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A Comparison of the Effectiveness of Unified Protocol (UP) Transdiagnostic Treatment and Cognitive Behavioral Therapy (CBT) on Emotional Dysregulation and Distress Tolerance in Patients with Generalized Anxiety Disorder (GAD)

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A B S T R A C T

Purpose: The present study aimed to compare the effectiveness of Unified Protocol (UP) transdiagnostic treatment and Cognitive Behavioral Therapy (CBT) on emotional dysregulation and distress tolerance in patients with Generalized Anxiety Disorder (GAD).

Methods and Materials: This study employed a quasi-experimental design with a pretest–posttest and follow-up structure, including two experimental groups and one control group. The statistical population consisted of individuals diagnosed with GAD in Tehran, from which sixty participants were selected through purposive sampling and randomly assigned to UP, CBT, and control groups. Data were collected using the Difficulties in Emotion Regulation Scale (DERS) and the Distress Tolerance Scale (DTS). The UP and CBT interventions were administered in twelve 90-minute group sessions, while the control group received no intervention. Data analysis was conducted using repeated measures ANOVA and Bonferroni post hoc tests in SPSS-27.

Findings: The results revealed significant effects of time, group, and the interaction between time and group on emotional dysregulation and distress tolerance ($p < 0.001$). Both UP and CBT interventions significantly reduced emotional dysregulation and increased distress tolerance compared to the control group. Furthermore, the UP intervention demonstrated significantly greater effectiveness than CBT in improving both variables at posttest and follow-up stages, with large effect sizes indicating substantial intervention impact.

Conclusion: The findings indicate that both UP and CBT are effective interventions for improving emotional dysregulation and distress tolerance in patients with GAD; however, the Unified Protocol appears to be more effective, likely due to its transdiagnostic focus on core emotional processes. These results support the application of UP as a comprehensive and flexible treatment approach for anxiety disorders.

Keywords: *Unified Protocol, Cognitive Behavioral Therapy, Emotional Dysregulation, Distress Tolerance, Generalized Anxiety Disorder, Transdiagnostic Treatment*

1. Introduction

Generalized Anxiety Disorder (GAD) is one of the most prevalent and debilitating anxiety disorders, characterized by excessive and uncontrollable worry, persistent cognitive tension, and heightened physiological arousal. Individuals with GAD often experience chronic apprehension, difficulties in emotional processing, and impaired functioning across personal, social, and occupational domains. A central feature of this disorder is maladaptive emotional responding, which manifests as both heightened emotional reactivity and impaired regulation capacities. In recent years, the conceptualization of GAD has increasingly shifted from a purely symptom-focused perspective toward a broader process-oriented framework, emphasizing transdiagnostic mechanisms such as emotional dysregulation and distress intolerance (Sharafati et al., 2023; Zemestani et al., 2023). These mechanisms are now considered core vulnerabilities underlying not only GAD but also a wide range of emotional disorders.

Emotional dysregulation refers to deficits in the awareness, understanding, acceptance, and modulation of emotional experiences. Individuals with GAD often exhibit persistent difficulties in identifying and managing their emotional states, leading to maladaptive coping strategies such as avoidance, suppression, and rumination. These patterns exacerbate anxiety symptoms and contribute to the maintenance of the disorder over time. Empirical evidence has consistently demonstrated that emotional dysregulation is significantly associated with symptom severity in anxiety disorders and plays a critical role in both the onset and persistence of GAD (Nedaei et al., 2025; Rahimi & Bahramipour, 2024). Furthermore, interventions that specifically target emotional regulation processes have shown promising outcomes in reducing anxiety-related symptoms and improving psychological well-being.

