

The Effectiveness of an Acceptance and Commitment–Based Post-Divorce Co-Parenting Educational Package on Children’s Internalizing and Externalizing Disorders

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ABSTRACT

Objective: The present study aimed to examine the effectiveness of an Acceptance and Commitment Therapy (ACT)–based post-divorce co-parenting educational package on children’s internalizing and externalizing disorders.

Methods and Materials: This research employed a quasi-experimental design with pretest–posttest, a control group, and a three-month follow-up stage. The statistical population consisted of all divorced parents with children in the city of Isfahan in 2024, from which 40 participants were purposively selected and randomly assigned to an experimental group (n = 20) and a control group (n = 20). The experimental group received the ACT-based post-divorce co-parenting educational package across ten 90-minute sessions (Rabiee & Mirahmadi, 2024), while the control group remained on a waiting list. The research instrument was the Child Behavior Checklist (Achenbach & Rescorla, 2001), administered at three time points. Data were analyzed using repeated-measures analysis of variance and Bonferroni post hoc tests in SPSS version 26.

Findings: The results indicated that the ACT-based post-divorce co-parenting educational package led to a statistically significant reduction in children’s internalizing and externalizing disorders (p = .001). Follow-up findings further confirmed the stability of the positive effects of this intervention over time (p = .001).

Conclusion: The findings demonstrate that the ACT-based post-divorce co-parenting educational package, by strengthening emotional acceptance, enhancing psychological flexibility, and improving interparental communication patterns, can play an effective role in reducing children’s internalizing and externalizing disorders.

Keywords: Co-parenting; Divorce; Acceptance and Commitment Therapy; Internalizing and Externalizing Disorders

1. Introduction

Divorce is widely recognized as a major family transition that can reorganize parental roles, living arrangements, economic resources, and children's daily routines, often introducing persistent stressors that elevate vulnerability to maladjustment. Contemporary syntheses indicate that, across diverse sociocultural contexts, parental divorce is associated with increased risk for a broad spectrum of child and adolescent mental health difficulties, with the magnitude and pattern of effects shaped by post-divorce family processes, interparental conflict, and the quality of parenting and co-parenting arrangements (Caksen, 2022; Douglas, 2020; Garriga & Pennoni, 2022; Wasono et al., 2025). Importantly, the post-divorce period frequently entails cumulative stress exposure rather than a time-limited disruption, particularly when conflict persists, parents struggle to coordinate parenting responsibilities, or children experience loyalty conflicts and instability in caregiving routines (Zemp et al., 2024; Zhang et al., 2023). Within this broader landscape, children's outcomes are often discussed in terms of internalizing and externalizing symptomatology—two empirically robust domains that summarize common expressions of distress and dysregulation and are routinely used in developmental psychopathology research and clinical practice.

Internalizing problems typically include anxiety, depressive symptoms, withdrawal, and somatic complaints, reflecting inwardly directed distress. Externalizing problems encompass aggression, rule-breaking behavior, impulsivity, and defiance, reflecting outwardly directed behavioral dysregulation. Epidemiological and cross-national evidence suggests that both domains are prevalent during adolescence and may co-occur or fluctuate across development; moreover, they shape peer functioning, academic performance, and longer-term psychosocial trajectories (Babicka-Wirkus et al., 2023; Mannarini et al., 2023). The salience of these domains in the context of divorce is reinforced by national evidence linking parental divorce to adverse mental health outcomes among adolescents, underscoring divorce as a relevant family-level correlate of emotional and behavioral difficulties (Obeid et al., 2021). Mixed-methods and qualitative inquiries further illustrate how divorce-related changes in emotional security, perceived family cohesion, and the availability of supportive parent-child communication can influence emotional development in early adolescence, thereby contributing to vulnerability for internalizing and externalizing responses

(Dilla & Wado, 2024; Situmorang et al., 2024). At the same time, research has increasingly emphasized that divorce per se is not deterministic; rather, it is the interaction between divorce-related stress and post-divorce family functioning—especially co-parenting quality, conflict management, and emotion socialization—that helps explain heterogeneity in child adjustment.

