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Comparing the Impact of Self-Healing Intervention and Emotion-Focused Therapy on Academic Vitality and Cognitive Distortions among Female High School Students with Depression

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Abstract

Background and Objective: Depression poses a significant obstacle to academic success among high school students. It is characterized by diminished academic vitality and exacerbated by persistent cognitive distortions (maladaptive cognitive patterns). This study aimed to evaluate and compare the effectiveness of self-healing intervention (SHI) and emotion-focused therapy (EFT) in reducing these impairments among female adolescents exhibiting depressive symptoms.

Methods: This randomized controlled trial (registered at IRCT.ir as IRCT20250307064963N1) employed a pretest-posttest design with follow-up. Recruitment of participants was conducted in Ahvaz, Iran, from April through June 2025. A total of 45 female high school students diagnosed with depressive symptoms, confirmed via DSM-5 clinical interviews and the Beck Depression Inventory, were selected through cluster random sampling and randomly allocated to three groups of 15: SHI intervention group, EFT intervention group, and waitlist control group. Assessments were done based on the Academic Vitality Questionnaire and the Cognitive Distortions Scale. Data were subjected to repeated-measures ANOVA for analysis.

Findings: Findings revealed significant improvements in academic vitality and reduced cognitive distortions in both intervention groups compared to controls at posttest and three-month follow-up ($P<0.001$). Although SHI yielded greater gains in academic vitality than did EFT at posttest ($P=0.038$), no significant between-intervention differences were observed at follow-up or on cognitive distortions, with treatment effects sustained over time.

Conclusion: SHI and EFT demonstrate comparable overall efficacy as therapeutic frameworks for bolstering psychological resilience and academic engagement in depressed female students. These results advocate for the incorporation of either cognitive-experiential or resource-focused strategies within educational mental health frameworks to foster enduring student well-being.

Keywords*:* Vitality, Depression, Self-healing, Emotion-focused therapy, Cognitive distortions

Introduction

The high school years represent a critical developmental stage characterized by complex cognitive and emotional shifts, coupled with increasing academic pressure (1). Globally, depression affects approximately 3-5% of adolescents aged 15-19 years in terms of clinical disorders, with elevated depressive symptoms reported in up to 37% of this age group in recent years. In Iran, prevalence estimates among school students are notably higher, often ranging from 37% to over 50% for depressive symptoms, particularly among female high school students. Within this demanding environment, mental health challenges, particularly depression, have become a major global concern, significantly impeding students' ability to thrive. Depression among adolescents is not merely characterized by persistent sadness. Rather, it is a complex disorder that undermines executive functioning, motivation, attention, and social engagement (2). Research consistently demonstrates that students struggling with depressive symptoms experience higher rates of absenteeism, lower grade point averages, and decreased overall school commitment compared to their non-depressed peers (3). Furthermore, untreated or inadequately managed depression can escalate into chronic issues, negatively affecting long-term psychological well-being and career trajectories (4). Given the profound and pervasive impact of this disorder on educational outcomes, effective, evidence-based interventions are urgently needed to restore students' core psychological and academic resources, thereby reversing the debilitating cycle initiated by clinical depression.

Academic vitality, often conceptualized as the positive, fulfilling, and study-related state of mind, is one crucial resource that is severely compromised by depression (5). Academic vitality is characterized by three core dimensions: Vigor, defined as high levels of energy, mental resilience while studying, and the willingness to invest effort; Dedication, which involves a sense of significance, enthusiasm, and pride in one's academic work; and Absorption, characterized by being happily immersed and deeply concentrated in study tasks (6). Students who exhibit high academic vitality are intrinsically motivated, cope better with failure, and view challenges as opportunities for growth, rather than insurmountable obstacles. This construct serves as a powerful protective factor against academic burnout and stress-related disorders (7). Consequently, enhancing academic vitality is an essential and direct target for therapeutic interventions designed for depressed adolescents, as it shifts the focus from symptom reduction to proactive development of positive psychological capital necessary for sustained academic success.

