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#### Introduction

Adolescence is a sensitive stage of life characterized by rapid changes and growth. These changes are associated with behaviors significantly impacting adolescent health (Braams et al., 2025; Junaid et al., 2025). When adolescents fail to overcome developmental crises

Comparison of the Effectiveness of Acceptance and Commitment Therapy and Mindfulness Therapy on the Tendency Toward Risky Behaviors and Life Orientation Among Adolescents in Conflict with Parents

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### ABSTRACT

**Objective:** This study examines the effectiveness of Acceptance and Commitment Therapy (ACT) and mindfulness training in reducing risky behaviors and improving life orientation among adolescents experiencing parent-child conflict.

Methods and Materials: A total of 45 adolescents were selected using convenience sampling and randomly assigned to three groups: ACT, mindfulness, and a control group, with 15 participants in each. Pre- and post-intervention assessments were conducted using standardized questionnaires to measure tendencies toward risky behaviors and life orientation.

**Findings:** The findings revealed that both ACT and mindfulness significantly reduced risky behaviors and enhanced positive life orientation compared to the control group (P< 0.05). Moreover, ACT demonstrated greater effectiveness than mindfulness in achieving these outcomes (P< 0.05).

**Conclusion:** These results highlight ACT's ability to address risky behaviors by promoting psychological flexibility and value-based actions. This study underscores the importance of psychological interventions, such as ACT and mindfulness, in reducing parent-adolescent conflicts and fostering adaptive behaviors during adolescence. The practical implications extend to counselors, parents, and educators, emphasizing the necessity of adopting evidence-based methods to support adolescent mental health. Future research should explore the long-term impact of these interventions, their applicability across different cultural contexts, and their effects on diverse populations. In conclusion, this research contributes to the growing body of evidence supporting ACT as an effective approach for improving adolescent well-being and mitigating the negative outcomes of parent-child conflict.

**Keywords:** Acceptance and Commitment Therapy, Mindfulness, Risky Behaviors, Life Orientation, Parent-Adolescent Conflict, Adolescence.

and challenges, they experience psychological distress, leading to notable disruptions in daily functioning and emotional, social, and cognitive domains, which in turn can destabilize their personality (Larni, 2025). Considering the pivotal role of families in shaping adolescent behavior, the parent-child relationship is crucial. This relationship fosters feelings of security and love and encompasses a unique set of behaviors, emotions, and expectations between parents and their children. It contributes to developing various skills and values and influences primary positive or negative perceptions, shaping behavior into adulthood (Li & Ma, 2025; Manesh & Malak, 2025).

Parent-child conflict is a discordant state, a difference in opinion, or behavioral opposition, representing a specific aspect of the parent-child relationship (Rothbaum et al., 2021). Conflicts, often manifesting as disagreements, arguments, and disputes, are a prominent form of adolescent interaction. They arise from developmental changes, especially during early adolescence, as adolescents strive for independence (Smetana & Monroe, 2020). Parent-adolescent conflicts may involve verbal disputes, criticism, or physical aggression (Dornbusch et al., 2021), but they do not necessarily negatively impact (Rothbaum et al., 2021). However, higher levels of parent-adolescent conflict are associated with increased negative emotions and behavioral problems among adolescents (Loeber & Stouthamer-Loeber, 2022). Conversely, a warm, intimate family environment and a loving parent-child relationship can significantly reduce aggression (Murray et al., 2020). Studies on behavioral issues indicate that problematic behaviors such as aggression and bullying often stem more from dysfunctional family environments, unhealthy structures, and inadequate parenting practices than from genetic or biological factors (Kim & Park, 2021).

One critical issue during adolescence is risky behaviors. Risky behaviors include activities that expose individuals and those around them to physical and psychological harm (Lo et al., 2018). Most risky behaviors begin before the age of 18, including delinquent behaviors, smoking, violence, sexual activity, alcohol, and drug use (Ozer et al., 2019). Research in Iran has shown a high prevalence of risky behaviors such as smoking, alcohol, and drug use among adolescents (Peykari et al., 2022).

The prevalence of risky behaviors has become a significant social issue in Iran, raising concerns at various administrative and societal levels. The irreversible damage caused by adolescent risky behaviors and the high costs of individual and societal behavior-change interventions have turned this into a

social crisis (Mojaverian et al., 2021). Furthermore, engaging in even one risky behavior during adolescence increases the likelihood of encountering other issues and maladaptive behaviors in adulthood (Peng et al., 2021).

Another critical focus during adolescence is life orientation. Life orientation often refers to an individual's tendency toward positive or negative future expectations. Optimistic individuals interpret events positively and believe in favorable outcomes, even when facing challenges (Vasilenko et al., 2020). Research suggests that individuals with a positive and optimistic life orientation are healthier, more creative, and more successful. Moreover, optimism and pessimism tend to persist across time and situations, making optimism a general trait that reflects expectations in various life domains (Wang et al., 2021).