Co-parenting refers to the ways parents coordinate and support one another in their parenting roles, including communication, agreement on childrearing practices, conflict management, and mutual respect in front of the child. In post-divorce families, co-parenting becomes both more challenging and more consequential because parents must maintain a functional parenting alliance without the scaffolding of an ongoing romantic relationship. Conceptual work suggests that co-parenting constructs have expanded beyond traditional marital contexts, requiring careful definitional clarity across family structures and cooperative parenting arrangements (Decappelle et al., 2025). Applied perspectives similarly highlight that family professionals often conceptualize “ideal” post-divorce co-parenting in terms of child-centered coordination, predictable boundaries, and conflict containment, all of which are presumed to protect children from triangulation and chronic stress exposure (Böök et al., 2025). Recent accounts of co-parenting experiences, including research on parents' lived experiences after divorce and studies exploring parents' day-to-day coordination processes, demonstrate that co-parenting is a dynamic practice shaped by communication channels, trust, routines, and perceived fairness in role distribution (Lin et al., 2024; Rabiee et al., 2022). These insights align with a growing empirical focus on co-parenting as a proximal family process that can either buffer or exacerbate children's internalizing and externalizing symptoms.

A strong quantitative foundation supports the association between co-parenting behaviors and child adjustment. Meta-analytic evidence indicates that supportive, coordinated co-parenting is associated with fewer internalizing and externalizing problems, whereas conflictual or undermining co-parenting relates to higher symptom levels in children and adolescents (Zhao et al., 2022). Longitudinal research further clarifies that interparental conflict and emotional warmth can co-develop over time and jointly shape children's developmental trajectories of internalizing and externalizing problems, implying that the child's adjustment is tied not only to “how much conflict” exists but also to how conflict co-occurs with warmth, responsiveness, and

emotional security within the family system (Zemp et al., 2024). Related longitudinal evidence links family conflict to suicidal behaviors among adolescents and suggests that internalizing and externalizing problems may serve as mediating pathways, underscoring the clinical and public health relevance of reducing these symptom domains through family-based preventive strategies (Zhang et al., 2023). In high-conflict divorces, profiles characterized by elevated symptomatology may be intertwined with co-parenting strain and emotion socialization patterns, suggesting that interventions may need to address both parents' relational processes and the child's emotional and behavioral regulation (Pellón-Elexpuru et al., 2024).

Given these considerations, intervention research has increasingly focused on post-divorce parenting and co-parenting programs designed to reduce children's mental health problems by improving parenting quality, strengthening protective family processes, and reducing exposure to interparental conflict. Among the most extensively studied programs, the New Beginnings Program has shown a progression from efficacy to effectiveness and is frequently cited as a model for translating evidence-based interventions into community contexts for divorcing and separating families (Sandler et al., 2017; Sandler et al., 2019; Wolchik et al., 2009). In addition to demonstrating positive outcomes, this line of work emphasizes mechanisms of change, including parents' practice of program skills ("home practice") as a predictor of program effects—an operational insight that can inform how educational packages are structured, delivered, and supported between sessions (Berkel et al., 2018). Digital and online adaptations also suggest that improvements in co-parenting conflict can translate into gains in child adjustment, supporting scalable intervention delivery models and highlighting the relevance of structured training for families experiencing relationship distress and co-parenting difficulties (Doss et al., 2020).

