The Effectiveness of Mindfulness-Based Cognitive Behavioral Therapy (MBCT) on Emotional Balance and Psychological Security in Students with Shyness

Eima Fatahifar[1] , Mohammad Ali Rahmani[2*] , Fateme Hedayatzadeh[3]

[1] MA student, Department of Clinical Psychology, Tonekabon Branch, Islamic Azad University, Tonekabon, Iran.
[2] Assistant Professor, Department of Counseling and Psychology, Tankabon University, Tankabon, Iran.
[3] Assistant Professor, Department of Health Psychology, Faculty Member, Arian Institute of Science and Technology, Babol, Iran.

* Corresponding author email address: rahmanima20@gmail.com

A R T I C L E I N F O

A B S T R A C T

Purpose: This study aimed to examine the effectiveness of mindfulness-based cognitive behavioral therapy (MBCT) on emotional balance and psychological security in students suffering from shyness.

Methods and Materials: The research employed a quasi-experimental design with pre-test and post-test and a control group. The statistical population consisted of all undergraduate female psychology students at Islamic Azad University of Babol during the 2023–2024 academic year. A total of 40 participants were selected, with 20 assigned to the experimental group and 20 to the control group. To collect data, the following instruments were used: Bradburn's Emotional Balance Scale (1969), Maslow's Psychological Security Questionnaire (1952), and the Cheek and Buss Shyness Scale (1990). The experimental group received an intervention based on the mindfulness-based cognitive therapy protocol developed by Kabat-Zinn (2003), implemented over eight 90-minute sessions. The control group received no intervention. Data were analyzed using multivariate analysis of covariance (MANCOVA).

Findings: The findings revealed significant differences between the pre-test and post-test scores of the experimental and control groups regarding emotional balance and psychological security among students with shyness.

Conclusion: The study concluded that MBCT is effective in enhancing emotional balance and psychological security in students experiencing shyness.

Keywords: Emotional balance, psychological security, mindfulness-based cognitive behavioral therapy.

1.   Introduction

In contemporary psychological science, emotional balance and psychological security are recognized as foundational components of mental health, especially during emerging adulthood. University students, particularly those struggling with shyness, face emotional vulnerabilities and maladaptive self-perceptions that may compromise their ability to function socially and academically. Shyness, characterized by anxiety, inhibition, and avoidance in interpersonal contexts, is associated with poor emotional regulation, heightened stress responses, and impaired social functioning (Mehrinejad, 2017; Zhu et al., 2021). Researchers have highlighted that individuals with high levels of shyness are more susceptible to internalizing problems and diminished psychological security, making them a key population for early therapeutic intervention (Garvert et al., 2023; Hamonniere & Billieux, 2023).

Mindfulness-Based Cognitive Therapy (MBCT), initially developed to prevent relapse in depression, has shown promising applications across a wide range of psychological difficulties, including anxiety disorders, emotion dysregulation, and low psychological resilience (Goodarzi et al., 2018; Williams et al., 2021). This integrative intervention combines mindfulness practices with cognitive behavioral techniques to enable individuals to cultivate awareness of their thoughts and emotions without judgment, thereby interrupting habitual patterns of emotional reactivity (Kurup & Shaikh, 2021; Sabetfar et al., 2021). Within the framework of emotion regulation theory, mindfulness fosters cognitive reappraisal and decentering from distressing stimuli, which are especially crucial in modifying the cognitive-affective cycles seen in shy individuals (Firoozi et al., 2022; Shafiabady et al., 2023).

Emotional balance refers to the capacity to experience, differentiate, and appropriately express both positive and negative emotions in response to internal and external stimuli (Fili et al., 2019). It is a critical aspect of psychological adjustment, and deficits in emotional balance have been consistently observed in individuals experiencing social inhibition and low self-confidence. Furthermore, psychological security, defined as a subjective sense of safety, self-worth, and interpersonal trust, plays a significant role in facilitating adaptive functioning in social and academic settings (Rahmatian Dehkordi & Riahi Ghahfarrokhi, 2023; Sarabadani et al., 2022). MBCT enhances psychological security by reducing maladaptive cognitive schemas and promoting acceptance-based coping strategies, which are especially useful for individuals prone to avoidance, such as shy students (Asvadi Ghoshe Gonbadi et al., 2023; Garvert et al., 2023).

