitment training group participated in a group-based intervention consisting of 10 sessions lasting 80 to 100 minutes each, conducted at a counseling and psychotherapy center. After the completion of the intervention sessions, participants in all three groups completed the questionnaires again at the posttest stage and subsequently at the follow-up stage two months later.

2.2. Measures

Self-acceptance was measured using the questionnaire developed by Chamberlain and Haaga (2001), which consists of 20 items and assesses two domains: unconditional self-acceptance (9 items) and conditional self-acceptance (11 items). The response scale is a seven-point Likert scale ranging from completely false (1) to always true (7). After reverse scoring the 11 items of conditional self-acceptance, total scores range from 20 to 140, with higher scores indicating greater self-acceptance. Chamberlain and Haaga (2001) reported evidence of convergent and divergent validity, showing significant correlations between scores on this questionnaire and measures of self-esteem (convergent), happiness (convergent), life satisfaction (convergent), depression (divergent), and anxiety (divergent). The Cronbach's alpha for this questionnaire was reported as 0.72. This instrument has been evaluated for validity and reliability in various studies. For example, Kalantari et al. (2015) confirmed its construct validity using confirmatory factor analysis. In a study by Esmaeili Beigi et al. (2021), evidence of convergent validity was also reported, with significant positive relationships between self-acceptance scores and rational decision-making and hope for life, and the Cronbach's alpha was reported as 0.63. In the present study, the Cronbach's alpha coefficient for this questionnaire was 0.75.

Affective capital was assessed using the 20-item questionnaire developed by Golparvar (2016), which includes three components: positive affect, sense of energy, and happiness. The response format is a five-point Likert scale ranging from never (1) to always (5). Total scores are calculated by summing the responses to all items, both at the overall level and for each of the three components. The total affective capital score ranges from 20 to 100, with higher scores indicating higher affective capital. Exploratory factor analysis supported the construct validity of this questionnaire, and Cronbach's alpha coefficients ranging from 0.936 to 0.978 have been reported. Enayati and Golparvar (2018) also confirmed its construct validity using exploratory factor analysis with Varimax rotation and reported a Cronbach's alpha of 0.965, demonstrating significant relationships between affective capital scores and emotional collective investment as well as psychosomatic complaints. Additionally, Golparvar and Tabatabaei Nejad (2018) reported a Cronbach's alpha of 0.992 for overall affective capital. In the present study, the Cronbach's alpha coefficient was 0.93.

2.3. Interventions

The self-repair training protocol was developed specifically for the present study through a rigorous, multi-stage process grounded in thematic analysis and evidence-based intervention design. Initially, 36 scientific texts were analyzed using the thematic analysis approach proposed by Attride-Stirling (2001), leading to the extraction of core themes relevant to self-repair in women with symptoms of borderline personality disorder; the content validity ratio (CVR) for this thematic analysis, assessed by three independent coders, was 1. Subsequently, appropriate educational techniques corresponding to each identified theme were derived through conventional content analysis and organized into a structured 10-session intervention by an expert panel consisting of six psychologists with over 10 years of clinical and training experience. The preliminary protocol was then reviewed and refined by six expert judges, yielding an overall agreement coefficient of 0.98, indicating high content validity. A pilot study conducted with 10 women with symptoms of borderline personality disorder confirmed the preliminary effectiveness of the intervention.

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The final protocol was implemented in 10 group sessions (80–100 minutes each) and included progressive modules covering unconditional self-acceptance and self-forgiveness, reconstruction of self-concept through self-compassion and cognitive-emotional restructuring, emotional regulation and resilience training, cognitive-behavioral repair through identification and modification of maladaptive schemas and beliefs, narrative repair via externalization and re-authoring of life narratives, identity repair through correction of self-representation and self-identification, and self-empowerment strategies such as emotional validation, problem-focused coping, self-regulation, meaning-making, and psychological well-being enhancement. Each session incorporated review of homework assignments, skills training, experiential exercises, and assignment of new tasks to facilitate generalization of learning.

