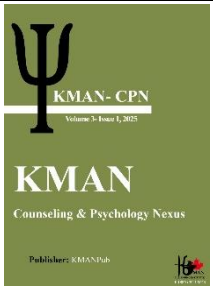
KMAN PUBLISHING INSTITUTE
Journal Website

Article history:
Received 03 December 2025
Revised 21 March 2026
Accepted 28 March 2026
Published online 10 April 2026

KMAN Counseling & Psychology Nexus

Volume 4, pp 1-11



E-ISSN: 3041-9026

Determining the Difference in the Effectiveness of Cognitive Behavioral Therapy and Schema Therapy on Emotional Inhibition in Adolescents with High-Risk Behaviors

Fahimeh. Ghafari Moghadam[1], Fateme. Dehghani-Arani[*2], Elham. Zarghami[3]

[1] Department of Psychology, SR.C., Islamic Azad University, Tehran, Iran
[2] Department of Psychology, University of Tehran, Tehran, Iran
[3] Department of Psychology, VaP.C., Islamic Azad University, Varamin, Iran

*** Corresponding author email address**: f.dehghani.a@ut.ac.ir

A r t i c l e I n f o

Article type:
Original Research
Section:
Rehabilitation Counseling

How to cite this article:
Ghafari Moghadam, F., Dehghani-Arani, F., & Zarghami, E. (2026). Determining the Difference in the Effectiveness of Cognitive Behavioral Therapy and Schema Therapy on Emotional Inhibition in Adolescents with High-Risk Behaviors. *KMAN Conseling and Psychology Nexus, 4*, 1-11.
http://doi.org/10.61838/kman.rc.psynexus.5211

A B S T R A C T

The present study aimed to determine the difference in the effectiveness of cognitive behavioral therapy and schema therapy on emotional inhibition in adolescents with high-risk behaviors. This applied study employed a quasi-experimental design with a pretest–posttest format including a control group and a two-month follow-up period. The statistical population consisted of adolescents with high-risk behaviors referred to counseling centers affiliated with the Department of Education in Karaj in 2025. Using purposive sampling, 45 participants who met the inclusion criteria were selected and randomly assigned into three groups: cognitive behavioral therapy (n = 15), schema therapy (n = 15), and control (n = 15). The experimental groups received eight sessions of structured interventions based on standardized therapeutic protocols, while the control group remained on a waiting list. Data were collected using the Emotional Inhibition Scale (EIS). Data analysis was conducted using SPSS-26 software at both descriptive and inferential levels, including repeated measures analysis of variance (ANOVA) and Bonferroni post hoc tests after verifying statistical assumptions. The results indicated that the main effect of group on emotional inhibition was not statistically significant ($F = 0.62$, $p = 0.544$), whereas the main effect of time was significant ($F = 7.27$, $p = 0.008$), indicating changes across measurement stages. Additionally, the interaction effect between time and group was significant ($F = 4.59$, $p = 0.042$), suggesting differential changes across groups over time. Bonferroni post hoc comparisons revealed that schema therapy significantly reduced emotional inhibition compared to the control group at posttest ($p = 0.016$), while cognitive behavioral therapy did not show a significant difference compared to the control group ($p = 0.664$). Within-group comparisons demonstrated significant improvements in the schema therapy group from pretest to posttest ($p = 0.022$) and follow-up ($p = 0.034$), whereas no significant changes were observed in the cognitive behavioral therapy and control groups ($p > 0.05$). The findings suggest that schema therapy is more effective than cognitive behavioral therapy in reducing emotional inhibition among adolescents with high-risk behaviors, with effects that are sustained over time, highlighting the importance of targeting deep cognitive-emotional structures in therapeutic interventions.

Keywords: *Emotional inhibition, cognitive behavioral therapy, schema therapy, high-risk behaviors, adolescents*

1. Introduction

Adolescence is widely recognized as a critical developmental period characterized by profound biological, cognitive, and socio-emotional changes, during which individuals are particularly vulnerable to engaging in high-risk behaviors. These behaviors, which include substance use, unsafe sexual practices, aggression, and self-injury, are often conceptualized as maladaptive coping responses to internal emotional dysregulation and environmental stressors (Joharifard et al., 2021; Mohammadi Hosseini Asl et al., 2022). The increasing prevalence of such behaviors among adolescents has become a major public health concern, as they not only threaten immediate well-being but also predict long-term psychological and social maladjustment (Baramake et al., 2024; Sefidrood & Hobbi, 2023). Contemporary psychological models emphasize that deficits in emotional processing and regulation are central mechanisms underlying high-risk behaviors, highlighting the importance of targeting emotional and cognitive processes in preventive and therapeutic interventions (Mirzaei Fayyaz Abadi et al., 2019; Samsami & Mohammadkhani, 2022).

One of the key constructs implicated in the development and maintenance of high-risk behaviors is emotional inhibition, defined as the tendency to suppress or avoid the expression of emotions. Emotional inhibition has been associated with a wide range of maladaptive outcomes, including increased psychological distress, impaired interpersonal functioning, and reduced capacity for adaptive coping (Khodapanah et al., 2018; Pirani, 2015). Adolescents who exhibit high levels of emotional inhibition often struggle to identify, express, and regulate their emotions effectively, which may lead them to engage in externalizing behaviors as a means of emotional discharge or avoidance (Mirzaei Fayyaz Abadi et al., 2019). Furthermore, research has demonstrated that emotional inhibition is closely linked to alexithymia, impulsivity, and deficits in cognitive emotion regulation, all of which contribute to the emergence of high-risk behaviors (Chalilorahman & Yousefi, 2019; Zarea et al., 2020). These findings underscore the necessity of addressing emotional inhibition as a core therapeutic target in interventions designed for adolescents with high-risk tendencies.