Closely related to emotional dysregulation is the construct of distress tolerance, defined as an individual's capacity to withstand negative emotional states without engaging in maladaptive behaviors. Low distress tolerance has been identified as a key factor contributing to the exacerbation of anxiety symptoms, as individuals with limited tolerance tend to avoid or escape distressing experiences, thereby reinforcing anxiety cycles. Research indicates that individuals with GAD often exhibit reduced distress tolerance, which in turn predicts higher levels of worry, emotional instability, and functional impairment (Nargesi et al., 2019; Zhong et al., 2025). Enhancing distress tolerance has therefore emerged as a critical therapeutic target in contemporary psychological interventions for anxiety disorders.

Traditional therapeutic approaches, particularly Cognitive Behavioral Therapy (CBT), have long been considered the gold standard for the treatment of GAD. CBT focuses on identifying and modifying dysfunctional cognitions and maladaptive behavioral patterns that contribute to anxiety. Through techniques such as cognitive restructuring, exposure, and skills training, CBT aims to reduce symptom severity and promote adaptive coping mechanisms. A substantial body of research supports the efficacy of CBT in treating GAD, demonstrating significant reductions in anxiety symptoms and improvements in emotional functioning (Nedaei et al., 2025; Xu et al., 2025). However, despite its effectiveness, CBT is not universally successful, and a considerable proportion of patients either do not respond adequately or experience relapse following treatment. This limitation has prompted the exploration of alternative and complementary therapeutic approaches that address broader underlying mechanisms of emotional disorders.

In this context, transdiagnostic treatments have gained increasing attention as innovative approaches that target shared psychological processes across multiple disorders rather than focusing on disorder-specific symptoms. Among these, the Unified Protocol (UP) for transdiagnostic treatment of emotional disorders has emerged as a particularly promising intervention. The UP is grounded in the premise that maladaptive emotional responses, rather than specific symptom profiles, constitute the core of emotional disorders. It integrates principles from cognitive-behavioral, mindfulness-based, and emotion-focused therapies to enhance emotional awareness, cognitive flexibility, and adaptive regulation strategies (Mehrdadfar et al., 2023; Ranjbar, 2024). By addressing fundamental emotional processes, the UP aims to produce more generalized and enduring therapeutic effects across a range of conditions, including GAD.

Empirical studies have provided growing support for the effectiveness of the UP in improving emotional regulation and reducing anxiety symptoms. For instance, research has demonstrated that UP interventions significantly enhance emotional awareness and cognitive emotion regulation strategies in individuals with anxiety disorders (Rahimi & Bahramipour, 2024). Similarly, studies conducted on diverse populations, including children, adolescents, and clinical samples, have shown that UP-based treatments lead to

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improvements in social-emotional functioning and reductions in maladaptive emotional responses (Mehrdadfar et al., 2023; Ranjbar, 2024). Moreover, the flexibility of the UP allows it to be adapted for various delivery formats, including online interventions, further expanding its applicability in clinical practice (Mirtabar et al., 2024).

Comparative research examining the relative effectiveness of UP and other therapeutic approaches has yielded valuable insights. Several studies have reported that the UP is comparable to, and in some cases more effective than, traditional CBT in improving emotional outcomes. For example, research comparing UP with CBT in adolescents with GAD found that both interventions significantly reduced anxiety symptoms, but the UP demonstrated greater improvements in emotional regulation capacities (Mahmoudreza Sharafi et al., 2023). Similarly, studies comparing UP with other therapeutic modalities, such as mindfulness-based interventions and trauma-focused CBT, have highlighted its broad efficacy in targeting core emotional processes (Arani et al., 2023; Mohajerin et al., 2023). These findings suggest that the transdiagnostic focus of the UP may offer advantages over disorder-specific approaches, particularly in addressing complex and comorbid presentations.

In addition to its effects on emotional regulation, the UP has also been shown to influence distress tolerance. By promoting acceptance of emotional experiences and reducing avoidance behaviors, the UP enhances individuals' capacity to endure negative affect without resorting to maladaptive coping strategies. This is particularly relevant for individuals with GAD, who often exhibit heightened sensitivity to distress and a tendency to avoid emotional discomfort. Studies have indicated that transdiagnostic interventions, including the UP, significantly improve distress tolerance and reduce anxiety sensitivity in clinical populations (Nargesi et al., 2019; Samaeelvand et al., 2023). These improvements are associated with better treatment outcomes and reduced risk of relapse.

