Iranian Journal of Educational Sociology

Journal Website

Article history:
Received 28 September 2024
Revised 06 November 2024
Accepted 26 November 2024
Published online 14 April 2025

Iranian Journal of Educational Sociology

Volume 8, Issue 1, pp 100-108

Quarterly
Iranian Journal of Educational Sociology

E-ISSN: 2645-3460

The Impact of the Cool Kids Therapy Program on Cognitive Emotion Regulation in Children with Anxiety Disorders

Seyedeh Mohaddeseh Hashemi[1], Razieh Khorramabadi*[2], Yousef Dehghani[3]
1.MSc, Department of Psychology, Faculty of Literature and Humanities, Persian Gulf University, Bushehr, Iran.
2.Assistant Professor, Department of Psychology, Faculty of Literature and Humanities, Persian Gulf University, Bushehr, Iran (Corresponding author).
3.Associate professor, Department of Psychology, Faculty of Literature and Humanities, Persian Gulf University, Bushehr, Iran.
*** Corresponding author email address**: rkhorramabadi@pgu.ac.ir

A r t i c l e I n f o

Article type:
Original Research

How to cite this article:
Hashemi M, Khorramabadi R, Dehghani Y. (2025). The Impact of the Cool Kids Therapy Program on Cognitive Emotion Regulation in Children with Anxiety Disorders. *Iranian Journal of Educational Sociology, 8*(1), 100-108.
http://dx.doi.org/10.61838/kman.ijes.8.1.10

A B S T R A C T

Purpose: This study aims to evaluate the effectiveness of the Cool Kids program in enhancing cognitive-emotional regulation in children diagnosed with anxiety disorders.

Methodology: This study utilized a semi-experimental design with a pre-test and post-test framework, incorporating a control group for comparison. The sampling was conducted using an available sampling method. The statistical population consisted of all female students diagnosed with anxiety disorders in the third, fourth, and fifth grades at primary schools in Bushehr during 2022-2021. academic year. The research sample consisted of 30 female students diagnosed with anxiety disorders, along with their mothers. Participants were randomly assigned to either the experimental group or the control group. Data collection involved the use of the Spence Children's Anxiety Scale and the Garnefski Cognitive Emotion Regulation Questionnaire for children. The experimental group underwent eight weekly therapy sessions, and the data obtained were analysed using covariance analysis.

Findings: Data analysis revealed a significant difference in the scores of general anxiety symptoms in children, as well as in the overall scores of adaptive and maladaptive cognitive emotion regulation strategies, between the experimental and control groups. This difference was observed when comparing the post-test results to the pre-test scores.

Conclusion: Overall, this treatment program serves as an effective protocol for addressing childhood anxiety and enhancing cognitive emotion regulation. It can be utilized independently or as a complementary approach alongside other therapeutic methods in clinical settings.

Keywords: *Cool kids therapy program, Cognitive behavioral family therapy, Cognitive emotional regulation, anxiety disorders*

[DOI: 10.61838/kman.ijes.8.1.10]

1. Introduction

Among the various psychological syndromes, anxiety disorders stand out as one of the most prevalent mental health issues in students. These disorders are particularly common in girls, who exhibit higher rates of anxiety compared to boys (Babaei & Jamali Qarakhanlou, 2021). Children with anxiety frequently endure intense and distressing negative emotions and struggle to self-soothe during periods of worry. Clinical observations, combined with advances in emotional research and an increasing awareness of the critical role of emotion regulation in healthy development, indicate that individuals with anxiety not only experience heightened negative emotional responses but also exhibit significant deficits in emotion regulation (Suveg et al., 2018). Children with anxiety disorders often exhibit various difficulties in regulating their emotions. For instance, they frequently engage in avoidance behaviors to steer clear of events or situations that trigger intense emotional responses. While avoidance can be a strategy to mitigate or prevent overwhelming emotions, it is not always effective in addressing the underlying issues and may reinforce maladaptive patterns of emotional regulation (Hannesdottir & Ollendick, 2007). Suveg and Zeman (2004) demonstrated that children with anxiety experience emotions with greater intensity, exhibit less adaptive coping strategies, and possess lower self-efficacy in managing their worries compared to their non-anxious peers (Schneider et al., 2018; Suveg & Zeman, 2004; Wisman et al., 2023). Consequently, difficulties in emotion regulation are frequently identified as a component of psychopathology (Essau et al., 2017). Among the various therapeutic interventions available for anxious children, research consistently highlights the effectiveness of cognitive behavioral therapy (CBT) for children and adolescents with anxiety disorders. This approach has been shown to be particularly effective compared to other psychological treatments (James et al., 2020; Levy et al., 2022). The primary objective of cognitive behavioral therapy (CBT) is to help individuals recognize and challenge their irrational beliefs, monitor their thought patterns, and replace negative automatic thoughts with more realistic and adaptive ones (Perihan et al., 2020). Among various family-focused cognitive behavioral therapy programs, the Cool Kids program stands out. This intervention is rooted in cognitive behavioral therapy principles and is adapted from Kendall's Coping Cat and Coping Koala programs, developed by Barrett and colleagues. It is specifically designed to address anxiety disorders in children aged 6 to 12 years and was developed at Macquarie University in Sydney, Australia (Bergez et al., 2020). The principles employed in the Cool Kids program encompass several key strategies: cognitive restructuring to address dysfunctional thoughts, a hierarchical approach to gradually confront and manage fear, a structured problem-solving process, the development of expression and assertiveness skills, effective child management techniques, and instruction in calming methods (Chronis-Tuscano et al., 2022). Research conducted in Australia and Denmark indicates that between 60% and 80% of children who have participated in the Cool Kids treatment program have experienced either full recovery from anxiety or a significant reduction in anxiety symptoms. Effectiveness studies have consistently reported positive outcomes (Djurhuus & Bikic, 2019). Arendt & Thastum & Hougaard (2016) investigated the effectiveness of the Danish version of the Cool Kids program for the treatment of anxiety in Danish children and adolescents and confirmed its effectiveness (Arendt et al., 2016). In a research, Kilburn et al. confirmed its effectiveness in treating anxiety in children with autism and obtained similar results (Kilburn et al., 2019).