Given the prevalence of risky behaviors and negative life orientations among adolescents, it is crucial to adopt effective interventions for addressing these issues. Among the available approaches, mindfulness has proven effective for adolescents (Jain et al., 2019). Mindfulness practices aim to reduce or eliminate life difficulties and psychological distress (Zeidan et al., 2019).

Another psychological and therapeutic approach relevant to adolescent issues is Acceptance and Commitment Therapy (ACT) (Wicksell et al., 2020). ACT is a psychological intervention combining awareness and acceptance strategies with commitment and behavioral change to enhance psychological flexibility (Bahodirovna et al., 2023; Tamimi et al., 2023). As a cognitive-behavioral intervention, ACT incorporates processes of acceptance and mindfulness, behavioral change, and commitment to foster psychological flexibility. Psychological flexibility involves engaging with the present moment as a conscious, open, and undefensive individual and continuing or changing behavior in line with chosen values. This is the primary aim of the ACT, and all six ACT processes work together to promote psychological flexibility (Harris, 2021). Considering the critical importance of adolescence, this study compares the effectiveness of acceptance and commitment therapy and mindfulness on tendencies toward risky behaviors and life orientation among adolescents in conflict with their parents.

### Methods and Materials



# Study Design and Participants

The method of this study was experimental, with a pretest-posttest design, a control group, and a two-month follow-up.

The statistical population of this study included all eleventh and twelfth-grade adolescents who visited counseling centers in the education department of Karaj City during the 2022-23 school year (a total of 193 individuals visited the counseling centers). Using a convenience sampling method, 45 adolescents were selected as the sample, and through random assignment, 15 participants were placed in the first experimental group (Acceptance and Commitment Therapy), 15 in the second experimental group (Mindfulness), and 15 in the control group. The study included eleventh-and twelfth-grade adolescents who visited the counseling centers due to parent-adolescent conflict, had no physical health issues, were willing to participate in the research, and scored above 25 on the standard Parent-Child Conflict Questionnaire. The exclusion criteria included missing more than two therapy sessions, having a significant physical condition, developing new issues, or experiencing increased family conflict.

The G\*Power software was used to help researchers estimate the appropriate sample size by entering parameters such as type I error, statistical power, and effect size. Given the input values ( $\alpha = 0.05$ , 1- $\beta = 0.80$ , and Effect Size = 0.5), a sample size of 45 was determined. This sample size ensures an 80% probability of detecting group differences and avoiding type I errors.

Participants were recruited from counseling centers, and written informed consent was obtained from both adolescents and their parents. Eligible participants were randomly assigned to one of the three groups. Standardized questionnaires were administered to all participants in a quiet setting under the supervision of trained researchers to minimize bias. ACT and mindfulness interventions were delivered over ten weeks by trained therapists. Sessions were held in small groups of 5–7 participants to ensure individualized attention. Attendance and engagement were monitored to maintain intervention fidelity. Posttests were conducted immediately after the intervention period using the same standardized tools. A follow-up assessment was performed two months later to evaluate the sustainability of intervention effects. After the study, participants in the control group were invited to participate in ACT or mindfulness sessions to ensure equitable access to therapeutic benefits.

# Instruments

Iranian Adolescents' Risk-Taking Questionnaire: This standardized questionnaire was designed and validated by Zadeh Mohammadi and Ahmadabadi in 2008. This tool aims to assess risk-taking behaviors in Iranian adolescents, including dangerous driving, violence, smoking, substance and alcohol use, relationships with the opposite sex, and sexual activity. The questionnaire consists of 38 items, each rated on a five-point Likert scale (Never, Rarely, Sometimes, Often, Always). The scoring system assigns values between 1 and 5 for each item, with higher scores indicating greater severity of risk-taking behavior in the respondent. Thus, the total score reflects an individual's overall level of risk-taking behavior (Zadehmohammadi & Ahmadabadi, 2010). In Niri's (2013) study, Cronbach's alpha for this tool was reported to be 0.79, indicating acceptable reliability and good internal consistency. This suggests that the questionnaire performs consistently and reliably in measuring risk-taking behaviors, with repeatability of results (Ghadimi Bavil Olyayi et al., 2023).