Within this broader evidence base, Acceptance and Commitment Therapy (ACT) has emerged as a promising framework for enhancing psychological flexibility, emotion regulation, and values-consistent behavior under conditions of stress, which may be particularly relevant for parents navigating divorce-related conflict and parenting strain. Parent-focused ACT approaches have been examined in the form of parent counseling, with early evidence suggesting benefits for parental functioning that may have downstream implications for family processes and child outcomes (Bodden & Matthijssen, 2021). Moreover, ACT-based interventions have been developed and tested among

populations with a history of parental divorce, including modules targeting students' mental health and studies comparing ACT with other therapeutic approaches in adolescent samples, thereby building a rationale for ACT as an adaptable approach across developmental periods (Ganaprakasam et al., 2024; Khalili, 2024). Online ACT interventions have also demonstrated potential to improve children's quality of life, lending support to the feasibility of ACT-informed psychoeducational delivery formats (Sairanen et al., 2022). Collectively, these findings suggest that ACT's emphasis on acceptance of internal experiences, cognitive defusion, present-moment awareness, and committed action may be well-suited to high-stress family transitions, where attempts to avoid distress can inadvertently escalate conflict, harsh parenting, or emotional disengagement.

The emerging literature also includes co-parenting-specific ACT-oriented work. For example, ACT-based co-parenting education has been examined with a focus on co-parenting self-efficacy, self-regulation, and psychological flexibility, reflecting a conceptual alignment between ACT processes and the demands of cooperative parenting under strain (Guida, 2023). In parallel, acceptance- and commitment-based parenting approaches have been evaluated in relation to parent-child interaction and impulsivity among students with externalized behavioral-emotional problems, highlighting parenting-focused ACT applications that may be transferable to post-divorce contexts where children exhibit externalizing symptoms (Mobini Kashe et al., 2024). Related Iranian and regional intervention studies have reported beneficial effects of ACT group therapy for children of divorce on psychological well-being and happiness, and have documented ACT-based interventions for adolescents experiencing parental divorce mourning, with outcomes including cognitive emotion regulation and self-criticism—constructs relevant to internalizing vulnerability (Gholami et al., 2024; Zolghadri et al., 2024). Recent work also extends ACT applications to parent training aimed at reducing children's externalizing disorder symptoms, further strengthening the argument that ACT-based parent-focused interventions can influence child behavior patterns through changes in parental responses, emotional acceptance, and consistent behavioral management (Pordel et al., 2025).

At the same time, the broader divorce-intervention literature underscores that multiple approaches can be beneficial, including resilience training, self-control strategy interventions, and structured programs specifically designed

for children of divorce. For instance, resilience training and ACT group training have been compared among students from divorced families with attention to contextual moderators such as age at divorce and time since divorce, indicating that individual and family timing factors may shape intervention responsiveness (Ansari et al., 2025). Earlier Iranian work on divorce intervention programs for children highlights improvements in self-control strategies, suggesting that targeted skills training can directly affect self-regulation capacities that underlie both internalizing and externalizing symptoms (Asemi et al., 2015). Similarly, the Children of Divorce Intervention Program (CODIP) has demonstrated reductions in internalized and externalized problems, reinforcing the utility of structured, evidence-informed interventions tailored to divorce-related stressors (Hoseini Yazdi et al., 2015). Beyond divorce-specific programs, developmental evidence indicates that internalizing and externalizing problems can co-occur with other child difficulties (e.g., learning disorders), implying that interventions should be sensitive to comorbidity patterns and the possibility that emotional/behavioral symptoms may be embedded within broader developmental challenges (Donolato et al., 2022).

Despite these advances, several gaps remain salient. First, co-parenting interventions vary in theoretical grounding, content focus, and delivery intensity, and there is continued need for integrated educational packages that simultaneously target co-parenting coordination and evidence-based psychological processes that support emotion regulation and behavioral consistency. Second, high-conflict co-parenting contexts may require interventions that address parents' experiential avoidance, rigid responding, and escalation cycles—targets that are central to ACT's model of psychological flexibility. Third, while evidence supports the centrality of post-divorce relationship quality and co-parenting behavior for child outcomes, translating these insights into accessible, culturally attuned educational packages remains an ongoing challenge, particularly in settings where divorced parents may face stigma, limited support, or practical barriers to sustained participation (Mannarini et al., 2023; Rabiee & Mirahmadi, 2024). Additionally, professional and conceptual discussions of co-parenting ideals and definitions suggest that what constitutes "effective" co-parenting may be context-dependent and may need to be operationalized in ways that are meaningful for divorced parents, service providers, and community-based delivery systems (Böök et al., 2025; Decappelle et al., 2025).