From a cognitive perspective, maladaptive schemas and dysfunctional belief systems play a crucial role in shaping emotional responses and behavioral patterns. Early maladaptive schemas, which develop as a result of adverse childhood experiences, can lead to persistent negative beliefs about the self, others, and the world, thereby influencing emotional regulation and increasing vulnerability to psychopathology (Mirzaalian Dastjerdi, 2022; Nicol et al., 2021). Empirical evidence suggests that these schemas are significantly associated with emotional dysregulation, interpersonal difficulties, and engagement in high-risk behaviors (Hadiyan et al., 2023; Le Vigouroux et al., 2023). Moreover, individuals with strong maladaptive schemas tend to rely on ineffective coping strategies, such as avoidance, suppression, or overcompensation, which further reinforce emotional inhibition and maladaptive behavioral patterns (Rada et al., 2022). Therefore, interventions that specifically target schema-level processes may be particularly effective in reducing emotional inhibition and its associated outcomes.

Schema therapy, developed by Jeffrey Young, is an integrative therapeutic approach that combines elements of cognitive-behavioral, experiential, and interpersonal techniques to modify early maladaptive schemas and promote healthier patterns of thinking and behavior. This approach emphasizes the role of unmet emotional needs in childhood and seeks to address these needs through corrective emotional experiences and techniques such as limited reparenting and experiential restructuring. Previous studies have demonstrated the effectiveness of schema therapy in improving emotional regulation, reducing maladaptive coping strategies, and decreasing high-risk behaviors (Pourshahabadi & Einipour, 2020; Reyhani & Ahovan, 2024). In particular, schema therapy has been shown to significantly reduce emotional inhibition by helping individuals recognize and modify deeply ingrained beliefs and emotional avoidance patterns.

In contrast, cognitive behavioral therapy (CBT) is one of the most widely used and empirically supported approaches for treating a variety of psychological disorders and maladaptive behaviors. CBT focuses on identifying and modifying dysfunctional thoughts, cognitive distortions, and maladaptive behaviors through structured, goal-oriented interventions. By enhancing cognitive restructuring, problem-solving skills, and emotional awareness, CBT aims to improve emotional regulation and reduce engagement in high-risk behaviors (Mayer et al., 2023). Numerous studies have confirmed the effectiveness of CBT in reducing cognitive distortions, improving emotional functioning, and decreasing high-risk behaviors among adolescents (Moshkabadi et al., 2024; Pourroosta et al., 2024). However, some researchers argue that CBT may be less effective in

KMAN-CPN KMAN-Counseling & Psychology Nexus
E-ISSN: 3041-9026

addressing deeply rooted schema-level processes, which may limit its impact on chronic emotional inhibition.

Recent comparative research has highlighted the importance of evaluating different therapeutic approaches to determine their relative effectiveness in addressing emotional and behavioral problems in adolescents. For instance, studies comparing schema therapy and cognitive behavioral therapy have reported mixed findings, with some indicating superior outcomes for schema therapy in addressing deep-seated emotional issues, while others suggest comparable effectiveness between the two approaches depending on the target population and outcome variables (Sabet et al., 2016). Additionally, emerging evidence suggests that integrating schema-focused and cognitive-behavioral techniques may enhance treatment outcomes by addressing both surface-level cognitive distortions and underlying schema structures (Khajevand et al., 2023). Despite these advancements, there remains a need for further research to directly compare the effectiveness of these two approaches specifically in relation to emotional inhibition among adolescents with high-risk behaviors.

Moreover, the role of contextual and individual factors, such as attachment styles, metacognitive beliefs, and resilience, has been increasingly recognized in shaping the relationship between emotional processes and high-risk behaviors (Joharifard et al., 2021; Sefidrood & Hobbi, 2023). Interventions that target these underlying mechanisms may be more effective in producing sustainable changes in emotional functioning and behavior. For example, mindfulness-based and metacognitive interventions have shown promising results in improving emotional regulation and reducing high-risk behaviors, suggesting that multi-component approaches may offer additional benefits (Khajevand et al., 2023; Sharei et al., 2025). Nevertheless, the comparative effectiveness of established therapies such as CBT and schema therapy remains an important area of investigation, particularly in culturally diverse populations.

Given the theoretical and empirical significance of emotional inhibition as a key factor in high-risk behaviors, as well as the potential differential effectiveness of cognitive behavioral therapy and schema therapy, it is essential to conduct rigorous comparative studies to inform evidence-based clinical practice. Such research can provide valuable insights into the mechanisms of change underlying these interventions and help clinicians select the most appropriate therapeutic approach for adolescents with high-risk behaviors. Therefore, the aim of the present study was to determine the difference in the effectiveness of cognitive behavioral therapy and schema therapy on emotional inhibition in adolescents with high-risk behaviors.