The acceptance and commitment training protocol was based on the original model developed by Hayes (2004) and validated in multiple Iranian studies, including those by Javadi et al. (2020, 2021). This intervention was delivered in 10 structured group sessions (80–100 minutes each) by a psychologist with over 10 years of clinical experience, focusing on the six core processes of Acceptance and Commitment Therapy (ACT): acceptance, cognitive defusion, contact with the present moment, self-as-context, values clarification, and committed action. The intervention began with establishing the therapeutic alliance, clarifying group rules, and introducing the ACT model, followed by fostering creative hopelessness through metaphors such as digging and tug-of-war with a monster. Subsequent sessions addressed the limitations of control-based strategies using experiential metaphors (e.g., island, hungry tiger, and pit), reframing control as the problem, and introducing acceptance and willingness as adaptive alternatives (e.g., guest metaphor). Participants were guided to distinguish between internal and external experiences, recognize language-based cognitive fusion, and develop defusion skills using metaphors such as the bus and chessboard. Later sessions emphasized perspective-taking (self-as-context), awareness of the conceptualized past and future (e.g., bus driver metaphor), identification of personal values (e.g., two mountains metaphor), and alignment of behavior with these values through committed action. Each session included homework review, experiential exercises, metaphor-based learning, and assignment of practice tasks to promote psychological flexibility and behavioral change.

2.4. Data Analysis

For statistical data analysis, the assumption of normality was assessed using the Shapiro–Wilk test, the homogeneity of error variances was examined using Levene's test, the equality of variance–covariance matrices was tested using Box's M test, and the sphericity assumption was evaluated using Mauchly's test. Descriptive statistics including mean and standard deviation were calculated, and repeated measures analysis of variance along with Bonferroni post hoc tests were used to determine differences in effectiveness among the study groups. Data were analyzed using SPSS version 26.

3. Findings and Results

The three research groups were compared in terms of age, education, marital status, and employment status using the chi-square test. The results of the demographic variables are presented in Table 1.

Table 1

Comparison of the Frequency Distribution of the Study Groups in Demographic Variables

Variable and Levels	Self-Repair Training n (%)	Acceptance and Commitment Training n (%)	Control Group n (%)	Chi-square (p-value)
Age				1.24 (p > .05)
≤ 25 years	3 (15)	2 (10)	2 (10)	
26–35 years	10 (50)	11 (55)	13 (65)	
36–45 years	5 (25)	5 (25)	4 (20)	
≥ 46 years	2 (10)	2 (10)	1 (5)	
Education				1.80 (p > .05)
Up to diploma	6 (30)	4 (20)	3 (15)	
Associate/Bachelor's degree	11 (55)	11 (55)	13 (65)	
Master's/Doctorate	3 (15)	5 (25)	4 (20)	
Marital Status				0.53 (p > .05)
Single	6 (30)	5 (25)	4 (20)	

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Married	14 (70)	15 (75)	16 (80)	
Employment Status				0.14 (p > .05)
Unemployed	7 (35)	8 (40)	8 (40)	
Employed	13 (65)	12 (60)	12 (60)	

As shown in Table 1, there were no significant differences among the three research groups in demographic variables. Table 2 presents the mean and standard deviation of self-acceptance and affective capital across the three groups at the pretest, posttest, and follow-up stages.

Table 2

Mean and Standard Deviation of Self-Acceptance and Affective Capital Across Groups and Time Points

Variable	Time	Self-Repair Training Mean	SD	ACT Mean	SD	Control Mean	SD
Self-Acceptance	Pretest	21.95	3.56	21.50	3.19	21.85	1.50
	Posttest	32.40	5.06	30.25	2.42	22.90	1.45
	Follow-up	36.85	5.78	41.70	3.87	29.65	2.41
Affective Capital	Pretest	36.10	2.86	36.00	2.90	35.70	3.28
	Posttest	46.15	3.62	45.35	4.76	36.30	3.58
	Follow-up	46.85	3.83	44.45	10.79	36.35	3.92

As shown in Table 2, the mean scores of self-acceptance and affective capital indicate that both the self-repair training group and the acceptance and commitment training group demonstrated greater changes compared to the control group at posttest and follow-up. Prior to conducting repeated measures ANOVA, the Shapiro–Wilk test results ($p \geq .05$) and Levene's test results indicated normal distribution of the data and homogeneity of error variances across groups for both self-acceptance and affective capital ($p \geq .05$). Box's M test also indicated equality of variance–covariance matrices ($p \geq .05$). Mauchly's test of sphericity was non-significant for self-acceptance but significant for affective capital, indicating violation of the sphericity assumption for affective capital; therefore, Greenhouse–Geisser correction was applied. The results of repeated measures ANOVA are presented in Table 3.

