






The Effectiveness of Schema Therapy on Fear of Negative Evaluation and Cognitive Flexibility in Adolescents

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ABSTRACT

The present study aimed to investigate the effectiveness of schema therapy on fear of negative evaluation and cognitive flexibility in adolescents. The research method was quasi-experimental with a pretest-posttest design and a control group. The statistical population of this study consisted of adolescents who referred to counseling centers in the city of Tehran in 2026. Using convenience sampling, 30 participants were selected as the sample and were randomly assigned into two groups: 15 participants in the experimental group and 15 participants in the control group. Data were collected using the Fear of Negative Evaluation Questionnaire and the Cognitive Flexibility Questionnaire. Subsequently, the participants in the experimental group received schema therapy intervention for 10 sessions of 90 minutes each, while the control group received no intervention. After completion of the sessions, both groups were reassessed using the posttest. The findings indicated that there was a significant difference between the mean scores of fear of negative evaluation and cognitive flexibility in adolescents between the pretest and posttest stages in the experimental and control groups. Therefore, schema therapy was found to have a significant effect on fear of negative evaluation and cognitive flexibility in adolescents.

Keywords: Schema therapy, fear of negative evaluation, cognitive flexibility, adolescents.

1. Introduction

Adolescence is recognized as one of the most sensitive developmental periods in the human lifespan, characterized by profound cognitive, emotional, social, and behavioral transformations. During this stage, adolescents experience rapid changes in self-concept, interpersonal relationships, emotional regulation, and social identity formation, making them particularly vulnerable to psychological distress and maladaptive cognitive-emotional patterns (Efe & Erden, 2018; Regina et al., 2023). Mental health concerns during adolescence have increasingly become a global public health priority because emotional and cognitive problems emerging in this period often persist into adulthood and negatively affect academic performance, interpersonal functioning, and overall quality of life (Regina et al., 2023). Among the most prevalent psychological difficulties observed in adolescents are fear of negative evaluation and deficits in cognitive flexibility, both of which are strongly associated with anxiety, depression, social withdrawal, maladaptive coping strategies, and impaired psychosocial functioning (Chalabianloo & Parvaz, 2022; Lucero et al., 2022). Therefore, identifying effective therapeutic interventions that can target these psychological vulnerabilities in adolescents is of substantial theoretical and clinical importance.

Fear of negative evaluation refers to persistent apprehension and distress regarding criticism, rejection, or unfavorable judgment by others. This construct is considered one of the central dimensions of social anxiety and interpersonal sensitivity (Beheshtian et al., 2019; Doustkam et al., 2021). Adolescents with elevated fear of negative evaluation often demonstrate excessive self-consciousness, heightened sensitivity to social feedback, avoidance of interpersonal situations, and persistent concern about social acceptance (Lucero et al., 2022). Such individuals tend to interpret ambiguous social interactions negatively and may engage in maladaptive cognitive patterns such as rumination, self-criticism, and emotional withdrawal. Research has shown that fear of negative evaluation is associated with impaired creativity, reduced self-esteem, social isolation, and emotional dysregulation among adolescents and university students (Bayanloo & Jafari Harandi, 2021). Furthermore, contemporary digital communication and social media environments may intensify adolescents' sensitivity to social judgment and comparison, thereby increasing vulnerability to fear of

negative evaluation and social anxiety symptoms (Young et al., 2017).

Previous studies have highlighted the importance of therapeutic interventions targeting fear of negative evaluation. Cognitive-behavioral approaches have demonstrated significant effectiveness in reducing maladaptive beliefs associated with social anxiety and interpersonal fears (Beheshtian et al., 2019; Neufeld et al., 2020). Similarly, psychodrama and group cognitive-behavioral therapy have been found to decrease fear of negative evaluation, self-focused attention, and self-criticism among individuals with social anxiety symptoms (Bekaian et al., 2021). Single-process cognitive-behavioral interventions have also shown positive effects on reducing facial interpretation bias and fear of negative evaluation among individuals with paranoid traits (Doustkam et al., 2021). Although these findings support the usefulness of cognitive and behavioral interventions, evidence suggests that some adolescents continue to experience persistent maladaptive schemas and emotional difficulties despite conventional treatments. Consequently, greater attention has been directed toward integrative and schema-based therapeutic approaches that address deeper emotional and cognitive structures underlying psychological distress (Sempertegui et al., 2018; Young et al., 2022).