2. Methods and Materials

2.1. Study Design and Participants

The present study was applied in terms of purpose and employed a quasi-experimental design with a pretest–posttest structure including a control group and a follow-up phase. The research design consisted of three measurement stages, namely pretest, posttest, and follow-up, alongside two experimental groups and one control group. The first experimental group received cognitive behavioral therapy, the second experimental group underwent schema therapy, and the control group did not receive any intervention during the study period. The statistical population included all adolescents with high-risk behaviors who referred to counseling centers affiliated with the Department of Education in Karaj in the year 2025 (1404 in the Persian calendar). Participants were selected through purposive non-random sampling based on predefined inclusion criteria, including a clinical diagnosis of high-risk behaviors confirmed by a clinical psychologist and a standardized high-risk behavior questionnaire, an age range between 13 and 18 years, absence of psychiatric medication use, and no reported history of major psychiatric disorders. Exclusion criteria included unwillingness to continue participation and absence from more than three therapy sessions. Based on Cohen's sample size table (1981), a minimum of 10 participants per group was required; however, considering potential attrition and recommendations from similar studies, a total of 45 participants were recruited. These individuals were matched in terms of age, gender, and relevant demographic variables and then randomly assigned into three groups of 15 participants each, including two experimental groups and one control group. After selection, participants were fully informed about the study objectives, therapeutic procedures, and ethical considerations, and informed consent was obtained. Following the completion of the intervention period, participants completed the research questionnaires again, while the control group remained on a waiting list without receiving any treatment. A follow-up assessment was conducted two months after the posttest to evaluate the stability of treatment effects.

KMAN-CPN KMAN-Counseling & Psychology Nexus E-ISSN: 3041-9026

2.2. Measures

Emotional inhibition was assessed using the Emotional Inhibition Scale (EIS), originally developed by Robert Kellner in 1986. This instrument consists of 16 items organized into four subscales designed to evaluate individuals' beliefs and tendencies toward suppressing emotions. The subscales include verbal inhibition (items 2, 5, 7, and 15), shyness (items 3, 6, 9, and 13), hiding emotions (items 4, 10, 14, and 16), and self-control (items 1, 8, 11, and 12). The scale provides both subscale scores and a total score, reflecting the overall level of emotional inhibition. Responses are recorded on a five-point Likert scale ranging from 0 (no) to 4 (always), with several items (2, 4, 5, 9, 11, and 16) reverse scored. Total scores range from 0 to 64, with higher scores indicating greater emotional inhibition. Previous research has demonstrated acceptable psychometric properties of the scale. For example, a study by Grandey and colleagues reported a Cronbach's alpha coefficient of 0.79 for the total scale, indicating satisfactory internal consistency. Additionally, the scale has shown adequate discriminant validity in differentiating between clinical and non-clinical populations. In a more recent study by Asadollahi et al. (2022), reliability coefficients using Cronbach's alpha were reported as 0.79 for the total scale and ranged from 0.65 to 0.73 across subscales. Concurrent validity was also supported through significant correlations between the EIS factors and components of executive dysfunction, further confirming the scale's suitability for assessing emotional inhibition in adolescent populations.

2.3. Interventions

The schema therapy intervention was implemented based on the model developed by Jeffrey Young and colleagues (2003), translated into Persian by Hamidpour and Andouz (2022). The program was delivered in eight structured sessions designed to enhance both declarative and procedural knowledge among adolescents. In the initial session, a pretest was administered, followed by introducing group members to one another and to the therapist, clarifying group rules, objectives, structure, and therapeutic commitments, along with a general overview of schema therapy. The second session focused on assessing participants' problems from a schema therapy perspective, identifying experiential avoidance, cognitive fusion, and personal values, and preparing a list of advantages, disadvantages, and coping strategies related to their difficulties. In the third session, maladaptive patterns and dysfunctional life schemas were identified, and adolescents were trained to recognize the role of early maladaptive schemas in generating anxiety and negative emotional experiences, alongside practicing initial therapeutic techniques. The fourth session emphasized core schema therapy techniques, including empathic confrontation and limited reparenting, as well as testing the validity of schemas and examining supporting and contradictory evidence, with a focus on present-moment awareness of thoughts, emotions, and behaviors without judgment. In the fifth session, participants were trained to redefine schema-confirming evidence and critically evaluate the advantages and disadvantages of early maladaptive schemas and their associated coping styles, aiming to develop insight into ineffective coping mechanisms. The sixth session introduced experiential techniques such as imagery and therapeutic letter writing to parents, encouraging participants to recall emotional experiences and understand how parental behaviors contributed to schema formation, while also identifying barriers to value-based goals. In the seventh session, interventions targeted maladaptive schema modes, including the punitive and demanding parent modes, while strengthening healthy adult functioning through limited reparenting and fostering compassionate internal dialogue. Finally, in the eighth session, previously learned techniques were reviewed and practiced with an emphasis on real-life application, meaning-making, and emotional regulation, followed by administration of the posttest and coordination for a follow-up session two months later. Across all sessions, instructional methods included lectures, group discussions, role-playing, and question-and-answer formats, supported by audiovisual materials and PowerPoint presentations.

The cognitive behavioral therapy (CBT) intervention was conducted based on the model proposed by Stefan G. Hofmann (2003), translated into Persian by [translator name to be specified]. This intervention also consisted of eight structured sessions designed to build both theoretical understanding and practical skills. In the first session, a pretest was administered, followed by introductions, clarification of group rules and expectations, and an overview of the CBT approach. The second session focused on establishing a therapeutic alliance, identifying adolescents' primary complaints, collaboratively setting treatment goals, and explaining the interrelationship between cognition, emotion, and behavior within the ABC framework, with emphasis on recording daily events. In the third session, participants continued working on identifying automatic thoughts, reviewing dysfunctional thought