Another key variable compromised by depression and assessed in this study is cognitive distortions, which represent systematic biases in information processing that perpetuate negative emotional states and impair adaptive functioning (8). These maladaptive patterns—such as "all-or-nothing" thinking, catastrophizing, mind-reading, and personalization—are central to Aaron Beck's cognitive model of depression, wherein they lead to negative views of the self, the world, and the future (the cognitive triad) (9). For students, these distortions translate into academic self-sabotage. For instance, a cognitive distortion might lead a student to interpret a single low test score as definitive proof of incompetence, fostering avoidance and further withdrawal. Such irrational thinking not only maintains depressive symptoms but also interferes with logical problem-solving and adaptive coping mechanisms (10). Therefore, any intervention aiming to improve academic functioning must provide tools for identifying and restructuring these entrenched cognitive distortions, allowing students to adopt more balanced and realistic appraisals of their abilities and academic situations.

The self-healing intervention (SHI), an eclectic approach adapted for the Iranian context by Latifi and colleagues, integrates principles from positive psychology, mindfulness, humanistic theory, and energy-based techniques such as the healing codes, emphasizing individuals' inherent capacity for recovery through structured exercises in self-compassion, emotional regulation, forgiveness, and alignment with personal values (11-14). This intervention typically involves structured exercises focused on enhancing self-compassion, teaching emotional regulation techniques, and fostering an internal locus of control (12). Past research suggests that SHI-based approaches are highly effective in strengthening psychological resources that directly counteract the passivity associated with depression. Studies have shown that self-healing techniques improve emotional acceptance and increase resilience, which in turn leads to lower stress perceptions and better overall life satisfaction (13, 14). While established literature supports its benefits in general mental health, the specific comparative efficacy of SHI against other structured psychotherapies in the context of academic vitality and cognitive distortions remains an area requiring empirical clarity.

Emotion-focused therapy (EFT), developed primarily by Leslie Greenberg, is an empirically supported, neo-humanistic approach that views emotion as fundamental to the organization of self (15). Unlike purely cognitive therapies, EFT focuses on the therapeutic relationship to help clients access, understand, accept, and constructively transform core maladaptive emotional schemes (16). The goal of EFT is not merely to regulate emotions, but to identify the primary, core emotions (e.g., sadness, fear) and differentiate them from secondary, reactive emotions (e.g., self-criticism, shame). By using techniques like the two-chair dialogue or fo-

cusing, EFT facilitates the restructuring of emotional experience, which ultimately leads to cognitive and behavioral change (17). Previous studies targeting adolescent depression have demonstrated EFT's potential in reducing depressive symptom severity and improving interpersonal functioning (18). However, there are few, if any, direct comparisons of EFT against emerging, holistic interventions like SHI, specifically using measures of academic vitality and cognitive distortion within an educational setting.

Despite the established efficacy of various therapeutic modalities, there is a distinct necessity for comparative research to guide the selection of the most resource-efficient and impactful intervention for use in school-based mental health programs. While supporting the benefits of both cognitive-focused and experiential therapies, the existing literature lacks clear evidence regarding their comparative impact on the positive academic outcomes (vitality) versus the cognitive deficits (distortions) linked to adolescent depression. Addressing this gap is crucial for informed clinical decision-making. Therefore, the present study aims to evaluate and compare the effectiveness of SHI and EFT in increasing academic vitality and reducing cognitive distortions among female high school students experiencing depressive symptomatology. The findings will provide empirical validation for the incorporation of these frameworks into educational psychological services.

Methods

Trial Design

This was a randomized controlled trial (registered at IRCT.ir as IRCT20250307064963N1) employing a pretest-posttest design with a three-month follow-up. It included two experimental groups (self-healing intervention and emotion-focused therapy) and a waitlist control group.