Cognitive flexibility is another essential psychological construct associated with adaptive functioning and mental health. Cognitive flexibility refers to the ability to modify cognitive processing strategies, reinterpret situations from multiple perspectives, and adapt behavior according to changing environmental demands (Badihi Zeraati et al., 2020; Tomiyama et al., 2019). Individuals with high cognitive flexibility can generate alternative solutions, regulate emotional responses more effectively, and cope adaptively with stress and uncertainty. Conversely, reduced cognitive flexibility is associated with rigid thinking patterns, emotional dysregulation, rumination, anxiety, and depressive symptoms (Chalabianloo & Parvaz, 2022). Cognitive inflexibility may also contribute to maladaptive interpersonal functioning because individuals become trapped in repetitive negative interpretations and dysfunctional behavioral responses.

Research findings indicate that cognitive flexibility is strongly associated with psychological well-being and resilience. Adolescents and young adults with greater cognitive flexibility demonstrate lower levels of anxiety sensitivity, emotional distress, and maladaptive coping patterns (Bagheri et al., 2021). Conversely, deficits in

cognitive flexibility have been linked to illness anxiety, obsessive-compulsive symptoms, depressed mood, and trait anxiety (Badihi Zeraati et al., 2020; Chalabianloo & Parvaz, 2022; Tomiyama et al., 2019). Social and environmental variables also appear to influence cognitive flexibility. For example, membership in social networks and patterns of mental rumination have been shown to predict levels of cognitive flexibility among university students (Vakili, 2022). Moreover, stressful conditions such as the COVID-19 pandemic have highlighted the significant role of psychological flexibility and emotional schemas in maintaining mental health and adaptive functioning (Sebastião & Neto, 2024).

Several intervention studies have attempted to improve cognitive flexibility through psychological treatment approaches. Cognitive-behavioral therapy has been shown to improve cognitive flexibility among women with body image concerns and among prisoners with psychological difficulties (Deh Nabi & Radsepehr, 2017; Valizadeh et al., 2020). Neurofeedback interventions have similarly demonstrated effectiveness in enhancing working memory and cognitive flexibility in individuals with mild depression (Samadi Taher Gourabi & Shakerinia, 2021). More recently, schema-based and emotional schema interventions have attracted increasing attention due to their capacity to modify maladaptive cognitive-emotional structures associated with psychological rigidity and emotional dysfunction (Sistani Pour et al., 2024). These findings suggest that interventions focusing on deeper emotional schemas and cognitive structures may provide more comprehensive and enduring improvements in psychological flexibility and emotional adjustment.

Schema therapy, developed by Jeffrey E. Young, is an integrative therapeutic approach that combines cognitive-behavioral, attachment-based, experiential, and psychodynamic techniques to modify early maladaptive schemas and dysfunctional coping styles (Young et al., 2022; Young et al., 2017). According to schema theory, maladaptive schemas emerge during childhood and adolescence as a result of unmet emotional needs, dysfunctional family interactions, traumatic experiences, and adverse social environments. These schemas subsequently shape individuals' perceptions, emotional reactions, interpersonal behaviors, and coping strategies throughout life. Adolescents with maladaptive schemas often exhibit heightened sensitivity to rejection, emotional dysregulation, low self-worth, and interpersonal fears, all of

which may contribute to fear of negative evaluation and cognitive rigidity (Young et al., 2022).

Schema therapy aims to identify maladaptive schemas, challenge dysfunctional beliefs, regulate emotional experiences, and promote healthier coping responses through cognitive, behavioral, and experiential techniques. Previous empirical studies have demonstrated the effectiveness of schema therapy across various psychological disorders and emotional difficulties. Schema therapy has shown significant effectiveness in improving emotional regulation, self-efficacy, and craving among individuals with addictive behaviors (Fattahi & Dehghani, 2018). It has also been associated with significant improvements in symptomatic distress, coping styles, and mental well-being among patients with personality pathology (Schaap et al., 2021). Comprehensive reviews further support the effectiveness of schema therapy for borderline personality disorder and emotional dysregulation problems (Kellogg & Young, 2018; Sempertegui et al., 2018). Moreover, schema-focused interventions have demonstrated positive effects on maladaptive schemas and interpersonal adjustment among couples experiencing relational distress (Panahifar et al., 2018).