KMAN-CPN
KMAN-Counseling & Psychology Nexus
E-ISSN: 3041-9026

records, and challenging these cognitions using Socratic questioning techniques. The fourth session emphasized self-monitoring and awareness skills, along with identifying underlying core beliefs and schemas using techniques such as the downward arrow method to explore deeper cognitive structures. In the fifth session, communication skills were taught through group discussions and behavioral exercises, including training in effective verbal responses, active listening, and reinforcement of adaptive interpersonal behaviors through contingency contracting. The sixth session introduced CBT-based techniques targeting assertiveness, problem-solving, and social skills training, helping adolescents align their behaviors with personal values and overcome barriers to goal attainment. The seventh session focused on identifying and modifying core beliefs and unconditional assumptions, weakening maladaptive beliefs through Socratic dialogue, and rating the strength of negative beliefs on a quantitative scale to track cognitive change. In the eighth and final session, all learned techniques were reviewed and practiced, with a focus on managing negative automatic thoughts and enhancing a sense of meaning in real-life contexts, followed by administration of the posttest and planning for a follow-up session after two months. Similar to the schema therapy program, instructional strategies included lectures, role-playing, group discussions, and question-and-answer sessions, supported by audiovisual tools and PowerPoint presentations.

2.4. Data analysis

Data analysis was conducted using quantitative statistical methods. All collected data were entered into SPSS version 26 for processing and analysis. The analysis was performed at two levels: descriptive and inferential. At the descriptive level, frequency distributions, percentages, and descriptive indices such as means and standard deviations were used to summarize demographic characteristics and study variables across groups. At the inferential level, prior to hypothesis testing, key statistical assumptions including normality of distribution, homogeneity of variances, homogeneity of covariance matrices, and sphericity were examined. Given the multivariate nature of the dependent variables, multivariate analysis of variance (MANOVA) was employed to assess differences between groups. Additionally, repeated measures analysis of variance was used to evaluate changes across the three measurement stages (pretest, posttest, and follow-up) and to determine the interaction effects between time and group. To further explore significant differences between groups, Bonferroni post hoc tests were applied. This analytical approach allowed for a comprehensive examination of both between-group and within-group variations, as well as the stability of treatment effects over time.

3. Findings and Results

The demographic characteristics of participants indicated a relatively balanced distribution across the three groups. In terms of gender, the majority of participants in the cognitive behavioral therapy group were male (n = 11, 73.3%), with females comprising a smaller proportion (n = 4, 26.7%). A similar pattern was observed in the schema therapy group, where males accounted for 60% (n = 9) and females 40% (n = 6). In the control group, the gender distribution mirrored that of the cognitive behavioral therapy group, with 73.3% males (n = 11) and 26.7% females (n = 4). Statistical analysis revealed no significant differences among the groups in terms of gender distribution (p = 0.661), indicating homogeneity across groups for this variable. Regarding educational level, most participants across all groups were enrolled in lower secondary education, with 60% (n = 11) in the cognitive behavioral therapy group, 60% (n = 9) in the schema therapy group, and 53.3% (n = 8) in the control group. Participants in upper secondary education constituted a smaller proportion, including 13.3% (n = 4) in the cognitive behavioral therapy group, 20% (n = 3) in the schema therapy group, and 13.3% (n = 2) in the control group. No statistically significant differences were found among the groups in terms of educational level (p = 0.589), suggesting that the groups were comparable with respect to this demographic variable.

Table 1

Descriptive statistics of emotional inhibition across groups and measurement times

Variable	Time	Cognitive Behavioral Therapy (Mean ± SD)	Schema Therapy (Mean ± SD)	Control Group (Mean ± SD)
Emotional Inhibition	Pretest	16.73 ± 3.01	17.00 ± 6.16	16.80 ± 3.76
	Posttest	15.60 ± 2.29	14.33 ± 3.62	16.67 ± 3.85
	Follow-up	15.80 ± 2.24	14.47 ± 3.72	16.53 ± 3.82

KMAN-CPN KMAN-Counseling & Psychology Nexus E-ISSN: 3041-9026

The descriptive findings indicate that the mean scores of emotional inhibition were relatively similar across the three groups at the pretest stage, suggesting baseline equivalence. Following the interventions, both experimental groups showed a reduction in emotional inhibition scores at posttest, with a more pronounced decrease observed in the schema therapy group compared to the cognitive behavioral therapy group. Specifically, the schema therapy group demonstrated the lowest mean score at posttest and maintained this improvement at the follow-up stage, indicating stronger and more stable treatment effects. In contrast, the cognitive behavioral therapy group also exhibited a reduction in emotional inhibition, although the magnitude of change was smaller and slightly increased at follow-up, suggesting partial maintenance of treatment gains. The control group showed minimal changes across all three measurement stages, with relatively stable mean scores, indicating no meaningful improvement in emotional inhibition over time in the absence of intervention.

Prior to conducting the main inferential analyses, the underlying statistical assumptions were systematically examined to ensure the validity of the results. The assumption of normality was assessed using the Shapiro–Wilk test and inspection of skewness and kurtosis indices, which indicated that the distribution of emotional inhibition scores at all measurement stages across groups did not significantly deviate from normality. The homogeneity of variances was evaluated using Levene's test, and the results were non-significant, confirming that the variance of scores was equal across groups. Additionally, the homogeneity of covariance matrices was examined through Box's M test, which was also non-significant, indicating that the covariance matrices were equivalent across groups. The assumption of sphericity for repeated measures was tested using Mauchly's test; where this assumption was met, standard F-values were interpreted, and in cases where minor violations occurred, appropriate corrections such as Greenhouse–Geisser were applied. Overall, the results confirmed that all key assumptions for conducting multivariate analysis of variance (MANOVA) and repeated measures ANOVA were satisfactorily met, allowing for reliable interpretation of the inferential findings.