The Cool Kids treatment program incorporates exercises and assignments aimed at helping parents identify and challenge unrealistic and anxious thoughts. It also encourages parents to confront their own fears, thereby modeling courageous behavior for their children. This active involvement by parents is crucial in effectively addressing children's anxiety (Rapee, 2013). Despite the promising outcomes reported for the Cool Kids treatment program, internal research specifically examining its effectiveness remains scarce. Notably, there has been a lack of investigation into how this program influences cognitive-emotional variables. This gap in the literature underscores the need for further study. Consequently, the aim of the present research is to assess the impact of the Cool Kids treatment program on cognitive emotion regulation components in children with anxiety disorders during the Covid-19 pandemic.

1. Methods and Materials

1.1. Study Design and Participants

This research is designed with practical objectives and employs a semi-experimental approach. Specifically, it uses a pre-test – post-test design with a control group to collect data. In this study, the independent variable is the Cool Kids treatment program, while the dependent variables include the general anxiety symptoms and cognitive-emotional regulation in children with anxiety disorders.

The statistical population of the present study included all female students with anxiety disorders in the third, fourth, and fifth grades of Bushehr Primary School in the academic year 2022-2021. In the present study, an available sampling method was used. Eligibility criteria for participation in the study included children aged 9-11 years with a diagnosed anxiety disorder; mothers with at least a high school diploma; informed consent from both parents and the child's willingness to participate; no current medication for psychological disorders; no concurrent psychotherapy or consultations for anxiety or other psychological issues; and no additional psychological disorders, such as depression or oppositional defiant disorder (ODD), as determined through a clinical interview. The exclusion criteria for the study include missing more than two sessions by either the child or the parent, refusal to continue participation in the

[DOI: 10.61838/kman.ijes.8.1.10]

Iranian Journal of Educational Sociology
E-ISSN: 2645-3460

research, lack of cooperation with the therapist, and failure to complete assigned homework tasks.

Phase one: To conduct this research, an introduction letter from Persian Gulf University was obtained and presented to the Education Department of Bushehr Province. After receiving the necessary approvals and being referred to the local education office, the researcher secured cooperation from ten girls' primary schools across various districts in Bushehr City, including Bahmani, Dovvas, Rishehr, Emamzadeh & Sartol, Ashouri, Sangi and Behesht Sadegh Street. To conduct the research, we initially visited schools to explain the study to principals and vice principals. Due to the Covid-19 pandemic and the shift to online classes, students were not physically present at school. Consequently, we distributed the survey links (including the Spence Children's Anxiety Scale for both children and parents) along with a poster and detailed information about the research (such as the target population, benefits for students, the research setting, the therapist, and other relevant details). This information was shared directly by the researcher or indirectly through school administrators and teachers to the third-, fourth-, and fifth-grade class groups.

Phase Two: Despite 1700 questionnaire visits, only approximately 450 participants completed them. Ultimately, participants with scores exceeding 75 on the Child Spence Anxiety Scale and 65 on the Parent Spence Anxiety Scale were contacted and invited for an interview.

Phase Three: After conducting clinical interviews over two weeks with volunteer participants, 30 students who met the inclusion criteria and were diagnosed with an anxiety disorder were selected. These students were then randomly assigned to either the experimental group or the control group. It is important to note that all stages of the study, including completing questionnaires, undergoing clinical interviews, and participating in the research, were entirely voluntary.

Phase Four: Participants first completed the relevant questionnaires during the pre-test stage. The experimental group then underwent therapeutic sessions over the course of eight two-hour sessions held weekly at the Mehr Family Clinic in Bushehr. These sessions were conducted under the supervision of a child and adolescent therapist, as recommended by the academic advisor, and the researcher was also in attendance. The sessions were structured separately for mothers and children, with the first hour dedicated to the children and the second hour to the mothers. When necessary, joint sessions were conducted. The control group received no interventions during the study period. Considering the exclusion criteria, during the implementation of the intervention, 5 participants were removed from the experimental group due to withdrawal from the study for reasons such as travel, illness, and absence from more than two sessions. Consequently, the number of participants in the experimental group was reduced to 10. For consistency in the number of participants in both groups, we also reduced the control group to 10 participants. After two months, at the conclusion of the sessions, both the experimental and control groups completed post-tests. The ethical considerations adhered to in this study included eliminating any potential harmful factors throughout the research process. At every stage, all health protocols were strictly followed, including the use of masks, alcohol sprays for disinfecting the environment, and excluding participants who had contracted Covid-19 to protect the health of others. Ensuring the physical well-being of the participants was a top priority throughout the research. Participants were also given the freedom to withdraw from the sessions at any stage of the treatment process if they chose not to continue. Furthermore, to ensure the rights of the participants and the specialized nature of the treatment for children with anxiety disorders, a professional therapist with expertise in child and adolescent therapy was involved alongside the researcher to deliver the treatment with precision and professionalism.

