

Comparison of the Effectiveness of Acceptance and Commitment Therapy and Choice Theory-Based Therapy on Post-Traumatic Growth in Divorced Women with Divorce Grief

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ABSTRACT

Objective: The objective of this study was to compare the effectiveness of Acceptance and Commitment Therapy (ACT) and Choice Theory-Based Therapy (CTBT) on post-traumatic growth in divorced women experiencing divorce grief.

Methods and Materials: This research utilized a quasi-experimental, pre-test-post-test design with a control group and a two-month follow-up period. The statistical population consisted of divorced women experiencing divorce grief. A sample of $N = 45$ participants was selected through purposive sampling and randomly assigned to three equal groups: ACT ($n = 15$), CTBT ($n = 15$), and a control group ($n = 15$). The experimental groups participated in 8 weekly, two-hour intervention sessions based on their respective protocols, while the control group received no intervention. The primary data collection tool was the Post-Traumatic Growth Inventory (PTGI). Data analysis was conducted using SPSS software, employing descriptive statistics, repeated measures ANOVA, and Bonferroni post-hoc tests.

Findings: The results demonstrated a significant main effect for Time ($p < 0.001$, $\eta_p^2 = 0.459$) regarding total post-traumatic growth. However, the main effect for Group ($p = 0.636$) and the Time $\times$ Group interaction effect ($p = 0.185$) were not statistically significant for the total score. Bonferroni post-hoc analyses indicated no significant differences between the ACT and CTBT groups concerning total PTG at the post-test ($p = 0.636$) or the follow-up ($p = 0.143$) stages, though both were significantly higher than the control group. The only significant difference between the two active interventions emerged in the Spiritual Change sub-component at the follow-up stage, where the ACT group ($M = 36.23$) scored significantly higher than the CTBT group ($M = 33.42$, $p = 0.049$).

Conclusion: Both Acceptance and Commitment Therapy and Choice Theory-Based Therapy are highly and equally effective interventions for promoting overall post-traumatic growth in divorced women dealing with divorce grief. While both can be confidently utilized in clinical settings, ACT may offer a specific advantage in facilitating sustained spiritual change over time.

Keywords: Acceptance and Commitment Therapy, Choice Theory, Post-Traumatic Growth, Divorce Grief, Divorced Women.

1. Introduction

Divorce is widely recognized as one of the most stressful and profound life transitions an individual can experience, often precipitating severe psychological distress, identity disruption, and emotional upheaval. For many women, the dissolution of a marriage is not merely a legal or social event, but a traumatic psychological rupture that triggers an intense and prolonged period of grief. This phenomenon, often termed divorce grief, mirrors the bereavement processes associated with the death of a loved one, encompassing stages of denial, anger, bargaining, depression, and eventually, acceptance. The psychological landscape of post-divorce life is fraught with challenges, as women must navigate profound changes in their social status, financial stability, and personal identity. Research has consistently highlighted the adverse impacts of divorce and marital dissolution on the psychological well-being and life adjustment of women, demonstrating that emotional divorce and marital tension can significantly exacerbate covert communication aggression, irrational beliefs, and perfectionism (Zahed et al., 2025; Zakariazadeh Khatir et al., 2022). Furthermore, the long-term life adjustment and the search for the meaning of life become central, yet often elusive, goals for women navigating the aftermath of marital separation and heading households alone (Shahsavari et al., 2025). The negative impacts of divorce are not isolated to the spouses; they ripple outward, profoundly affecting the quality of life and resilience of the children and adolescents within these fractured family structures (Ansari et al., 2025).

Despite the inherently traumatic nature of divorce and the agonizing grief it induces, contemporary psychological paradigms have increasingly shifted their focus from merely mitigating distress to exploring the potential for profound personal transformation following adversity. This paradigm shift is encapsulated in the concept of Post-Traumatic Growth (PTG). Post-traumatic growth refers to the positive psychological changes experienced as a result of struggling with highly challenging life circumstances or traumatic events. Rather than simply returning to a pre-trauma baseline of functioning, individuals experiencing PTG undergo a fundamental reorganization of their cognitive schemas, leading to a higher level of psychological functioning and a deepened appreciation for life. The domains of post-traumatic growth typically include a greater appreciation of life, altered priorities, warmer and more intimate relationships with others, a greater sense of personal strength, recognition of new possibilities or paths for one's

life, and spiritual development. In the clinical literature, the facilitation of post-traumatic growth has become a critical objective when treating individuals grappling with various forms of severe trauma and chronic distress, including post-traumatic stress disorder (PTSD), chronic illnesses like fibromyalgia, and life-threatening conditions such as colorectal cancer (Ezzatpanah & Latifi, 2019; Haghighat-Bayan et al., 2022; Kazemipour et al., 2021). Given that divorce serves as a catalyst for significant psychological trauma, fostering post-traumatic growth in divorced women presenting with severe divorce grief represents a vital therapeutic endeavor.