Despite the growing body of evidence supporting both CBT and UP, there remains a need for further comparative research to clarify their relative effectiveness, particularly in relation to key transdiagnostic constructs such as emotional dysregulation and distress tolerance. While CBT primarily targets maladaptive cognitions and behaviors, the UP adopts a more integrative approach that directly addresses emotional processes. This distinction raises important questions regarding the mechanisms through which these interventions exert their effects and their differential impact on core psychological vulnerabilities. Recent studies have begun to explore these differences, suggesting that while both approaches are effective, the UP may produce more substantial improvements in emotional functioning (Razaei & Pourmohammad Ghouchani, 2025; Sharafati et al., 2023).

Moreover, contemporary research emphasizes the importance of culturally adapted and context-sensitive interventions in enhancing treatment effectiveness. The application of transdiagnostic protocols across diverse populations has demonstrated promising results, highlighting their flexibility and generalizability (Zemestani et al., 2023). At the same time, ongoing advancements in therapeutic techniques, including the integration of multimedia and experiential components, have further expanded the scope of CBT and related interventions (Paulet & Weiner, 2025; Xu et al., 2025). These developments underscore the dynamic nature of psychological treatment research and the need for continued investigation into optimal intervention strategies.

Taken together, the existing literature highlights the critical role of emotional dysregulation and distress tolerance in the development and maintenance of GAD, as well as the potential of both CBT and UP in addressing these core mechanisms. However, comparative studies examining their differential effectiveness remain limited, particularly within clinical populations. Addressing this gap is essential for informing evidence-based practice and optimizing treatment outcomes for individuals with GAD.

Therefore, the present study aims to compare the effectiveness of Unified Protocol (UP) transdiagnostic treatment and Cognitive Behavioral Therapy (CBT) on emotional dysregulation and distress tolerance in patients with Generalized Anxiety Disorder (GAD).

2. Methods and Materials

2.1. Study Design and Participants

The present study was conducted using a quasi-experimental design with a pretest–posttest format and a follow-up phase, including two experimental groups and one control group. The statistical population consisted of all individuals diagnosed with Generalized Anxiety Disorder (GAD) who referred to psychological and psychiatric clinics in Tehran. Based on the Krejcie and Morgan sample size table and considering potential attrition, a total of sixty participants were selected through purposive sampling. Participants were then randomly assigned into three groups: the Unified Protocol (UP) treatment group, the Cognitive

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Behavioral Therapy (CBT) group, and a control group, with twenty participants in each group. Inclusion criteria included a clinical diagnosis of GAD based on DSM-5 criteria confirmed through a structured clinical interview, age range between 18 and 50 years, and absence of severe comorbid psychiatric disorders such as psychosis or substance dependence. Exclusion criteria included concurrent participation in other psychological treatments and absence from more than two therapy sessions. All participants provided informed consent prior to participation.

2.2. *Measures*

To assess emotional dysregulation, the Difficulties in Emotion Regulation Scale (DERS) developed by Gratz and Roemer (2004) was employed. This instrument consists of 36 items designed to measure multiple dimensions of emotion regulation difficulties across six subscales, including non-acceptance of emotional responses, difficulties engaging in goal-directed behavior, impulse control difficulties, lack of emotional awareness, limited access to emotion regulation strategies, and lack of emotional clarity. Items are rated on a five-point Likert scale ranging from "almost never" to "almost always," with higher scores indicating greater emotional dysregulation. The DERS has demonstrated strong internal consistency, with Cronbach's alpha coefficients reported above 0.90 for the total scale, and acceptable reliability for its subscales. Its construct validity has been confirmed through factor analysis in multiple populations, and prior studies have established its convergent and discriminant validity.