2.2. Measures

2.2.1. The Cognitive Emotion Regulation Questionnaire for Kids (CERQ-K-Persian)

This questionnaire was developed by Garnefski and Kraaij in 2007, based on the original Cognitive Emotion Regulation Questionnaire (Garnefski & Kraaij, 2007). This adaptation was specifically designed for use with children in the Netherlands (Darvish damavandi et al., 2020). The children's version of this questionnaire maintains the same scoring method, number of questions, and subscales as the original version. However, the content of the questions has been specifically designed to be understandable and appropriate for children (Garnefski et al., 2001, 2002). This questionnaire is grounded in strong empirical and theoretical foundations and is composed of nine subscales. These subscales assess nine cognitive strategies: self-blame, acceptance, rumination, positive refocusing, refocusing on planning, positive reappraisal, perspective-taking, catastrophizing, and blaming others. The scale scores range from 1 (never) to 5 (always). Each subscale consists of 4 items. The total score for each subscale is calculated by summing the scores of its items, resulting in a possible score range of 4 to 20 for each subscale. Higher scores on each subscale indicate a greater use of the corresponding strategy in coping with stressful and negative events (Garnefski & Kraaij, 2007). In the study conducted by Garnefski and Kraaij, Cronbach's alpha coefficients for the nine subscales ranged from 0.62 to 0.80 (Garnefski & Kraaij, 2007). Similarly, in the study by Mashhadi et al. (2011), the average Cronbach's alpha coefficient for the nine subscales was reported to be 0.73. In the present study, Cronbach's alpha was calculated to assess the reliability of the total score for the subscales of adaptive and maladaptive cognitive emotion regulation strategies, yielding values of 0.75 and 0.81, respectively.

2.2.2. The Spence Children's Anxiety Scale (SCAS)

This scale was developed by Spence in 1997 in Australia to measure and assess anxiety in children. This scale is based on the diagnostic criteria of the DSM-IV, providing a

[DOI: 10.61838/kman.ijes.8.1.10]

Iranian Journal of Educational Sociology
E-ISSN: 2645-3460

structured tool for evaluating anxiety disorders in children. The initial form of the scale was developed in Australia in 1997 and was validated through confirmatory and exploratory factor analyses during two large national studies conducted between 1997 and 1998. These studies confirmed the presence of six factors for the age group of 8 to 12 years and seven factors for the age group of 7 to 19 years. This scale, originally designed for community samples to assess a broad range of anxiety disorders in children based on the DSM-IV, has demonstrated strong psychometric properties in various studies (Tavana, 2014). It has also been standardized and shown to have high reliability and validity in countries such as the Netherlands, Belgium, Germany, Japan, Australia, New Zealand, and the United Kingdom. The factors under consideration included symptoms related to separation anxiety (questions 5, 8, 12, 15, 16, 44), social phobia (questions 6, 7, 9, 10, 29, 35), obsessive-compulsive disorder (questions 14, 19, 27, 40, 41, 42), panic disorder with agoraphobia (questions 13, 21, 28, 30, 32, 34, 36, 37, 39), generalized anxiety disorder (questions 1, 3, 4, 20, 22, 24), and specific phobia (fear of physical harm) (questions 2, 18, 23, 25, 33). The scale comprises 44 questions in total, with 38 questions designed to reflect symptoms and 6 questions (11, 17, 26, 31, 38, 43) formulated positively to reduce response bias and mitigate the influence of negative bias. The scoring is based on a 4-point Likert scale: (Never: 0), (Sometimes: 1), (Often: 2), and (Always: 3). The maximum possible score is 114, with higher scores indicating higher levels.

2.3. Intervention

The Cool Kids therapy program was conducted over eight weekly sessions, each lasting two hours, across a two-month period. Each session began with a welcome and review of the previous meeting. Following this, the therapist and researcher worked individually with the children for 60 minutes. The remaining 60 minutes were spent with the mothers. During this time, the children engaged in activities such as playing, watching animations, and reading storybooks. At the end of each session, the entire group reconvened to review the session, discuss weekly assignments, and address any questions or concerns. This structure is summarized below.

Session 1: Understanding Anxiety

Understanding anxiety, defining and explaining anxiety, getting to know children with different anxiety disorders, identifying personal fears and worries, writing a family contract, and weekly homework on identifying personal fears and worries.

Session 2: Learning How Anxiety Affects the Body, Thoughts, and Behavior

Understanding anxiety, learning how anxiety affects the body, thoughts, and behavior, recognizing different emotions, getting familiar with the anxiety scale, learning the connection between thoughts and feelings, practicing the distinction between thoughts and feelings, and separating the two.