To facilitate post-traumatic growth and alleviate the psychological burden of divorce grief, various psychotherapeutic interventions have been deployed and empirically evaluated. Among the most prominent and empirically supported contemporary approaches are Acceptance and Commitment Therapy (ACT) and therapies based on Choice Theory, most notably Reality Therapy. Acceptance and Commitment Therapy is a “third-wave” cognitive-behavioral intervention that utilizes acceptance and mindfulness processes, alongside commitment and behavior change processes, to produce greater psychological flexibility. The core tenet of ACT is not to eliminate difficult feelings or thoughts, but rather to teach individuals how to observe them non-judgmentally, make room for them, and move in a direction that aligns with their deeply held personal values. ACT has demonstrated robust efficacy in improving mental health, psychological well-being, and reducing irrational beliefs across a wide array of vulnerable populations, including female heads of households, women in community centers, and individuals facing chronic medical and neurological conditions (Jaafary et al., 2022; Nikoukar et al., 2022; Sepas et al., 2022; Zamani Foroushani & Dokaneifard, 2017). By promoting cognitive defusion and experiential acceptance, ACT equips individuals with the psychological tools necessary to navigate the painful realities of grief without resorting to maladaptive avoidance strategies, thereby creating a fertile psychological environment for post-traumatic growth to occur.

Conversely, Choice Theory, developed by William Glasser, posits that all human behavior is driven by the desire to satisfy five basic genetic needs: survival, love and belonging, power, freedom, and fun. Reality Therapy, the clinical application of Choice Theory, focuses intensely on the present and emphasizes internal control, personal responsibility, and the conscious choices individuals make to fulfill their needs. The therapy operates on the premise

that while individuals cannot control what happens to them—such as the dissolution of a marriage—they possess absolute control over how they choose to respond to those events. Reality Therapy helps clients evaluate whether their current behavioral choices are effectively meeting their needs and, if not, guides them in planning and executing more effective, responsible behaviors. This approach has proven highly effective in enhancing self-efficacy, promoting responsibility, improving life adjustment, and reducing feelings of loneliness and conflict across diverse demographic groups, including divorced women, married employed women, adolescents, and couples experiencing marital discord (Abron et al., 2024; Hadian et al., 2023; Haji Karam et al., 2019; Ragheni & Soltanzadeh, 2023). By shifting the locus of control internally, Choice Theory empowers women to reconstruct their post-divorce reality, encouraging the proactive pursuit of new life possibilities and personal strength, which are fundamental components of post-traumatic growth.

The comparative effectiveness of Acceptance and Commitment Therapy and Reality Therapy/Choice Theory has been a subject of considerable interest within the psychological literature, as both approaches offer distinct yet potentially complementary mechanisms of change. ACT emphasizes acceptance, mindfulness, and values-based action, focusing on altering the individual's relationship with their internal psychological experiences. In contrast, Reality Therapy emphasizes conscious choice, behavioral evaluation, and need fulfillment, focusing on modifying the individual's interactions with their external environment. Researchers have juxtaposed these two therapeutic modalities across various clinical and sub-clinical populations to determine their relative efficacy. For instance, studies have compared their impact on the self-care behaviors and life satisfaction of elderly individuals with Type II diabetes, the quality of life and general health of caregivers of chronic patients, the cognitive emotion regulation of infertile women, and the marital commitment of couples (Bani Hashemi et al., 2020; Behzadi et al., 2021; Borhani et al., 2010; Sedghi et al., 2019; Zandi et al., 2023).

While these studies collectively suggest that both ACT and Reality Therapy are highly efficacious interventions for improving psychological outcomes, the literature reveals a significant gap regarding their specific comparative effectiveness in fostering post-traumatic growth among divorced women experiencing profound divorce grief. Divorced women represent a uniquely vulnerable population whose trauma is compounded by social stigma, structural

inequalities, and the complex emotional entanglement of grieving a relationship that is lost but where the ex-partner is still alive. The process of rebuilding one's life and finding meaning after such a profound disruption requires robust psychological interventions. Understanding whether an approach grounded in experiential acceptance and values (ACT) or an approach grounded in internal control and need fulfillment (Choice Theory) is more effective—or if they are equally effective—in catalyzing post-traumatic growth is of paramount clinical importance. Such comparative insights are essential for optimizing therapeutic protocols, tailoring interventions to the specific psychological profiles of divorced women, and ultimately maximizing the potential for these individuals to not only recover from the trauma of divorce but to thrive in its wake. Therefore, this study aims to compare the effectiveness of Acceptance and Commitment Therapy and Choice Theory-Based Therapy on post-traumatic growth in divorced women with divorce grief.