Recent studies have increasingly emphasized the relationship between schema therapy and psychological flexibility. Schema therapy combined with mindfulness interventions has been shown to improve psychological flexibility more effectively than schema therapy or cognitive-behavioral therapy alone (Ahanian Moghaddam et al., 2025). Similarly, schema therapy interventions have demonstrated positive effects on self-worth and cognitive flexibility among women with bulimia nervosa (Khamarniya et al., 2024). Emotional schema therapy has also been associated with increased flourishing and cognitive flexibility among vulnerable populations (Sistani Pour et al., 2024). Additionally, contemporary research has highlighted the predictive role of psychological flexibility, self-compassion, and perceived social support in relation to early maladaptive schemas (Zhang et al., 2025). These findings collectively suggest that schema-focused interventions may not only reduce maladaptive emotional responses but also enhance adaptive cognitive functioning and psychological resilience.

Adolescents may be particularly suitable candidates for schema therapy because maladaptive schemas and dysfunctional coping patterns are still developing during this stage and may therefore be more amenable to modification. Schema therapy provides adolescents with opportunities to

identify emotional needs, recognize dysfunctional cognitive patterns, and develop healthier interpersonal and emotional responses (Van Wijk-Herbrink, 2018). Despite the growing body of evidence supporting schema-based interventions, relatively limited research has specifically examined the effectiveness of schema therapy on fear of negative evaluation and cognitive flexibility simultaneously in adolescent populations. Most previous studies have focused either on adults or on isolated psychological outcomes, while fewer studies have investigated the integrative effects of schema therapy on interpersonal fears and adaptive cognitive functioning in adolescents.

Given the importance of fear of negative evaluation and cognitive flexibility in adolescent mental health, and considering the theoretical capacity of schema therapy to address maladaptive cognitive-emotional structures underlying these variables, further investigation in this area appears necessary. Moreover, because adolescents are increasingly exposed to interpersonal pressures, social comparison, and emotional stressors in contemporary social environments, interventions capable of improving emotional resilience and cognitive adaptability may play a critical role in promoting psychological well-being. Therefore, the present study aimed to investigate the effectiveness of schema therapy on fear of negative evaluation and cognitive flexibility among adolescents.

2. Methods and Materials

2.1. Study Design and Participants

The present study employed a quasi-experimental research design using a pretest–posttest format with a control group. The statistical population consisted of adolescents who referred to counseling centers in Tehran during 2026. From this population, 30 participants were selected through convenience sampling based on their willingness to participate and their eligibility for the study. After selection, participants were randomly assigned into two equal groups, including an experimental group ($n = 15$) and a control group ($n = 15$). Inclusion criteria included being within the adolescent age range, attending counseling centers during the study period, and having no severe psychiatric disorders that would interfere with participation in psychotherapy sessions. Participants in the experimental group received schema therapy intervention, whereas the control group did not receive any psychological intervention during the study period. Both groups completed the research instruments before and after the intervention. Ethical considerations,

including voluntary participation, confidentiality of participants' information, and informed consent, were observed throughout the study.

2.2. Measures

The Fear of Negative Evaluation Scale developed by David Watson and Ronald Friend (1969) was used to assess adolescents' fear of being negatively judged by others. In the present study, the short form of the Brief Fear of Negative Evaluation Scale (BFNES) was utilized. This instrument consists of 12 items derived from the original 30-item scale designed to measure one of the principal dimensions of social anxiety, namely fear of negative judgment and social rejection by others. The items reflect symptoms of anxiety and socially maladaptive behaviors that may lead to disapproval from others. Responses are scored using a Likert-type scale, with higher scores indicating greater fear of negative evaluation. Previous studies have reported a high correlation between the short and original versions of the questionnaire, with a correlation coefficient of 0.96, indicating strong concurrent validity. The criterion validity of the scale has also been confirmed through its significant correlations with anxiety, avoidance, and distress associated with unfavorable evaluations by others. The internal consistency of the short form has been reported to be satisfactory, with Cronbach's alpha coefficients ranging from 0.73 to 0.90, and a four-week test–retest reliability coefficient of 0.75.