Session 3: Learning Realistic Thinking

Explanation and practice of realistic thinking (children's detective thinking) and how to find evidence to prove or disprove anxieties (asking various questions about past experiences, general information, and the possibility of alternative interpretations for anxiety-provoking situations).

Session 4: Parenting an Anxious Child

Teaching problem-solving techniques to children, setting rewards, and practicing self-rewarding for children, including this as part of the children's weekly homework.

Session 5: Ladders (Facing Fears)

Teaching the concept and steps of ladders, making a list of fears and worries, creating ladders using them, and implementing the initial steps of the ladder as weekly homework.

Session 6: Simplifying Detective Thinking and Troubleshooting Ladders

Facilitating the detective thinking technique, using clue cards, reviewing and troubleshooting the ladders, and facing worries as weekly homework.

Session 7: Teaching Social Skills and Assertiveness

Teaching body language, voice, conversation, friendship, and assertiveness, presenting a table of the characteristics of passive, aggressive, and assertive children and role-playing these behaviors, teaching ways to deal with mockery or bullying, and weekly homework on practicing ladders and assertive behaviors.

Session 8: Planning for the Future and Reviewing Therapy Sessions

Relapse of anxiety symptoms and ways to cope with them, planning for future situations that may arise, advising continued practice of detective thinking and assertiveness, completing ladders, and awarding a certificate of completion (for brave behavior, detective thinking, facing fears, and assertiveness) to the children.

3. Data Analysis

In this study, a semi-experimental design was employed to compare two groups using pre-test and post-test measures. Given the parametric nature of the tests, both descriptive statistics (including prevalence, mean, and standard deviation) and inferential statistics (specifically, analysis of covariance) were utilized. Covariance analysis was conducted to test the study's hypotheses, and the pre-test scores were treated as covariates. The normality of the distribution was assessed by examining skewness and kurtosis, while Levene's test was used to evaluate the homogeneity of variances .To assess the homogeneity of

[DOI: 10.61838/kman.ijes.8.1.10]

Iranian Journal of Educational Sociology
E-ISSN: 2645-3460

regression slopes, we examined the interaction between the covariate (pre-test) and the independent variable (experimental and control groups) using an F-test. Given that the assumptions for covariance analysis were satisfied, we concluded that applying this parametric test was appropriate and valid.

3.1. Findings and Results

The demographic characteristics of the participants, including the type of anxiety disorder, the child's grade level, the mother's occupation, and the mother's education, are reported separately for the experimental and control groups. The number of participants based on the type of anxiety disorder (separation anxiety, social anxiety, and specific phobia) in the experimental group was 3 participants (30%), 3 participants (30%), and 4 participants (40%), respectively . On the other hand, in the control group, the distribution of participants according to the type of anxiety disorder was as follows: 1 participant (10%) had separation anxiety, 4 participants (40%) had social anxiety, 3 participants (30%) had generalized anxiety, and 2 participants (20%) had specific phobias.

The chi-square statistic obtained from comparing the frequency of anxiety disorders between the two groups was 4.81, which was not statistically significant (Sig = 0.186). Therefore, the two groups under study were matched in terms of the type of anxiety disorder. Additionally, the distribution of participants in the experimental group based on the child's grade level (third, fourth, and fifth) was as follows: 1 student (10%) in the third grade, 5 students (50%) in the fourth grade, and 4 students (40%) in the fifth grade. In contrast, the control group consisted of 2 students (20%) in the third grade, 3 students (30%) in the fourth grade, and 5 students (50%) in the fifth grade .The chi-square statistic obtained from comparing the frequencies of the two groups based on the children's grade level was 0.994, which was not statistically significant (Sig = 0.624). This result indicates that the two groups were matched in terms of the children's grade levels.

In the experimental group, participants were categorized based on their mothers' occupations as follows: 9 participants (90%) had mothers who were homemakers, while 1 participant (10%) had a mother with a freelance occupation. Conversely, in the control group, the distribution based on maternal occupation was 7 participants (70%) with homemaker mothers and 3 participants (30%) with mothers engaged in freelance work. The chi-square statistic for comparing the frequency distribution of maternal occupations between the two groups was 1.25, which was not statistically significant (P = 0.291). Thus, the two groups were equivalent in terms of maternal occupation. Additionally, in the experimental group, the number of participants with mothers having a diploma and higher education was 7 (70%) and 3 (30%), respectively. In contrast, in the control group, the numbers were 6 (60%) and 4 (40%) for diploma and higher education, respectively. The chi-square statistic for comparing the frequency distribution of maternal education between the two groups was 0.22, which was not statistically significant (P = 0.50). Therefore, the two groups were also equivalent with respect to maternal education.

