



Research Article

Religiously Integrated Cognitive Behavioral Therapy for Generalized Anxiety Disorder: A Randomized Controlled Trial*

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Abstract

While Cognitive Behavioral Therapy is effective in treating anxiety disorders, there is a growing need to integrate culturally meaningful elements into treatment. This study examined the impact of a newly developed religiously integrated cognitive behavioral therapy (R-CBT) group program on anxiety and well-being in young adults diagnosed with Generalized Anxiety Disorder (GAD). A 3×3 experimental design was used, involving 33 participants randomly assigned to one of three groups. The first group received a 10-session R-CBT program, the second group received a traditional 10-session CBT program tailored for GAD, and the third group, serving as a waitlist control, received no intervention. Quantitative findings revealed that both R-CBT and CBT significantly reduced anxiety symptoms over time. Notably, pre-test anxiety scores were significantly higher than follow-up scores in both intervention groups. Regarding well-being, the R-CBT group demonstrated a significant increase at post-test compared to the control group, whereas the CBT group showed significant improvements at follow-up. These results suggest that both interventions are effective for reducing anxiety, but that R-CBT may facilitate earlier improvements in well-being, serving as a culturally adaptable and effective alternative to traditional CBT by addressing religious dimensions relevant to clients' lived experiences.

Keywords:

Religiously integrated cognitive behavioral therapy • Spiritual psychology • Generalized anxiety disorder • Well-being • Group therapy

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Introduction

Generalized Anxiety Disorder (GAD) is characterized by persistent and excessive worry lasting for at least six months, during which the individual finds it difficult to control their worry, experiences restlessness, struggles with concentration, feels physical tension, suffers from sleep disturbances, and is easily fatigued (APA, 2022). The lifetime prevalence of anxiety disorders is estimated at 4.5 % globally, with the condition being 1.66 times more common in women than in men. The highest global prevalence rates have been observed in specific regions, reaching up to 8,671 cases per 100,000 individuals. In comparison, the prevalence rate in Turkey is reported as 4,820 cases per 100,000 individuals (4.82 %) (Global Burden of Disease Study, 2019).

Severe anxiety represents one of the most disruptive barriers to individual well-being, substantially impairing daily functioning. Individuals with anxiety disorders may also experience increased levels of anger and impaired anger control (Erdem et al., 2008). Indeed, studies have shown that individuals with GAD exhibit higher levels of anger (Hawkins & Cogle, 2011) and lower levels of anger control (de Bles et al., 2019; Deschenes et al., 2012). GAD also has a notable impact on sleep quality (Carbone et al., 2023; Li et al., 2019). In a study conducted with 789 participants, 36.3% of the sample reported difficulty falling asleep, 33.1% reported difficulty maintaining sleep, and 33% complained of waking up too early in the morning. Furthermore, 55.5% of these individuals stated that their insomnia symptoms significantly impaired their daily functioning (Ferre Navarrete et al., 2016).

Individuals diagnosed with Generalized Anxiety Disorder (GAD) report significantly lower levels of life satisfaction compared to those without the disorder (Barrera & Norton, 2009; Peixoto et al., 2023). Beyond its psychological toll, GAD also carries important implications for physical health. For example, emerging evidence suggests that GAD may exacerbate the progression of cardiovascular diseases (Celeno et al., 2016). Moreover, experiencing severe GAD is associated with an elevated risk of developing comorbid psychiatric conditions, particularly mood disorders and other anxiety-related disorders (Ruscio et al., 2007). In addition, GAD is linked to reduced work productivity and constitutes a substantial economic burden, primarily due to increased reliance on primary healthcare services (Duong et al., 2024; Kavelaars et al., 2023). Taken together, these findings underscore the importance of addressing anxiety disorders through both effective treatment and preventive interventions.

Psychotherapy is widely recognized as an effective intervention for the treatment of Generalized Anxiety Disorder (GAD) (Locke et al., 2015; Mishra & Varma, 2023). A meta-analysis revealed that while pharmacotherapy yielded a moderate effect size of 0.38, psychotherapy demonstrated a substantially larger effect size of 0.76, suggesting superior treatment efficacy (Carl et al., 2020). A range of psychotherapeutic

approaches has been employed in the treatment of GAD, including Dialectical Behavior Therapy (Afshari & Hasani, 2020; Babaheydari et al., 2024), Psychodynamic Therapy (Çitak et al., 2021; Leichsenring et al., 2020), Acceptance and Commitment Therapy (Haller et al., 2021; Hasheminasab et al., 2015), Mindfulness-Based Therapies (Navarro-Haro et al., 2019; Williams et al., 2023), and Emotion-Focused Therapies (O’Connell Kent et al. 2021; Timulak et al., 2017). Among these, Cognitive Behavioral Therapy (CBT) has consistently demonstrated long-term effectiveness and is often regarded as a first-line treatment for GAD (Newman et al., 2022; Papola et al., 2024). This underscores the robust and central role of CBT in the treatment of GAD, while acknowledging the value of alternative therapeutic modalities.

Theoretical framework

Religion and spirituality are increasingly recognized as important factors in psychological well-being (Rosmarin et al., 2021). Empirical studies indicate that individuals with strong religious or spiritual orientations tend to report greater happiness, better health outcomes, and more effective coping resources compared to those who place less emphasis on these domains (Abu-Raiya, 2018; Graça & Brandão, 2024). A comprehensive meta-analysis by Coelho-Junior et al. (2022), encompassing 102 studies, identified a robust positive association between individuals’ spiritual and religious practices and their mental health. Specifically, higher levels of religiosity and spirituality are positively correlated with stronger social relationships, enhanced psychological well-being, greater life satisfaction, and a deeper sense of meaning in life. Conversely, these constructs are negatively associated with mental health difficulties such as depression and anxiety.

The existing literature suggests that the integration of religious elements into the assessment and/or treatment of anxiety may yield additional therapeutic benefits (Stewart et al., 2019). In support of this perspective, multiple studies have reported that individuals with higher levels of religiosity tend to exhibit lower levels of anxiety (Abdel-Khalek et al., 2019). A comprehensive review by Khalaf et al. (2015) concluded that specific dimensions of religiosity, as well as targeted religious interventions, may exert a protective effect against Generalized Anxiety Disorder (GAD). Furthermore, cultivating a positive relationship with God has been positively associated with reductions in anxiety symptoms (Stewart et al., 2019).

Although Cognitive Behavioral Therapy (CBT) is an effective treatment modality, religious individuals are often underrepresented in its clinical applications. Most studies that have integrated religious or spiritual components into CBT have been conducted with Christian samples (Rosmarin et al., 2019). Moreover, one of the core principles of CBT its emphasis on personal autonomy and individualism may conflict with the values of some religious individuals. This emphasis on individualism, in

particular, may be perceived as uncomfortable or misaligned with the belief systems of certain religious clients (Hodge & Nadir, 2008; Propst et al., 1992).