Finally, contemporary developmental psychopathology research reminds us that internalizing and externalizing problems often emerge in relation to layered adversity and trauma exposure. For adolescents exposed to trauma, internalizing and externalizing disorders may be intertwined with posttraumatic stress severity, implying that interventions targeting family stress processes may be particularly important in contexts where divorce co-occurs with other adversities (van den Heuvel et al., 2025). This reinforces the value of preventive, skills-based, and process-focused interventions that help parents reduce children's stress exposure and support adaptive regulation across time. A post-divorce co-parenting educational package grounded in ACT may therefore be conceptually positioned to (a) strengthen parents' ability to accept difficult emotions without reactive escalation, (b) increase values-based coordination and consistent parenting practices, and (c) reduce coercive or inconsistent interactions that maintain children's externalizing symptoms, while also supporting warmth, responsiveness, and emotional validation that protect against internalizing symptoms (Berkel et al., 2018; Doss et al., 2020; Zhao et al., 2022). In this sense, integrating co-parenting education with ACT processes may address both the interpersonal (co-parenting conflict and coordination) and intrapersonal (psychological flexibility and self-regulation) mechanisms that are relevant to children's adjustment after divorce.

Accordingly, the aim of this study was to examine the effectiveness of an Acceptance and Commitment-based post-divorce co-parenting educational package on children's internalizing and externalizing problems.

2. Methods and Materials

2.1. Study Design and Participants

The present study was quasi-experimental and employed a pretest–posttest design with a control group and a three-month follow-up. The statistical population consisted of all divorced parents with children, identified through the dissemination of a research call in counseling centers in the city of Isfahan in 2024. From this population, 40 participants were purposively selected and randomly assigned to the experimental group ($n = 20$) and the control group ($n = 20$). Inclusion criteria were: having at least one child aged 6 to 18 years; obtaining a score above 63 on the Child Behavior Checklist (Achenbach & Rescorla, 2001); and providing full and voluntary informed consent to participate in the study. Exclusion criteria included: concurrent participation in

psychotherapy or pharmacotherapy during the intervention; absence from more than two sessions; failure to complete assigned tasks; substance abuse; and diagnosis of a severe clinical disorder or personality disorder (based on diagnostic interview).

2.2. Measures

Child Behavior Checklist (CBCL): This questionnaire was developed by Achenbach and colleagues in 2001 and is completed by one of the parents based on the child's functioning during the previous six months. It contains 113 three-point items rated from 0 (never) to 2 (always) and is organized into eight subscales: (1) Anxious/Depressed (items 14, 29, 30, 31, 32, 33, 35, 45, 50, 52, 71, 91, 112); (2) Withdrawn/Depressed (items 5, 42, 65, 69, 75, 102, 103, 111); (3) Somatic Complaints (items 47, 49, 51, 54, 56a, 56b, 56c, 56d, 56e, 56f, 56g, and if applicable 56h); (4) Social Problems (items 11, 12, 25, 27, 34, 36, 38, 48, 62, 64, 79); (5) Thought Problems (items 9, 18, 40, 46, 58, 59, 60, 66, 70, 76, 80, 83, 84, 85, 92, 100); (6) Attention Problems (items 1, 4, 8, 10, 13, 17, 41, 61, 78, 80); (7) Rule-Breaking Behavior (items 2, 26, 28, 39, 43, 63, 67, 72, 73, 81, 82, 90, 96, 99, 101, 105, 106); and (8) Aggressive Behavior (items 3, 16, 19, 20, 21, 22, 23, 27, 37, 57, 68, 86, 87, 88, 89, 94, 95, 97, 104). In addition to the above subscales, the CBCL yields three broadband scores: Internalizing Problems (items of the Withdrawn/Depressed, Somatic Complaints, and Anxious/Depressed subscales), Externalizing Problems (items of the Rule-Breaking Behavior and Aggressive Behavior subscales), and Total Problems (including all items except items 2 and 4 related to allergy and asthma). Scores range from below 60 to above 63. In score interpretation, values below 60 indicate the normal or non-clinical range, scores between 60 and 63 indicate the borderline-clinical range, and scores above 63 indicate the clinical range. The original version of the questionnaire was validated by Achenbach et al. (2007) with Cronbach's alpha of .97 and test-retest reliability of .94. The Persian version was validated by Minaei (2006) with Cronbach's alpha of .81 and test-retest reliability of .94. Furthermore, Yazdkhasti and Arizi (2011) reported Cronbach's alpha coefficients of .90, .93, and .82 for the parent, teacher, and child forms, respectively. Regarding construct validity, correlations between the behavioral-emotional problem subscales and the total problem score were reported as .62-.88 (parent form), .44-.91 (teacher form), and .51-.85 (child form), and correlations between the skills subscales and the total skills