Table 1

Descriptive Findings of Research Variables in the Pre-test and Post-test Phases

Variable		Group	Mean	Standard Deviation	Minimum Score	Maximum Score
Adaptive Cognitive Emotion Regulation Strategies	Pre-test	Experimental	40.66	95.10	53	83
		Control	80.65	54.5	53	88
	Post-test	Experimental	70.74	49.6	65	87
		Control	80.65	54.9	58	80
Maladaptive Cognitive Emotion Regulation Strategies	**Pre-test**	**Experimental**	**20.48**	**92/5**	**37**	**59**
		Control	50.49	51.8	32	60
	Post-test	Experimental	10.49	07.7	30	49
		Control	90.48	94.8	34	69

Table 2

Results of Univariate Covariance Analysis Related to Maladaptive Cognitive Emotion Regulation Strategies in the Experimental and Control Groups

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F	Significance Level	Eta Coefficient
Group	70.340	1	70.340	661.5	029.0	**250.0**
Error	19.1023	17	18.60			
Total	**00.41146**	**20**				

[DOI: 10.61838/kman.ijes.8.1.10]

Iranian Journal of Educational Sociology
E-ISSN: 2645-3460

As shown in Table 2, the results of the analysis of covariance, with pre-test scores controlled, indicate a significant difference in maladaptive cognitive emotion regulation strategies between the experimental and control groups (F = 5.661, P = 0.029). Based on the results, it can be concluded that the Cool Kids therapy program has a statistically significant impact on the experimental group at a 95% confidence level. Additionally, the effect size (eta-squared) indicates that 25% of the variance in the dependent variable, specifically maladaptive cognitive emotion regulation strategies, can be attributed to participation in the Cool Kids program.

Table 3

Results of Univariate Covariance Analysis for Adaptive Cognitive Emotion Regulation Strategies in the Experimental and Control Groups.

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F	Significance Level	Eta Coefficient
Group	19.286	1	19.286	8.250	0.011	**32.7**
Error	75.589	17	69.34			
Total	00.101428	20				

As shown in Table 3, the results of the covariance analysis indicate a significant difference in adaptive cognitive emotion regulation strategies between the experimental and control groups, with pre-test scores controlled (F = 8.250, P = 0.011). This suggests that the Cool Kids therapy program has a significant effect on the experimental group at a 95% confidence level. Additionally, the eta-squared value indicates that 32.70% of the variance in the dependent variable, which is adaptive cognitive emotion regulation strategies, can be attributed to participation in the Cool Kids therapy program.

4. Discussion

The objective of this research is to determine the impact of the Cool Kids therapy program on the components of cognitive emotion regulation in children with anxiety disorders in Bushehr. The findings indicate a significant difference between the maladaptive emotion regulation strategies of children with anxiety disorders in the experimental and control groups, both in pre-test and post-test assessments .In other words, the results of the study indicate that, at the post-test stage, there is a significant difference between the experimental group and the control group in terms of the overall scores on the maladaptive emotion regulation subscales from the Child Emotion Regulation Questionnaire. Specifically, the Cool Kids therapy program has demonstrated a notable and effective impact on reducing maladaptive cognitive emotion regulation strategies in children with anxiety disorders the results of this study align with findings from other research both domestically and internationally, including studies by Shakeri manesh et al. (2021), Torkamani et al. (2019), Weiss et al. (2018), Alizadeh Birjandi et al. (2016), Adabi (2013) and Suveg et al. (2009). It is important to note that, based on our review of the literature, maladaptive cognitive emotion regulation strategies have not been specifically tested in the context of the Cool Kids therapy program. The congruence with the current study's results pertains to the efficacy of cognitive-behavioral therapy-based treatment packages on cognitive emotion regulation. To date, there is no research specifically examining the effectiveness of the Cool Kids program on cognitive emotion regulation**.**

To elucidate the effectiveness of the Cool Kids therapy program in reducing maladaptive cognitive emotion regulation strategies in children with anxiety, it can be stated that the Cool Kids therapeutic package employs techniques such as identifying anxiety and bodily responses, managing emotions through relaxation training and controlled deep breathing, learning problem-solving skills, and understanding the impact of negative thoughts and anxious self-talk on emotions and behavior. The program also addresses the relationship between catastrophic thoughts and anxiety, utilizing cognitive strategies to identify and challenge negative self-talk and catastrophic thoughts, replacing them with more realistic self-talk through cognitive restructuring. Additionally, the program promotes the use of effective coping skills, generalizing positive self-talk and applying it to threatening situations through practice and repetition. These approaches contribute to a reduction in maladaptive cognitive emotion regulation strategies in children with anxiety and enhance adaptive processing of thoughts and emotions underlying anxiety-related behavioral and cognitive issues (Shakeri Manesh et al., 2021). To support the current findings, the research by Soleimani Sheikhabadi and Kadkhodaee (2023) can be referenced (Alizadeh Birjandi et al., 2016). Their study demonstrated significant differences in post-test scores across all four cognitive emotion regulation strategies (self-blame, catastrophizing, other-blame, and rumination) between the experimental and control groups. The short-term cognitive-behavioral therapy using the Kendall method (the Compatible Cat) was effective in significantly reducing maladaptive cognitive emotion regulation strategies in children with anxiety disorders. In addition, Torkamani et al. (2019) demonstrated that brief cognitive-behavioral therapy is an effective and beneficial approach for improving maladaptive cognitive emotion regulation strategies in anxious children. Another explanation for the results of the present study is that the Cool Kids therapy program has significantly reduced children's anxiety. This reduction may have indirectly impacted maladaptive cognitive emotion

[DOI: 10.61838/kman.ijes.8.1.10]

Iranian Journal of Educational Sociology
E-ISSN: 2645-3460

regulation strategies, leading to a decrease in their use among children with anxiety disorders (Torkamani et al., 2019).