Cognitive flexibility was assessed using the Cognitive Flexibility Inventory (CFI) developed by John P. Dennis and J. S. Vander Wal (2010). The inventory consists of 20 items and is designed to evaluate individuals' ability to adapt cognitive processing and behavior in response to changing environmental conditions. The theoretical foundation of the instrument is based on cognitive flexibility theory, which conceptualizes psychological well-being as the ability to accept internal and external experiences while maintaining commitment to value-oriented actions. The questionnaire is commonly used in both clinical and non-clinical settings to assess progress in cognitive-behavioral interventions for depression and other psychological disorders. In Iranian studies, three subscales have been identified for the instrument, including alternatives, control, and alternatives for human behavior. Previous psychometric evaluations demonstrated adequate convergent validity through significant correlations with the Beck Depression Inventory-II and the Martin and Rubin Cognitive Flexibility Scale. The

overall Cronbach’s alpha coefficient for the scale has been reported as 0.90, while the test–retest reliability coefficient was reported as 0.71. In addition, Cronbach’s alpha coefficients for the subscales of alternatives, control, and alternatives for human behavior were reported as 0.72, 0.55, and 0.57, respectively, indicating acceptable reliability.

2.3. Intervention

The experimental group participated in a schema therapy intervention program conducted over 10 sessions, with each session lasting approximately 90 minutes. The intervention was implemented in a group format and focused on identifying and modifying maladaptive early schemas, dysfunctional coping styles, and negative cognitive-emotional patterns associated with adolescents’ interpersonal fears and psychological inflexibility. The therapeutic sessions included psychoeducation regarding schemas and emotional needs, identification of maladaptive schema domains, cognitive restructuring of dysfunctional beliefs, emotional awareness exercises, imagery techniques, behavioral pattern-breaking strategies, and the development of adaptive coping responses. Throughout the intervention, participants were encouraged to recognize the relationship between maladaptive schemas and their fear of social judgment, as well as to develop more flexible cognitive and emotional responses in interpersonal situations. The control group received no intervention during the study period. At the conclusion of the intervention sessions, both groups completed the posttest assessments using the same instruments administered at the pretest stage.

Table 1

Descriptive Statistics of Fear of Negative Evaluation and Cognitive Flexibility in the Pretest and Posttest Stages

| Variables | Stage | Control Group Mean | Control Group SD | Experimental Group Mean | Experimental Group SD |
|-----------------------------|----------|--------------------|------------------|-------------------------|-----------------------|
| Fear of Negative Evaluation | Pretest | 45.53 | 7.58 | 44.39 | 7.87 |
| Fear of Negative Evaluation | Posttest | 43.47 | 7.68 | 33.64 | 5.41 |
| Cognitive Flexibility | Pretest | 67.58 | 8.55 | 66.31 | 8.58 |
| Cognitive Flexibility | Posttest | 69.41 | 8.56 | 79.28 | 10.38 |

As presented in Table 1, the mean scores of fear of negative evaluation in the experimental group decreased considerably from the pretest to the posttest stage, whereas only a slight reduction was observed in the control group. In contrast, the mean scores of cognitive flexibility in the experimental group increased noticeably in the posttest stage compared with the pretest stage, while the control group demonstrated only minimal changes. These descriptive

2.4. Data Analysis

Data obtained from the pretest and posttest assessments were analyzed using descriptive and inferential statistical methods. Descriptive statistics, including means and standard deviations, were calculated to summarize participants’ scores on fear of negative evaluation and cognitive flexibility. Inferential analyses were conducted to examine the effectiveness of schema therapy on the dependent variables. Prior to hypothesis testing, statistical assumptions such as normal distribution of data and homogeneity of variances were evaluated. The collected data were analyzed using covariance analysis procedures to compare posttest scores between the experimental and control groups while controlling for pretest differences. Statistical analyses were performed using SPSS software, and the significance level for all analyses was considered at $p < .05$.