The application of MBCT to address the psychological needs of shy individuals has gained empirical support in recent years. (Mehrinejad, 2017) found that MBCT significantly reduced shyness and increased assertiveness and self-expression among adolescent girls. Similarly, a study by (Rahmatian Dehkordi & Riahi Ghahfarrokhi, 2023) demonstrated improvements in psychological security following MBCT in individuals with opioid use disorders, suggesting that the intervention's benefits extend to populations with compromised self-perceptions and social trust. These findings have been echoed by studies showing MBCT's positive impact on cognitive flexibility, emotional regulation, and subjective well-being in populations with anxiety and mood disorders (Hosseini, 2024; Malekzadeh et al., 2024; Pourjaberi et al., 2023).

Moreover, empirical studies have confirmed the neural and behavioral mechanisms through which MBCT exerts its effects. (Williams et al., 2021) reported that MBCT led to more accurate and balanced emotional evaluations in individuals with remitted depression, while (Garvert et al., 2023) demonstrated the acceptability and safety of CBT-based mobile interventions targeting social anxiety—further validating MBCT's mechanisms of change. In the context of comorbid conditions, (Hamonniere & Billieux, 2023) conducted a case study showing the efficacy of MBCT in addressing both substance use and emotional dysregulation, underscoring its transdiagnostic utility.

In addition to therapeutic outcomes, MBCT has been associated with structural improvements in key regulatory domains such as executive functioning, psychological flexibility, and interoceptive awareness (Firoozi et al., 2022; Gu & Zhu, 2023). This is particularly relevant to shy individuals, who often demonstrate maladaptive coping strategies and cognitive avoidance patterns that impair emotional clarity and behavioral activation (Goodarzi et al., 2018; Sabetfar et al., 2021). In this regard, MBCT serves as both a remedial and a developmental intervention—one that not only alleviates emotional symptoms but also builds foundational skills for lifelong psychological resilience.

Several comparative studies support the superior or comparable efficacy of MBCT relative to other therapeutic approaches. For instance, (Sarabadani et al., 2022) compared MBCT to life therapy and found both approaches effective in enhancing mental well-being and psychological security in women with generalized anxiety disorder, but MBCT

showed greater sustainability in outcomes. Similarly, (Asvadi Ghoshe Gonbadi et al., 2023) found that MBCT and behavioral activation therapy were both effective in reducing cognitive avoidance and improving emotion regulation in individuals with generalized anxiety disorder, although MBCT yielded broader affective benefits. These comparative findings are echoed by (Kurup & Shaikh, 2021), who documented reductions in anxiety and depression through MBCT-based emotional balance interventions in young adults.

Beyond clinical populations, MBCT has also been shown to promote positive psychological attributes in non-clinical and subclinical groups. (Damavandian et al., 2022) found that compassion-focused therapy, an approach overlapping with MBCT in emphasizing present-centered awareness and self-compassion, reduced aggression and enhanced emotional regulation in delinquent adolescents. Likewise, (Mashhadi et al., 2022) revealed that MBCT improved emotional maturity in a comparative intervention design, further supporting its developmental relevance. Furthermore, (Safikhani, 2022) demonstrated that MBCT-related techniques involving cognitive imagery and processing improved emotional processing and self-efficacy in mothers of children with autism, highlighting the intervention's capacity to generalize across demographic and diagnostic categories.

In light of this extensive body of evidence, it becomes apparent that MBCT holds significant promise in addressing the emotional and psychological vulnerabilities of shy university students. The intersection of emotional dysregulation, cognitive rigidity, and social inhibition that typifies this population presents a unique challenge that MBCT is well-suited to address. Given the critical period of identity formation and social role integration during university years, interventions that enhance psychological security and emotional balance are not merely therapeutic but foundational for long-term well-being and academic success (Malekzadeh et al., 2024; Shafiabady et al., 2023).