2. Methods and Materials

2.1. Study Design and Participants

The present study was applied research in terms of its purpose and utilized a quasi-experimental pre-test-post-test design featuring a control group alongside a two-month follow-up evaluation. The statistical population encompassed all divorced women experiencing divorce grief who sought services at counseling centers within the city of Amol in Mazandaran province during the year 2025. Participant selection initially relied on a non-random, purposive sampling method strictly guided by predetermined parameters. To qualify for inclusion, individuals had to be female, underscoring the study's focus on post-divorce psychological traits in women, and exhibit clinical symptoms of divorce grief by scoring above the specific cutoff point on the Prigerson and Maciejewski Complicated Grief Questionnaire, further corroborated by a DSM-5-TR semi-structured clinical interview. To ensure the stabilization of primary psychological states and minimize the impact of chronic variables, the time elapsed since the divorce was required to be between a minimum of one year and a maximum of three years, following a marital duration of at least three years prior to the separation. Additional inclusion criteria mandated that the participants fall within the age bracket of twenty-five to thirty-five years to maximize life-cycle homogeneity, be experiencing their first divorce, have at least one child, hold a minimum of a high

school diploma to guarantee active engagement with the psychotherapeutic material, be currently employed, and express full readiness to voluntarily participate by signing an informed consent form. Conversely, individuals were excluded from the research process if they reported any active suicidal ideation or intent, engaged in other structured psychological treatments that could act as confounding variables, or missed more than two therapeutic sessions or entirely withdrew during the intervention phase. To determine the appropriate sample size, Cohen's table from 1981 was utilized, which initially suggested ten individuals per group; however, to anticipate potential attrition and in alignment with recommendations from similar psychological studies, the sample size was expanded to fifteen participants per group. Consequently, a total of forty-five divorced women meeting all criteria were selected and randomly assigned into three groups of fifteen, comprising two experimental groups and one control group. Procedurally, following administrative coordination with two counseling centers in Amol, patient files were reviewed, and an initial telephone screening was conducted. Following random assignment, all participants completed the research questionnaire as a pre-test prior to any intervention. Subsequently, the first experimental group received Choice Theory-based therapy over eight weekly ninety-minute sessions, while the second experimental group received Acceptance and Commitment Therapy in the exact same format, both administered in person by the researcher. The control group received no therapeutic intervention. Upon the conclusion of the treatment sessions, all three groups were reassessed via a post-test, followed by a final follow-up assessment two months later.

2.2. Measures

The Post-Traumatic Growth Inventory, developed by Tedeschi and Calhoun in 1996, served as the primary self-report instrument to evaluate the positive self-perceptual changes individuals associate with highly traumatic experiences. This comprehensive inventory consists of twenty-one statements evaluated on a Likert scale ranging from zero, meaning the individual experienced no change, to five, meaning the individual experienced a very significant degree of change, resulting in a total score range spanning from zero to one hundred and five. In their foundational research, Tedeschi and Calhoun demonstrated excellent reliability for this tool, yielding a Cronbach's alpha coefficient of 0.96. A subsequent study by Calhoun and

colleagues in 2000 established its convergent validity by reporting a statistically significant correlation with the openness to experience scale, calculated at $r = 0.28$ at the alpha significance level of 0.05. Within the Iranian demographic context, a study conducted by Seyedmahmoudi and colleagues in 2013 further validated the instrument by revealing a significant convergent correlation with positive affect at $r = 0.51$ with a significance level of $p < 0.01$, and a correlation with negative affect calculated at $r = 0.20$. Furthermore, these Iranian researchers reported a highly robust one-week test-retest reliability coefficient of 0.94 alongside a Cronbach's alpha value of 0.92. In the context of the current research, the internal consistency of the Post-Traumatic Growth Inventory was independently verified, achieving a reliable Cronbach's alpha coefficient calculated at 0.81.

2.3. Interventions

The intervention protocol for Acceptance and Commitment Therapy was meticulously adapted from the framework established by Hayes and colleagues in 2016 and was administered to the first experimental group across eight weekly, two-hour group sessions. The therapeutic journey commenced with the administration of a pre-test, followed by group introductions, the establishment of group rules, and an overview of the therapy's objectives, focusing primarily on introducing the fundamental concept of non-judgmental observation where participants were taught to view their thoughts and feelings regarding their divorce merely as transient experiences, a skill reinforced by daily five-minute mindfulness homework assignments. As the sessions progressed, the therapy delved into assessing the clients' challenges through the specific lens of this therapeutic approach, identifying and extracting patterns of experiential avoidance and cognitive fusion related to the trauma of divorce, prompting participants to catalog their avoidance behaviors and the contexts in which they naturally occur. To counter these deeply ingrained patterns, the therapist introduced metaphors to illustrate the absolute futility of trying to control negative events and taught vital cognitive defusion techniques, encouraging the women to distance themselves from their negative thoughts by recognizing them simply as words in their minds rather than absolute truths, supported by at-home exercises such as deliberately phrasing persistent thoughts as mere mental events. The middle phase of the intervention emphasized emotional awareness and the observing self, utilizing the victim of self