3. Findings and Results

The demographic findings indicated that the participants were adolescents referred to counseling centers in Tehran in 2026. The total sample consisted of 30 adolescents who were randomly assigned into an experimental group ($n = 15$) and a control group ($n = 15$). The participants were within the adolescent age range and had relatively similar educational and social backgrounds. No participant withdrew from the study during the intervention process, and all participants completed the pretest and posttest assessments.

findings suggest that schema therapy was associated with reduced fear of negative evaluation and enhanced cognitive flexibility among adolescents in the experimental group.

Before conducting the multivariate analysis, the assumptions of normality and homogeneity were examined. The results of the Shapiro–Wilk test indicated that the distributions of fear of negative evaluation and cognitive flexibility scores in both the experimental and control groups

at the pretest and posttest stages were normal ($p > .05$). Furthermore, the assumptions required for multivariate covariance analysis, including homogeneity of variances and covariance matrices, were satisfied. Therefore, multivariate

analysis of covariance (MANCOVA) was conducted to examine the effectiveness of schema therapy on fear of negative evaluation and cognitive flexibility.

Table 2

Results of Analysis of Covariance for Fear of Negative Evaluation and Cognitive Flexibility

| Variable | Source | Mean Square | F | p | Effect Size |
|-----------------------------|--------------|-------------|--------|------|-------------|
| Fear of Negative Evaluation | Time | 521.864 | 8.785 | .001 | .358 |
| Fear of Negative Evaluation | Time × Group | 886.537 | 18.356 | .001 | .447 |
| Fear of Negative Evaluation | Group | 2864.147 | 16.457 | .001 | .386 |
| Cognitive Flexibility | Time | 967.867 | 14.687 | .001 | .457 |
| Cognitive Flexibility | Time × Group | 1247.357 | 10.453 | .019 | .456 |
| Cognitive Flexibility | Group | 3578.597 | 21.678 | .001 | .512 |

The results presented in Table 2 demonstrated that the interaction effect of time and group on fear of negative evaluation was statistically significant ($F = 18.356, p = .001$), indicating that schema therapy significantly reduced fear of negative evaluation in the experimental group from pretest to posttest. In addition, the group effect was significant, confirming differences between the experimental and control groups following the intervention. Regarding cognitive flexibility, the interaction effect of time and group was also statistically significant ($F = 10.453, p = .019$), suggesting that schema therapy significantly increased cognitive flexibility among adolescents in the experimental group at the posttest stage. The obtained effect sizes further indicated that schema therapy had a moderate to large effect on both fear of negative evaluation and cognitive flexibility. Therefore, the findings support the effectiveness of schema therapy in reducing fear of negative evaluation and enhancing cognitive flexibility among adolescents.

4. Discussion

The present study aimed to investigate the effectiveness of schema therapy on fear of negative evaluation and cognitive flexibility among adolescents. The findings demonstrated that schema therapy significantly reduced fear of negative evaluation and significantly increased cognitive flexibility in the experimental group compared with the control group. These findings indicate that schema therapy can effectively modify maladaptive cognitive-emotional patterns associated with interpersonal anxiety and psychological rigidity during adolescence. Considering the developmental sensitivity of adolescence and the central role of cognitive and emotional processes in shaping social

functioning, the obtained results highlight the importance of schema-based interventions for improving adolescent mental health and adaptive functioning.

One of the main findings of the present study was the significant reduction in fear of negative evaluation among adolescents who participated in schema therapy sessions. This finding is consistent with previous studies that demonstrated the effectiveness of psychological interventions in reducing fear of negative evaluation and social anxiety symptoms (Beheshtian et al., 2019; Bekaian et al., 2021; Doustkam et al., 2021; Neufeld et al., 2020). Previous research has shown that adolescents and young adults with elevated fear of negative evaluation often engage in maladaptive cognitive patterns such as self-criticism, social avoidance, hypervigilance toward interpersonal cues, and persistent concern about rejection by others (Lucero et al., 2022). Schema therapy appears to reduce these maladaptive reactions by helping individuals identify dysfunctional schemas related to defectiveness, social isolation, emotional deprivation, and approval seeking. Through cognitive restructuring and experiential techniques, adolescents gradually learn to reinterpret interpersonal experiences in a less threatening manner and develop more adaptive emotional responses.