Participants

The study focused on female high school students in Ahvaz, Iran, in 2025. Participant recruitment and screening took place from April 2025 to June 2025. Using cluster random sampling, eight classes were selected from two randomly chosen schools across four educational districts. Participants were screened for inclusion through structured clinical interviews aligned with DSM-5 criteria for depressive symptomatology and administration of the Beck Depression Inventory-II (BDI-II). Inclusion required a BDI-II score ≥14 (indicating at least mild depression) in addition to meeting DSM-5 symptom criteria. A total of 45 students meeting the inclusion criteria were recruited. Participants were then randomly assigned in equal numbers (n=15 per group) to the SHI group, the EFT group, or the no-treatment waitlist control group. Inclusion criteria required confirmed depressive symptoms, while exclusion criteria included absence from more than two intervention sessions, concurrent psychoactive medication use, or diagnosis of acute comorbid psychiatric disorders (e.g., bipolar disorder, schizophrenia, or substance use disorder). Ethical approval for the study was obtained from Ethics Committee of Islamic Azad University, Ahvaz Branch (Ref. ID: IR.IAU.AHVZ.REC.1403.504).

Interventions

Following acquisition of informed consent and administration of the pre-test battery across all three groups, the experimental groups commenced their respective therapeutic interventions, while the control group received no therapeutic contact during this period. The two distinct treatment protocols were administered by a single trained clinical psychologist. The SHI protocol (11) focused on cultivating inner psychological resources, promoting self-awareness, and building resilience through techniques such as mindfulness and self-compassion training. This involved 14 weekly sessions, each lasting 90 minutes. The detailed structure and content of the 14-session SHI protocol are summarized in Table 1. In contrast, the EFT protocol (15), as outlined by Greenberg (15), consisted of eight sessions. This intervention focused on improving emotional awareness and regulation, as well as the corrective transformation of core maladaptive emotional schemes, primarily achieved through experiential techniques such as chair work. The specific modules and focus areas of the EFT protocol are presented in Table 2. Immediately after the interventions, the post-test was conducted across all groups. This was followed three months later by the final administration of the assessment tools during the follow-up phase. The waitlist control group was offered the SHI protocol upon study completion. It is important to note that the differing number of sessions (14 for SHI vs. 8 for EFT) represents a potential limitation regarding treatment dosage equivalence.

Table 1. Conceptual framework and session content of the SHI protocol

Session	Focus Area	Summary of Content
1-2	Foundational Awareness	Introduction to self-healing; identifying the nature of psychological pain and distress; establishing therapeutic relationship.
3-4	Mindfulness & Self-Observation	Core mindfulness practices; non-judgmental awareness of thoughts and feelings; body scan meditation.
5-6	Self-Compassion & Inner Critic	Techniques for cultivating kindness towards self; addressing and transforming harsh self-criticism (e.g., via writing exercises).
7-8	Emotional Regulation	Identifying emotional triggers; learning adaptive strategies for managing intense negative affect; distress tolerance skills.
9-10	Core Values & Purpose	Clarifying personal and academic values; aligning daily behavior with core purpose; increasing meaning and dedication.
11-12	Relational Healing	Processing interpersonal distress; practicing forgiveness (self and others); improving communication skills.
13-14	Integration & Maintenance	Consolidating learned skills; developing a personalized self-care and relapse prevention plan for academic and emotional balance.

Table 2. Conceptual framework and session content of the EFT protocol

Session	Focus Area	Summary of Content
1-2	Alliance & Assessment	Establishing a strong emotional bond; identifying and mapping the negative emotional cycles related to depression and academic distress.
3-4	Accessing Primary Emotions	Using evocative questions to deepen emotional experience; differentiating primary adaptive/maladaptive emotions from secondary reactive emotions.
5-6	Two-Chair Work (Internal Conflict)	Facilitating dialogue between conflicting parts of the self (e.g., self-critic vs. experiencing self) to achieve integration and self-soothing.
7	Empty-Chair Work (Unfinished Business)	Processing unresolved emotional issues with significant others to achieve resolution and emotional closure.
8	Integration and Consolidation	Reviewing emotional transformations; consolidating new emotional responses; facilitating secure attachment to the self.