Table 2

Results of repeated measures ANOVA examining the effectiveness of interventions on emotional inhibition

Variable	Source of Effect	Sum of Squares	df	Mean Square	F	p	Partial Eta Squared
Emotional Inhibition	Group	44.28	2	22.14	0.62	0.544	0.029
	Time	49.08	1.11	44.34	7.27	0.008	0.148
	Time × Group	30.16	2.21	13.62	4.59	0.042	0.107

The results of the repeated measures analysis of variance indicated that the main effect of group on emotional inhibition was not statistically significant ($F = 0.62$, $p = 0.544$, $\eta^2 = 0.029$), suggesting that, when averaged across time points, there were no overall differences between the cognitive behavioral therapy, schema therapy, and control groups. However, the main effect of time was statistically significant ($F = 7.27$, $p = 0.008$, $\eta^2 = 0.148$), indicating that emotional inhibition scores changed significantly across the three measurement stages (pretest, posttest, and follow-up) regardless of group membership. Importantly, the interaction effect between time and group was also statistically significant ($F = 4.59$, $p = 0.042$, $\eta^2 = 0.107$), demonstrating that the pattern of change in emotional inhibition over time differed across the groups. This interaction effect suggests that the interventions, particularly schema therapy and cognitive behavioral therapy, had differential impacts on emotional inhibition compared to the control condition, supporting the effectiveness of the treatment programs over time.

Table 3

Bonferroni post hoc test for comparing the effectiveness of interventions on emotional inhibition at posttest

Variable	Group	Adjusted Posttest Mean	S.E	Reference Group	Comparison Group	Mean Difference	p
Emotional Inhibition	CBT	5.66	0.587	Cognitive Behavioral Therapy	Control	-1.03	0.664
	ST	4.25	0.587	Schema Therapy	Control	-2.44	0.016
	Control	6.69	0.587	Cognitive Behavioral Therapy	Schema Therapy	1.41	0.290

KMAN-CPN
KMAN-Counseling & Psychology Nexus
E-ISSN: 3041-9026

The Bonferroni post hoc comparisons at the posttest stage revealed that the difference between the cognitive behavioral therapy group and the control group was not statistically significant (p = 0.664), indicating that CBT did not produce a significantly greater reduction in emotional inhibition compared to the control condition at posttest. However, a significant difference was observed between the schema therapy group and the control group (p = 0.016), with schema therapy demonstrating a significantly greater reduction in emotional inhibition. Additionally, the comparison between the cognitive behavioral therapy and schema therapy groups was not statistically significant (p = 0.290), although the mean difference suggested relatively stronger effects for schema therapy. Overall, these findings indicate that schema therapy was more effective than no intervention in reducing emotional inhibition at posttest, whereas cognitive behavioral therapy did not show a statistically significant advantage over the control group at this stage.

Table 4

Pairwise comparisons of emotional inhibition across time points

Variable	Group	Reference Time	Comparison Time	Mean Difference	p
Emotional Inhibition	Cognitive Behavioral Therapy	Pretest	Posttest	1.13	0.215
		Pretest	Follow-up	0.93	0.318
		Posttest	Follow-up	-0.20	0.424
	Schema Therapy	Pretest	Posttest	2.67	0.022
		Pretest	Follow-up	2.53	0.034
		Posttest	Follow-up	-0.13	0.546
	Control	Pretest	Posttest	0.13	0.499
		Pretest	Follow-up	0.27	0.301
		Posttest	Follow-up	0.13	0.499

The pairwise comparisons across time points indicated that, within the cognitive behavioral therapy group, none of the differences between pretest, posttest, and follow-up were statistically significant (p > 0.05), suggesting that although some reduction in emotional inhibition was observed, it was not statistically robust. In contrast, the schema therapy group showed significant reductions in emotional inhibition from pretest to posttest (p = 0.022) and from pretest to follow-up (p = 0.034), indicating both immediate and sustained effectiveness of the intervention. However, the difference between posttest and follow-up in this group was not significant (p = 0.546), suggesting stability of treatment gains over time. In the control group, no significant differences were observed across any of the time comparisons (p > 0.05), confirming the absence of meaningful change without intervention. These findings further support the superior effectiveness and persistence of schema therapy in reducing emotional inhibition compared to cognitive behavioral therapy and no treatment.

4. Discussion

The present study aimed to compare the effectiveness of cognitive behavioral therapy and schema therapy on emotional inhibition in adolescents with high-risk behaviors. The findings indicated that although both interventions led to a reduction in emotional inhibition scores, schema therapy demonstrated a more substantial and statistically significant effect compared to the control group, while cognitive behavioral therapy did not show a statistically significant difference relative to the control group at the posttest stage. Furthermore, the repeated measures analysis revealed a significant main effect of time, suggesting that emotional inhibition changed across measurement stages, as well as a significant interaction between time and group, indicating that the pattern of change differed across the intervention conditions. Pairwise comparisons further confirmed that schema therapy produced significant improvements from pretest to posttest and follow-up, whereas cognitive behavioral therapy did not yield statistically significant changes over time, and the control group remained largely unchanged.