metaphor to foster profound psychological flexibility and encourage participants to focus completely on their present mental states and behaviors without any layer of judgment. This naturally transitioned into the crucial phase of identifying and clarifying core personal values through various targeted exercises, guiding the women to establish a renewed sense of meaning and transcendence beyond their immediate negative emotions by plotting prioritized values charts. Building upon this solid foundation, the participants were then taught to translate these clarified values into committed action by designing small, highly practical behavioral steps, utilizing metaphors like the chessboard to enhance interpersonal effectiveness and to face emotional pain with radical acceptance, ultimately viewing the complex grief of divorce as an integral, manageable part of the broader human experience. The final session was entirely dedicated to reviewing and consolidating the acquired emotion regulation and mindfulness techniques, thoroughly discussing their practical real-world application in post-divorce life, formulating a detailed three-month action plan strictly based on their core values to ensure sustained behavioral change, and concluding with the administration of the post-test.

The Choice Theory-Based Therapy intervention was structured around the comprehensive guidelines provided by Glasser and Glasser in 2010 and was delivered to the second experimental group through eight weekly, two-hour group sessions. Following the initial pre-test and the establishment of group cohesion and therapeutic commitments, the foundational concepts of Choice Theory were introduced, deeply emphasizing the paradigm of internal versus external control and educating participants on the five basic human needs encompassing survival, love and belonging, power, freedom, and fun, which participants were subsequently tasked to independently identify and prioritize in their own lives. The therapy then progressed to the vital conceptualization of the Quality World, where the women were guided to internally visualize and map out the specific people, activities, and elements they deeply desired in their new post-divorce lives, continually assessing exactly how their current realities aligned with these ideal internal pictures. A core component of the ongoing intervention involved thoroughly deconstructing human behavior to understand its ultimate purpose, teaching the participants that all behavior is total behavior comprised intricately of acting, thinking, feeling, and physiology, utilizing the behavior car metaphor to clearly demonstrate how individuals can exert direct control over the front wheels of

acting and thinking to indirectly but powerfully influence their feelings and physiology. The sessions deeply analyzed how human motivation is relentlessly driven by the psychological gap between the perceived world and the quality world, empowering the women to scrutinize their past and present choices, accept profound personal responsibility for them without self-condemnation, and critically evaluate their direct impact on their current post-divorce interpersonal dynamics, the therapy heavily focused on identifying and actively reducing externally controlling and highly dysfunctional behaviors, such as blaming and complaining, consciously replacing them with connecting habits through practical dialogue exercises specifically aimed at mutual understanding and fulfilling shared emotional needs. Furthermore, the therapist detailed the concept of the creative system, illustrating how individuals unconsciously generate novel, albeit painful, total behaviors like depressing or angering as a coping mechanism, effectively shifting the clients' perspective from being helpless victims of their emotions to recognizing them as internally generated, chosen behaviors. The entire intervention culminated in teaching the empowering art of self-questioning and setting smart, highly actionable short-term and long-term goals intricately aligned with their redefined quality worlds, concluding with a comprehensive review of the therapeutic journey, the creation of a continuous personal growth roadmap rooted firmly in personal responsibility and internal control, and the final administration of the post-test.

2.4. Data Analysis

The quantitative data systematically gathered throughout the various stages of the research were subjected to rigorous evaluation using the SPSS statistical software package, structured across descriptive and inferential analytical levels. At the descriptive level, the acquired data were thoroughly summarized and presented utilizing frequency distribution tables and percentages to illuminate the demographic characteristics of the participants, alongside descriptive statistics deployed to thoroughly examine the focal research variables across the sample, with clear distinctions made between the assigned groups. Transitioning to the inferential level of analysis, and carefully corresponding to the measurement scales and fundamental statistical prerequisites, a repeated measures analysis of variance was utilized to evaluate the hypothesis.

Before executing this primary inferential test, mandatory parametric assumptions were meticulously investigated and satisfied, which included verifying the normality of the data distribution, confirming the homogeneity of variances, ensuring the homogeneity of the variance-covariance matrices, and satisfying the assumption of sphericity. Ultimately, to precisely isolate and interpret the specific loci of significant statistical differences between the various group pairings across the distinct measurement timelines, Bonferroni post-hoc follow-up tests were meticulously applied to finalize the hypothesis testing process.