In many cultural contexts, religious individuals encounter barriers to seeking help from secular therapists or engaging in psychotherapy due to faith-based concerns (Hodge & Nadir, 2008; Mayers et al., 2007). Psychotherapy is frequently perceived as a secular practice that may be misaligned with personal belief systems, potentially discouraging help-seeking behaviors and leaving many in psychological distress without access to appropriate support. Within this context, culturally adapted therapeutic approaches that incorporate the norms and values of the target population have been shown to significantly enhance treatment efficacy. Empirical evidence suggests that culturally sensitive interventions lead to more favorable outcomes, particularly among populations for whom standard therapeutic models may not be a good cultural fit (Kalibetsava et al., 2014). Systematic reviews and meta-analyses further support these findings, demonstrating that culturally adapted therapies consistently yield superior outcomes compared to non-adapted interventions or control groups (Anik et al., 2021; Hall et al., 2016; Rathod et al., 2018).

When therapists communicate using language that aligns with the client's cultural background and value system, the therapeutic alliance is significantly strengthened. Importantly, cultural sensitivity extends beyond language; it involves incorporating behaviors, practices, and worldviews that are consistent with the client's lived experience and belief structure. This alignment has been shown to positively influence the client's confidence in therapy and enhance their expectations for recovery (Algahtani et al., 2019). When clinicians explicitly acknowledge and integrate the client's belief system into the therapeutic process, it can foster greater trust in the therapeutic relationship and increase treatment expectancy (Hassan et al., 2024). For many individuals, religious and spiritual values function as powerful internal motivators. As such, therapeutic approaches that resonate with these values can facilitate the development of a stronger therapeutic bond—particularly during the early stages of treatment (Koenig et al., 2016).

The therapeutic alliance has been empirically demonstrated to play a critical role in treatment outcomes (Ardito & Rabellino, 2011; Del Re et al., 2021). One of its key benefits lies in its positive effect on treatment adherence, as stronger alliances are associated with reduced dropout rates (Murphy et al., 2022; Sharf et al., 2010). Moreover, explicitly framing therapy as religiously oriented may help mitigate the stigma often associated with mental health treatment, thereby encouraging clients to engage in therapy with greater openness and reduced hesitation (Azhar et al., 1994).

Such culturally attuned approaches can help address common barriers to treatment—such as fear of psychological change, resistance to therapeutic processes, or the perception that conventional therapies are misaligned with one's belief system. Additionally,

they may provide a more acceptable point of therapeutic entry for individuals who have had previous negative experiences with mental health care (Algahtani et al., 2019). Ultimately, this culturally responsive orientation serves as a foundation for making therapy more accessible, acceptable, and effective for diverse populations.

The reviewed literature indicates that religion and spirituality function as significant coping resources in individuals' lives (Mosqueiro et al., 2020). Furthermore, higher levels of psychological well-being are consistently associated with lower prevalence of mental health disorders (Lucchetti et al., 2021). Recognizing and addressing these associations is essential for enhancing the cultural sensitivity and effectiveness of mental health interventions.

In this context, the present study aims to empirically investigate the impact of a psychotherapeutic intervention enriched with religious and spiritual content on individuals' engagement in the therapeutic process. To this end, a 10-week intervention program was developed, integrating religious and spiritual elements into a cognitive behavioral framework. The program is specifically designed to enhance participation among religious individuals by addressing the lack of cultural congruence often observed in standard mental health services. The overarching goal is to contribute to the development of more inclusive and effective mental health care models by aligning interventions with individuals' belief and value systems.

Accordingly, the study is guided by the following hypotheses:

- **H1:** Religiously integrated cognitive behavioral group therapy will be more effective in reducing participants' levels of generalized anxiety compared to traditional CBT group therapy and a waitlist control group, and these effects will be maintained at a two-month follow-up.
- **H2:** Religiously integrated cognitive behavioral group therapy will be more effective in enhancing participants' well-being compared to traditional CBT group therapy and a waitlist control group, with these effects also sustained at a two-month follow-up.

Method

The study employed a 3×3 mixed experimental design. The first factor was group with three levels: (1) Religiously Integrated Cognitive Behavioral Therapy (CBT), (2) Cognitive Behavioral Therapy, and (3) Wait-list Control (WLCG). The second factor was time with three levels: pre-test (baseline), post-test (immediately after the intervention), and follow-up (two months later). Thus, the design allowed for testing both within-subject changes across time and between-group differences, as well as the interaction between group and time.

Recruitment

The first author prepared a digital media advertisement to collect participant applications. The visual design included information such as the aim of the group, the group facilitator's name, the fact that participation was free of charge, contact details, and a Google Form link for application. The form provided further details on the group's objective, session durations, and eligibility criteria. The digital flyer was disseminated through WhatsApp groups and shared via the official social media accounts of the Ibn Haldun University Application and Research Center (IPAM).

A total of 257 individuals applied and completed the pre-test assessments using the Generalized Anxiety Disorder Scale (GAD-7) and the Anxious Thoughts Inventory (AnTI) and PERMA Scale. Applicants' attitudes toward religion were measured using the OK-Religious Attitudes Scale. Participants between the ages of 16 and 60 were assessed for eligibility through their scale responses and a clinical interview based on the Structured Clinical Interview for DSM-5 (SCID-5-CV) (First et. al., 2015). Those who met the inclusion criteria were randomly assigned to intervention and control groups. The intervention was conducted online via a virtual platform.

Before randomization, we conducted total of a small feasibility pre-pilot to optimize procedures and materials. This run focused on platform workflow (Zoom) session pacing, clarity of instructions, and adherence supports (e.g., WhatsApp reminders). No standardized outcome scales were administered; instead, we monitored attendance/retention and gathered participant feedback on usability and acceptability. Lessons learned were used to refine session timing, examples, and homework instructions prior to the randomized trial.

Inclusion and exclusion criteria

Among 257 participants the decided group of 33 participants were selected based on the following inclusion criteria: a) being between 18 and 45 years of age, b) willingness to participate in 10 weekly group sessions, c) having a GAD-7 score of 5 or higher, d) exhibiting symptoms of generalized anxiety disorder as determined by the Structured Clinical Interview for DSM-5 (SCID-5-CV), e) having regular access to the internet. The exclusion criteria were as follows: a) currently receiving any form of psychological treatment, b) having previously undergone long-term psychotherapy, c) having a primary comorbid psychological disorder other than generalized anxiety disorder, d) expressing suicidal ideation, e) having completed only primary school education. Additionally, candidates were excluded from the study if: f) they did not report any psychological complaints on the application form, g) their application forms were incomplete, h) they could not be reached, or i) they withdrew due to ineligibility.

Participants

After all filtering and excluding criteria, initially, 46 participants were obtained. These were distributed equally into three groups, as 16, 15, 15. However, due to voluntary withdrawal and external circumstance (e.g., personal or health-related reasons,) the number reduced into 33 (see Figure 1). Finally, a total of 33 female participants with a mean age of 33.21 years ($SD = 7.81$, range = 19–43) were included in the study. Of these, 12 were randomized to the intervention group, 9 to the comparison group, and 12 to the waitlist control group. Regarding educational status, 18.2% of participants were high school students, 24.2% were undergraduate students, 42.4% were university graduates, and 15.2% were postgraduate students. In terms of employment status, 36.4% of participants were employed, while 63.6% were unemployed or homemakers. With respect to marital status, 33.3% were single, 60.6% were married, 3.0% were divorced, and 3.0% were classified as “other.” Participants’ perceived socioeconomic status was reported as 12.1% low, 42.4% moderate, 30.3% good, and 15.2% very good. All demographic data are summarized in Table 1.