Life Orientation Test (LOT): The Life Orientation Test (LOT), developed by Scheier and Carver in 1994, was designed to measure dispositional optimism. The scoring system for this questionnaire is as follows: for items 1, 4, and 10 (which indicate an optimistic outlook), participants score from 4 for "Strongly Agree" to 0 for "Strongly Disagree". For items 3, 7, and 9 (which indicate a pessimistic outlook), the scoring is reversed, with "Strongly Agree" receiving 0 points and "Strongly Disagree" receiving 4 points. The total score for each factor (optimism and pessimism) ranges from 0 to 12. This structure allows researchers to assess the general optimism or pessimism of the individuals. In a study by Akbari and Shafi'i-Haqshenas (2019), the test-retest reliability after 10 days was 0.70, indicating temporal stability (Ahmadi Khalili, 2023). In this study, Cronbach's alpha for optimism was 0.79, and for pessimism was 0.74, indicating good reliability in measuring these constructs.



# Interventions

Acceptance and Commitment Therapy (ACT): The ACT intervention consisted of ten weekly 90-minute sessions conducted in a group format. The protocol was adapted from Hayes and Strosahl (2007) and included six core processes: acceptance, mindfulness, value clarification, committed action, cognitive defusion, and self-as-context. Each session was guided by a trained therapist to ensure fidelity, and activities included roleplaying, mindfulness exercises, and value-based goal setting (Hayes et al., 2019).

**Mindfulness Training:** The mindfulness intervention followed a ten-session protocol, each lasting 75 minutes. The protocol, adapted from Bordick (2017), emphasized present-moment awareness, emotional regulation, and non-judgmental acceptance. Sessions included practices such as body scans, mindful breathing, and progressive muscle relaxation. Cultural adaptations were made to align exercises with participants' cultural and religious values.

**Control Group:** The control group did not receive any intervention during the study period. To maintain ethical standards, participants in this group were offered access

### Table 1

The descriptive statistics for the main variables

to ACT and mindfulness training after the study's completion.

# Data Analysis

Data were analyzed using SPSS software, with repeated measures ANOVA employed to compare group differences over time. Assumptions of normality and sphericity were tested using the Shapiro-Wilk and Mauchly's tests, respectively. The Greenhouse-Geisser correction was applied for violations of sphericity. Posthoc comparisons with the Bonferroni test were used to examine pairwise differences. Missing data were addressed using multiple imputation to ensure the robustness of results.

# **Findings and Results**

Among the 45 student participants, 49% were female and 51% were male. Of these, 47% were 11th and 53% were 12th graders. Regarding age, 7% were 15 years old, 40% were 16 years old, 42% were 17 years old, and 11% were 18 years old. Mean and standard deviation of research variables are presented in Table 1.

Group	Variable/Phase	Pre-test (M ± SD)	Post-test (M ± SD)	Follow-up (M ± SD)	
ACT	<b>Risky Behaviors</b>	$47.80 \pm 7.50$	31.60 ± 5.30	33.40 ± 5.90	
	Life Orientation	$42.50 \pm 6.40$	51.20 ± 5.10	50.80 ± 5.50	
Mindfulness	Risky Behaviors	48.00 ± 7.70	39.50 ± 5.60	38.80 ± 6.10	
	Life Orientation	41.70 ± 6.30	47.50 ± 5.30	47.20 ± 5.40	
Control	Risky Behaviors	$47.90 \pm 7.40$	46.80 ± 7.00	46.50 ± 7.10	
	Life Orientation	$42.00 \pm 6.10$	42.50 ± 6.20	6.30	

Repeated measures ANOVA was applied to examine the significance of the differences in risky behavior tendencies between the Acceptance and Commitment Therapy (ACT) and the control groups. Results of the Shapiro-Wilk test for the research variables showed that the data distribution was insignificant at the 0.05 level, confirming that the data were normally distributed and that the normality assumption was met. Levene's test for equality of variances indicated that the F value for all variables was not significant at the 0.05 level, affirming the homogeneity of variances. The Mauchly's sphericity test was significant for risky behavior tendencies (Mauchly's W = 0.28, df = 2, p<0.001), indicating a violation of sphericity. Consequently, the Greenhouse-Geisser correction was used for within-group and interaction effects. Repeated Measures ANOVA results are presented in Table 2.



### Table 2

Repeated Measures ANOVA for comparing pre-test, post-test, and follow-up scores on risky behaviors and life orientation

Scale	Source of Effect	SS	df	MS	F	р	Partial Eta Squared
Risky Behaviors	Time	145.86	1.16	125.42	358.96	0.001	0.92
	Time × Group	138.75	1.16	119.30	341.46	0.001	0.92
	Group	256.71	1	256.71	16.72	0.001	0.37
Life Orientation	Time	420.15	1.06	392.96	69.23	0.0001	0.71
	Time × Group	296.60	1.06	277.40	48.87	0.0001	0.63
	Group	640.00	1	640.00	14.19	0.001	0.33

Table 2 indicate that the main effects of time and group and the interaction effect between group and time were significant. Post-hoc comparisons using the

Bonferroni test were conducted to examine the group differences further.