The reduction in fear of negative evaluation observed in the present study can also be interpreted within the theoretical framework of schema therapy proposed by Jeffrey E. Young (Young et al., 2022; Young et al., 2017). According to schema theory, individuals who possess maladaptive schemas associated with rejection and inadequacy are highly sensitive to criticism and social judgment. These schemas influence how individuals process social information and interpret interpersonal interactions.

Adolescents with such schemas often perceive neutral or ambiguous social situations as threatening and may anticipate rejection even in safe social environments. Schema therapy targets these deeply rooted schemas by combining cognitive, emotional, and behavioral interventions, thereby weakening dysfunctional beliefs and strengthening healthier patterns of thinking and relating to others. Consequently, adolescents become less preoccupied with others' judgments and more capable of tolerating interpersonal uncertainty and emotional discomfort.

Another explanation for the effectiveness of schema therapy in reducing fear of negative evaluation may relate to the emotional regulation component of the intervention. Previous studies have emphasized that emotional dysregulation and rumination contribute substantially to interpersonal anxiety and social fears (Lucero et al., 2022; Sebastião & Neto, 2024). Schema therapy encourages emotional awareness, acceptance of unmet emotional needs, and adaptive emotional expression. By improving emotional processing abilities, adolescents may become less reactive to perceived criticism and more capable of regulating anxiety in social situations. This interpretation is consistent with studies demonstrating the effectiveness of schema-focused interventions in improving emotional regulation and psychological well-being (Fattahi & Dehghani, 2018; Schaap et al., 2021). Moreover, because adolescents often experience intense emotional sensitivity and social comparison during developmental transitions, interventions that strengthen emotional resilience may significantly reduce interpersonal fears and social insecurity.

The findings of the present study also demonstrated that schema therapy significantly improved cognitive flexibility among adolescents. This finding is aligned with previous studies indicating that schema-based and cognitive-behavioral interventions can enhance cognitive flexibility and adaptive thinking patterns (Deh Nabi & Radsepehr, 2017; Khamarniya et al., 2024; Sistani Pour et al., 2024; Valizadeh et al., 2020). Cognitive flexibility refers to the capacity to shift perspectives, generate alternative interpretations, and adapt cognitive responses to changing situations (Tomiyama et al., 2019). Individuals with cognitive rigidity often rely on repetitive negative thoughts, maladaptive assumptions, and inflexible coping strategies, which increase vulnerability to anxiety and emotional distress (Chalabianloo & Parvaz, 2022). Schema therapy appears to enhance cognitive flexibility by challenging rigid schema-driven interpretations and encouraging adolescents

to adopt alternative viewpoints regarding themselves, others, and their environment.

The improvement in cognitive flexibility may also be explained through the experiential and behavioral techniques used in schema therapy. Adolescents participating in schema therapy are encouraged to examine automatic thoughts, challenge dysfunctional assumptions, and explore healthier behavioral responses to interpersonal and emotional situations. This therapeutic process increases psychological adaptability and reduces dependence on rigid cognitive patterns. Previous research has shown that greater cognitive flexibility is associated with lower anxiety sensitivity, reduced psychological distress, and improved emotional adjustment (Badihi Zeraati et al., 2020; Bagheri et al., 2021). Therefore, the enhancement of cognitive flexibility observed in the present study may represent an important mechanism through which schema therapy improves overall psychological functioning.

Another important explanation concerns the relationship between cognitive flexibility and psychological flexibility. Recent studies have demonstrated that schema-focused interventions contribute to increased psychological flexibility and adaptive coping capacities (Ahanian Moghaddam et al., 2025; Sebastião & Neto, 2024). Psychological flexibility enables individuals to tolerate emotional discomfort while maintaining engagement in meaningful and adaptive behaviors. Adolescents who become psychologically flexible are more capable of shifting attention away from maladaptive self-evaluations and rigid emotional reactions. In schema therapy, experiential exercises, imagery rescripting, and cognitive restructuring help adolescents detach from rigid maladaptive schemas and adopt more balanced perspectives. As a result, adolescents develop greater cognitive openness and improved capacity for adaptive problem solving.