Study flow diagram

Fig. 1.

Participants’ recruitment and progress throughout the program

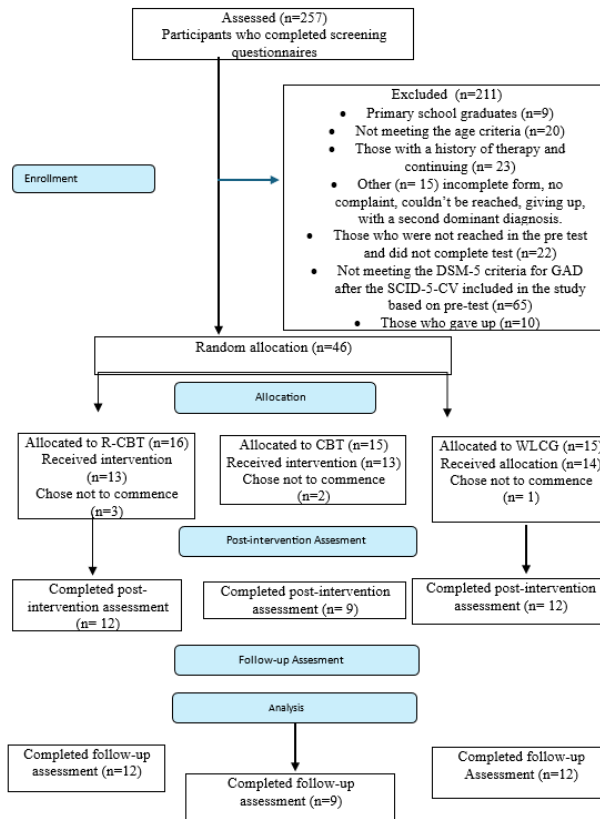


Table 1 summarizes the demographic variables (education level, working status, marital status, and perceived socio-economic status) of participants in the R-CBT, CBT, and wait-list control groups.

Table 1.
Participant's characteristics

Variables	R-CBT (N=12)		CBT (N=9)		WLCG (N=12)	
	f	%	f	%	f	%
<i>Education level</i>						
High school	4	33.3	2	22.2	0	0.0
Undergraduate student	1	8.3	4	44.4	3	25.0
Bachelor's degree	5	41.7	2	22.2	7	58.3
Graduate student	2	16.7	1	11.1	2	16.7
<i>Working status</i>						
Full-time worker	5	41.7	2	22.2	5	41.7
Staying home	7	58.3	7	77.8	7	58.3
<i>Marital status</i>						
Single	2	16.7	5	55.6	4	33.3
Married	8	66.7	4	44.4	8	66.7
Divorced	1	8.3	0	0.0	0	0.0
Other	1	8.3	0	0.0	0	0.0
<i>Perceived socio-economic status</i>						
Poor	1	8.3	2	22.2	1	8.3
Medium	6	50.0	3	33.3	5	41.7
Good	4	33.3	3	33.3	3	25.0
Very good	1	8.3	1	11.1	3	25.0

Note. R-CBT= Religiously Cognitive Behavioral Therapy, CBT= Cognitive Behavioral Therapy, WLCG=Waiting List Control Group

Measurements

Demographic Information Form: The demographic information form, developed by the researcher, included questions on age, gender, educational status, marital status, employment status, income level, city of residence, prior psychotherapy experience, and an open-ended question regarding the most distressing psychological complaints.

Generalized Anxiety Disorder Scale (GAD-7): The GAD-7 is a 7-item screening instrument developed by Spitzer et al. (2006) to measure generalized anxiety disorder symptoms. It uses a 4-point Likert scale (0 = Not at all; 1 = Several days; 2 = More than half the days; 3 = Nearly every day). Cut-off scores are set at 5 (mild), 10 (moderate), and 15 (severe). The Turkish validity and reliability study was conducted by Konkan et al. (2013), reporting a Cronbach's alpha of 0.852. Test-retest reliability was assessed by re-administering the GAD-7 to 39 patients after three weeks, showing no significant differences between the two administrations ($p > 0.05$). Confirmatory factor analysis indicated a unidimensional factor structure for the seven items.

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.904, indicating excellent suitability, and Bartlett's test of sphericity was significant ($\chi^2 = 824.041$, $p = 0.001$). Concurrent validity was supported by positive and significant correlations between GAD-7 scores and depression ($r = 0.632$), state anxiety ($r = 0.573$), and trait anxiety ($r = 0.671$). In this sample ($N = 33$), the internal consistency of the GAD-7 was examined across all measurement points. Cronbach's alpha values were 0.77 at pre-test, 0.77 at post-test, and 0.79 at the 2-month follow-up. These results indicate acceptable to good internal consistency across all time points, supporting the reliability of the GAD-7 for measuring generalized anxiety symptoms in this sample, regardless of participants' group membership.

Anxious Thoughts Inventory (AnTI): The Anxious Thoughts Inventory, developed by Wells (1994), measures components of worry in terms of both process and content. The scale consists of 22 items rated on a 4-point Likert scale (1 = Almost never, 2 = Sometimes, 3 = Often, 4 = Almost always). The Turkish adaptation and validation study conducted by Kart et al. (2020) identified three dimensions, which were renamed from their original labels as environmental domain (6 items), body-related domain (7 items), and metacognitive domain (9 items). In this sample ($N = 33$), the internal consistency of the total AnTI score was examined across all measurement points. Cronbach's alpha values were 0.75 at pre-test, 0.88 at post-test, and 0.90 at the 2-month follow-up. These results indicate acceptable to excellent internal consistency across all time points, supporting the reliability of the scale for measuring anxious thoughts in this sample. Compared to the Turkish validation study, which reported an overall alpha of 0.90 and subscale alphas between 0.80 and 0.86, the findings further support the reliability of the AnTI in measuring anxious thoughts across different groups and contexts.

PERMA Scale: Psychological well-being was measured using the PERMA Well-being Scale, developed by Butler and Kern (2016). The PERMA scale aims to operationalize Martin Seligman's five-dimensional conceptualization of well-being, which includes Positive Emotions, Engagement, Positive Relationships, Meaning, and Accomplishment. The scale consists of 15 items, with 3 items each of the five dimensions. Additionally, Butler and Kern (2016) included 8 filler items in the scale. One of these filler items serves as a general indicator of well-being. The total well-being score is calculated by considering the 15 main items together with the general well-being item. Furthermore, the scale contains 7 other filler items measuring feelings of health (3 items), negative emotions (3 items), and loneliness (1 item).