score were .24-.82 (parent form), .77-.93 (teacher form), and .64-.87 (child form).

2.3. Intervention

The intervention protocol consisted of a researcher-developed post-divorce co-parenting educational package based on Acceptance and Commitment Therapy (ACT) delivered to the experimental group in ten 90-minute weekly sessions. The program systematically guided parents through progressive skill acquisition, beginning with conceptual orientation to co-parenting after divorce and its distinction from spousal roles, followed by emotional awareness and healthy emotional expression related to post-divorce experiences, and continued with core ACT processes including creative hopelessness, cognitive defusion, emotional acceptance, values clarification, mindfulness, and self-compassion. Subsequent sessions focused on strengthening child-centered parental identity, separating the "parental mind" from the "spousal mind," addressing internal and external barriers to cooperative parenting, and establishing structured, respectful communication protocols for post-divorce interaction. Each session incorporated experiential exercises, metaphors, reflective discussions, behavioral tasks, and between-session assignments designed to promote psychological flexibility, enhance emotional regulation, and align daily parenting behaviors with identified parental values. The control group received no intervention during this period. All participants completed outcome assessments at pretest, posttest, and three months after the intervention. In accordance with ethical principles, the same 10-session intervention was subsequently offered to the control group following completion of the study.

2.4. Data Analysis

In this study, descriptive statistics (mean and standard deviation) and inferential statistics using repeated-measures analysis of variance were applied. Statistical analyses were conducted using the Statistical Package for the Social Sciences (SPSS), version 26.

3. Findings and Results

In the present study, the mean age of the participants was 33 years with a standard deviation of 5. In the intervention group, 5 participants (25%) held a high school diploma, 9 participants (45%) had a bachelor's degree, 4 participants (20%) had a master's degree, and 2 participants (10%) held

a doctoral degree. In the control group, 3 participants (15%) had a high school diploma, 11 participants (55%) had a bachelor's degree, 4 participants (20%) had a master's degree, and 2 participants (10%) held a doctoral degree. Regarding the duration of divorce, in the control group 5 participants (25%) had experienced divorce for 1–3 years, 9

participants (45%) for 4–7 years, and 6 participants (30%) for 8–10 years. In the intervention group, 5 participants (25%) had experienced divorce for 1–3 years, 8 participants (40%) for 4–7 years, and 7 participants (35%) for 8–10 years.

Table 1

Descriptive Characteristics of Internalizing and Externalizing Variables in the Intervention and Control Groups

Variable	Stage	Control Group Mean	SD	Skewness	Kurtosis	Intervention Group Mean	SD	Skewness	Kurtosis
Internalizing Problems	Pretest	17.95	9.64	0.82	0.59	17.10	12.46	0.52	-0.87
	Posttest	16.70	9.27	1.09	1.56	8.55	6.35	0.16	-1.08
	Follow-up	14.65	9.56	1.12	1.21	6.40	5.22	-0.41	-0.16
Externalizing Problems	Pretest	14.25	9.04	0.53	-0.65	14.05	11.00	0.48	-1.25
	Posttest	14.70	8.99	0.43	-0.65	7.10	7.41	0.93	-0.55
	Follow-up	15.25	9.58	0.90	0.42	6.20	4.77	0.81	-0.54