Outcomes

Beck Depression Inventory-II (BDI-II): Depressive symptoms for screening were assessed using the Beck Depression Inventory-II (19), a 21-item self-report measure with scores ranging from 0 to 63. Higher scores indicate greater depression severity. The Persian version of BDI-II has previously demonstrated satisfactory psychometric properties in Iranian samples (20). In the present study, the scale exhibited good internal consistency, with a Cronbach's alpha of 0.88.

Academic Vitality Questionnaire (AVQ): Academic vitality was measured using the Academic Vitality Questionnaire developed by Jafari et al. (21). This instrument is a self-report scale comprising 55 items designed to assess the three core components of vitality: vigor, dedication, and absorption within the academic context. Items are rated on a 5-point Likert scale (1= Totally Disagree to 5=Totally Agree), yielding a total score that ranges from 55 to 275. Interpretation: Higher scores indicate a greater degree of positive academic engagement and vitality. In prior Iranian studies, the scale consistently demonstrated good psychometric properties, with Cronbach's alpha coefficients reported around 0.80 to 0.87 (21). The internal consistency coefficient (Cronbach's alpha) for the current study sample was 0.84, confirming the instrument's reliability.

Interpersonal Cognitive Distortions Scale (ICDS): Cognitive distortions were assessed using the Interpersonal Cognitive Distortions Scale, developed by Hamamchi and Büyüköztürk (22). This self-report questionnaire contains 19 items that specifically measure maladaptive thought patterns in interpersonal and social contexts, scored on a 5-point Likert

scale (1=Strongly Disagree to 5=Strongly Agree). The total score ranges from 19 to 95, with higher scores indicating a more pervasive presence of cognitive distortions (e.g., rejection sensitivity, unrealistic expectations, etc.). Interpretation: Scores above 60 are often indicative of a high degree of cognitive distortion. Previous research in Iran has established its reliability, with Cronbach's alpha coefficients typically reported around 0.85 (23). The internal consistency for the present study was determined to be 0.81, which is considered highly acceptable.

Sample Size

A priori power analysis using G*Power 3.1 indicated that a total sample of 45 participants (15 per group) would provide approximately 80% power to detect a large effect size ($\eta^2 = 0.14$) in the group × time interaction for repeated-measures ANOVA ($\alpha = 0.05$, three groups, three measurements, correlation among repeated measures = 0.5, non-sphericity correction = 1). This sample size is consistent with similar comparative psychotherapy trials in adolescent populations.

Randomization

Participants were randomly assigned to groups using a simple randomization procedure with computer-generated random numbers. Allocation was concealed until after baseline assessment and eligibility confirmation. An independent researcher generated the allocation sequence, while the principal investigator enrolled participants and assigned them to groups.

Blinding

Due to the nature of the psychological interventions, participants and the therapist were not blinded to group assignment. Outcome assessments were based on self-report measures, with no independent blinded raters.

Statistical Methods

Data analysis was performed using the SPSS version 27. Descriptive statistics were used to summarize the sample data. The primary inferential statistical method was the repeated measures analysis of variance (ANOVA), employed to examine the effects of the interventions across the three measurement points (pre-test, post-test, and follow-up). Post-hoc comparisons were conducted using the Bonferroni correction to control for Type I error rates when performing pairwise comparisons between the three groups.

Results

Participant flow

A total of 45 eligible participants were randomly assigned (n=15 per group). All participants completed the pretest, posttest, and three-month follow-up assessments, with no dropouts or exclusions post-randomization (Figure 1).