The results of this study indicate that there is a significant difference between adaptive cognitive emotion regulation strategies in children with anxiety disorders when comparing the experimental and control groups in both pre-test and post-test assessments. Specifically, the findings show a significant difference in the overall scores of the adaptive cognitive emotion regulation subscales from the Children's Cognitive Emotion Regulation Questionnaire between the experimental and control groups at the post-test stage. This suggests that the Cool Kids therapy program has had a notably positive and effective impact on enhancing adaptive cognitive emotion regulation strategies in children with anxiety disorders. The findings of this study are consistent with those of previous research both domestically and internationally. For instance, similar results have been reported by Alizadeh Birjandi et al. (2016), Torkamani et al. (2019), Shakeri Manesh et al. (2021), Ghasemzedeh Nasaji et al. (2010), Adabi et al. (2013), Suveg et al. (2009) and Weiss et al. (2018). It is important to note that, based on the literature review of both domestic and international research, the adaptive strategies of cognitive emotion regulation have not yet been tested specifically through the Cool Kids therapy program. The findings related to this study are primarily aligned with the effectiveness of treatment packages based on cognitive-behavioral therapy (CBT) on cognitive emotion regulation. However, no research has been found that directly examines the effectiveness of the Cool Kids program on cognitive emotion regulation. Garnefski et al. (2001) evaluated regulatory strategies in anxious children, revealing that children with anxiety scored lower in planning, positive refocusing, and positive reappraisal of situations (Garnefski et al., 2001). The study also identified an inverse relationship between adaptive cognitive emotion regulation strategies and symptoms of anxiety and depression in children. Additionally, a higher frequency of maladaptive strategies, such as self-blame, rumination, and catastrophizing, was observed in children with internalizing symptoms (Rodríguez-Menchón et al., 2021).

To explain the findings of the present study, it can be argued that the Cool Kids therapy program, by employing cognitive-behavioral techniques that focus on the key components of thought, emotion and behavior, may effectively improve cognitive emotion regulation in children with anxiety. In their 2023 study, Soleimani Sheikhabadi and Kadkhodaee demonstrated that the Cat-Compatible Coping Program significantly increased the use of adaptive cognitive emotion regulation strategies in children with anxiety disorders compared to the control group (Soleimani Sheikhabadi & Kadkhodaee, 2023). Participants who underwent the intervention scored significantly higher in both positive refocusing and planning strategies than those in the control group. Similarly, in a 2010 study, Ghasemzadeh Nasaji and colleagues found that cognitive-behavioral interventions led to increased use of problem-focused coping responses, cognitive strategies centered on planning, and positive reappraisal in emotion regulation (Ghasemzadeh Nasaji et al., 2010). Additionally, Adabi et al. (2013) confirmed in their research the effectiveness of process-based cognitive-behavioral therapy in improving adaptive cognitive emotion regulation strategies (Adabi et al., 2013). This program aids children in recognizing emotions such as fear, stress, and anxiety, as well as the associated thoughts. Specifically, the therapy focuses on educating children about the impact of negative thoughts and anxious self-talk on their emotions and behaviours. By understanding the connection between catastrophic thoughts and anxiety, children learn to identify and challenge negative self-talk and catastrophic thinking, replacing them with more realistic thoughts through cognitive restructuring. The program also emphasizes the use of effective coping skills, the generalization of positive self-talk, and its application in facing threatening situations through practice and repetition. This approach enhances adaptive cognitive emotion regulation strategies, empowering children to cope more effectively with stressful situations (Soleimani Sheikhabadi & Kadkhodaee, 2023).

Every research endeavor encounters certain limitations along the way. Similarly, this study faced several challenges, some of which are worth noting. Due to the Covid-19 pandemic, the screening and sampling process became more time-consuming and difficult, as classes were held online, and schools were closed. As a result, the intervention had to be postponed until late spring, coinciding with the children's final exams and the start of the summer holidays. These circumstances contributed to a reduction in the sample size during the intervention phase**.** Due to the onset of summer holidays and the consequent loss of access to participants, it was not possible to follow up on the long-term and sustained effects of the Cool Kids therapy program on overall anxiety symptoms, maternal parenting stress, and cognitive emotion regulation in children with anxiety disorders. As a result, this study lacks follow-up results. Additionally, the inability to involve fathers in the therapy sessions limited the potential benefits of the intervention. The study population was also restricted to female students in the third, fourth, and fifth grades of elementary schools in Bushehr. Therefore, caution should be exercised when generalizing the findings of this study to other regions, cities, and educational levels, as this represents a significant limitation. The sample size in the present study was limited, which further restricts the generalizability of the results. Additionally, since the study sample consisted exclusively of girls with anxiety disorders, the applicability of the findings to boys with similar disorders is also constrained.

5. *Conclusion*

This study's findings align with existing research, reinforcing the effectiveness of the Cool Kids therapy program in enhancing cognitive emotion regulation among children with anxiety disorders. Notably, this study addresses a gap in the literature, as previous research has not specifically explored the program's impact on cognitive emotion regulation in anxious children. Furthermore,

[DOI: 10.61838/kman.ijes.8.1.10]

Iranian Journal of Educational Sociology
E-ISSN: 2645-3460

considering the scarcity of research on this therapeutic approach within Iran, the present study is both timely and of significant value.