The current study builds upon prior literature by investigating the effectiveness of MBCT in enhancing emotional balance and psychological security in shy female undergraduate students.

2. Methods and Materials

2.1. Study Design and Participants

The present study employed a quasi-experimental pretest-posttest design with an experimental and a control group.

The statistical population included all undergraduate female psychology students at Islamic Azad University of Babol during the 2023–2024 academic year. Considering that the minimum recommended sample size for intervention studies is 15 participants, the Cheek–Briggs Shyness Questionnaire (1990) was initially distributed among all potential participants. A total of 40 students who scored 40 or above were selected through convenience sampling and then randomly assigned to the experimental group (n = 20) and the control group (n = 20).

2.2. Measures

The Bradburn Emotional Balance Scale was developed by Bradburn (1969) and contains 10 items, with items 1, 3, 5, 7, and 9 assessing positive affect and items 2, 4, 6, and 10 assessing negative affect. Items are answered using a binary response format: "Yes" (1) and "No" (0). The scoring is later converted to a 5-point Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (5). The scale's construct and concurrent validity were confirmed by the developer. The reliability, reported via Cronbach's alpha, ranged from .61 to .73. In Iran, Esmaeilzadeh, Nasri, and Sa'adati (2022) confirmed its construct and concurrent validity, and its reliability was reported with Cronbach's alpha values ranging from .66 to .72.

The Psychological Security Questionnaire was developed by Maslow (1952) and contains 18 items with four subscales: Self-Confidence (7 items: 1–7), Lack of Dissatisfaction (3 items: 8–10), Lack of Environmental Incompatibility (5 items: 11–15), and Perceived Judgment by Others (3 items: 16–18). It uses a dichotomous response format ("Yes" = 1, "No" = 0) and yields an overall score, where higher scores indicate greater psychological security. Some items are reverse-scored. The scale's content and construct validity were confirmed by the developer, and its total reliability was reported as .84 using Cronbach's alpha. In a study by Zare and Aminpour (2011), construct and content validity were confirmed, and Cronbach's alpha reliability coefficients were reported as follows: Self-Confidence (.76), Lack of Dissatisfaction (.79), Lack of Environmental Incompatibility (.74), Perceived Judgment by Others (.77), and total scale (.80).

The Cheek–Briggs Shyness Questionnaire (1990) consists of 14 items and includes three subscales: Lack of Assertiveness and Self-Confidence (items 3, 4, 10, 11, 13), Social Distress and Avoidance (items 1, 2, 4, 5, 7, 8, 14), and

Shyness with Unfamiliar People (items 6, 9, 12). The questionnaire uses a 5-point Likert scale with response options ranging from "Strongly Disagree" (1) to "Strongly Agree" (5). A score of 40 or higher indicates significant shyness. Higher scores reflect higher levels of shyness. The questionnaire's content and construct validity were confirmed by the developers. The overall reliability using Cronbach's alpha was reported as .80, with subscale reliabilities of .77, .75, and .72, respectively. In Iran, Rajabi and Abbasi (2010) confirmed the scale's construct and concurrent validity, and Cronbach's alpha values were reported as .71 for the total scale, and .67, .67, and .18 for the three subscales, respectively.

2.3. Intervention

For the experimental group, the intervention consisted of the Mindfulness-Based Cognitive Therapy (MBCT) program by Kabat-Zinn (2003), implemented in eight 90-minute sessions. No intervention was provided for the control group, who only completed the pretest and posttest assessments.