These findings can be interpreted within the broader framework of emotional regulation and maladaptive coping in adolescents with high-risk behaviors. Emotional inhibition, as a core component of emotional dysregulation, is closely linked to difficulties in identifying, expressing, and managing emotions, which in turn contributes to the development of maladaptive behavioral patterns (Mirzaei Fayyaz Abadi et al., 2019; Samsami & Mohammadkhani, 2022). The observed reduction in emotional inhibition

KMAN-CPN KMAN-Counseling & Psychology Nexus E-ISSN: 3041-9026

following schema therapy suggests that interventions targeting deeper emotional and cognitive structures may be particularly effective in addressing the underlying mechanisms of high-risk behaviors. This interpretation is consistent with previous research indicating that emotional inhibition is strongly associated with alexithymia, impulsivity, and maladaptive emotion regulation strategies, all of which can be modified through targeted therapeutic interventions (Chalilorahman & Yousefi, 2019; Khodapanah et al., 2018).

The superior effectiveness of schema therapy observed in this study may be attributed to its focus on early maladaptive schemas and core emotional needs. Schema therapy operates at a deeper level of cognitive and emotional processing by addressing longstanding patterns that originate in childhood experiences. These schemas shape individuals' perceptions, emotional responses, and behavioral tendencies, often leading to persistent emotional suppression and maladaptive coping strategies (Mirzaalian Dastjerdi, 2022; Nicol et al., 2021). By targeting these underlying structures, schema therapy facilitates the restructuring of dysfunctional beliefs and promotes healthier emotional expression. This is supported by empirical evidence demonstrating that early maladaptive schemas are significantly associated with emotional dysregulation and high-risk behaviors, and that modifying these schemas can lead to meaningful improvements in psychological functioning (Hadiyan et al., 2023; Le Vigouroux et al., 2023).

In addition, schema therapy incorporates experiential techniques such as imagery and limited reparenting, which provide corrective emotional experiences and help individuals process unresolved emotional needs. These techniques are particularly relevant for adolescents with high-risk behaviors, who often have histories of unmet emotional needs and maladaptive family dynamics. The effectiveness of schema therapy in reducing emotional inhibition observed in this study aligns with previous findings showing that schema-based interventions can improve emotional regulation and reduce maladaptive coping strategies (Pourshahabadi & Einipour, 2020; Reyhani & Ahovan, 2024). Furthermore, schema therapy's emphasis on identifying and modifying coping styles, such as avoidance and emotional suppression, directly targets the mechanisms underlying emotional inhibition.

In contrast, the relatively weaker effects of cognitive behavioral therapy in this study may be explained by its primary focus on surface-level cognitive processes, such as automatic thoughts and cognitive distortions. While CBT is effective in modifying dysfunctional thinking patterns and improving behavioral outcomes, it may be less effective in addressing deeply rooted emotional schemas that contribute to chronic emotional inhibition (Mayer et al., 2023). This is consistent with research suggesting that CBT may produce significant improvements in cognitive distortions and overt behaviors but may have limited impact on deeper emotional structures unless supplemented with schema-focused techniques (Pourroosta et al., 2024). Additionally, although CBT has been shown to reduce high-risk behaviors in adolescents, its effects on emotional inhibition may require longer intervention periods or integration with other therapeutic approaches (Moshkabadi et al., 2024).

The lack of significant differences between cognitive behavioral therapy and schema therapy in direct comparisons may reflect overlapping mechanisms of change between the two approaches. Both therapies aim to enhance emotional awareness, improve cognitive processing, and promote adaptive coping strategies. However, schema therapy extends beyond cognitive restructuring by addressing emotional experiences and unmet needs, which may explain its greater effectiveness in reducing emotional inhibition. Previous comparative studies have reported mixed findings regarding the relative effectiveness of these approaches, with some indicating that schema therapy may be more effective for individuals with more entrenched emotional and interpersonal difficulties (Sabet et al., 2016). The present findings contribute to this body of literature by highlighting the importance of targeting schema-level processes in interventions for adolescents with high-risk behaviors.

Another important aspect of the findings is the stability of treatment effects observed in the schema therapy group at the follow-up stage. The maintenance of treatment gains suggests that schema therapy may produce more enduring changes in emotional functioning compared to cognitive behavioral therapy. This may be due to the comprehensive nature of schema therapy, which not only addresses cognitive and emotional processes but also promotes the development of adaptive coping strategies and a more integrated sense of self. These findings are consistent with research indicating that interventions targeting core emotional processes and schemas are more likely to produce long-term improvements in psychological functioning (Rada et al., 2022).

The role of individual differences and contextual factors should also be considered in interpreting the findings. Adolescents with high-risk behaviors often exhibit a range

KMAN-CPN KMAN-Counseling & Psychology Nexus E-ISSN: 3041-9026

of psychological vulnerabilities, including insecure attachment styles, maladaptive metacognitive beliefs, and low resilience, which can influence their response to treatment (Joharifard et al., 2021; Sefidrood & Hobbi, 2023). Interventions that address these underlying factors may be more effective in producing meaningful and sustained changes in emotional and behavioral outcomes. For example, research has shown that improving cognitive emotion regulation and emotional awareness can significantly reduce high-risk behaviors and enhance psychological well-being (Mohammadi Hosseini Asl et al., 2022). Similarly, interventions targeting metacognitive processes and emotional schemas have been shown to improve emotional regulation and reduce maladaptive behaviors in adolescents (Khajevand et al., 2023).