Authors' Contributions

The first author were responsible for conducting the interview and collecting data, and the other authors were responsible for analyzing the data and writing the article.

Declaration

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

Transparency Statement

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

Acknowledgments

We hereby thank all participants for agreeing to record the interview and participate in the research.

Declaration of Interest

The authors report no conflict of interest.

Funding

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

Ethics Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research before the start of the interview and participated in the research with informed consent.

References

Arendt, K., Thastum, M., & Hougaard, E. (2016). Efficacy of a Danish version of the Cool Kids program: a randomized wait-list controlled trial. *Acta Psychiatrica Scandinavica*, *133*(2), 109-121. 10.1111/acps.12448

Alizadeh Birjandi, Z., Mashhadi, A., & Tabibi, Z. (2016). The effectiveness of Coping Cat program on improving emotion cognitive regulation among children with anxiety disorders. *Clinical Psychology Studies*, *6*(24), 153-173. https://doi.org/10.22054/jcps.2016.6533

Adabi, F. (2013). *The effectiveness of cognitive behavioral therapy in reducing anxiety symptoms and improving cognitive-emotional regulation in adolescents*. Master's thesis. Ferdosi University of Mashhad.

Babaei, S., & Jamali Qarakhanlou, B. (2021). The effect of 12 weeks of aerobic exercise on the level of anxiety and happiness of high school female students. *Image of Health*, *12*(9), 149-157. 10.34172/doh.2021.15

Bergez, K. C., Ramirez, A. C., Grebe, S. C., Perez, M. I., Viana, A. G., Storch, E. A., & Schneider, S. C. (2020). Efficacy of exposure-based cognitive behavioral therapy for youth anxiety and obsessive-compulsive disorder. In *Exposure therapy for children with anxiety and OCD* (pp. 21-37). Elsevier. https://doi.org/10.1016/B978-0-12-815915-6.00002-0

Chronis-Tuscano, A., Novick, D. R., Danko, C. M., Smith, K. A., Wagner, N. J., Wang, C. H., Druskin, L., Dougherty, L. R., & Rubin, K. H. (2022). Early intervention for inhibited young children: a randomized controlled trial comparing the Turtle Program and Cool Little Kids. *Journal of Child Psychology and Psychiatry*, *63*(3), 273-281. 10.1111/jcpp.13475

Darvish Damavandi, Z., Dortaj, F., Ghanbari Hashem Abadi, B., Delavar, A. (2020). The effectiveness of story therapy based on everyday performance methods on improving the cognitive regulation of emotions in children with attention deficit/hyperactivity disorder. *Journal of Cognitive Sciences*, *19*(90), 787-797. http://psychologicalscience.ir/article-1-497-en.html

Djurhuus, I. D., & Bikic, A. (2019). Is the Cool Kids programme working in outpatient psychiatric clinics? A Danish naturalistic effectiveness study. *Nordic Journal of Psychiatry*, *73*(2), 141-148. 10.1080/08039488.2019.1574893

Essau, C. A., LeBlanc, S. S., & Ollendick, T. H. (2017). *Emotion regulation and psychopathology in children and adolescents*. Oxford University Press. https://doi.org/10.1093/med:psych/9780198765844.001.0001

Ghasemzadeh Nasaji, S., Peyvastehgar, M., Hosseinian, S., Moutabi, F., & Banihashemi, S. (2010). Effectiveness of cognitive-behavioral intervention on coping responses and cognitive emotion regulation strategies. *International Journal of Behavioral Sciences*, *4*(1), 35-43. https://www.behavsci.ir/article_67665.html

Garnefski, N., & Kraaij, V. (2007). The cognitive emotion regulation questionnaire. *European journal of psychological assessment*, *23*(3), 141-149. https://doi.org/10.1027/1015-5759.23.3.141

Garnefski, N., Kraaij, V., & Spinhoven, P. (2002). Manual for the use of the Cognitive Emotion Regulation Questionnaire. *Leiderdorp, The Netherlands: DATEC*, *23*(3), 141-149. https://www.scirp.org/reference/referencespapers?referenceid=286182

Garnefski, N., Kraaij, V., & Spinhoven, P. (2001). Negative life events, cognitive emotion regulation and emotional problems. *Personality and Individual differences*, *30*(8), 1311-1327. https://doi.org/10.1016/S0191-8869(00)00113-6

Hasanzadeh Aval, M., Mashhadi, A., Bigdali, I., Yazdi, A. (2019). Prevalence of anxiety disorders in first grade children of Malair primary school and its relationship with lack of emotional regulation. *Pozohan Scientific Journal*, *18*(3), 52-60. 10.52547/psj.18.3.53

Hannesdottir, D. K., & Ollendick, T. H. (2007). The role of emotion regulation in the treatment of child anxiety disorders. *Clinical child and family psychology review*, *10*, 275-293. 10.1007/s10567-007-0024-6

James, A. C., Reardon, T., Soler, A., James, G., & Creswell, C. (2020). Cognitive behavioural therapy for anxiety disorders in children and adolescents. *Cochrane database of systematic reviews*(11). 10.1002/14651858.CD013162.pub2