2.4. Data Analysis

The intervention protocol was based on the Mindfulness-Based Cognitive Therapy (MBCT) program developed by Kabat-Zinn (2003), delivered over eight 90-minute weekly sessions. In Session 1, participants were introduced to one another and the therapeutic process, and the concept of mindfulness was explained. Techniques for body relaxation were introduced, and the pre-test was administered. Session 2 focused on developing attentional control and awareness of objects, thoughts, emotions, and their connection to behavior. In Session 3, participants explored the concept of the wandering mind and learned how to anchor attention to the present moment. Session 4 emphasized mindful breathing and body awareness through seated meditation practices. In Session 5, participants practiced three-minute breathing spaces and applied mindfulness to daily activities to facilitate integration. Session 6 addressed how to establish a different relationship with internal experiences through the development and expansion of acceptance. Session 7 centered on self-care, encouraging participants to identify behavioral activation strategies, link activities with mood, and plan behaviorally supportive routines. Finally, Session 8 offered a review and consolidation of prior sessions, identified relapse signs, and taught how to integrate learned techniques into daily life. The session concluded with post-test administration and termination of the intervention.

3. Findings and Results

This section presents the descriptive and inferential findings in sequence.

Table 1

Demographic Information of Participants by Group

Variable	Subcategory	Experimental Group	Control Group	Chi-Square Value
Age	18–20 years	5 (33.33%)	6 (40.00%)	0.695**
	21–22 years	5 (33.33%)	4 (26.66%)	
	23–25 years	5 (33.33%)	5 (33.33%)	

As shown in Table 1, the demographic data of the two sample groups are presented based on age distribution. Since the significance level is greater than 0.05, it can be interpreted that demographic variables serve as control variables in this study.

Table 2

Descriptive Statistics for Emotional Balance in Experimental and Control Groups

Variable	Test	Experimental Group (M ± SD)	Control Group (M ± SD)
Positive Emotional Balance	Pre-test	1.31 (0.52)	1.26 (0.51)
	Post-test	2.83 (0.56)	1.31 (0.55)
Negative Emotional Balance	Pre-test	3.24 (1.23)	3.23 (1.40)
	Post-test	1.41 (0.42)	3.13 (1.41)

As shown in Table 2, the post-test means of emotional balance components in the experimental group are significantly higher than those in the pre-test phase, indicating improvement following the intervention.

Table 3

Descriptive Statistics for Psychological Security in Experimental and Control Groups

Variable	Test	Experimental Group (M ± SD)	Control Group (M ± SD)
Self-Confidence	Pre-test	3.11 (0.73)	3.08 (0.73)
	Post-test	4.78 (1.37)	3.12 (1.02)
Lack of Dissatisfaction	Pre-test	0.92 (0.29)	0.96 (0.22)
	Post-test	2.17 (0.64)	0.99 (0.34)
Lack of Environmental Conflict	Pre-test	2.10 (0.14)	2.06 (0.16)
	Post-test	3.06 (0.52)	2.11 (0.12)
Others' Perception of the Self	Pre-test	0.62 (0.55)	0.64 (0.44)
	Post-test	1.54 (0.63)	0.66 (0.47)
Total Psychological Security	Pre-test	6.75 (1.19)	6.73 (0.89)
	Post-test	11.55 (1.45)	6.88 (1.20)

As shown in Table 3, the mean values of psychological security components increased notably in the experimental group from pre-test to post-test, indicating the effectiveness of the intervention.

Prior to conducting the multivariate analysis of covariance (MANCOVA), the necessary statistical assumptions were thoroughly examined and confirmed. The assumption of normality was assessed using the Shapiro–Wilk test and inspection of Q-Q plots, indicating that the distribution of scores for all dependent variables was approximately normal. Homogeneity of variances was verified using Levene's test, which yielded non-significant results, supporting the equality of error variances across groups. Additionally, the assumption of homogeneity of regression slopes was examined through the interaction between the covariates and group membership, which was found to be non-significant. Finally, the linearity and independence of observations were met, ensuring the appropriateness of applying MANCOVA for the analysis.