The observations in Table 1 present descriptive statistics (frequency, minimum, maximum, mean, standard deviation, skewness, and kurtosis) for internalizing and externalizing disorders across pretest, posttest, and follow-up stages in both the control and intervention groups. Prior to conducting the repeated-measures analysis of variance, its assumptions were examined, including normality of data distribution, homogeneity of variances, and equality of covariance matrices. The Kolmogorov–Smirnov test was used to assess the normality assumption. Results indicated that in the intervention group the values were 0.23 for internalizing problems and 0.16 for externalizing problems, and in the control group 0.20 for internalizing problems and 0.17 for externalizing problems. All these values were greater than $p > .05$, confirming the normal distribution of the data.

The assumption of homogeneity of variances was examined using Levene's test. In the intervention group, the values were 1.73 for internalizing problems and 1.38 for externalizing problems, while in the control group they were 2.52 and 1.23, respectively. None of these values were statistically significant ($p > .05$), indicating that the assumption of homogeneity of variances was satisfied. The assumption of equality of covariance matrices was tested using Box's M test and was not supported. Additionally, Mauchly's test of sphericity was conducted and was not confirmed; therefore, the Greenhouse–Geisser correction was applied. The purpose of this test is to adjust the degrees of freedom in repeated-measures analysis of variance.

Table 2

Greenhouse–Geisser Test Results in Repeated-Measures Analysis of Variance

Effect	Variable	Power	F	df	p-value	Effect Size (Partial η^2)
Time	Internalizing Problems	1.00	35.78	1	.001	.48
	Externalizing Problems	0.96	10.66	1	.001	.21
Time × Group	Internalizing Problems	0.96	12.48	1	.001	.24
	Externalizing Problems	0.99	16.13	1	.001	.29

As shown in Table 2, for all dependent variables both the main effect of time and the interaction effect of time and group were statistically significant ($p < .001$ for all cases). The F values ranged from 10.66 to 35.78, indicating strong

observed effects. Statistical power values ranged from 0.96 to 1.00, reflecting high sensitivity of the test in detecting true effects. Furthermore, effect sizes based on partial eta squared ranged from .21 to .48. According to Cohen's (1988) criteria,

these values represent large effect sizes, indicating that a substantial proportion of the variance in the dependent variables is explained by the independent factors (time and

time × group interaction). To further examine group differences across pretest, posttest, and follow-up stages, Bonferroni post-hoc test results are presented in Table 3.

Table 3

Bonferroni Test Results for Comparisons Between Intervention and Control Groups

Variable	Stage	Group (I)	Group (J)	Mean Difference	Standard Error	p-value
Internalizing Problems	Pretest	Intervention	Control	4.00	0.00	.000
	Posttest	Intervention	Control	-4.00	0.00	.000
	Follow-up	Intervention	Control	-7.00	1.02	.000
Externalizing Problems	Pretest	Intervention	Control	3.00	0.00	.001
	Posttest	Intervention	Control	-3.00	0.00	.001
	Follow-up	Intervention	Control	-3.00	1.00	.005

The results presented in Table 3 indicate significant differences between the intervention and control groups in both internalizing and externalizing problems at posttest and follow-up stages ($p < .001$). These findings demonstrate that the observed differences favored the intervention group at both posttest and follow-up and that the improvements in the intervention group remained stable over time. This stability is evidenced by the fact that group differences at the follow-up stage remained statistically significant and did not revert to pretest levels, as observed in the control group.

Overall, the findings indicate that compared with the control group, the intervention group that received the Acceptance and Commitment Therapy-based post-divorce co-parenting educational package exhibited sustained improvements in children’s internalizing and externalizing problems. The Bonferroni results shown in Table 4 confirm that across all dimensions, significant differences between the intervention and control groups were observed at posttest and follow-up ($p < .01$), demonstrating that the positive effects of the intervention were durable over time.