The findings of the present study are also consistent with contemporary evidence emphasizing the relationship between maladaptive schemas and impaired cognitive-emotional functioning (Zhang et al., 2025). Early maladaptive schemas can limit individuals' ability to process information flexibly because schema-driven interpretations often dominate emotional and interpersonal experiences. Adolescents with maladaptive schemas may selectively attend to threatening information, exaggerate negative outcomes, and underestimate their coping abilities. Schema therapy reduces the dominance of these dysfunctional schemas and creates opportunities for adolescents to process experiences in more adaptive and flexible ways. This

process may explain why participants in the experimental group demonstrated increased cognitive flexibility following the intervention.

The present findings additionally support the growing body of evidence regarding the effectiveness of schema therapy in adolescent populations. Previous studies have noted that schema therapy may be particularly beneficial for adolescents because maladaptive schemas are still developing and may therefore be more modifiable during this developmental stage (Van Wijk-Herbrink, 2018). Adolescents are highly influenced by interpersonal experiences, emotional validation, and social acceptance, which increases the relevance of schema-based interventions targeting unmet emotional needs and maladaptive interpersonal beliefs. Furthermore, because social media environments and peer interactions often intensify social comparison and fear of judgment among adolescents (Young et al., 2017), interventions that improve emotional resilience and cognitive adaptability may be especially valuable in contemporary adolescent populations.

The present findings also extend previous research by simultaneously examining fear of negative evaluation and cognitive flexibility within a schema therapy framework. While prior studies have often focused on isolated outcomes such as emotional regulation, social anxiety, or maladaptive schemas, the current study demonstrated that schema therapy may influence both interpersonal fears and adaptive cognitive functioning concurrently. This integrated effect is particularly important because fear of negative evaluation and cognitive inflexibility are often interrelated psychological processes. Adolescents who fear rejection may develop rigid cognitive styles to avoid emotional uncertainty, whereas cognitive rigidity may further intensify interpersonal fears and maladaptive interpretations of social situations. By targeting both maladaptive schemas and dysfunctional coping responses, schema therapy may interrupt this reciprocal cycle and promote healthier emotional and cognitive functioning.

5. Conclusion

Overall, the results of the present study suggest that schema therapy is an effective intervention for reducing fear of negative evaluation and increasing cognitive flexibility among adolescents. The intervention appears to facilitate adaptive emotional processing, challenge dysfunctional interpersonal beliefs, and improve adolescents' ability to respond flexibly to social and emotional challenges.

Considering the increasing prevalence of psychological distress among adolescents and the importance of adaptive cognitive-emotional functioning during this developmental stage, schema therapy may represent a valuable therapeutic approach for adolescent mental health services.

One limitation of the present study was the relatively small sample size, which may limit the generalizability of the findings to broader adolescent populations. In addition, participants were selected using convenience sampling from counseling centers in Tehran, and therefore the results may not fully represent adolescents from different cultural, social, or educational backgrounds. Another limitation was the absence of a follow-up assessment to determine the long-term stability of the therapeutic effects. Furthermore, reliance on self-report questionnaires may have increased the possibility of response bias and socially desirable responding.

Future research should investigate the long-term effectiveness of schema therapy through follow-up assessments conducted several months after treatment completion. It is also recommended that future studies examine the effectiveness of schema therapy across different adolescent populations, including adolescents with severe anxiety disorders, depression, behavioral disorders, or trauma-related difficulties. Comparative studies examining schema therapy alongside other therapeutic approaches may also provide greater insight into the relative effectiveness of different interventions. Additionally, future researchers are encouraged to explore mediating variables such as emotional regulation, self-compassion, attachment styles, and family functioning in relation to therapeutic outcomes.

From a practical perspective, the findings of the present study suggest that schema therapy may be effectively incorporated into counseling and psychological services for adolescents. Mental health professionals working in schools, counseling centers, and clinical settings may benefit from integrating schema-based interventions into programs targeting social anxiety, emotional dysregulation, and maladaptive interpersonal beliefs. Training adolescents in recognizing maladaptive schemas and developing healthier cognitive-emotional responses may contribute to improved psychological resilience and interpersonal functioning. Furthermore, educational institutions and mental health organizations may consider implementing preventive schema-based programs to strengthen emotional adjustment and adaptive coping skills among adolescents.

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.

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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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