Table 4

Multivariate Analysis of Covariance (MANCOVA) Results for the Main Hypothesis

Test Name	Value	F	Hypothesis df	Error df	Sig. Level	Power
Pillai's Trace	0.846	60.603	3	33	0.01	1
Wilks' Lambda	0.154	60.603	3	33	0.01	1
Hotelling's Trace	5.509	60.603	3	33	0.01	1
Roy's Largest Root	5.509	60.603	3	33	0.01	1

As shown in Table 4, the results of multivariate analysis of covariance (MANCOVA) for emotional balance and psychological security scores between the experimental and control groups indicate that all test statistics (Pillai's Trace, Wilks' Lambda, Hotelling's Trace, Roy's Largest Root) are significant at the level of $p < .01$. This confirms a statistically significant difference between the two groups in at least one of the dependent variables.

Table 5

MANCOVA Results for Each Dependent Variable

Source	Variable	SS	df	MS	F	Sig.	Effect Size	Power
Group	Positive Emotional Balance	22.802	1	22.802	80.896	0.01	0.698	1
	Negative Emotional Balance	30.288	1	30.288	29.794	0.01	0.460	1
	Psychological Security	219.603	1	219.603	123.465	0.01	0.779	1

According to Table 5, the results confirm significant differences between the experimental and control groups in all three dependent variables at the level of $p < .01$. Overall, the findings indicate that mindfulness-based cognitive

behavioral therapy is effective in enhancing emotional balance and psychological security among students with shyness.

4.   Discussion and Conclusion

The present study investigated the effectiveness of Mindfulness-Based Cognitive Therapy (MBCT) on emotional balance and psychological security among shy undergraduate students. The results revealed significant improvements in both positive and negative dimensions of emotional balance in the experimental group following the intervention. Participants who received MBCT showed higher levels of positive emotional balance and a marked reduction in negative emotional states in the post-test compared to the control group. Additionally, the findings demonstrated significant gains in psychological security and its subcomponents—including self-confidence, decreased dissatisfaction, reduced environmental incompatibility, and improved perceptions of others' views—among those in the intervention group.

These results support the hypothesis that MBCT is effective in enhancing emotional regulation and promoting internal security in students experiencing shyness. The outcomes align with prior studies demonstrating that MBCT increases emotional clarity and reduces the intensity and frequency of maladaptive emotional responses (Fili et al., 2019; Firoozi et al., 2022). By focusing on moment-to-moment awareness and cultivating an accepting attitude toward one's inner experiences, MBCT enables individuals to decenter from distressing emotions and reappraise them more adaptively. These mechanisms likely contributed to the observed gains in emotional balance, consistent with the findings of (Goodarzi et al., 2018), who found significant improvements in positive affect and reductions in negative affect following MBCT among individuals with depressive symptoms.

The observed improvement in psychological security is also well-documented in the literature. (Rahmatian Dehkordi & Riahi Ghahfarrokhi, 2023) reported that MBCT led to significant increases in perceived psychological security among individuals with opioid addiction. This outcome is echoed in the findings of (Sarabadani et al., 2022), where MBCT significantly enhanced mental well-being and psychological safety in women with generalized anxiety disorder. The current study extends these results to a non-clinical but vulnerable population—shy university students—highlighting the relevance of MBCT for promoting resilience and reducing insecurity in everyday social contexts.

Moreover, the increase in self-confidence observed in the post-test aligns with the results reported by (Mehrinejad, 2017), who demonstrated that MBCT decreased shyness and increased assertiveness among adolescent girls. This change may be attributed to the self-compassion and non-judgmental stance promoted in MBCT, which helps individuals become more accepting of themselves and more open to engaging in social interactions. Similarly, (Garvert et al., 2023) showed that a modularized CBT-based app including mindfulness elements significantly reduced social anxiety symptoms and enhanced acceptability and efficacy. These convergent findings reinforce the role of mindfulness in mitigating interpersonal inhibition and building psychological safety.