Kilburn, T. R., Juul Sørensen, M., Thastum, M., Rapee, R. M., Rask, C. U., Bech Arendt, K., & Thomsen, P. H. (2019). Group-based cognitive behavioural therapy for anxiety disorder in children with autism spectrum disorder: a feasibility study. *Nordic Journal of Psychiatry*, *73*(4-5), 273-280. 10.1007/s10803-020-04471-x

Levy, H. C., Stevens, K. T., & Tolin, D. F. (2022). Research Review: A meta-analysis of relapse rates in cognitive behavioral therapy for anxiety and related disorders in youth. *Journal of Child Psychology and Psychiatry*, *63*(3), 252-260. 10.1111/jcpp.13486

Mashhadi, A., Mir-doroghi, F., & Hasani, J. (2011). The role of cognitive emotion regulation strategies in children's internalizing disorders. *Journal of Clinical Psychology*, *3*(3), 29-39. 10.22075/jcp.2017.2060

Perihan, C., Burke, M., Bowman-Perrott, L., Bicer, A., Gallup, J., Thompson, J., & Sallese, M. (2020). Effects of cognitive behavioral therapy for reducing anxiety in children with high functioning ASD: A systematic review and meta-analysis. *Journal of autism and developmental disorders*, *50*, 1958-1972. 10.1007/s10803-019-03949-7

Rapee, R. M. (2013). The preventative effects of a brief, early intervention for preschool-aged children at risk for internalising: Follow-up into middle adolescence. *Journal of Child Psychology and Psychiatry*, *54*(7), 780-788. 10.1111/jcpp.12048

Rodríguez-Menchón, M., Orgilés, M., Fernández-Martínez, I., Espada, J. P., & Morales, A. (2021). Rumination, catastrophizing, and other-blame: the cognitive-emotional regulation strategies involved in anxiety-related life interference in anxious children. *Child Psychiatry & Human Development*, *52*, 63-76. 10.1007/s10578-020-00988-5

Soleimani Sheikhabadi, B., & Kadkhodaee, M. (2023). The Effectiveness of Kendall's Therapy Program on Anxiety and Cognitive Emotion Regulation of Second Period Elementary School Male Students: A Quasi-Experimental Study. *Journal of Rafsanjan University of Medical Sciences*, *22*(8), 817-834. 10.61186/jrums.22.8.817

Shakerimanesh, L., Hajiarbabi, F., & Peivandi Yazdi, A. (2021). The effects of coping cat program on anxiety, emotion regulation, and resilience in

[DOI: 10.61838/kman.ijes.8.1.10]

Iranian Journal of Educational Sociology
E-ISSN: 2645-3460

children referring to dentistry: A case study. *Internal Medicine Today*, *27*(3), 318-341.10.32598/hms.27.3.3269.1

Schneider, R. L., Arch, J. J., Landy, L. N., & Hankin, B. L. (2018). The longitudinal effect of emotion regulation strategies on anxiety levels in children and adolescents. *Journal of Clinical Child & Adolescent Psychology*, *47*(6), 978-991. 10.1080/15374416.2016.1157757

Suveg, C., Jones, A., Davis, M., Jacob, M. L., Morelen, D., Thomassin, K., & Whitehead, M. (2018). Emotion-focused cognitive-behavioral therapy for youth with anxiety disorders: A randomized trial. *Journal of abnormal child psychology*, *46*, 569-580. 10.1007/s10802-017-0319-0

Suveg, C., Sood, E., Comer, J. S., & Kendall, P. C. (2009). Changes in emotion regulation following cognitive-behavioral therapy for anxious youth. *Journal of Clinical Child & Adolescent Psychology*, *38*(3), 390-401. 10.1080/15374410902851721

Suveg, C., & Zeman, J. (2004). Emotion regulation in children with anxiety disorders. *Journal of clinical child and adolescent psychology*, *33*(4), 750-759. https://doi.org/10.1207/s15374424jccp3304_10

Torkamani, F., Nazaraghaie, F., & Nami, M. (2019). Geometric Meditation-Based Cognitive Behavioral Therapy in Obsessive-Compulsive Disorder: A Case Study. *arXiv preprint arXiv:1904.05024*. https://doi.org/10.48550/arXiv.1904.05024

Tavana, Z. (2014). *A preliminary investigation of the effectiveness of school-based cognitive-behavioral group therapy on reducing children's anxiety.* Master's thesis. Shahed University.

Wisman, M. A., Emmelkamp, J., Dekker, J. J., & Christ, C. (2023). Internet-based emotion-regulation training added to CBT in adolescents with depressive and anxiety disorders: A pilot randomized controlled trial to examine feasibility, acceptability, and preliminary effectiveness. *Internet interventions*, *31*, 100596. https://doi.org/10.1016/j.invent.2022.100596.

Weiss, J. A., Thomson, K., Burnham Riosa, P., Albaum, C., Chan, V., Maughan, A., Tablon, P., & Black, K. (2018). A randomized waitlist-controlled trial of cognitive behavior therapy to improve emotion regulation in children with autism. *Journal of Child Psychology and Psychiatry*, *59*(11), 1180-1191. 10.1111/jcpp.12915

[DOI: 10.61838/kman.ijes.8.1.10]

E-ISSN: 2645-3460