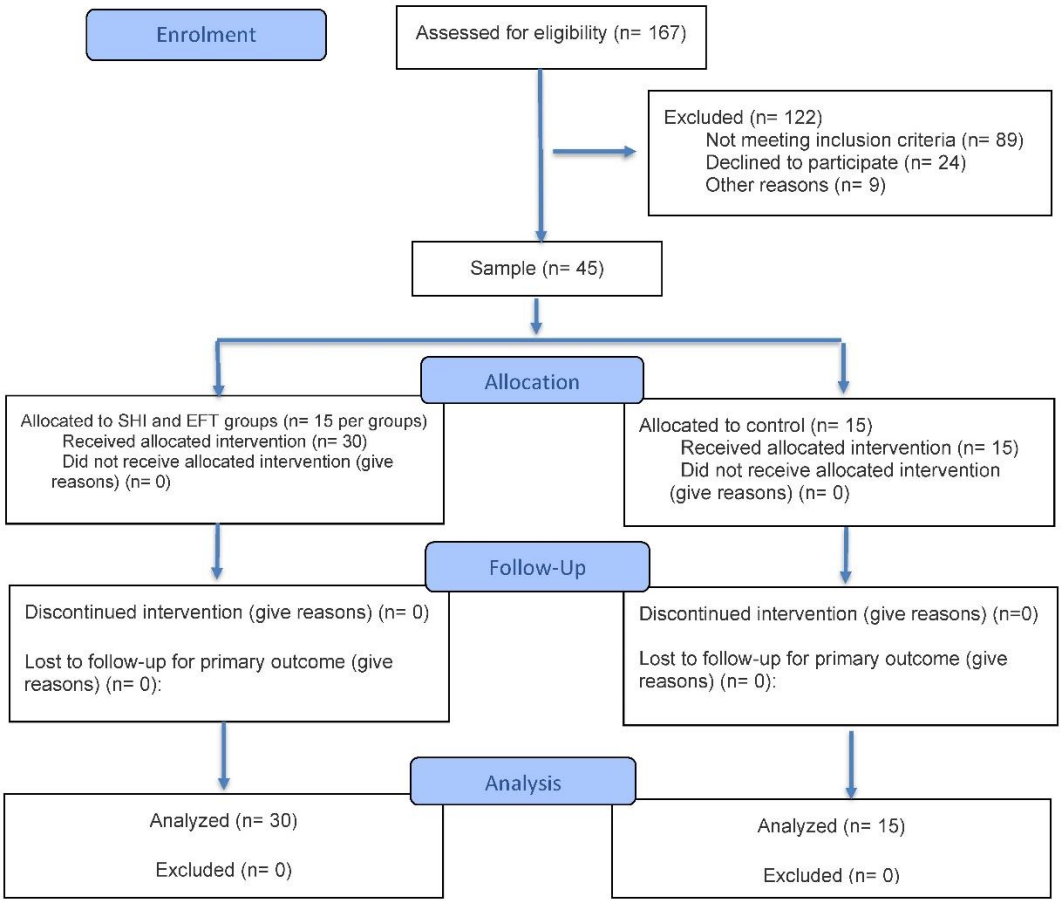

Figure 1. The CONSORT flow diagram of the study.

Recruitment

Participants were recruited and interventions conducted during the 2025 academic year in Ahvaz, Iran.

Baseline data

The sample comprised 45 second-grade female high school students (mean age = 16.42 years, SD=0.72). Groups were comparable at baseline on age, depressive symptoms, academic vitality, and cognitive distortions (all P>0.05; see Table 3).

Outcomes and estimation

The descriptive data revealed initial equivalence across groups at pretest, with mean academic vitality scores of 138.40 (SD=9.47) for the SHI group, 139.07 (SD=6.78) for the EFT group, and 140.20 (SD=9.35) for the control group. Similarly, cognitive distortion scores averaged 62.53 (SD=4.48), 61.07 (SD=3.34), and 62.47 (SD=5.68), respectively—levels indicative of moderate depressive impairment consistent with inclusion criteria. Post-intervention, both the SHI and EFT groups exhibited substantial gains in academic vitality, with means rising to 153.93 (SD=5.81) and 147.47 (SD=4.92), respectively, while the control group remained stable at 140.67 (SD=8.51). At three-month follow-up, these improvements were largely sustained, with the SHI group showing a minor attenuation to 152.91 (SD=5.73) and the EFT group demonstrating slight further enhancement to 150.44 (SD=4.95), compared to the control's 140.93 (SD=7.87). Posttest results revealed significant reductions in cognitive distortions within the intervention groups. Scores dropped to 54.42 (SD=4.22) for SHI and 51.40 (SD=2.61) for EFT, while the control group remained relatively stagnant at 61.33 (SD=4.93). These gains were sustained at follow-up, with means further declining to 53.07 (SD=4.49) in SHI and 49.33 (SD=2.87) in EFT, compared to 60.93 (SD=5.03) in controls. These findings underscore the potential of both interventions for durable cognitive restructuring (Table 3).