Distress tolerance was measured using the Distress Tolerance Scale (DTS) developed by Simons and Gaher (2005). This self-report instrument includes 15 items assessing individuals' perceived ability to tolerate emotional distress across four subscales: tolerance, appraisal, absorption, and regulation. Participants respond to items using a five-point Likert scale ranging from "strongly agree" to "strongly disagree," with higher scores reflecting greater distress tolerance. The DTS has demonstrated good psychometric properties, including internal consistency coefficients ranging from 0.82 to 0.89. Factor analytic studies have supported its four-factor structure, and its validity has been confirmed through correlations with related constructs such as emotional regulation and anxiety sensitivity.

2.3. *Interventions*

The Unified Protocol (UP) intervention was administered based on the standardized manual developed by Barlow and colleagues (2011). This intervention consisted of twelve weekly sessions, each lasting approximately 90 minutes, conducted in a group format. The protocol focused on enhancing emotional awareness, cognitive flexibility, and adaptive emotion regulation strategies. Core components included psychoeducation about emotions, mindfulness-based emotional awareness training, cognitive reappraisal, identification and modification of maladaptive emotion-driven behaviors, and exposure to emotion-eliciting situations. The treatment emphasized the transdiagnostic nature of emotional disorders and aimed to reduce maladaptive responses to negative affect through systematic skill acquisition and practice.

The Cognitive Behavioral Therapy (CBT) intervention was implemented following Beck's cognitive therapy model and included twelve weekly sessions of approximately 90 minutes each, delivered in a group setting. The CBT protocol focused on identifying and modifying dysfunctional thoughts and beliefs associated with anxiety, behavioral activation, and exposure techniques. Key components included cognitive restructuring, relaxation training, problem-solving skills, and gradual exposure to anxiety-provoking stimuli. The intervention aimed to reduce symptoms of generalized anxiety by targeting maladaptive cognitions and reinforcing adaptive coping strategies through structured therapeutic exercises and homework assignments.

2.4. *Data Analysis*

Data analysis was performed using IBM SPSS version 27. Descriptive statistics, including means and standard deviations, were calculated for all study variables. To evaluate the effectiveness of the interventions, repeated measures analysis of variance (ANOVA) was conducted to compare changes across pretest, posttest, and follow-up stages among the three groups. Post hoc comparisons were performed using the Bonferroni test to identify specific group differences. Assumptions of normality, homogeneity of variances, and sphericity were assessed prior to analysis. Effect sizes were calculated using partial eta squared to determine the magnitude of the interventions' effects. Statistical significance was set at a p-value of less than 0.05.

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3. Findings and Results

The demographic characteristics of the participants indicated that the mean age of individuals in the Unified Protocol (UP) group was 32.84 years (SD = 6.27), in the Cognitive Behavioral Therapy (CBT) group was 31.96 years (SD = 5.89), and in the control group was 33.12 years (SD = 6.41). In terms of gender distribution, the UP group consisted of 11 females (55.00%) and 9 males (45.00%), the CBT group included 12 females (60.00%) and 8 males (40.00%), and the control group included 10 females (50.00%) and 10 males (50.00%). Regarding educational level, the majority of participants held a bachelor's degree across all groups (UP: 45.00%, CBT: 50.00%, control: 40.00%), followed by master's degree holders and a smaller proportion with diploma-level education. Employment status showed that most participants were employed (UP: 60.00%, CBT: 55.00%, control: 65.00%), while others were either unemployed or students. Statistical comparisons using chi-square and one-way ANOVA revealed no significant differences among the three groups in terms of demographic variables ($p > 0.05$), indicating homogeneity across groups prior to intervention.