The possible scores on each subscale (Positive Emotions, Engagement, Positive Relationships, Meaning, Accomplishment) as well as the total well-being score range from 0 to 10. In the Turkish validity and reliability study, the internal consistency

coefficient (Cronbach's alpha) was found to be .91. The test-retest reliability coefficient, based on scores from two administrations, was reported as .83 for the total scale score. The internal consistency reliability coefficients of the subscales ranged between .61 and .81. Item-total correlations varied between .32 and .70 (Demirci et al., 2017). In this sample ($N = 33$), the internal consistency of the total PERMA score was examined across all measurement points. Cronbach's alpha values were 0.83 at pre-test, 0.74 at post-test, and 0.83 at the 2-month follow-up. These results indicate acceptable to good internal consistency across all time points, supporting the reliability of the scale for measuring overall psychological well-being in this sample.

Ok Religious Attitude Scale: The scale, developed by Ok (2011), measures religiosity using a 5-point Likert scale (1 = Strongly disagree, 2 = Disagree somewhat, 3 = Neither agree nor disagree, 4 = Agree somewhat, 5 = Strongly agree). It assesses individuals' general attitudes toward religion. The scale consists of 8 items divided into four subdimensions: cognition, emotion, behavior, and relationship. The cognitive subdimension reflects the individual's views on religion; the emotional subdimension addresses the impact of religion on feelings; the behavioral subdimension refers to the influence of religion on behaviors; and the relationship subdimension reflects the individual's relationship with God. Each subdimension includes two items, with the cognitive items being reverse-coded. The minimum possible score on the scale is 8, and the maximum is 40. Higher scores indicate stronger religious attitudes.

Reliability analyses conducted on two samples yielded Cronbach's alpha coefficients of .81 and .91, respectively. Exploratory factor analyses revealed factor loadings ranging from 0.69 to 0.89 in the first sample, explaining 78% of the total variance. In the second sample, factor loadings ranged from 0.40 to 0.87, with a total variance explanation of 86%. Confirmatory factor analysis showed good fit indices ($\chi^2/df = 1.36$, CFI = 1.00, RMSEA = 0.00, SRMR = 0.00). In this sample ($N = 33$), the internal consistency of the total score was examined. Cronbach's alpha was 0.79. These findings suggest that the scale reliably measures general religious attitudes in this sample, in line with previous reliability analyses that reported Cronbach's alpha coefficients between 0.81 and 0.91.

Statistical Analysis

In the study, three groups were formed: CBT, R-CBT, and a waitlist control group. Measurements were collected from participants at three time points: pre-test, post-test, and a follow-up test two months later. Data analysis was conducted using SPSS version 24.0. In the initial phase, descriptive statistics such as frequency, mean, and standard deviation were calculated to understand the general characteristics of the dataset. To identify potential outliers, Z-scores were calculated and boxplots were generated; observations with Z-scores outside the ± 3 range were considered outliers

(Field, 2018). The analysis revealed no Z-scores beyond this range, and boxplots confirmed the absence of extreme outliers in the dataset.

To evaluate the normality of the data distribution, skewness and kurtosis values were examined. Skewness values ranged between -0.70 and 0.40, and kurtosis values ranged between -1.60 and 0.50. These values fall within the ± 2 threshold, indicating that the data approximated a normal distribution and did not exhibit significant deviation due to outliers (George & Mallery, 2010). Additionally, due to the sample size being below 50, the Shapiro-Wilk test was conducted for a more sensitive assessment of normality. This test is recognized as a powerful method for small samples (Mishra et al., 2019). The results showed that all groups had p-values greater than .05, statistically supporting the assumption of normal distribution.

Following the normality analyses, the equivalence of the groups before the experimental intervention was assessed by examining the pre-test scores, standard deviations, and one-way ANOVA results. Findings related to the Ok Religious Attitude Scale indicated no significant differences among the groups in terms of cognition [$F(2, 30) = 0.86, p > 0.05$], emotion [$F(2, 30) = 0.40, p > 0.05$], behavior [$F(2, 30) = 0.82, p > 0.05$], relationship [$F(2, 30) = 1.17, p > 0.05$], and total scores [$F(2, 30) = 0.33, p > 0.05$]. These results suggest that the groups were homogeneous in terms of religious attitude scores before the intervention. Similarly, no significant differences were found between the groups in terms of pre-test scores for Generalized Anxiety Disorder [$F(2, 30) = 1.90, p > 0.05$], the Anxious Thoughts Inventory total score [$F(2, 30) = 0.07, p > 0.05$], and the PERMA scale total score [$F(2, 30) = 0.90, p > 0.05$]. These findings confirm that all groups demonstrated a homogeneous distribution across all scale scores prior to the experimental procedure. Based on these preliminary analyses, the use of parametric analysis techniques was deemed appropriate.

To examine the effect of the experimental intervention and the persistence of this effect over time, a mixed-design analysis of variance (ANOVA) was conducted. The homogeneity of variances was tested using Levene's test, and the assumption of sphericity was assessed with Mauchly's Test of Sphericity. When the sphericity assumption was violated, the analyses were interpreted using the Greenhouse-Geisser correction (Tabachnick & Fidell, 2019). To identify the source of significant differences between groups, post hoc comparisons were performed using the Bonferroni correction. The study included a total of 33 participants, with 12 in the R-CBT group, 9 in the CBT group, and 12 in the waitlist control group. All statistical analyses were conducted based on these groupings.

Also intention-to-treat analyses were conducted using ANCOVA models predicting post-test and follow-up total scores (PERMA well-being and Anxiety total), adjusting for baseline outcome and age, with group (CBT, R-CBT vs. waitlist control)

as the main factor. Missing post/follow-up data (n=13) were imputed using multiple imputation (M=20; chained equations).

Intervention

Religious Integrated Cognitive Behavioral Therapy

In the present study, a 10-week Religiously Integrated Cognitive Behavioral Therapy (R-CBT) program was developed and implemented, inspired by the work of Pearce et al. (2015). The program was theoretically grounded in Cognitive Behavioral Therapy (CBT), which has been empirically validated for generalized anxiety disorder. CBT principles were integrated with religious and spiritual practices, enhancing cultural sensitivity and ecological validity (Lim et al., 2014) while maintaining a change-focused therapeutic frame.

The intervention was delivered online using the Zoom platform, facilitating participant engagement through live video, audio, and chat functionalities. Session materials and assignments were shared via the platform, enabling structured interaction during group sessions. To further promote adherence and engagement, weekly reminders and supportive messages were disseminated through a dedicated WhatsApp group. Clinical interviews, on the other hand, were conducted online using the same Zoom platform, ensuring consistent communication while maintaining participant safety and convenience.

The program was conducted under the leadership of the first author, an experienced clinical psychologist who has received formal training in cognitive-behavioral therapy (CBT). Supervision was provided by the second author, a professor with expertise in both Psychology and Theology. During the design phase of the intervention, input was also obtained from a licensed clinical psychologist certified in CBT to ensure alignment with CBT principles. This team collectively ensured treatment fidelity and maintained high-quality implementation of the group sessions.

Participants who met the inclusion criteria were randomly assigned to one of the three groups (R-CBT, CBT, or control) using a computer-generated random number sequence. Randomization was conducted after the baseline assessment to ensure proper allocation before the start of the intervention. Following random assignment, participants were informed about the study procedures, and individuals in the waitlist control group were offered the opportunity to participate in the program after the final follow-up assessments.