In addition, the significant reduction in negative emotional balance in the MBCT group corresponds with previous studies demonstrating mindfulness-related declines in distress and avoidance. (Gu & Zhu, 2023) found that MBCT reduced emotion dysregulation and improved executive functioning in individuals with body dysmorphic disorder. These improvements in regulatory functioning may explain why participants in the current study were better able to manage negative affect following the intervention. Similarly, (Mashhadi et al., 2022) reported enhanced emotional maturity following MBCT, which aligns with the current findings that students experienced more balanced emotional responses post-intervention.

The observed improvements in various subscales of psychological security, such as decreased environmental incompatibility and increased sense of interpersonal acceptance, are consistent with outcomes from MBCT and related interventions targeting emotional resilience. For example, (Damavandian et al., 2022) found that compassion-focused therapy—a closely related intervention—was effective in reducing self-harm and enhancing emotional regulation in delinquent adolescents. The self-care and acceptance components of MBCT may play a similar role in restructuring maladaptive beliefs about self and others, fostering greater internal stability in socially anxious individuals.

Furthermore, the results correspond with comparative studies emphasizing MBCT's unique advantages. In a study comparing MBCT with behavioral activation therapy, (Asvadi Ghoshe Gonbadi et al., 2023) concluded that MBCT produced broader emotional benefits in individuals with generalized anxiety disorder. Similarly, (Kurup & Shaikh,

2021) reported that MBCT significantly reduced anxiety and depression symptoms in young adults, supporting the generalizability of the intervention's effects across age and diagnostic categories. The current study adds to this literature by showing that MBCT is not only effective in clinical populations but also in enhancing emotional and psychological functioning in a non-clinical yet vulnerable group—shy university students.

The therapeutic gains in psychological security observed here may also stem from MBCT's emphasis on behavioral activation and value-based action planning in later sessions. These elements help participants translate mindful awareness into practical strategies for self-care and social engagement, promoting a sense of agency. As demonstrated by (Malekzadeh et al., 2024), group schema therapy that incorporates similar mindfulness components also resulted in improved emotional regulation and adaptive behavior, suggesting that the combination of cognitive and affective restructuring plays a pivotal role in therapeutic change.

Moreover, MBCT's impact on emotional balance and security may be enhanced by its flexible and person-centered structure. (Hamonniere & Billieux, 2023) conducted a process-based case study showing that individual delivery of MBCT led to meaningful reductions in substance use and emotional symptoms, suggesting that MBCT's modular approach allows for personalization based on individual psychological needs. The group-based format used in this study may have additionally benefited students through peer modeling and social reinforcement, increasing feelings of belonging and reducing fear of negative evaluation.

Finally, the findings of this study are also supported by work on mindfulness-based interventions in educational contexts. (Shafiabady et al., 2023) reported that MBCT significantly improved body image and emotional regulation in adolescents interested in cosmetic surgery, underscoring the intervention's relevance for self-perception and interpersonal confidence. (Safikhani, 2022) found similar benefits in mothers of children with autism, reinforcing MBCT's effectiveness in emotionally charged, high-stress roles. The convergence of these studies affirms MBCT's broad utility in promoting psychological resources such as emotional balance, security, and adaptive self-concept in diverse populations.

Despite the significant findings, this study has several limitations. First, the sample size was relatively small and limited to female undergraduate psychology students from one university, which restricts the generalizability of the findings to other populations, including males and students from different academic disciplines or cultural backgrounds. Second, the reliance on self-report questionnaires introduces the possibility of response bias, particularly in socially desirable directions. Third, the study lacked a follow-up phase to determine the durability of the intervention effects over time. Finally, because the control group did not receive a placebo or alternative treatment, it is difficult to determine the extent to which the effects were due to MBCT itself or general group participation and attention.

Future research should aim to include larger, more diverse samples to enhance external validity and examine the applicability of MBCT across different educational and cultural settings. Longitudinal designs are recommended to assess the stability of changes in emotional balance and psychological security over time. In addition, future studies could compare MBCT with other well-established interventions such as cognitive-behavioral therapy (CBT), dialectical behavior therapy (DBT), or acceptance and commitment therapy (ACT) to further elucidate its relative efficacy. It may also be beneficial to integrate qualitative components, such as interviews or participant journals, to gain a deeper understanding of the subjective experiences and internal processes associated with mindfulness training.