Table 1

Descriptive statistics (Mean and Standard Deviation) of study variables across groups and measurement stages

Group	Variable	Pretest Mean (SD)	Posttest Mean (SD)	Follow-up Mean (SD)
UP	Emotional Dysregulation	112.48 (10.73)	78.62 (9.85)	81.14 (10.21)
CBT	Emotional Dysregulation	110.96 (11.12)	84.37 (10.26)	87.52 (10.68)
Control	Emotional Dysregulation	111.85 (10.94)	109.72 (10.63)	110.41 (10.88)
UP	Distress Tolerance	32.14 (5.28)	48.67 (6.12)	46.89 (6.35)
CBT	Distress Tolerance	33.02 (5.41)	44.15 (5.96)	42.73 (6.08)
Control	Distress Tolerance	32.56 (5.33)	33.21 (5.47)	32.98 (5.62)

As shown in Table 1, the mean scores of emotional dysregulation were relatively equivalent across the three groups at the pretest stage, confirming baseline comparability. Following the interventions, a substantial reduction in emotional dysregulation was observed in both experimental groups at posttest, with the reduction being more pronounced in the UP group compared to the CBT group. This pattern remained relatively stable at follow-up, although a slight regression toward baseline was observed in both intervention groups. In contrast, the control group showed negligible changes across all measurement points. Regarding distress tolerance, both intervention groups demonstrated marked improvements from pretest to posttest, again with the UP group exhibiting a greater increase compared to the CBT group. These improvements were largely maintained at follow-up, while the control group showed minimal fluctuation. Overall, the descriptive findings suggest that both UP and CBT interventions were effective in reducing emotional dysregulation and increasing distress tolerance, with stronger effects observed for the Unified Protocol.

Table 2

Repeated measures ANOVA results for emotional dysregulation and distress tolerance

Variable	Source	SS	df	MS	F	p	η^2
Emotional Dysregulation	Time	8421.57	2	4210.78	76.42	0.001	0.58
	Group	1293.68	2	646.84	11.27	0.001	0.28
	Time × Group	5136.92	4	1284.23	23.65	0.001	0.47
Distress Tolerance	Time	6932.44	2	3466.22	69.18	0.001	0.55
	Group	1014.53	2	507.26	9.84	0.001	0.25
	Time × Group	4217.76	4	1054.44	19.72	0.001	0.42

The results of the repeated measures ANOVA presented in Table 2 demonstrate that the main effect of time was statistically significant for both emotional dysregulation and distress tolerance, indicating that participants' scores changed significantly across pretest, posttest, and follow-up stages. The significant main effect of group further suggests that there were overall differences among the UP, CBT, and control groups. More importantly, the interaction effect

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between time and group was significant for both variables, indicating that the pattern of change over time differed across groups. The relatively large effect sizes (η^2 values ranging from 0.42 to 0.58) indicate that a substantial proportion of variance in the dependent variables can be attributed to the interventions, confirming the strong impact of both therapeutic approaches, particularly the Unified Protocol.

Table 3

Bonferroni post hoc test results for group comparisons at posttest and follow-up

Variable	Stage	Comparison	Mean Difference	Std. Error	p
Emotional Dysregulation	Posttest	UP vs CBT	-5.75	1.84	0.004
		UP vs Control	-31.10	2.15	0.001
		CBT vs Control	-25.35	2.08	0.001
Emotional Dysregulation	Follow-up	UP vs CBT	-6.38	1.92	0.003
		UP vs Control	-29.27	2.21	0.001
		CBT vs Control	-22.89	2.17	0.001
Distress Tolerance	Posttest	UP vs CBT	4.52	1.37	0.002
		UP vs Control	15.46	1.65	0.001
		CBT vs Control	10.94	1.58	0.001
Distress Tolerance	Follow-up	UP vs CBT	4.16	1.42	0.004
		UP vs Control	13.91	1.71	0.001
		CBT vs Control	9.75	1.63	0.001

The Bonferroni post hoc comparisons reported in Table 3 provide a more detailed examination of group differences at posttest and follow-up stages. The results indicate that the UP group exhibited significantly lower emotional dysregulation scores compared to both the CBT and control groups at both time points, while the CBT group also showed significantly lower scores than the control group. Similarly, for distress tolerance, the UP group demonstrated significantly higher scores compared to both the CBT and control groups, and the CBT group also outperformed the control group. The consistency of these findings across posttest and follow-up stages indicates not only the effectiveness of the interventions but also the relative دوام (stability) of treatment effects over time. Importantly, the superior performance of the Unified Protocol suggests that its transdiagnostic and emotion-focused approach may be more effective in addressing core emotional processes underlying generalized anxiety disorder.