The intervention consisted of weekly 90-minute sessions over the course of 10 weeks, each session incorporating religious and spiritual practices. All session content and activities were integrated into the standard Cognitive Behavioral Therapy

(CBT) protocol. Each session followed a structured CBT format, including: opening, mood check-in, review of the previous session, homework review, agenda setting, delivery of the core content, assignment of new homework, session summary, and participant feedback. Beyond didactic content, therapist implemented individualized cognitive restructuring (e.g., thought records, behavioral experiments), intolerance-of-uncertainty and exposure-based tasks (including written exposure), and problem-solving training. Psychoeducational components were used strategically to introduce rationales and consolidate skills, but the primary modality was therapy, with between-session practice tailored to case formulation and monitored weekly.

In addition to standard CBT techniques, the program integrated four key religious-spiritual concepts: prayer (*dua*); patience (*sabr*); gratitude (*shukr*); and trust in God (*tawakkul*), as active therapeutic mechanisms. Each concept was deliberately linked to anxiety regulation and supported by both theological tradition and empirical findings. Prayer was used for intention-setting and managing anxiety; *sabr* was practiced during exposure to reduce avoidance; *shukr* was introduced through daily gratitude journaling to counter worry; and *tawakkul* was integrated in sessions on intolerance of uncertainty to foster resilience. Qur’anic references were used to reinforce these practices, ensuring that religious content complemented CBT principles while maintaining cultural and clinical validity.

The first session provided psychoeducational elements on Generalized Anxiety Disorder (GAD) and introduced the rationale for integrating religious and spiritual perspectives into the therapeutic process. In the following sessions, cognitive and behavioral exercises focused on restructuring anxiety through a spiritual-religious lens. These practices included prayer, gratitude, trust in divine will (*tawakkul*), religious meaning-making, and establishing a personal connection with God. Such spiritually grounded techniques were utilized to enhance psychological resilience and deepen the cognitive restructuring process. In support of this approach, Turgut and Ekşi (2022) emphasize that religious and spiritual orientation significantly shape how individuals perceive, interpret, and respond to themselves, events, and the world around them, influencing their thoughts, emotions, and behaviors.

Accordingly, the integration of spiritual content into the psychotherapeutic process both enhanced cultural sensitivity and provided a therapy framework aligned with participants’ systems of meaning. The inclusion of these religious components was intended to support holistic well-being and offer a deeper perspective to the restructuring of dysfunctional cognitions, ultimately strengthening individuals’ coping abilities.

At the end of each session, participants were invited to complete evaluation forms assessing their experience of the process. Additionally, reminders and supportive communications between sessions were employed to ensure continuity and engagement. In the

final session, the entire process was reviewed comprehensively, with a focus on strategies to help participants maintain the skills they had acquired in their daily lives. Descriptive feedback obtained from participants throughout the program served as an additional source of data for evaluating the program’s effectiveness. Importantly, only descriptive qualitative feedback was collected; no formal thematic analysis was conducted. The excerpts presented in the Results section are anonymized illustrative examples, included to provide context to the quantitative findings. Participants consented to the anonymous use of their feedback for research and publication purposes (see Table 2).

Cognitive Behavioral Therapy In this study, a comprehensive treatment program for Generalized Anxiety Disorder (GAD) developed by Robichaud et al. (2019) was implemented. The program consisted of 10 weekly sessions, each lasting approximately 90 minutes. The treatment protocol was structured around six core modules, including: psychoeducation and worry awareness, re-evaluating the perceived functionality of worry, building tolerance for uncertainty and engaging in behavioral exposure, developing problem-solving skills, implementing written exposure techniques, and applying relapse prevention strategies.

Table 2.
Information of R-CBT Intervention program

Intervention session	Process	Target Outcome
Session 1: Introduction	The session started with the group leader and participants introducing themselves to each other. The intervention’s theoretical basis (CBT and R-CBT) was outlined. Participants were informed about generalized anxiety disorder (GAD) symptoms, coping strategies, spiritual resources and the materials to be used throughout the program. Group norms were established, and expectations were explored to promote active engagement. Additionally, the use of prayer as a coping mechanism and the spiritual motivational role of intention-setting were discussed as integral components of the intervention framework.	-To develop a strong therapeutic alliance and foster group cohesion -To inform group members about the purpose and structure of therapy -To promote self-reflection through spiritual practices -To facilitate insight into the interaction between faith and psychological processes
Session 2 Psychoeducation and worry awareness training	In the second session, anxiety and other distressing emotions were explored through a spiritual lens, emphasizing their functional and adaptive aspects. Through religious references, these emotions were normalized as natural components of the human experience. The potential spiritual consequences of emotional excess were discussed, and a conceptual link was drawn between self-awareness in CBT and the religious concept of self-knowledge within a faith-based framework.	-To explore anxiety and distressing emotions from a spiritual perspective - To promote emotional normalization and faith-based self-awareness
Session 3 Re-evaluation of the usefulness of worry	The session focused on identifying and restructuring core beliefs that contribute to the maintenance of anxiety. These included beliefs such as: “worrying helps solve problems,” “worry serves as a motivator,” “it protects against negative emotions,” “it prevents undesirable outcomes,” and “it is a sign of being a responsible or moral person.” Particular emphasis was placed on restructuring the belief that worry is helpful for problem-solving, using the Islamic concepts of <i>khawf</i> (fear/awareness of consequences) and <i>raja’</i> (hope/trust in divine mercy) as alternative cognitive anchors.	- To adopt a values-based approach to managing anxiety; -To relinquish the use of anxiety as a tool for control - To prioritize effort over outcome -To develop a balanced sense of responsibility