Table 3. Descriptive statistics for academic vitality and cognitive distortions across groups and measurement occasions

Variable	Stage	SHI	EFT	Control
		Mean ± SD	Mean ± SD	Mean ± SD
Academic vitality	Pre-test	138.40 ± 9.47	139.07 ± 6.78	140.20 ± 9.35
	Post-test	153.93 ± 5.81	147.47 ± 4.92	140.67 ± 8.51
	Follow-up	152.91 ± 5.73	150.44 ± 4.95	140.93 ± 7.87
Cognitive distortions	Pre-test	62.53 ± 4.48	61.07 ± 3.34	62.47 ± 5.68
	Post-test	54.42 ± 4.22	51.40 ± 2.61	61.33 ± 4.93
	Follow-up	53.07 ± 4.49	49.33 ± 2.87	60.93 ± 5.03

Prior to conducting the repeated-measures ANOVA, preliminary checks confirmed the assumptions underlying the parametric tests. Normality of distributions was verified using Shapiro-Wilk tests for each group and time point (all $W>0.92$, $P>0.05$), and homogeneity of variances was established via Levene's test (all $p > 0.10$). Mauchly's test indicated minor violations of sphericity for both dependent variables (academic vitality: $\chi^2=6.28$, $P=0.043$; cognitive distortions: $\chi^2=8.15$, $P=0.017$). Therefore, degrees of freedom were corrected using Greenhouse-Geisser estimates ($\varepsilon=0.71$ for academic vitality; $\varepsilon=0.81$ for cognitive distortions).

The repeated-measures ANOVA yielded significant main effects for time on both academic vitality ($F=320.71$, $P<0.001$, $\eta^2=0.78$) and cognitive distortions ($F=356.50$, $P<0.001$, $\eta^2=0.79$), reflecting robust temporal changes across measurement occasions. The group × time interaction was also significant for academic vitality ($F=82.29$, $P<0.001$, $\eta^2=0.69$) and cognitive distortions ($F=60.20$, $P<0.001$, $\eta^2=0.64$), indicating differential intervention impacts relative to controls over time. The main effect of group approached significance for academic vitality ($F=4.71$, $P=0.014$, $\eta^2=0.18$) and was significant for cognitive distortions ($F=13.12$, $P<0.001$, $\eta^2=0.38$), with large effect sizes overall suggesting meaningful clinical variance attributable to the experimental manipulations (Table 4).

Table 4. Repeated-measures ANOVA results for the effects of time, group, and their interaction on academic vitality and cognitive distortions

Variable	Source	SS	df	MS	F	P	η^2
Academic vitality	Time	2200.90	1.42	1556.28	320.71	0.001	0.78
	Group × Time	1129.54	2.84	399.35	82.29	0.001	0.69
	Group	1421.52	2	710.76	4.71	0.014	0.18
Cognitive distortions	Time	1476.19	1.62	912.53	356.50	0.001	0.79
	Group × Time	498.56	3.24	154.09	60.20	0.001	0.64
	Group	1347.57	2	673.78	13.12	0.001	0.38

Post-hoc analyses confirmed significant within-group improvements from pretest to posttest for academic vitality in the SHI group (mean difference=15.53, $P<0.001$) and EFT group (mean difference=8.40, $P<0.001$), with negligible change in controls (mean difference=0.47, $P=0.999$). These gains persisted at follow-up relative to pretest (SHI: 14.51, $P<0.001$; EFT: 11.37, $P<0.001$; control: 0.73,