Table 3

Results of Repeated Measures ANOVA for Self-Acceptance and Affective Capital

Source of Variation	Sum of Squares	df	Mean Square	F	p	Partial Eta Squared	Power
Self-Acceptance (Within-Subjects)							
Time	6284.21	2	3142.11	515.27	.001	.90	1.00
Time × Group	998.62	4	249.66	40.94	.001	.59	1.00
Error (Time)	695.17	114	6.10	–	–	–	–
Between-Subjects							
Group	547.34	2	273.67	10.77	.001	.27	.99
Error	1448.98	57	25.42	–	–	–	–
Affective Capital (Within-Subjects)							
Time	1764.54	1.28	1383.32	76.53	.001	.57	1.00
Time × Group	751.96	2.55	294.75	16.31	.001	.36	1.00
Error (Time)	1314.17	72.71	18.07	–	–	–	–
Between-Subjects							
Group	1657.68	2	828.84	16.23	.001	.36	.99
Error	2911.18	57	51.07	–	–	–	–

As shown in Table 3, for self-acceptance, within-subject effects indicated that both time ($F = 515.27$, $df = 2$, $p < .01$) and the interaction between time and group ($F = 40.94$, $df = 4$, $p < .01$) were significant, suggesting meaningful differences over time and across groups. The partial eta squared values were .90 for time and .59 for the interaction, both with statistical power of 1.00, indicating that 90% and 59% of the variance in self-acceptance, respectively, were attributable to the interventions. Additionally, the between-subject effect of group was significant ($F = 10.77$, $df = 2$, $p < .01$), with a partial eta squared of .27 and power of .99,

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indicating that 27% of the variance in self-acceptance was explained by group differences.

For affective capital, within-subject effects showed that both time ($F = 76.53$, $df = 1.28$, $p < .01$) and the interaction between time and group ($F = 16.31$, $df = 2.55$, $p < .01$) were significant. The partial eta squared values were .57 for time and .36 for the interaction, both with power of 1.00, indicating that 57% and 36% of the variance in affective capital were attributable to the interventions. The between-subject effect of group was also significant ($F = 16.23$, $df = 2$, $p < .01$), with a partial eta squared of .36 and power of .99, indicating that 36% of the variance in affective capital was explained by group differences.

To determine pairwise differences across time and groups, the Bonferroni post hoc test was conducted. The results are presented in Table 4.

Table 4

Bonferroni Post Hoc Test Results for Self-Acceptance and Affective Capital

Variable	Comparison	Reference Group	Compared Group	Mean Difference	SE	p
Self-Acceptance	Time	Pretest	Posttest	-9.08	0.41	.001
		Pretest	Follow-up	-14.30	0.51	.001
		Posttest	Follow-up	-5.22	0.43	.001
	Group	Self-Repair	ACT	-0.75	0.92	1.00
		Self-Repair	Control	3.27	0.92	.002
		ACT	Control	4.02	0.92	.001
Affective Capital	Time	Pretest	Posttest	-6.67	0.33	.001
		Pretest	Follow-up	-6.62	0.77	.001
		Posttest	Follow-up	0.05	0.67	1.00
	Group	Self-Repair	ACT	1.10	1.30	1.00
		Self-Repair	Control	6.92	1.30	.001
		ACT	Control	5.82	1.30	.001

As shown in Table 4, for self-acceptance, significant differences were observed between pretest and posttest, pretest and follow-up, and posttest and follow-up ($p < .05$), indicating a progressive increase in self-acceptance over time. For affective capital, a similar pattern was observed except that the difference between posttest and follow-up was not significant, indicating stability of affective capital after the posttest phase. In group comparisons, for both self-acceptance and affective capital, significant differences were found between the self-repair training group and the acceptance and commitment training group compared to the control group ($p < .05$), while no significant difference was observed between the two intervention groups ($p > .05$), indicating comparable effectiveness of both interventions.