<p>Session 4-5 Uncertainty recognition and behavioral exposure</p>	<p>Cognitive patterns that foster negative interpretations of uncertainty were explored, with a focus on recognizing the psychological burden of excessive need for control and certainty. The comforting role of faith in coping with the unknown was highlighted. Irrational thoughts were reframed through a religious-spiritual perspective, and an optimistic outlook toward managing potentially negative outcomes was encouraged. Relevant verses from the Qur'an and Hadiths were referenced to support therapeutic discussions.</p>	<p>To use faith and spirituality as resources for navigating uncertainty</p>
<p>Session 6-7 Problem-solving training</p>	<p>A shift in perspective from perceiving problems as threats to viewing them as opportunities for growth was facilitated. The therapeutic role of reliance on God (<i>tawakkul</i>) in problem-solving was examined. A group discussion was held to explore the concept of <i>tawakkul</i>, clarifying common misconceptions, with scriptural references to Qur'anic verses guiding the discourse.</p>	<p>-To support the development of effective problem-solving strategies aligned with participants' faith, values, and personal goals</p>
<p>Session 8 Written exposure</p>	<p>In this session, the concept of <i>sabr</i> (patience) was addressed as a rational and functional coping mechanism, rather than a passive or fatalistic stance. Participants' cognitive distortions related to the concept were explored, particularly beliefs that equate patience with passive endurance or suppression of emotions. The role of <i>sabr</i> was emphasized during emotionally challenging exercises, especially in managing distress that emerged during written exposure tasks. A clear distinction was made between <i>sabr</i> and <i>tahammul</i> (mere tolerance), underscoring that <i>sabr</i> involves active perseverance with purpose and meaning, while <i>tahammul</i> often reflects passive endurance without engagement or growth. The session concluded with practical exercises aimed at illustrating how <i>sabr</i> can interrupt the anxiety cycle and be consciously integrated into daily life. Participants were encouraged to view <i>sabr</i> not only as a spiritual virtue but also as a cognitively grounded skill that supports emotional regulation, resilience, and long-term psychological well-being.</p>	<p>-To facilitate a comprehensive understanding of the concept of <i>sabr</i> (patience) -To enhance the ability to use <i>sabr</i> as a functional coping strategy during exposure and anxiety regulation exercises</p>
<p>Session 9 Written exposure</p>	<p>To balance the negatively oriented nature of anxiety, a gratitude practice was integrated into the session. Participants explored the meaning of gratitude and discussed how to incorporate it into daily life through interactive activities. The practice was emphasized as a functional tool for enhancing positive cognitive focus and promoting psychological well-being.</p>	<p>- To redirect mental focus from negative thoughts to positive experiences - To recognize and balance negative cognitive biases -To internalize behaviors that support psychological well-being</p>
<p>Session 10 Relapse prevention</p>	<p>In the final session, homework assignments were reviewed, and participants provided feedback on previous sessions, perceived changes, and the most challenging practices. The entire therapeutic process was evaluated. The group leader addressed potential post-treatment difficulties and discussed, within a scriptural context, the role of effort and the spiritual meaning of making mistakes as a relapse prevention strategy.</p>	<p>-To foster hope and support relapse prevention -To evaluate the therapeutic process and promote closure</p>

Results

Results from a repeated measures analysis of variance (mixed-design ANOVA) indicated a statistically significant change in Anxiety Thoughts Inventory (AnTI) total scores over time, $F(2, 60) = 7.16, p = .002, \eta^2 = .19$. This large effect size ($\eta^2 = .19$) suggests that the change over time was not only statistically significant but also of practical importance, indicating considerable score changes across all groups from pretest to posttest

and follow-up assessments. However, there was no statistically significant main effect of group ($p > .05$), and the group \times time interaction effect was not significant, $F(4, 60) = 1.70, p = .161, \eta^2 = .10$ which reflects a small- to- moderate effect size and indicates that the overall pattern of improvement was similar across groups (see Table 4).

Bonferroni-adjusted post hoc comparisons revealed that pretest scores ($M = 51.86$) were significantly higher than follow-up scores ($M = 45.27$), $p = .005$. However, no significant difference was found between posttest and follow-up scores ($p > .05$). Descriptive statistics for group means and standard deviations are presented in Table 3, and changes in scores over time are illustrated in Figure 3. These findings suggest that the observed improvement in AnTI scores is attributable to the effect of time rather than to differences between the intervention conditions.

Figure 3.
AnTI scores of the groups' pre-test, post-test, and follow-up tests.

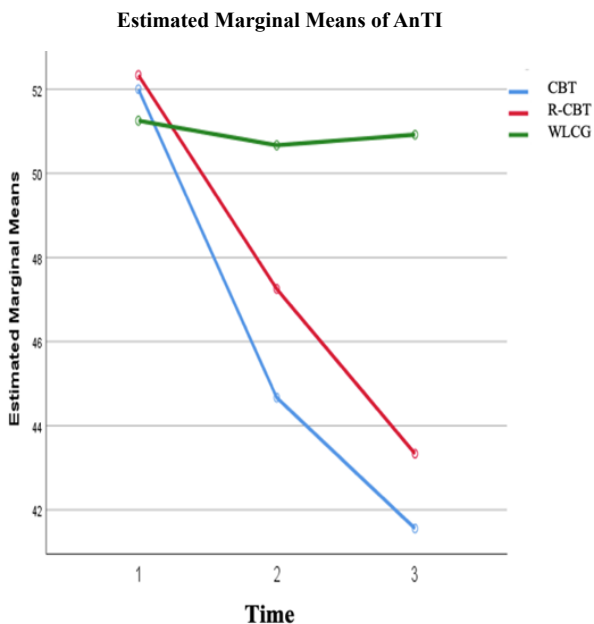


Table 3.*Descriptive statistics for pre-test, post-test and following-test variables per group*

Variable	R-CBT			CBT			WLCG		
	n	Mean	SD	n	Mean	SD	n	Mean	SD
Anxious thought T1	12	52.33	7.75	9	52.00	8.66	12	51.25	5.07
Anxious thought T2	12	47.25	9.36	9	44.67	8.49	12	50.67	10.98
Anxious thought T3	12	43.33	7.29	9	41.56	8.53	12	50.92	11.87
Well-being T1	12	89.50	21.66	9	94.33	12.55	12	98.42	11.99
Well-being T2	12	105.00	15.01	9	103.44	15.87	12	92.83	6.66
Well-being T3	12	101.58	14.37	9	110.00	21.07	12	96.67	13.25

Note. T1 pre-test, T2 post-test, T3 follow-up test.

A mixed-design analysis of variance (ANOVA) was conducted to examine changes in total PERMA scores across time and between groups. The results revealed a significant main effect of time, $F(2, 60) = 7.50, p = .001, \eta^2 = .20$, reflecting a large effect size and suggesting that well-being scores increased meaningfully across measurement points. No significant main effect of group was found, $F(2, 30) = 0.65, p = .527, \eta^2 = .04$, indicating only a small effect size with negligible differences in overall mean scores between groups. Additionally, the time \times group interaction also significant, $F(4, 60) = 5.01, p = .001, \eta^2 = .25$, which represents a large effect size, suggesting that the magnitude and trajectory of change over time differed substantially across groups (see Table 4).

Post hoc comparisons showed that follow-up scores ($M = 102.75$) were significantly higher than pre-test scores ($M = 94.08$), indicating an overall improvement in well-being from baseline to follow-up. In the CBT group, follow-up scores ($M = 7.22$) were significantly higher than pre-test scores ($M = 6.22$), demonstrating lasting positive effects. In the R-CBT group, both post-test ($M = 7.00$) and follow-up ($M = 6.58$) scores were significantly higher than pre-test scores ($M = 5.58$), indicating both immediate and sustained improvements. Between-group comparisons revealed that the post-test scores of the R-CBT group ($M = 7.00$) were significantly higher than the control group's post-test scores ($M = 6.33$). Similarly, the CBT group's follow-up scores ($M = 7.22$) were significantly higher than the control group's post-test scores ($M = 6.33$). Detailed score distributions for each group are presented in Table 3, and time-based changes are visualized in Figure 4.

Figure 4.
PERMA scores of the groups' pre-test, post-test, and follow-up tests.