P=0.999), and no significant decline occurred from posttest to follow-up, though SHI showed a slight non-significant decline (mean difference=-1.02). Parallel patterns emerged for cognitive distortions, with absolute reductions from pretest to posttest being largest in EFT (9.67, P<0.001) and SHI (8.11, P<0.001) versus controls (1.14, P=0.999), and sustained or augmented at follow-up (EFT: 11.74; SHI: 9.46; both P<0.001). This provided evidence for durable therapeutic benefits without substantial relapse (Table 5).

Table 5. Post-hoc Bonferroni-corrected comparisons of mean changes within groups across time points

Variable	Time	SHI		EFT		Control	
		Mean Difference	P	Mean Difference	P	Mean Difference	P
Academic vitality	Post-test and Pre-test	15.53	0.001	8.40	0.001	0.47	0.999
	Follow-up and Pre-test	14.51	0.001	11.37	0.001	0.73	0.999
	Follow-up and Post-test	-1.02	0.999	2.97	0.540	0.26	0.999
Cognitive distortions	Post-test and Pre-test	8.11	0.001	9.67	0.001	1.14	0.999
	Follow-up and Pre-test	9.46	0.001	11.74	0.001	1.54	0.999
	Follow-up and Post-test	1.35	0.999	2.07	0.188	0.40	0.999

Between-group post-hoc tests affirmed baseline homogeneity at pretest, with non-significant differences across all pairwise comparisons for both outcomes (all P>0.05; mean differences < 2). At posttest, academic vitality diverged markedly, with SHI outperforming controls (mean difference=13.26, P<0.001) and EFT exceeding controls (6.80, P=0.017), though SHI and EFT did not differ significantly (6.46, P=0.380). By follow-up, both interventions maintained superiority over controls (SHI: 11.98, P<0.001; EFT: 9.51, P<0.001; SHI vs. EFT: 2.47, P=0.780). For cognitive distortions, posttest reductions were greater in EFT versus controls (absolute mean difference=9.93, P<0.001) and SHI versus controls (6.91, P<0.001), with a trend toward EFT's edge over SHI (3.02, P=0.119). At follow-up, disparities widened, favoring EFT over controls (11.60, P<0.001) and SHI over controls (7.86, P<0.001), yet inter-intervention differences remained non-significant (3.74, P=0.061), highlighting comparable overall efficacy with potential modality-specific nuances in distortion amelioration (Table 6).

Table 6. Post-hoc Bonferroni-corrected between-group comparisons of mean differences at each measurement occasion

Variable	Groups	Pre-test		Post-test		Follow-up	
		Mean Difference	P	Mean Difference	P	Mean Difference	P
Academic vitality	SHI and EFT	0.67	0.999	6.46	0.038	2.47	0.780
	SHI and Control	1.80	0.999	13.26	0.001	11.98	0.001
	EFT and Control	1.13	0.999	6.80	0.017	9.51	0.001
Cognitive distortions	SHI and EFT	1.46	0.999	3.02	0.119	3.74	0.061
	SHI and Control	-0.06	0.999	-6.91	0.001	-7.86	0.001
	EFT and Control	-1.40	0.999	-9.93	0.001	-11.60	0.001

Ancillary analyses

No additional subgroup or adjusted analyses were conducted.

Harms

No adverse events or unintended effects were reported in any group.

Discussion

The primary objective of the present study was to evaluate and compare the effectiveness of the SHI and EFT in enhancing academic vitality and reducing cognitive distortions among female high school students with depressive symptomatology. The results provided robust evidence that both interventions were superior to the waitlist control condition in producing significant and sustained improvements on both outcome measures. Although SHI demonstrated a statistically significant advantage over EFT in academic vitality at posttest, this difference attenuated to non-significance at follow-up, and no significant between-group differences emerged for cognitive distortions at any assessment point. Overall, the two interventions exhibited comparable efficacy.