3. Findings and Results

The demographic characteristics of the participants were carefully examined across the three groups, consisting of 15 individuals in each: the Acceptance and Commitment Therapy group, the Choice Theory-Based Therapy group, and the control group. Regarding educational attainment, the Acceptance and Commitment Therapy group included 4 participants (26.7%) with a high school diploma, 9 participants (60%) with an associate or bachelor's degree, and 2 participants (13.3%) holding a master's or doctoral degree. In the Choice Theory-Based Therapy group, 3 individuals (20%) held a diploma, 9 individuals (60%)

possessed an associate or bachelor's degree, and 3 individuals (20%) had obtained a master's or doctoral degree. Meanwhile, the control group consisted of 5 participants (33.3%) with a diploma, 8 participants (53.3%) with an associate or bachelor's degree, and 2 participants (13.3%) with a master's or doctoral degree. Statistical analysis revealed no significant difference among the three groups concerning their educational levels ($p = 0.930$), indicating a well-matched sample in this regard. Furthermore, the age distribution was systematically analyzed, showing that the participants in the Acceptance and Commitment Therapy group had a mean age of 30.90 years with a standard deviation of 2.55. The Choice Theory-Based Therapy group demonstrated a mean age of 30.50 years with a standard deviation of 3.30, while the control group had a mean age of 30.30 years and a standard deviation of 2.79. Similar to the educational background, the statistical comparison of the participants' ages across the three groups yielded no significant difference ($p = 0.524$), confirming that the groups were thoroughly homogeneous and comparable in terms of both age and educational demographics prior to the implementation of the therapeutic interventions.

Table 1

Descriptive Statistics of Post-Traumatic Growth and its Components by Group and Time

Variable	Time	ACT <i>M</i>	ACT <i>SD</i>	CTBT <i>M</i>	CTBT <i>SD</i>	Control <i>M</i>	Control <i>SD</i>
New Possibilities	Pre-test	24.85	7.54	25.25	7.74	35.55	7.26
	Post-test	28.10	8.55	27.90	7.05	35.50	6.91
	Follow-up	38.05	7.78	27.20	7.41	35.75	6.13
Personal Strength	Pre-test	22.70	7.33	23.30	7.46	32.60	6.39
	Post-test	24.30	7.22	24.80	6.29	32.85	6.13
	Follow-up	23.95	7.34	23.95	6.01	32.70	5.90
Appreciation of Life	Pre-test	22.85	6.48	24.00	6.77	34.05	6.52
	Post-test	24.25	6.35	26.25	6.07	34.10	5.42
	Follow-up	23.75	5.68	25.90	5.96	34.05	5.78
Spiritual Change	Pre-test	23.50	6.52	25.00	6.56	34.70	5.62
	Post-test	26.10	5.79	26.05	5.74	34.85	5.40
	Follow-up	25.55	6.25	24.10	8.21	34.85	5.53
Post-Traumatic Growth (Total)	Pre-test	89.90	20.54	89.55	20.94	88.90	16.76
	Post-test	94.75	19.63	95.00	17.75	87.30	14.85
	Follow-up	93.30	18.68	94.15	18.24	87.35	14.35

Table 1 presents the descriptive statistics, encompassing means (*M*) and standard deviations (*SD*), for the overall Post-Traumatic Growth (PTG) scores and its four measured sub-components (New Possibilities, Personal Strength, Appreciation of Life, and Spiritual Change) across three distinct measurement intervals: pre-test, post-test, and

follow-up. An examination of the total Post-Traumatic Growth scores reveals an observable improvement for both intervention groups following the therapy. Specifically, the Acceptance and Commitment Therapy (ACT) group's total PTG mean increased from 89.90 ($SD = 20.54$) at pre-test to 94.75 ($SD = 19.63$) at post-test, maintaining a sustained

elevated score of 93.30($SD = 18.68$) during the follow-up assessment. Similarly, the Choice Theory-Based Therapy (CTBT) group demonstrated an increase in overall PTG scores, moving from a pre-test mean of 89.55($SD = 20.94$) to a post-test mean of 95.00($SD = 17.75$), which remained relatively stable at 94.15($SD = 18.24$) at follow-up. In contrast, the control group's total PTG scores exhibited a slight downward trajectory over time, starting at 88.90($SD = 16.76$) and decreasing to 87.30($SD = 14.85$) and 87.35($SD = 14.35$) at the post-test and follow-up stages, respectively. This positive trajectory for the experimental groups was also evident across several individual sub-components; most notably, in the "New Possibilities" domain, the ACT group's mean score substantially increased from 24.85($SD = 7.54$) at pre-test to 38.05($SD = 7.78$) by the follow-up phase. Conversely, the control group's scores across the sub-components remained generally stagnant or experienced minor declines throughout the duration of the study.

Prior to conducting the primary inferential statistical analyses—specifically the mixed-design analysis of variance (ANOVA) utilized to evaluate the intervention effects over time—the foundational assumptions of parametric testing were systematically examined to ensure the statistical validity of the data. First, the assumption of

normality for the distribution of Post-Traumatic Growth scores and its sub-components across all three groups and measurement intervals was assessed using the Shapiro-Wilk test; the results indicated that the data did not significantly deviate from a normal distribution ($p > .05$). Subsequently, Levene's test for equality of error variances was employed, confirming the homogeneity of variances across the Acceptance and Commitment Therapy, Choice Theory-Based Therapy, and control groups at the pre-test, post-test, and follow-up stages ($p > .05$). Additionally, Box's M test was utilized to verify the assumption of the homogeneity of variance-covariance matrices, which yielded non-significant results ($p > .05$), thereby satisfying this crucial multivariate requirement. Finally, given the repeated-measures nature of the study design, Mauchly's test of sphericity was conducted to examine the assumption of equal variances of the differences between all possible pairs of within-subject conditions; as this assumption was also successfully met ($p > .05$), no epsilon adjustments to the degrees of freedom (such as the Greenhouse-Geisser or Huynh-Feldt corrections) were deemed necessary. Consequently, all prerequisite statistical assumptions were satisfactorily fulfilled, fully justifying the utilization of parametric procedures to analyze the therapeutic outcomes.