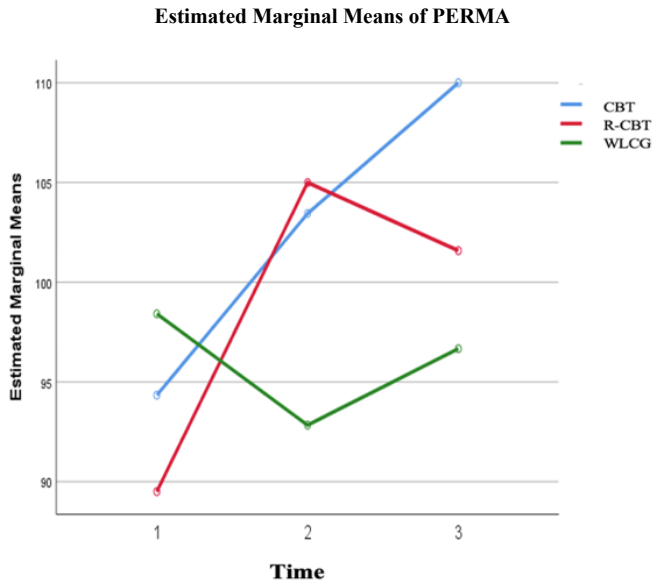


Table 4.
Mixed Design ANOVA Results for AnTI and PERMA Total Scores

	F	df	p	η²
AnTI				
Time (Within)	7.16	2, 60	.002	.19
Group (Between)	1.47	2, 30	.246	.09
Time x Group	1.70	4, 60	.161	.10
PERMA				
Time (Within)	7.50	2, 60	.001	.20
Group (Between)	0.65	2, 30	.527	.04
Time x Group	5.01	4, 60	.001	.25

Note. AnTI = Anxiety Thoughts Inventory; PERMA = Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment.

Feedback obtained during the sessions and in follow-up conversations provided descriptive insights consistent with the quantitative results, highlighting both the therapeutic effects of the intervention and the empowering aspects of the group process. These reflections revealed the program’s impact on coping mechanisms and perceived benefits of group interaction. For instance, one participant noted: “I had doubts about the effectiveness of therapy, but my opinion changed. I used to become more discouraged in the face of difficulties and avoided confronting problems. I realized I wasn’t alone, and I discovered my inner strength when facing challenges. I began to believe that I could manage my psychological state through spiritual interventions.” Another participant shared: “I used to think I didn’t deserve anything and that nothing suited me, which made me more anxious about life. Now, I see myself

as more valuable. No matter how anxious I get, I realize that events occur beyond my control and that God is with me.” These statements illustrate the ways in which participants perceived growth in resilience, coping, and self-worth.

In terms of the functionality of group therapy, significant findings also emerged. Participant feedback indicates that social sharing and modeling within the group context contributed positively to the therapeutic process. The group therapy format appeared to enhance participants’ perceived social support and reduce fear of stigmatization. Participants’ experiences suggest that the group’s safe and sharing-oriented structure fostered courage in expressing anxieties and positively impacted their relational functioning. One participant described the group experience as follows: “I didn’t like talking about myself or my anxieties, but seeing others speak openly made me realize that these things don’t need to be avoided or hidden. Everyone was sharing comfortably. At first, I was anxious, but as I experienced it, I told myself these are things that can be talked about, not deficiencies — and this was reflected in my relationships too.”

Another participant elaborated on the evolution of their comfort within the group setting: “When I first joined the group, I was anxious about when my turn would come and what I would say. I even took notes to prepare. But after seeing everyone else, I stopped taking notes and just went with the flow.”

Discussion

This study examined the effectiveness of cognitive behavioral group therapy (CBT) and religiously oriented cognitive behavioral group therapy (R-CBT) in individuals diagnosed with generalized anxiety disorder (GAD), focusing on their impacts on anxiety levels and psychological well-being. The research aimed to contribute to the integration of spirituality into CBT within the field of clinical psychology, while also seeking to develop a culturally sensitive therapeutic model.

The R-CBT program was structured to reflect the cultural context through components such as prayer, reliance on God (*tawakkul*), gratitude, patience, and cognitive reframing. As the first study of its kind conducted in the Turkish context, it offers a pioneering example by integrating the GAD treatment protocol developed by Robichaud et al. (2019) with spiritually/religiously based interventions. The inclusion of a control group and the reporting of two-month follow-up results further enhance the study’s contribution.

In the existing literature, there is a growing need to explore the use of individuals’ spiritual and religious coping mechanisms within therapy to support psychological recovery. Although only a limited number of experimental studies have addressed the relationship between religious/spiritual interventions and anxiety, it is evident that further attention is required to better understand and develop effective interventions

in this area. This study highlights the potential of drawing upon clients' spiritual resources to address the anxiety they experience in their daily lives. The findings suggest that the proposed intervention program is effective in reducing anxiety.

The main hypothesis of this study was that Religiously Integrated Cognitive Behavioral Therapy (R-CBT) would result in greater reductions in anxiety levels compared to standard CBT. However, the findings indicated that although both interventions significantly reduced participants' anxiety levels over time, the difference between the two was not statistically significant. The large effect size for the main effect of time ($\eta^2 = .19$) on anxiety confirms a meaningful reduction, yet the small-to-moderate effect size for the group \times time interaction ($\eta^2 = .10$) indicates that the pattern of improvement was similar across both active interventions and not differentially influenced by R-CBT. The significant differences observed between pre-test, post-test, and follow-up scores suggest that both interventions were effective in reducing anxiety. Additionally, the absence of a significant difference between post-test and follow-up scores indicates the lasting impact of both therapeutic approaches. In contrast, no change was observed in the control group, implying that the reductions in anxiety were attributable to the intervention programs.

These results are consistent with the findings of Hosseini et al. (2017), who reported that R-CBT was significantly more effective than a control condition. Although Nawaz and Yousuf (2025) examined depression rather than anxiety, their findings similarly indicate that religiously integrated CBT can outperform standard control conditions, supporting the potential value of integration for symptom reduction. A study by Subhas et al. (2021) also reported significant decreases in anxiety scores following R-CBT. However, in contrast to the present findings, Koenig et al. (2015) reported that R-CBT was significantly more effective than standard CBT, indicating that results may vary depending on sample characteristics, cultural context, or intervention delivery.

A more nuanced picture emerges for psychological well-being. The time \times group interaction for PERMA scores was statistically significant ($p = .001$), and the associated effect size was large ($\eta^2 = .25$), suggesting a meaningful difference in how the interventions influenced well-being trajectories. Post-hoc analyses clarify this critical pattern: the R-CBT group was the only condition to demonstrate a significant improvement in well-being at the immediate post-test compared to the control group. This indicates that the R-CBT protocol may facilitate a more rapid acquisition of well-being skills, representing a potential advantage for achieving short-term gains. In contrast, the traditional CBT group's well-being scores showed a significant increase at the follow-up assessment. This divergence rapid improvement for R-CBT versus more gradual, sustained improvement for CBT suggests the interventions may operate through distinct mechanisms. The primary effect of R-CBT in this context may be strength-based, fostering positive resources like hope and meaning, which aligns with its integrative framework.