Furthermore, the findings of the present study are consistent with emerging evidence supporting the effectiveness of integrative and multi-component interventions in addressing complex psychological problems. For instance, mindfulness-based interventions have been shown to improve emotional regulation and reduce high-risk behaviors by enhancing awareness and acceptance of emotional experiences (Sharei et al., 2025). Similarly, training programs focused on successful intelligence and adaptive coping have demonstrated effectiveness in reducing high-risk behaviors among adolescents (Baramake et al., 2024). These findings suggest that combining elements of different therapeutic approaches may enhance treatment outcomes by addressing multiple dimensions of psychological functioning.

5. Conclusion

Overall, the results of the present study highlight the importance of targeting emotional inhibition as a key mechanism underlying high-risk behaviors in adolescents. The findings provide evidence for the effectiveness of schema therapy in reducing emotional inhibition and suggest that interventions addressing deeper cognitive and emotional structures may be particularly beneficial for this population. While cognitive behavioral therapy remains a valuable and widely used approach, its effectiveness may be enhanced by integrating schema-focused techniques to address underlying emotional processes. These findings have important implications for clinical practice and underscore the need for personalized and developmentally appropriate interventions for adolescents with high-risk behaviors.

One of the main limitations of the present study is the relatively small sample size, which may limit the generalizability of the findings to broader populations. Additionally, the use of a quasi-experimental design without full randomization may introduce potential biases related to participant selection and group assignment. Another limitation is the reliance on self-report measures, which may be subject to social desirability and response biases. Furthermore, the follow-up period was relatively short, limiting the ability to assess the long-term stability of treatment effects. Finally, the study did not account for potential moderating variables such as family environment, socioeconomic status, or comorbid psychological conditions, which may influence treatment outcomes.

Future research should aim to replicate the findings of the present study using larger and more diverse samples to enhance the generalizability of the results. Longitudinal studies with extended follow-up periods are needed to examine the persistence of treatment effects over time. Additionally, future studies should explore the potential moderating and mediating variables that may influence the effectiveness of different therapeutic approaches, such as attachment styles, metacognitive beliefs, and resilience. Comparative studies examining integrative interventions that combine elements of cognitive behavioral therapy and schema therapy may also provide valuable insights into optimizing treatment outcomes. Moreover, the use of multi-method assessment approaches, including behavioral observations and physiological measures, could enhance the validity of findings.

From a practical perspective, the findings of this study suggest that clinicians working with adolescents exhibiting high-risk behaviors should consider incorporating schema-focused interventions into their therapeutic practice. Schema therapy techniques, such as identifying maladaptive schemas, addressing unmet emotional needs, and promoting adaptive coping strategies, may be particularly effective in reducing emotional inhibition. At the same time, cognitive behavioral therapy techniques, including cognitive restructuring and skills training, can be used to complement schema-based approaches and address surface-level cognitive distortions. Mental health professionals should also emphasize the importance of emotional awareness and expression in therapeutic interventions, as improving these skills may reduce the likelihood of engaging in high-risk behaviors. Additionally, integrating family-based interventions and psychoeducation programs may further enhance treatment effectiveness by addressing

KMAN-CPN KMAN-Counseling & Psychology Nexus
E-ISSN: 3041-9026

environmental and contextual factors that contribute to emotional inhibition and maladaptive behaviors.

Authors' Contributions

Authors equally contributed to this article.

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.

Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

Declaration of Interest

The authors report no conflict of interest.

Funding

According to the authors, this article has no financial support.

Ethical Considerations

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

References

Baramake, Z., Fadavi, M. S., & Yousefi, Z. (2024). Development of a Successful Intelligence Training Package Aimed at Reducing High-Risk Behaviors Especially for Teenagers. *Journal of Psychological Dynamics in Mood Disorders (PDMD)*, *2*(4), 101-114. https://doi.org/10.22034/pdmd.2024.444922.1054

Chalilorahman, E., & Yousefi, Z. (2019). Multiple Relationships of Maladjustment Schemas, Personality, and Family Relations with Alexithymia in Primary School Children [Research]. *Quarterly Journal of Child Mental Health*, *6*(1), 124-137. https://doi.org/10.29252/jcmh.6.1.11

Hadiyan, N., Mottaghi, S., & Rezapour Mirsaleh, Y. (2023). Investigating the mediating role of maladaptive schemas and emotional expression in the relationship between childhood trauma and sexual intimacy in women from low-income families. *Applied Family Therapy Journal (AFTJ)*, *4*(5), 610-632. https://doi.org/10.61838/kman.aftj.4.5.35

Joharifard, M., Zahracar, K., Farokhi, N. a., & Mardani rad, M. (2021). The causal model of tendency to high-risk behaviors in adolescents based on metacognitive beliefs and identity styles with role mediating of negative repetitive thoughts and resilience. *Counseling Culture and Psycotherapy*, *12*(47), 161-194. https://doi.org/10.22054/qccpc.2021.57166.2589

Khajevand, S., Bahrainian, A., Nasri, M., & Shahabizadeh, F. (2023). Investigating the effectiveness of metacognitive interpersonal therapy on the cognitive regulation of emotion and emotional inhibition in adolescents with high-risk behaviors. *Journal of Cognitive Psychology*, *11*(4), 91-105. https://jcp.khu.ac.ir/article-1-3797-fa.pdf

Khodapanah, M., Sohrabi, F., Ahadi, H., & Taghi loo, S. (2018). The Structural Model of Brain- Behavioral Systems, Impulsivity ,Alexithymia and Cognitive Emotion Regulation with Eating Behavior. *Iran-J-Health-Educ-Health-Promot*, *6*(3), 251-265. https://doi.org/10.30699/acadpub.ijhehp.6.3.251

Le Vigouroux, S., Bernat, K., & Charbonnier, E. (2023). Risk Factors and Consequences of Parental Burnout: Role of Early Maladaptive Schemas and Emotion-Focused Coping. *Trends in Psychology*. https://doi.org/10.1007/s43076-023-00288-6

Mayer, J., Smith, R., & Johnson, K. (2023). Impact of cognitive behavioral therapy on cognitive distortions in individuals with high-risk behaviors. *Journal of Behavior Therapy*, *45*(3), 312-327.