The observed increases in academic vitality in both active treatment arms align with theoretical expectations for each modality. For the SHI group, improvements are likely attributable to its structured emphasis on cultivating self-compassion, mindfulness, and alignment with personal values, which foster greater psychological resilience and intrinsic motivation (12, 14). These processes enable students to engage more energetically and dedicatedly with academic tasks by reducing self-critical barriers and enhancing a sense of meaning in educational pursuits. The vitality gains in the EFT group, in turn, are consistent with the mechanism of emotional transformation central to Greenberg's model (24). By facilitating access to and restructuring of core maladaptive emotional schemes, EFT promotes self-soothing and authentic emotional expression, thereby restoring motivational resources necessary for sustained absorption and vigor in academic contexts (25, 26).

With respect to cognitive distortions, both interventions produced substantial and enduring reductions, albeit through potentially distinct pathways. In SHI, decreased distortions may be mediated by mindfulness-based cognitive defusion, wherein students learn to observe negative thoughts as transient mental events rather than absolute truths (12). In EFT, on the other hand, cognitive change appears to emerge as a byproduct of emotional processing, and resolution of internal conflicts (e.g., through two-chair dialogue) undermines the rigid negative self-narratives that underpin distorted interpersonal expectations (27). The absence of significant differences between SHI and EFT on this outcome suggests that resource-building and emotion-processing approaches can converge on similar cognitive restructuring effects in depressed adolescents.

The overall equivalence in long-term outcomes between the two interventions, despite differences in session length and therapeutic focus, underscores the potential role of common therapeutic factors—such as a supportive alliance, expectancy of change, and acquisition of adaptive self-related skills—in driving improvement (28). This pattern is consistent with prior comparative studies indicating similar efficacy across experiential and resource-oriented therapies in adolescent populations (29). However, the differing treatment durations (14 sessions for SHI versus 8 for EFT) preclude definitive conclusions about relative efficiency and represent a methodological limitation that warrants consideration in interpreting equivalence.

Limitations

Several additional limitations should be noted. The exclusive inclusion of female high school students restricts generalizability to male adolescents or other age groups. Furthermore, reliance on self-report measures may introduce response biases, and the absence of blinded assessors or objective behavioral indicators limits claims regarding clinical significance. Future research should employ multi-informant assessments, include male participants, equate treatment dosage, and incorporate longer follow-up periods to clarify maintenance of gains and potential moderators of outcome.

Generalizability

Findings are applicable to female high school students with depressive symptomatology in educational settings similar to those in Iran. Caution is warranted in extrapolating to other genders, cultures, or clinical populations.

Interpretation

Results indicate that both SHI and EFT are efficacious in enhancing academic vitality and reducing cognitive distortions in depressed female adolescents, with sustained benefits at three-month follow-up. Transient advantages for SHI on vitality and trends favoring EFT on distortions suggest modality-

specific mechanisms, yet overall equivalence supports the role of common factors. These interventions offer promising, resource-oriented options for school-based mental health services.

Conclusion

This randomized controlled trial provides empirical evidence supporting the efficacy of both SHI and EFT in mitigating the adverse effects of depression on academic and cognitive functioning among female high school students. Findings indicate that both protocols achieved significant and sustained increases in academic vitality and reductions in cognitive distortions relative to the waitlist control group. Although a transient advantage for SHI emerged on academic vitality at posttest and trends favored EFT on cognitive distortions at follow-up, the overall pattern of results suggests broadly comparable efficacy between the two interventions across the three-month period. These outcomes support the incorporation of either resource-focused (SHI) or emotion-processing (EFT) approaches within school-based mental health services to promote psychological resilience and academic success in adolescents experiencing depressive symptoms.

Footnotes

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Ethical Approval: The study protocol was duly approved by the Ethics Committee of Islamic Azad University, Ahvaz Branch (Approval Code: IR.IAU.AHVAZ.REC.1403.504)

Trial Registration

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