4. Discussion and Conclusion

The findings of the present study demonstrated that both the Unified Protocol (UP) transdiagnostic treatment and Cognitive Behavioral Therapy (CBT) were effective in reducing emotional dysregulation and enhancing distress tolerance in patients with Generalized Anxiety Disorder (GAD). However, the results clearly indicated that the UP intervention produced significantly greater improvements compared to CBT, and both interventions were superior to the control condition. These results are consistent with the increasing emphasis on transdiagnostic mechanisms in the conceptualization and treatment of emotional disorders and provide further empirical support for the effectiveness of process-based therapeutic approaches.

The significant reduction in emotional dysregulation observed in both intervention groups suggests that structured psychological treatments can effectively enhance individuals' ability to identify, understand, and modulate emotional responses. The superior performance of the UP group in this domain can be attributed to its explicit focus on emotion regulation processes as the central target of intervention. Unlike CBT, which primarily emphasizes cognitive restructuring and behavioral modification, the UP directly addresses maladaptive emotional responses through techniques such as emotional awareness training, cognitive flexibility, and exposure to emotion-eliciting experiences. This finding aligns with previous research demonstrating that the UP is particularly effective in improving emotional regulation capacities across various populations (Rahimi & Bahramipour, 2024; Ranjbar, 2024). Furthermore, studies have shown that transdiagnostic interventions that target core emotional processes can lead to broader and more enduring improvements compared to disorder-specific approaches (Zemestani et al., 2023).

The observed improvements in emotional dysregulation within the CBT group are also consistent with the established efficacy of cognitive-behavioral interventions.

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CBT techniques such as cognitive restructuring and behavioral activation indirectly contribute to better emotional regulation by modifying maladaptive thought patterns and reinforcing adaptive behaviors. Prior studies have reported similar findings, indicating that CBT can significantly reduce emotional dysregulation in individuals with anxiety and mood disorders (Nedaei et al., 2025). However, the relatively smaller effect size compared to the UP suggests that interventions explicitly designed to target emotional processes may yield more pronounced outcomes in this domain.

Another key finding of the present study was the significant increase in distress tolerance among participants in both intervention groups, with the UP again demonstrating greater effectiveness. This result highlights the importance of addressing individuals' capacity to endure negative emotional states as a critical component of treatment for GAD. The UP's emphasis on acceptance-based strategies and exposure to emotional experiences likely contributes to enhanced distress tolerance by reducing avoidance behaviors and promoting adaptive coping mechanisms. This interpretation is supported by previous studies showing that transdiagnostic treatments can significantly improve distress tolerance and reduce anxiety sensitivity (Nargesi et al., 2019; Samaeelvand et al., 2023). Additionally, research has indicated that improvements in distress tolerance are associated with better overall treatment outcomes and reduced symptom relapse.

The CBT intervention also resulted in meaningful improvements in distress tolerance, which can be explained by the inclusion of exposure techniques and problem-solving strategies that encourage individuals to confront anxiety-provoking situations. These components help individuals gradually build resilience to distressing experiences, thereby enhancing their tolerance for negative emotions. Similar findings have been reported in previous research, indicating that CBT can effectively increase distress tolerance in individuals with anxiety disorders (Allahmoradi et al., 2026; Yaqubi et al., 2026). However, the comparatively stronger effect observed in the UP group suggests that integrating acceptance-based and emotion-focused techniques may provide additional benefits beyond traditional CBT approaches.