The findings suggest that incorporating MBCT into university counseling centers could be an effective strategy for supporting students dealing with shyness and emotional dysregulation. Given the structured yet flexible nature of the MBCT protocol, it can be adapted to group-based or even online formats to improve accessibility. Practitioners are encouraged to integrate mindfulness components into routine student mental health services, particularly for individuals who struggle with interpersonal anxiety and emotional instability. Furthermore, university administrators and mental health professionals should consider offering workshops and psychoeducational sessions based on MBCT principles as part of broader student wellness programs to promote psychological resilience and social engagement on campus.

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

Acknowledgments

Declaration of Interest

Funding

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 interview and participated in the research with informed consent.

References

Asvadi Ghoshe Gonbadi, J., Bakhshipour, A., & Akbari Amarghan, H. (2023). Comparison of the Effectiveness of Mindfulness-Based Cognitive Therapy and Behavioral Activation Therapy on Cognitive Avoidance and Emotion Regulation in People with Generalized Anxiety Disorder. *Journal of Sabzevar University of Medical Sciences*, *30*(4), 428-441. https://doi.org/10.30468/jsums.2023.1575

Damavandian, A., Golshani, F., Saffarinia, M., & Baghdasarians, A. (2022). Effectiveness of compassion-focused therapy on aggression, self-harm behaviors, and emotional self-regulation in delinquent adolescents. *Journal-of-Psychological-Science*, *21*(112), 797-818. https://doi.org/10.52547/JPS.21.112.797

Fili, A., Ghahreman Izadi, Z., & Sinaei Nobandegani, S. (2019). The effect of mindfulness-based therapy on emotional balance and quality of life in disabled women in Arsanjan city. 5th National Conference on Humanities and Psychological Studies,

Firoozi, M., Golparvar, M., & Aghaei, A. (2022). Comparing the effectiveness of emotionally focused couple therapy, cognitive-behavioral couple therapy, and Gottman's systemic-cognitive couple therapy on emotional balance and dysfunctional expectations in women with sexual dysfunction symptoms. *Psychiatric Nursing*, *10*(1), 1-17. https://ijpn.ir/browse.php?a_id=1952&sid=1&slc_lang=fa&ftxt=0

Garvert, M. M., Linke, S., McCloud, T., Meyer, S. S., Sobanska, S., Long, A., & Ahmadi, M. (2023). The Safety, Acceptability and Efficacy of Alena, a Modularized CBT-based Mobile App Intervention for Social Anxiety: a Randomised Controlled Trial. *medRxiv*. https://doi.org/10.1101/2023.05.30.23288513

Goodarzi, M., Ghasemi, N., Mirdirikvand, F., & Gholamrezaei, S. (2018). The effectiveness of mindfulness-based cognitive therapy on positive and negative affect, psychological flexibility, and mindfulness components in individuals with depressive symptoms. *Journal of Cognitive Psychology and Psychiatry*, *5*(5), 53-68. https://doi.org/10.29252/shenakht.5.5.53

Gu, Y. Q., & Zhu, Y. (2023). A randomized controlled trial of mindfulness-based cognitive therapy for body dysmorphic disorder: Impact on core symptoms, emotion dysregulation, and executive functioningJO - Journal of Behavior Therapy and Experimental Psychiatry. https://doi.org/10.1016/j.jbtep.2023.101869

Hamonniere, T., & Billieux, J. (2023). Individually delivered mindfulness-based cognitive therapy in concomitant problematic substance use and emotional symptoms: A process-based case study. *Clinical Psychology & Psychotherapy*. https://doi.org/10.1002/cpp.2827

Hosseini, S. A. (2024). Comparison of the Effectiveness of Cognitive Behavioral Therapy and Schema Therapy on Emotional Regulation and Resilience of Mothers with Children with Attention Deficit/Hyperactivity Disorder. *Journal of Psychological Dynamics in Mood Disorders (PDMD)*, *3*(1), 12-29. https://doi.org/10.22034/pdmd.2024.442238.1045