4. Discussion and Conclusion

The present study was conducted with the aim of comparing the effectiveness of self-repair training and acceptance and commitment training on self-acceptance and affective capital in women with symptoms of borderline personality disorder. The findings indicated that both intervention groups demonstrated significant improvements in self-acceptance and affective capital compared to the control group across posttest and follow-up stages. Additionally, the results showed that there was no statistically significant difference between the two intervention groups in terms of their effectiveness, suggesting that both self-repair training and acceptance and commitment training were equally effective in enhancing self-acceptance and affective capital. Furthermore, the results of repeated measures analysis revealed that changes in self-acceptance continued significantly from posttest to follow-up, whereas affective capital improvements remained stable after posttest without further significant increase.

The improvement in self-acceptance observed in both intervention groups can be interpreted in light of the central role of self-structure disturbances in borderline personality disorder. As emphasized in contemporary psychopathology models, individuals with borderline symptoms often experience instability in identity, negative self-evaluation, and fragmented self-concepts, which undermine psychological well-being (Koivisto et al., 2022; Trull & Hepp, 2023). The significant increase in self-acceptance in the present study suggests that both interventions were able to target these underlying self-related vulnerabilities. In particular, the conceptualization of unconditional self-acceptance as a core component of psychological health provides a theoretical explanation for these findings, as it

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reduces conditional self-worth and promotes a more stable and compassionate relationship with the self (Chamberlain & Haaga, 2001; Cordaro et al., 2024). This interpretation is further supported by empirical evidence indicating that higher levels of self-acceptance are associated with improved well-being, adaptive decision-making, and greater hopefulness, all of which are relevant to recovery in borderline populations (Esmailbeigi et al., 2021; Rohmah et al., 2024).

From a process perspective, the effectiveness of acceptance and commitment training in improving self-acceptance can be explained through the mechanism of psychological flexibility. ACT targets experiential avoidance, cognitive fusion, and rigid self-evaluative processes, helping individuals to accept internal experiences without over-identifying with them and to act in accordance with personal values (Hayes, 2004, 2005). Previous studies have shown that ACT can reduce emotional impulsivity and neuroticism in individuals with borderline symptoms, which are closely related to self-evaluative instability (Fathi et al., 2023). Similarly, group-based ACT interventions have demonstrated effectiveness in reducing borderline-related symptoms and improving adaptive functioning (Morton et al., 2012). The findings of the present study align with these results, suggesting that ACT facilitates a shift from conditional and reactive self-evaluation toward a more accepting and stable self-perspective.

At the same time, the comparable effectiveness of self-repair training in improving self-acceptance highlights the importance of directly targeting the damaged self-system in borderline pathology. Self-repair training, as implemented in the present study, was designed to address multiple dimensions of self-functioning, including self-forgiveness, self-compassion, cognitive restructuring of maladaptive beliefs, emotional regulation, and identity reconstruction. This comprehensive approach is consistent with qualitative findings indicating that women with borderline symptoms often experience a fractured sense of self that requires integrative repair processes rather than isolated symptom-focused interventions (Agnew et al., 2016; Yekta et al., 2026). Moreover, research on self-concept disturbances in borderline personality disorder suggests that improving the coherence and positivity of self-representations can lead to broader psychological improvements (Evans et al., 2015). Therefore, the observed increase in self-acceptance in the self-repair training group can be understood as the result of reconstructing a more integrated and compassionate self-framework.

The findings related to affective capital also provide important insights. Both intervention groups showed significant increases in affective capital compared to the control group, and these improvements were maintained at follow-up. Affective capital, conceptualized as a reservoir of positive emotional resources including positive affect, energy, and happiness, plays a crucial role in psychological resilience and well-being (Golparvar, 2016). The observed increase in affective capital suggests that both interventions were effective in enhancing positive emotional functioning in participants. This is particularly significant given that individuals with borderline symptoms often exhibit heightened negative affect and difficulties in sustaining positive emotional experiences (Chu et al., 2016; Geschwind et al., 2019). By increasing affective capital, the interventions may have helped participants build more stable and adaptive emotional resources.