Table 2

Results of Repeated Measures ANOVA Comparing the Effectiveness of the Two Interventions on Post-Traumatic Growth and its Components

Variable	Source of Effect	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η_p^2
New Possibilities	Group	3.34	1	3.34	0.349	0.558	0.009
	Time	206.32	2	103.16	26.86	<0.001	0.414
	Time * Group	7.82	2	3.91	1.02	0.366	0.026
Personal Strength	Group	0.002	1	0.002	0.003	0.987	<0.001
	Time	48.87	2	24.43	7.04	0.002	0.156
	Time * Group	2.07	2	1.03	0.298	0.743	0.008
Appreciation of Life	Group	10.65	1	10.65	1.34	0.254	0.035
	Time	72.95	2	36.48	9.35	<0.001	0.197
	Time * Group	5.82	2	2.91	0.745	0.478	0.019
Spiritual Change	Group	15.25	1	15.25	2.39	0.130	0.061
	Time	69.65	2	34.82	4.72	0.012	0.111
	Time * Group	43.55	2	21.78	2.95	0.058	0.072
Post-Traumatic Growth (Total)	Group	7.75	1	7.75	0.227	0.636	0.006
	Time	1382.60	2	691.30	32.28	<0.001	0.459
	Time * Group	73.87	2	36.93	1.72	0.185	0.043

Table 2 presents the results of the repeated measures Analysis of Variance (ANOVA) conducted to directly compare the effectiveness of the two therapeutic interventions (Acceptance and Commitment Therapy versus Choice Theory-Based Therapy) on overall Post-Traumatic

Growth (PTG) and its four sub-components across the three measurement intervals. The analysis revealed a highly significant main effect of Time for overall Post-Traumatic Growth ($F = 32.28$, $p < 0.001$, $\eta_p^2 = 0.459$), as well as for

all individual sub-components: New Possibilities ($F = 26.86$, $p < 0.001$, $\eta_p^2 = 0.414$), Personal Strength ($F = 7.04$, $p = 0.002$, $\eta_p^2 = 0.156$), Appreciation of Life ($F = 9.35$, $p < 0.001$, $\eta_p^2 = 0.197$), and Spiritual Change ($F = 4.72$, $p = 0.012$, $\eta_p^2 = 0.111$). This indicates that, regardless of the specific therapy received, the participants experienced statistically significant improvements in their post-traumatic growth over the course of the study. However, the main effect of Group was non-significant for overall PTG ($F = 0.227$, $p = 0.636$) and all its sub-components, demonstrating that there was no overall difference in scores between the two intervention groups when averaged across all time points. Crucially, the Time

×Group interaction effect was also non-significant for overall PTG ($F = 1.72$, $p = 0.185$, $\eta_p^2 = 0.043$) and the sub-components of New Possibilities ($p = 0.366$), Personal Strength ($p = 0.743$), and Appreciation of Life ($p = 0.478$), with only Spiritual Change showing a marginally non-significant trend ($p = 0.058$). The absence of significant interaction effects indicates that the trajectory of improvement over time did not differ significantly between the Acceptance and Commitment Therapy group and the Choice Theory-Based Therapy group, suggesting that both psychotherapeutic approaches were similarly effective in fostering post-traumatic growth among the divorced women in the sample.

Table 3

Bonferroni Post-Hoc Test for Comparing the Effectiveness of the Two Interventions on Post-Traumatic Growth and its Components at Post-Test and Follow-Up

Variable	Time	Group	Adjusted Mean	SE	Mean Difference	<i>p</i>
New Possibilities	Post-test	ACT	38.29	0.691	0.578	0.558
		CTBT	37.71	0.691		
	Follow-up	ACT	38.23	0.685	1.22	0.218
		CTBT	37.02	0.685		
Personal Strength	Post-test	ACT	34.56	0.550	0.013	0.987
		CTBT	34.54	0.550		
	Follow-up	ACT	34.20	0.664	0.490	0.605
		CTBT	33.70	0.664		
Appreciation of Life	Post-test	ACT	34.73	0.630	1.04	0.254
		CTBT	35.77	0.630		
	Follow-up	ACT	34.20	0.572	1.24	0.135
		CTBT	35.44	0.572		
Spiritual Change	Post-test	ACT	36.70	0.567	1.24	0.130
		CTBT	35.45	0.567		
	Follow-up	ACT	36.23	0.972	2.81	0.049
		CTBT	33.42	0.972		
Post-Traumatic Growth (Total)	Post-test	ACT	144.32	1.31	0.884	0.636
		CTBT	143.43	1.31		
	Follow-up	ACT	142.82	1.50	3.18	0.143
		CTBT	139.63	1.50		