### Table 3

Bonferroni Post-hoc Test Results for Comparing Research Variables

Variable	Group	Group	Mean Difference	P-value
Risky Behaviors	Mindfulness	ACT	8.10	0.001
		Control	-7.29	0.001
	ACT	Control	-15.20	0.001
Life Orientation	Mindfulness	ACT	4.61	0.001
		Control	5.63	0.001
	ACT	Control	9.97	0.001

The ACT group showed the most significant reduction in risky behaviors compared to the mindfulness and control groups (p<0.01). The ACT group showed the greatest improvement in life orientation, followed by the mindfulness group (p<0.01). These results highlight ACT's effectiveness in reducing risky behaviors and enhancing life orientation. Mindfulness also showed significant positive effects, albeit to a lesser extent than ACT (Table 3).

### **Discussion and Conclusion**

This study examines the effectiveness of Acceptance and Commitment Therapy (ACT) and mindfulness training in reducing risky behaviors and improving life orientation among adolescents experiencing parentchild conflict. The findings of this study indicate a significant difference between Acceptance and Commitment Therapy (ACT) and mindfulness training in reducing the tendency toward risky behaviors among adolescents in conflict with their parents. Specifically, ACT was more effective than mindfulness training in achieving this outcome. Below, the reasons behind the effectiveness of both methods and their comparison are discussed in detail. Results showed that the interaction between group and time was significant for both interventions, indicating that the effects of both approaches were sustained over time. However, the greater effectiveness of ACT highlights its ability to bring about more stable and profound changes in adolescents' attitudes and behaviors (Shapiro et al., 2020). The post-test results revealed that the mean score for risky behavior tendencies in the ACT group was significantly lower than in the mindfulness group. This suggests that ACT had a more substantial impact in reducing risky behaviors (Hayes et al., 2019).

One key reason for the superior effectiveness of ACT is its emphasis on clarifying and committing to personal values. Adolescents in ACT sessions identified and aligned their behaviors with their values, enabling them to refrain from risky behaviors that conflicted with them (Bond et al., 2020). Additionally, ACT's focus on reducing experiential avoidance equips adolescents to accept and face unpleasant emotions rather than escape risky behaviors (Levin et al., 2018). Since experiential avoidance is a significant driver of unhealthy behaviors, its reduction directly contributes to a decline in risky tendencies. Committing to values is also tied to increased psychological flexibility, which helps adolescents act in



ways consistent with their values, even when faced with difficult emotions or peer pressure (Hayes et al., 2020).

Both ACT and mindfulness enhanced psychological flexibility, defined as the ability to remain present, accept unpleasant experiences, and pursue behaviors aligned with personal values (Hayes et al., 2020). While both methods improved psychological flexibility, ACT's stronger focus on commitment to values translated this flexibility into more tangible behavioral changes, such as reduced engagement in risky behaviors. This distinction could explain why ACT was more effective in reducing risky behaviors than mindfulness, as the latter primarily focuses on awareness and acceptance without a clear directive to align behavior with personal values.

Given that the study's participants were adolescents in conflict with their parents, accessing this population while maintaining confidentiality and trust posed challenges. These factors may have influenced sampling and the generalizability of the results. Cultural and social differences among adolescents, especially regarding parent-adolescent relationships and concepts like independence and acceptance, led to diverse outcomes, complicating the analysis and control of intervening variables. Moreover, adolescents in conflict with their parents might have presented a unique set of challenges compared to adolescents in less contentious relationships, potentially influencing their responsiveness to the interventions. Further research could examine how these factors influence the outcomes of such interventions in various cultural settings.

The findings underscore the effectiveness of ACT in reducing risky behaviors, suggesting its potential as a preventive and educational program in schools. Adolescents can learn these skills effectively by creating a supportive and non-judgmental environment. Schools can implement ACT-based programs to address risky behaviors and foster greater emotional resilience. Additionally, supportive programs for parents are recommended to help improve parent-child relationships and reduce conflicts. Such programs can equip parents with essential behavioral skills for interacting with their children, fostering better outcomes for adolescents and families.

Future research could expand on this study by examining the long-term effects of these interventions across diverse cultural contexts and incorporating more extensive, more varied samples to enhance the generalizability of findings. In addition, exploring how specific elements of ACT and mindfulness, such as values clarification or present-moment awareness, contribute to reducing risky behaviors would provide deeper insights into the mechanisms underlying these interventions. Moreover, it would be valuable to consider how integrating family-centered approaches, such as including parents and adolescents in the intervention, might enhance the outcomes of these 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. Ethical considerations in this study were that participation was entirely optional.

### 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 equally contribute to this study.

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