4. Discussion

The present study examined the effectiveness of an Acceptance and Commitment-based post-divorce co-parenting educational package on reducing children’s internalizing and externalizing problems. The findings demonstrated statistically significant improvements in both domains for the intervention group compared with the control group at posttest, and these gains were maintained at the three-month follow-up. These results indicate not only short-term efficacy but also the temporal stability of the intervention effects, underscoring the clinical and preventive value of integrating Acceptance and Commitment Therapy

(ACT) principles into post-divorce co-parenting education. The large effect sizes and high statistical power observed further confirm the robustness of these outcomes and their substantive relevance for child mental health interventions in post-divorce contexts.

The reduction in internalizing problems observed among children whose parents participated in the ACT-based co-parenting program is consistent with a substantial body of literature identifying post-divorce family processes—particularly co-parenting quality and emotional climate—as central determinants of children’s emotional adjustment. Divorce has been repeatedly associated with elevated risks for anxiety, depression, withdrawal, and somatic complaints among children and adolescents, with these risks mediated by parental conflict, emotional unavailability, and inconsistent parenting (Douglas, 2020; Obeid et al., 2021; Wasono et al., 2025). Longitudinal evidence indicates that trajectories of internalizing symptoms are strongly shaped by the joint evolution of interparental conflict and emotional warmth over time, suggesting that improvements in parental coordination and emotional responsiveness can exert protective effects on children’s internal emotional states (Zemp et al., 2024). By directly targeting parental psychological flexibility, emotional acceptance, and values-based communication, the present intervention likely disrupted maladaptive interaction patterns that maintain children’s emotional distress, thereby facilitating sustained reductions in internalizing symptomatology.

The observed reductions in externalizing problems align equally well with existing theoretical and empirical models. Externalizing behaviors—such as aggression, impulsivity, and rule-breaking—are often exacerbated in high-conflict post-divorce environments where inconsistent discipline, parental hostility, and coercive interaction cycles prevail

(Babicka-Wirkus et al., 2023; Caksen, 2022). Meta-analytic evidence confirms that supportive co-parenting behaviors are inversely related to children's externalizing problems, while conflictual co-parenting reliably predicts higher symptom levels (Zhao et al., 2022). The ACT-based co-parenting intervention likely improved parents' capacity to respond to children's challenging behaviors with emotional regulation and behavioral consistency, reducing reactive discipline and enhancing cooperative rule enforcement. These changes directly correspond with mechanisms identified in prior research on parenting-focused ACT interventions, which demonstrate improvements in parent-child interaction and reductions in children's behavioral-emotional dysregulation (Mobini Kashe et al., 2024; Pordel et al., 2025).

The durability of the intervention effects observed at follow-up further strengthens the interpretation of the results. Maintenance of gains over time is a critical criterion for evaluating the effectiveness of psychosocial interventions in family contexts, particularly given the chronic stressors often accompanying divorce. Similar patterns of sustained benefit have been documented in evidence-based divorce interventions, including the New Beginnings Program, where long-term improvements in child adjustment and parenting quality have been reported across multiple follow-up intervals (Sandler et al., 2017; Sandler et al., 2019; Wolchik et al., 2009). The present findings extend this literature by demonstrating that ACT-based co-parenting education can achieve comparable durability of effects, suggesting that the cultivation of psychological flexibility and values-driven parenting behaviors yields enduring changes in family functioning.

From a process perspective, the intervention's success may be explained by its impact on several interconnected mechanisms of change. ACT emphasizes acceptance of internal experiences, reduction of experiential avoidance, enhancement of present-moment awareness, cognitive defusion, and commitment to values-consistent action. These processes directly counteract the emotional reactivity, rigidity, and avoidance that often fuel post-divorce conflict and dysfunctional co-parenting patterns (Bodden & Matthijssen, 2021; Ganaprakasam et al., 2024). By equipping parents with skills to tolerate distress, disengage from unhelpful cognitive fusion, and coordinate parenting behaviors in alignment with child-centered values, the intervention likely altered both the emotional and behavioral ecology of the family system. This interpretation is consistent with research demonstrating that parental practice

of program skills mediates intervention outcomes and predicts sustained child adjustment (Berkel et al., 2018).