Mirzaalian Dastjerdi, F. (2022). Predicting high-risk behaviors based on childhood maltreatment with the mediation of early maladaptive schemas in high school students. *Journal of a New Approach to Children's Education*, *4*(3), 76-83. https://journal.iocv.ir/article_149551.html?lang=en

Mirzaei Fayyaz Abadi, S., Moulavi, E., & Taheri, N. (2019). The relationship between emotional regulation and cognitive inhibition in the tendency towards risky behaviors among adolescent girls in Mashhad. *Journal of Social Psychology*, *7*(52), 123-136. https://www.noormags.ir/view/en/articlepage/1759391/

Mohammadi Hosseini Asl, F., Saken Azari, R., Abdoltajedini, P., & Aghdasi, A. N. (2022). The Role of Attachment Styles, Cognitive Emotion Regulation and Subjective Vitality in Predicting High-Risk Behaviors of Female Adolescents. *Quarterly Journal of Child Mental Health*, *9*(3), 121-135. https://doi.org/10.52547/jcmh.9.3.11

Moshkabadi, E. G., Heydari, S., & Fakhri, M. (2024). Comparison of the Effectiveness of Cognitive Behavioral Training and Acceptance and Commitment Training on High-Risk Behaviors in Self-Injurious Adolescents. *Jayps*, *5*(5), 126-135. https://doi.org/10.61838/kman.jayps.5.5.15

Nicol, A., Mak, A. S., Murray, K., & Kavanagh, P. S. (2021). Early maladaptive schemas in young people who self-injure. *Journal of Clinical Psychology*, *77*(7), 1745-1762. https://doi.org/10.1002/jclp.23172

Pirani, Z. (2015). The Role of Behavioral activation/inhibition Systems and emotional, cognitive and behavioral engagement in prediction of educational exhaustion. *Journal of School Psychology*, *4*(3), 7-22. https://doi.org/10.22098/jsp.2015.353

Pourroosta, A., Hamid, N., Bashlideh, K., & Hashemi, S. I. (2024). Comparison of the Effectiveness of Positive Psychology-Based Therapy and Cognitive-Behavioral Therapy on Internet Addiction and High-Risk Behaviors of Students. *New Psychological Research*, *19*(73), 22-34. https://www.ensani.ir/fa/article/577237/

Pourshahabadi, F., & Einipour, J. (2020). The Effectiveness of Schema Therapy on Differentiation of Self and Emotional Control among Couples with Marital Maladjustment.

KMAN-CPN KMAN-Counseling & Psychology Nexus E-ISSN: 3041-9026

International Journal of Applied Behavioral Sciences, *7*(2), 18-29. https://doi.org/10.22037/ijabs.v7i2.28249

Rada, C., Gheonea, D., Țieranu, C. G., & Popa, D. E. (2022). Diagnosis and Psychotherapeutic Needs by Early Maladaptive Schemas in Patients With Inflammatory Bowel Disease [Original Research]. *Frontiers in psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.807107

Reyhani, S., & Ahovan, M. (2024). The effectiveness of emotional schema therapy on regulating emotions and reducing high-risk behaviors in female adolescents. *Journal of Research in Behavioural Sciences*, *22*(1), 137-149. https://doi.org/10.29252/rbs.22.1.137

Sabet, A. H., Nejad, S. N., & Khalatbari, J. (2016). Comparison of the Effect of Schema Therapy and Cognitive Group Therapy on Depression in Women Engaging in High-Risk Sexual Behaviors Who Were Referred to Hamadan Health Center. *Avicenna Journal of Neuro Psych Physiology*, *3*(1). https://doi.org/10.17795/ajnpp-39755

Samsami, M., & Mohammadkhani, S. (2022). Cognitive emotion regulation strategies in students with high-risk behaviors: The mediating role of metacognitive beliefs. 9th International Conference on Knowledge and Technology of Educational Sciences, Social Studies and Psychology of Iran, Tehran.

Sefidrood, M., & Hobbi, M. B. (2023). The Role of Attachment Styles and Cognitive Emotion Regulation in Predicting the Tendency to High-Risk Behaviors in Adolescents. *International Journal of Applied Behavioral Sciences*, *10*(1), 1-8. https://doi.org/10.22037/ijabs.v9i4.34259

Sharei, A., Kasaeei Esfahani, A., & Salmani, A. (2025). The Effect of Mindfulness Therapy on Emotion Regulation, Cognitive Self-Awareness, and Tendency to High-Risk Behaviors in Orphaned and Poorly Monitored Adolescents: A Quasi-Experimental Study. *Journal of Rafsanjan University of Medical Sciences*, *23*(9), 812-827. https://doi.org/10.61186/jrums.23.9.812

Zarea, S., Ahi, Q., Vaziri, S. A. H., & Shahabizadeh, F. (2020). Sexual Schemas and High-Risk Sexual Behaviors in Female Students the Mediating Role of Cognitive Emotion Regulation. *International Archives of Health Sciences*, *7*(4), 203-209. https://doi.org/10.4103/iahs.iahs_84_20

E-ISSN: 3041-9026