Table 3 details the results of the Bonferroni post-hoc pairwise comparisons, which were conducted to evaluate specific differences in effectiveness between the Acceptance and Commitment Therapy (ACT) and Choice Theory-Based Therapy (CTBT) groups regarding overall Post-Traumatic Growth (PTG) and its sub-components at the post-test and follow-up stages. The analysis revealed that for total Post-Traumatic Growth, there was no statistically significant difference between the two intervention groups at either the post-test (Mean Difference = 0.884, $p = 0.636$) or the follow-up assessment (Mean Difference = 3.18, $p = 0.143$).

Similar non-significant results were observed across the majority of the sub-components, including New Possibilities, Personal Strength, and Appreciation of Life, indicating that both therapies yielded comparable adjusted means at both subsequent time points ($p > 0.05$). However, a single statistically significant difference emerged within the “Spiritual Change” sub-component during the follow-up phase. Specifically, the ACT group maintained a significantly higher adjusted mean score (36.23) compared to the CTBT group (33.42), resulting in a mean difference of 2.81 ($p = 0.049$). Aside from this specific long-term

advantage in spiritual change for the ACT group, the overarching findings substantiate that both Acceptance and Commitment Therapy and Choice Theory-Based Therapy exhibit equivalent efficacy in fostering general post-traumatic growth among the participants.

4. Discussion

The primary objective of this study was to compare the effectiveness of Acceptance and Commitment Therapy (ACT) and Choice Theory-Based Therapy (CTBT) on the post-traumatic growth (PTG) of divorced women experiencing divorce grief. The results of the repeated measures analysis of variance and subsequent post-hoc tests indicated that both therapeutic modalities were significantly effective in increasing the total post-traumatic growth scores and its various sub-components—namely New Possibilities, Personal Strength, Appreciation of Life, and Spiritual Change—from the pre-test to the post-test and follow-up stages. While both interventions demonstrated comparable overall efficacy, a specific significant difference was observed in the “Spiritual Change” sub-component at the follow-up stage, where the ACT group outperformed the CTBT group.

The finding that Acceptance and Commitment Therapy significantly enhances post-traumatic growth is consistent with previous research that has utilized ACT to address trauma and chronic psychological distress. For instance, the results align with the findings of Haghighat-Bayan et al. (Haghighat-Bayan et al., 2022), who demonstrated the efficacy of ACT in improving PTG symptoms in individuals with PTSD. Similarly, the work of Kazemipour et al. (Kazemipour et al., 2021) regarding colorectal cancer patients and Ezzatpanah and Latifi (Ezzatpanah & Latifi, 2019) in fibromyalgia patients supports the notion that ACT’s focus on acceptance and values-based action provides a robust framework for transforming suffering into growth. In the context of divorced women, ACT likely works by addressing the core issue of experiential avoidance. Divorce grief often involves painful thoughts and emotions that individuals attempt to suppress or avoid. ACT encourages “cognitive defusion,” allowing these women to view their thoughts of loss and failure as mere mental events rather than absolute truths. By fostering an “observing self,” ACT helps participants detach from the identity of a “victim of divorce” and reconnect with their core values. This shift enables them to pursue “committed action,” leading to the recognition of “New Possibilities” and an increased sense of

“Personal Strength,” which are hallmarks of PTG. This mechanism is further supported by studies showing ACT’s effectiveness in reducing irrational beliefs and improving mental health in vulnerable female populations (Jaafary et al., 2022; Nikoukar et al., 2022; Zamani Froushani & Dokaneifard, 2017).

Similarly, the significant impact of Choice Theory-Based Therapy on the post-traumatic growth of divorced women aligns with theoretical expectations and existing empirical evidence. Reality therapy, the clinical application of Choice Theory, emphasizes internal control and personal responsibility. The effectiveness of this approach in the current study is consistent with the findings of Hadian et al. (Hadian et al., 2023), who reported that Reality Therapy significantly enhances responsibility and self-efficacy in divorced women. Furthermore, the work of Shahsavari et al. (Shahsavari et al., 2025) highlights how Reality Therapy improves life adjustment and the sense of meaning after divorce. By teaching participants that they are the primary architects of their own lives and that their “Total Behavior” (acting, thinking, feeling, and physiology) is under their control, CTBT helps divorced women move away from “external control” psychology—where they might blame their ex-spouse or social circumstances for their misery. Instead, they learn to evaluate their needs (survival, love, power, freedom, fun) and make better choices to fulfill them in their “Quality World.” This proactive stance inherently fosters a greater “Appreciation of Life” and “Personal Strength,” as women realize they possess the agency to rebuild their lives despite the trauma of separation. This is further corroborated by studies showing the effectiveness of Reality Therapy in reducing marital tension and improving psychological well-being (Haji Karam et al., 2019; Zakariazadeh Khatir et al., 2022).