Taken together, these findings highlight that both interventions produced meaningful and lasting improvements in psychological well-being, even though their timelines differed. The early impact of R-CBT points to its potential for delivering rapid benefits, particularly through its integration of spiritual resources, while the more gradual improvements observed in CBT underline the durability of traditional cognitive-behavioral strategies. Thus, both approaches proved effective, but their distinct trajectories provide valuable insights into how therapeutic mechanisms may vary in fostering well-being.

When compared with the waitlist control group, both the CBT and R-CBT groups showed significant increases in post-test and follow-up scores relative to pre-intervention scores, further confirming the effectiveness of the interventions. In particular, the R-CBT group significantly outperformed the control group at post-test, providing evidence for the functionality and utility of the religiously integrated intervention. These findings are consistent with those reported by Boolaghi and Kiani Moghadam (2016).

Although no overall statistically significant differences were detected between the two active intervention groups, effect sizes and post-hoc patterns suggest that they achieved improvements through different timelines rather than identical effects. Prior research provides mixed evidence on this point: Abdoljabbari et al. (2022), reported stronger outcomes for religiously integrated CBT compared to standard CBT, while Razali et al. (2002) observed that religiously oriented therapies may lead to faster recovery than conventional approaches. The present findings partially align with these accounts by showing that R-CBT produced more immediate gains, whereas CBT demonstrated more sustained improvements at follow-up. This pattern indicates that the relative advantages of R-CBT may be shaped by contextual factors such as cultural background and individuals' religious inclinations. Finally, the lack of significant change in the control group once again underscores that the improvements observed in well-being are attributable to the therapeutic interventions themselves.

To address concerns about missing data and to ensure the robustness of these outcomes, intention-to-treat (ITT) analyses were performed using multiple imputation. The ITT results were consistent in direction with the complete-case analyses, thereby reinforcing confidence in the observed intervention effects. However, the statistical significance of certain findings was somewhat attenuated when imputations were included, reflecting the more conservative nature of ITT estimation. This suggests that the beneficial effects of both CBT and R-CBT are reliable and not merely artifacts of selective dropout. Nevertheless, future studies with larger samples are required to confirm these patterns with greater statistical power.

In addition, participant narratives highlighted the importance of the group format. Sharing similar experiences made anxiety-related issues more speakable, leading to gains in both insight and relational functioning. Such findings are consistent with the therapeutic factors identified in group therapy literature, particularly universality, group cohesion, and interpersonal learning (Yalom & Leszcz, 2020).

Another noteworthy finding of the study is the remarkably low dropout rates observed during the intervention process. In both intervention groups, only one participant voluntarily withdrew from the program. Other cases of attrition were attributed to valid external circumstances such as traumatic life events, bereavement, or ectopic pregnancy. These findings align with existing literature suggesting that group-based interventions tend to have lower dropout rates compared to individual therapy formats (Minniti et al., 2007).

Overall, the findings of this study indicate that Religious Cognitive Behavioral Therapy (R-CBT) is as effective as traditional Cognitive Behavioral Therapy (CBT), while also providing a culturally meaningful and acceptable psychotherapeutic alternative for religious individuals. Crucially, the large effect size for well-being trajectories suggests it may offer a unique advantage in promoting rapid improvements in positive functioning. The integration of spirituality into the psychotherapeutic process not only contributes to symptom reduction but also supports positive psychological components such as meaning in life, hope, resilience, and value-based awareness. These outcomes suggest that the incorporation of religious content into CBT can offer an acceptable and effective treatment modality for religious individuals experiencing psychological distress.

This conclusion is consistent with prior research and meta-analyses highlighting the efficacy of culturally adapted mental health interventions (Griner & Smith, 2006; Hodge, 2006; Post & Wade, 2009). Within this context, R-CBT emerges as a culturally sensitive and adaptable therapeutic approach that respects individuals' belief systems, and therefore holds significant potential for both clinical practice and future research.

Conclusion

This study demonstrates that both R-CBT and CBT are effective over time in reducing generalized anxiety symptoms and anxious thoughts, and, notably, in significantly enhancing individuals' well-being compared to the control group. The findings suggest that R-CBT holds promise as a practical and effective intervention, not only for alleviating anxiety and related symptoms but also for promoting overall psychological well-being.

By integrating relaxation-based techniques with cognitive restructuring components, R-CBT offers a comprehensive, accessible, and culturally sensitive alternative for both clinicians and clients. Its structured yet adaptable nature makes it a viable option in diverse therapeutic contexts.

Future research should explore the broader dissemination of R-CBT and examine its efficacy across different anxiety disorders and populations, thereby contributing to the development of more inclusive and culturally informed mental health interventions.

Limitations And Future Directions

Despite its promising findings, this study has several limitations that warrant consideration. First, the limited sample size, restricted to a specific participant group, may constrain the generalizability of the results. Additionally, the intervention was confined to ten sessions, which may not fully capture the long-term efficacy or sustainability of the therapeutic effects. Another notable limitation is the exclusive reliance on self-report measures, which introduces the potential for response bias. The absence of objective measures, such as physiological indicators, also limits the multidimensional evaluation of treatment outcomes.

These limitations offer important directions for future research. Replication studies with larger and more diverse samples are recommended to enhance the reliability and external validity of the findings. Incorporating behavioral observations and physiological assessments alongside self-report instruments could allow for a more comprehensive understanding of therapeutic efficacy. Moreover, future studies with larger samples could explore religious coping as a potential mediator between the intervention and well-being outcomes.

Furthermore, the present study included only female participants, thereby precluding analysis of potential gender-related differences. Future studies may benefit from investigating the role of gender in treatment response and therapeutic engagement.

Notably, the follow-up test scores of the R-CBT group ($M = 6.58$) were significantly higher than their pre-test scores ($M = 5.58$), suggesting a continued improvement over time. While this may indicate the presence of gradual yet enduring learning processes, additional long-term follow-up assessments (e.g., six months post-intervention) are needed to determine whether R-CBT facilitates sustained therapeutic gains over extended periods.

The participant feedback presented in this study offers illustrative examples that align with the quantitative findings. These descriptive insights highlight how the intervention fostered personal coping strategies and enhanced social support within the group. However, it is important to note that these reflections are not the result of a

systematic qualitative analysis. Therefore, conclusions drawn from them should be interpreted with caution. Future research should incorporate structured qualitative methodologies (e.g., semi-structured interviews and thematic analysis) to more rigorously explore participants' experiences of religiously integrated CBT.

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Ethical approval. The study protocol was approved by the Ibn Haldun University Scientific Research and Ethical Review Board (Report Number: E-71395021-020-9865, 2021/12-1). The study was performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki and its subsequent updates. The trial has been registered at ClinicalTrials.gov (Identifier: NCT07334769).

Authors' contribution. The theoretical framework, methodology, data

analysis, and manuscript drafting were carried out by Author 1, while the study design review, manuscript editing, and supervision were performed by Author 2.

Peer-review. The study was externally peer-reviewed.

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Data Availability Statements. The data supporting the findings of this study are available from the corresponding author upon reasonable request, due to ethical considerations and participant confidentiality.

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