Kurup, S. N., & Shaikh, E. (2021). Effect of mindfulness-based emotional balance (MBEB) program on anxiety and depression. *International Journal of Humanities, Law and Social Sciences*, *8*(1), 546-551. https://www.academia.edu

Malekzadeh, l., Emadi, S. Z., & naghsh, z. (2024). The Effectiveness of Group Schema Therapy on Cognitive Emotion Regulation and Emotional Behavior Regulation in Mothers with Children with Learning Disabilities. *Psychology of Exceptional Individuals*, *14*(53), 201-227. https://doi.org/10.22054/jpe.2023.71499.2524

Mashhadi, R., Arab, A., & Jenaabadi, H. (2022). Comparing the Impact of Positive Intervention and Mindfulness-Based Cognitive Therapy Intervention on the Emotional Maturity. *Research in cognitive and behavioral sciences*, *12*(1), 17-38. https://doi.org/10.22108/cbs.2022.131777.1605

Mehrinejad, A. (2017). Investigating the effectiveness of mindfulness-based cognitive therapy on reducing shyness and increasing self-expression in adolescent girls. *Clinical Psychology Studies*, *8*(29), 97-111. https://www.noormags.ir

Pourjaberi, B., Shirkavand, N., & Ashoori, J. (2023). The Effectiveness of Cognitive Rehabilitation Training on Prospective Memory and Cognitive Flexibility in Individuals with Depression. *International Journal of Education and Cognitive Sciences*, *4*(3), 45-53. https://doi.org/10.61838/kman.ijecs.4.3.5

Rahmatian Dehkordi, N., & Riahi Ghahfarrokhi, M. (2023). The effectiveness of mindfulness-based cognitive therapy on the psychological security of individuals addicted to opioid drugs. 16th International Conference on Psychology, Counseling and Educational Sciences,

Sabetfar, N., Meschi, F., & Hosseinzade Taghvaei, M. (2021). The Effectiveness of Mindfulness-based Group Therapy on Perceived Stress, Emotional Cognitive Regulation, and Self-care Behaviors in Patients With Hypertension [Original]. *Internal Medicine Today*, *27*(2), 246-263. https://doi.org/10.32598/hms.27.2.3502.1

Safikhani, F. (2022). The effectiveness of grammatical mental imagery with cognitive processing on self-efficacy, emotional processing and spirituality in mothers of students with autism spectrum disorder. *International Journal of Education and*

Cognitive Sciences, *3*(2), 12-22. https://doi.org/10.22034/injoeas.2022.160609

Sarabadani, A., Hassanzadeh, R., & Emadian, S. A. (2022). Comparison of the effectiveness of mindfulness-based cognitive therapy and life therapy on mental well-being and psychological security of women with generalized anxiety disorder: A quasi-experimental study. *Rafsanjan University of Medical Sciences Journal*, *21*(12), 1249-1266. https://doi.org/10.52547/jrums.21.12.1249

Shafiabady, A., Hasani, J., & Yari, M. (2023). Comparing effectiveness of emotion-focused cognitive-behavioral therapy and mindfulness based cognitive therapy on body image and cognitive emotion regulation in adolescent girls interested in cosmetic surgery. *Psychological Achievements*, *30*(1), 19-36. https://doi.org/10.22055/psy.2022.34239.2569

Williams, K., Elliott, R., Barnhofer, T., Zahn, R., & Anderson, I. M. (2021). Positive shifts in emotion evaluation following mindfulness-based cognitive therapy (MBCT) in remitted depressed participants. *Mindfulness*, *12*, 623-635. https://doi.org/10.1007/s12671-020-01521-4

Zhu, J., Fu, R., Li, Y., Wu, M., & Yang, T. (2021). Shyness and Adjustment in Early Childhood in Southeast China: The Moderating Role of Conflict Resolution Skills. *Frontiers in psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.644652