The mechanisms underlying the improvement in affective capital can be further explained by previous research. Studies have shown that affective capital is associated with reduced psychosomatic complaints and improved psychological functioning (Enayati & Golparvar, 2018). Additionally, interventions such as mindfulness-based cognitive therapy and cognitive-behavioral therapy have been found to increase affective capital in clinical populations (Golparvar & Tabatabaei Nejad, 2020). The findings of the present study extend this line of research by demonstrating that both ACT and self-repair training can effectively enhance affective capital in women with borderline symptoms. Furthermore, research on affective processes in borderline personality disorder indicates that improving positive affect and emotional stability can enhance ego-resiliency and quality of life (Harpøth et al., 2020; Harpøth et al., 2021). Therefore, the increase in affective capital observed in the present study may contribute to broader improvements in psychological functioning.

An important finding of the present study is the lack of a significant difference between the two intervention groups. This suggests that both self-repair training and acceptance and commitment training are similarly effective in improving self-acceptance and affective capital. This result can be interpreted in several ways. First, despite their different theoretical foundations, both interventions share common therapeutic mechanisms, such as promoting self-awareness, reducing self-criticism, enhancing emotional regulation, and fostering a more adaptive relationship with internal experiences. These shared mechanisms may account

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for their comparable effectiveness. Second, it is possible that both interventions target complementary aspects of borderline pathology, with ACT focusing more on process-based change and psychological flexibility, and self-repair training focusing more on structural reconstruction of the self. The convergence of these approaches may lead to similar outcomes in terms of self-acceptance and affective capital.

Another notable finding is the pattern of change over time. While self-acceptance continued to increase from posttest to follow-up, affective capital remained stable after posttest. This difference may reflect the distinct nature of these constructs. Self-acceptance may require a longer period to consolidate, as it involves deep changes in self-perception and identity. In contrast, affective capital, once enhanced through intervention, may reach a plateau and remain stable over time. This interpretation is consistent with the conceptualization of affective capital as a relatively stable resource that can be strengthened through intervention but may not continue to increase indefinitely (Golparvar, 2016). Additionally, the stability of affective capital at follow-up suggests that the interventions had lasting effects on participants' emotional resources.

Overall, the findings of the present study are consistent with and extend previous research in several ways. They confirm the importance of targeting self-related processes and emotional resources in interventions for borderline symptoms. They also provide empirical support for the effectiveness of both ACT and self-repair training in improving key psychological outcomes. Moreover, they highlight the potential of self-repair training as a novel and culturally relevant intervention for women with borderline symptoms. Given the complex and multifaceted nature of borderline personality disorder, interventions that address both self-structure and emotional functioning may be particularly beneficial.

One limitation of the present study is that the sample was restricted to women with symptoms of borderline personality disorder in a single city, which may limit the generalizability of the findings to other populations, including men or individuals from different cultural contexts. Another limitation is the reliance on self-report measures, which may be subject to response biases and may not fully capture changes in underlying psychological processes. Additionally, the follow-up period was limited to two months, which may not be sufficient to assess the long-term sustainability of the intervention effects. The absence of qualitative data also limits the ability to explore participants' subjective experiences of the interventions and the mechanisms underlying change.

Future research should examine the effectiveness of self-repair training and acceptance and commitment training in more diverse populations, including different age groups, cultural contexts, and clinical subtypes of borderline personality disorder. Longitudinal studies with extended follow-up periods are needed to assess the durability of treatment effects over time. It would also be valuable to incorporate multi-method assessment approaches, including behavioral, physiological, and qualitative measures, to provide a more comprehensive understanding of intervention outcomes. Comparative studies that examine the mechanisms of change in different therapeutic approaches could further clarify how and why these interventions produce their effects.

From a practical perspective, the findings of this study suggest that both self-repair training and acceptance and commitment training can be effectively used in clinical and counseling settings to improve self-acceptance and affective capital in women with borderline symptoms. Clinicians may consider integrating elements of both approaches to address the complex needs of this population. Training programs for mental health professionals should include these interventions to enhance their capacity to work with individuals with borderline symptoms. Additionally, developing accessible and culturally adapted versions of these interventions may increase their applicability and impact in real-world settings.

Authors' Contributions

All authors significantly contributed to this study.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research before the start of the study and participated in the research with informed consent.

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