The results also resonate with emerging evidence from ACT-based co-parenting education studies that document improvements in co-parenting self-efficacy, self-regulation, and psychological flexibility among high-conflict co-parents (Guida, 2023). Such improvements are theoretically linked to more consistent parenting practices, reduced interparental hostility, and improved emotional security for children—conditions known to protect against both internalizing and externalizing symptom development (Zemp et al., 2024; Zhao et al., 2022). Furthermore, the findings are compatible with studies indicating that ACT interventions improve adolescents' emotion regulation, cognitive processing, and psychological well-being following parental divorce, thereby reducing vulnerability to emotional disorders (Gholami et al., 2024; Zolghadri et al., 2024).

In a broader developmental context, the results contribute to the growing recognition that divorce-related child adjustment is best understood through a transactional framework in which individual vulnerabilities, family processes, and contextual stressors dynamically interact. Trauma-exposed adolescents exhibit particularly strong associations between internalizing/externalizing disorders and posttraumatic stress severity, underscoring the need for interventions that operate simultaneously on emotional regulation and relational stability (van den Heuvel et al., 2025). The present intervention appears to fulfill this dual function by enhancing parental regulation capacities while simultaneously improving the relational environment in which children develop.

5. Conclusion

Taken together, the findings provide compelling evidence that an ACT-based post-divorce co-parenting educational package constitutes an effective, durable, and theoretically coherent intervention for reducing children's internalizing and externalizing problems. By addressing both intrapersonal and interpersonal determinants of child adjustment, the intervention contributes meaningfully to the evolving science of divorce-related family interventions and offers a promising model for scalable community-based application.

6. Limitations & Suggestions

Despite the strength of the findings, several limitations warrant consideration. The sample size was relatively

modest and drawn from a single urban region, which may limit the generalizability of the results to other cultural or socioeconomic contexts. The reliance on parental reports for child behavior assessment introduces the possibility of reporting bias, particularly given that parents in the intervention group may have become more attuned to adaptive interpretations of child behavior. The follow-up period, although sufficient to demonstrate short-term maintenance, does not capture long-term developmental trajectories; future studies with extended longitudinal designs would provide more comprehensive insight into durability of effects. Additionally, potential moderating variables such as parental conflict history, child temperament, and socio-economic stress were not examined.

Future investigations should examine the differential effectiveness of ACT-based co-parenting education across diverse family structures, cultural contexts, and levels of conflict severity. Larger multisite trials would strengthen external validity and allow for examination of moderating and mediating mechanisms of change. Longitudinal studies spanning multiple years could clarify how early post-divorce interventions influence adolescent and adult psychosocial outcomes. Incorporating multi-informant assessments, including teacher and child self-reports, would enhance measurement precision. Finally, comparative studies contrasting ACT-based co-parenting interventions with other evidence-based parenting models could clarify relative efficacy and cost-effectiveness.

Practitioners working with divorced families should consider integrating Acceptance and Commitment principles into co-parenting education programs. Training parents to develop psychological flexibility, emotional regulation, and values-driven communication may produce durable improvements in child adjustment. Community mental health centers and family courts could adopt structured ACT-based co-parenting packages as part of standard post-divorce services. Schools and pediatric clinics may also benefit from collaborating with family therapists to identify high-risk children and facilitate timely referral to such programs.

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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.

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

Z.R. designed the study, developed the ACT-based post-divorce co-parenting educational package, and supervised the overall research process. Z.Y. coordinated participant recruitment, implemented the intervention sessions, and managed data collection. M.B.E. conducted the statistical analyses, interpreted the results, and prepared the initial manuscript draft. All authors contributed to the conceptual refinement of the study, critically reviewed the manuscript, approved the final version, and accept full responsibility for the integrity and accuracy of the work.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

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