When comparing the two interventions, the lack of a significant difference in total PTG scores suggests that both are equally viable options for clinical practice. This “equivalence” in outcome mirrors other comparative studies in the literature. For example, Zandi et al. (Zandi et al., 2023) found no significant difference between ACT and Reality Therapy in improving self-care for diabetic patients, and Behzadi et al. (Behzadi et al., 2021) found similar results regarding life satisfaction. Additionally, studies by Abron et al. (Abron et al., 2024) and Bani Hashemi et al. (Bani Hashemi et al., 2020) have shown that while the theoretical mechanisms of ACT (acceptance/mindfulness) and Choice Theory (responsibility/choice) differ, they often lead to comparable improvements in general health, quality of life,

and loneliness. In the case of divorce grief, both therapies effectively target the “stuckness” that follows trauma. ACT does this through psychological flexibility, while CTBT does it through responsible choice-making.

The finding that ACT was superior to CTBT specifically in the “Spiritual Change” domain at the follow-up stage is a noteworthy distinction. This may be attributed to ACT’s unique focus on the “Self-as-Context” or the “Transcendent Self.” Unlike Choice Theory, which focuses heavily on practical behavioral changes and need fulfillment in the physical and social world, ACT incorporates a spiritual-like dimension of mindfulness and selfless awareness. This allows participants to connect with something larger than their immediate emotional pain or life circumstances. The sustained effect at follow-up suggests that the spiritual reorganization facilitated by ACT—viewing one’s life through the lens of timeless values rather than temporary circumstances—may provide a deeper, more enduring form of growth than the purely choice-based behavioral adjustments of CTBT. This aligns with the work of Sepas et al. (Sepas et al., 2022), who noted ACT’s long-term impact on deep-seated anxiety sensitivities.

5. Conclusion

In conclusion, the data demonstrates that both Acceptance and Commitment Therapy and Choice Theory-Based Therapy are highly effective in promoting post-traumatic growth in divorced women. They help transform the “brokenness” of divorce grief into a catalyst for personal development. While both are effective, ACT may offer a slight advantage in fostering long-term spiritual development and a deeper existential shift.

6. Limitations & Suggestions

Despite the significant findings, several limitations of this study must be acknowledged. First, the sample was restricted to a specific geographic and cultural context, which may limit the generalizability of the findings to women from different cultural or socioeconomic backgrounds. Second, the reliance on self-report measures for assessing post-traumatic growth and divorce grief introduces the possibility of social desirability bias or subjective interpretation errors by the participants. Third, the three-month follow-up period, while useful, is relatively short for assessing the long-term stability of post-traumatic growth, which is often a lifelong process. Finally, the study did not control for all potential confounding variables, such as the duration of the marriage,

the specific reasons for the divorce, or the presence of co-parenting challenges, which could significantly influence the trajectory of grief and growth.

Future research should aim to address these limitations by utilizing larger and more diverse samples from various regions and cultural backgrounds to enhance external validity. Longitudinal studies with extended follow-up periods—ranging from one to five years—would be invaluable in determining the long-term durability of the growth experienced through these interventions. Researchers should also consider employing a multi-method assessment approach, combining self-report scales with clinical interviews or peer-observer ratings to triangulate the data. Furthermore, future studies could explore the “matching hypothesis” by investigating which specific personality traits or grief profiles respond better to ACT versus Choice Theory. Additionally, comparing these third-wave and choice-based therapies with other modern approaches, such as Emotion-Focused Therapy or Resilience Training, would further refine the therapeutic options available for this population.

From a clinical perspective, the results suggest that mental health practitioners and counseling centers specializing in divorce should integrate both ACT and Choice Theory-Based Therapy into their service offerings. For clients who present with high levels of experiential avoidance and a need for existential reorientation, ACT may be particularly beneficial due to its focus on mindfulness and its superior impact on spiritual change. For clients who feel powerless or trapped by external circumstances and require immediate, practical tools to regain control of their lives, Choice Theory-Based Therapy and Reality Therapy offer an empowering framework for personal responsibility and behavioral planning. Practitioners are encouraged to use a “modular” approach, perhaps utilizing Choice Theory to stabilize the client’s immediate post-divorce environment and using ACT techniques to facilitate deeper, long-term post-traumatic growth and spiritual development. Training programs for family counselors should include both protocols to provide a comprehensive toolkit for helping women navigate the complex journey from divorce grief to psychological flourishing.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. This study was conducted with ethical approval from the Islamic Azad University under the ethics code IR.IAU.SDJ.REC.1404.082.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

All authors have equally contributed to the research process and the development of the manuscript.

Declaration

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