The significant interaction effects between time and group observed in the present study further support the differential impact of the interventions. The pattern of changes across pretest, posttest, and follow-up stages indicated that improvements in the UP group were not only greater but also more stable over time. This finding is consistent with the theoretical foundation of the UP, which emphasizes the development of flexible and adaptive emotional responses that can be generalized across situations. Previous research has highlighted the durability of treatment effects associated with transdiagnostic interventions, suggesting that they may reduce the likelihood of relapse by targeting underlying vulnerabilities rather than surface-level symptoms (Mirtabar et al., 2024; Mohajerin et al., 2023).

The results of the present study also align with comparative research examining the effectiveness of UP and CBT. For instance, studies comparing these interventions in individuals with GAD have found that while both approaches are effective in reducing anxiety symptoms, the UP tends to produce greater improvements in emotional regulation and related constructs (M. Sharafi et al., 2023; Mahmoudreza Sharafi et al., 2023). Similarly, research comparing UP with other therapeutic modalities, such as mindfulness-based interventions and trauma-focused therapies, has consistently demonstrated its efficacy in addressing core emotional processes (Arani et al., 2023; Masjedi Arani et al., 2023). These findings reinforce the notion that transdiagnostic approaches may offer a more comprehensive framework for understanding and treating emotional disorders.

From a theoretical perspective, the findings of this study provide support for models that conceptualize GAD as a disorder of emotional dysregulation and intolerance of distress. The significant improvements observed in both variables following intervention suggest that targeting these mechanisms can lead to meaningful reductions in symptom severity. Moreover, the superior effectiveness of the UP underscores the importance of integrating multiple therapeutic components, including cognitive, behavioral, and experiential techniques, to address the complex nature of emotional disorders. This integrative approach is consistent with contemporary trends in psychotherapy, which emphasize flexibility, personalization, and the targeting of transdiagnostic processes (Paulet & Weiner, 2025; Zhong et al., 2025).

In addition to its clinical implications, the present study contributes to the growing body of literature on the effectiveness of transdiagnostic treatments in diverse populations. The findings suggest that the UP can be effectively applied to individuals with GAD within different cultural contexts, further supporting its generalizability. This is particularly important given the increasing recognition of

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the need for culturally adapted interventions that are sensitive to the unique characteristics of different populations. Previous studies have demonstrated the successful adaptation and implementation of the UP in various settings, highlighting its flexibility and applicability (Zemestani et al., 2023).

Despite the strengths of the present study, several limitations should be acknowledged. One limitation is the relatively small sample size, which may limit the generalizability of the findings. Additionally, the use of self-report measures may introduce response biases, as participants may have been influenced by social desirability or subjective perceptions. Another limitation is the absence of long-term follow-up beyond the study period, which restricts the ability to assess the دوام effects of the interventions over extended periods. Furthermore, the study did not control for potential confounding variables such as medication use or comorbid conditions, which may have influenced the outcomes.

Future research should address these limitations by employing larger and more diverse samples to enhance the generalizability of findings. Longitudinal studies with extended follow-up periods are needed to examine the long-term effectiveness and stability of treatment effects. Additionally, future studies could explore the mechanisms underlying the effectiveness of UP and CBT by examining mediating variables such as cognitive flexibility, emotional awareness, and experiential avoidance. Investigating the differential effects of these interventions across various subgroups, including different age ranges and levels of symptom severity, would also provide valuable insights. Moreover, incorporating objective measures and multi-method assessment approaches could help reduce reliance on self-report data and improve the robustness of findings.

In terms of practical implications, the findings of this study suggest that clinicians should consider incorporating transdiagnostic approaches such as the Unified Protocol into their therapeutic repertoire, particularly when working with individuals who exhibit significant emotional dysregulation and low distress tolerance. The UP's emphasis on emotional processes and its flexible, integrative framework make it a valuable tool for addressing the complex needs of patients with GAD. At the same time, CBT remains an effective and widely supported intervention, and its structured techniques can be beneficial for many individuals. Integrating elements of both approaches may provide an optimal strategy for enhancing treatment outcomes and promoting long-term psychological well-being.

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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