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# The Impact of Cognitive-Behavioral Play Therapy on Emotion Regulation and Assertiveness in Elementary School Girls

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## Introduction

Childhood is one of the most critical and vulnerable stages of life, as healthy development in later stages depends on it. Any deficiencies in this foundational stage can lead to disruptions and disorders in subsequent stages of life. Most psychologists believe that the early years of life lay the foundation for a child's personality

development. If emotional or psychological disturbances are not addressed promptly, they may lead to other disorders such as depression, stubbornness, and oppositional behavior (Jreisat, 2023). Emotions play a significant role in children's mental health. Emotion serves as a key driver of individual behavior, influencing cognitive activities, behavioral choices, personality formation, and the management of interpersonal

## ABSTRACT

**Objective:** This study aimed to evaluate the effectiveness of CBPT in improving emotion regulation and assertiveness in elementary school girls.

**Methods and Materials:** A quasi-experimental pretest-posttest control group design was used. The statistical population included elementary school girls in Qods City during the 2024–2025 academic year. Thirty students with low scores in emotion regulation and assertiveness were selected through purposive sampling and randomly assigned to either an experimental group ( $n = 15$ ) or a control group ( $n = 15$ ). The experimental group participated in ten 90-minute CBPT sessions over a period of five weeks. Data were collected using the Children's Emotion Management Scale (Zeman et al., 2001) and the Gambrill & Richey Assertiveness Questionnaire (1975). Data analysis was conducted using MANCOVA and ANCOVA.

**Findings:** A significant improvement was observed in emotion regulation ( $F = 136.495$ ,  $P < 0.001$ ,  $\eta^2 = 0.840$ ) and assertiveness ( $F = 78.832$ ,  $P < 0.001$ ,  $\eta^2 = 0.752$ ) in the experimental group compared to the control group.

**Conclusion:** CBPT effectively enhances emotion regulation and assertiveness in elementary school girls. These findings suggest integrating CBPT into school-based psychological programs to support children's emotional and social development.

**Keywords:** Cognitive-Behavioral Play Therapy, Emotion Regulation, Assertiveness, Child Psychology, School-Based Intervention

relationships. Therefore, individuals must manage their emotions effectively. Emotional states reflect a person's reactions to their environment and act as a biological motivational mechanism for adapting to environmental changes. Emotions not only express behavioral outcomes but also serve as an adaptive motivational factor. Positive and negative emotions have different psychosocial functions, where positive emotions contribute positively, while negative emotions may have adverse effects. Consequently, individuals must learn to manage their emotions and harness the benefits of positive emotions. The ability to regulate emotions is a psychological trait that involves recognizing, monitoring, and managing one's feelings, as well as understanding and responding appropriately to surrounding situations (Lei, 2022).

The quality of an individual's interpersonal relationships depends on their level of interaction and social skills. Assertiveness is defined as a positive behavior that arises in response to two opposing situations (avoidance and aggression) in interpersonal communication. Assertive behaviors play an active role in an individual's daily interactions (Toktas et al., 2022). Assertiveness is the quality of having self-confidence and self-assurance without being aggressive or submissive. In psychology, assertiveness is a communication skill that can be learned. It is characterized by a confident expression of statements that affirm one's rights or viewpoints without threatening the rights of others. Those who practice assertiveness tend to live happier and more honest lives compared to individuals who are aggressive or passive. People who lack assertiveness often feel unable to take action regarding their circumstances. However, they may eventually become frustrated or angry about situations they struggle to handle, indicating psychological dysfunction. Such individuals frequently fear negative judgment from others (Parray et al., 2020).

As mentioned above, poor emotional regulation and a lack of assertiveness can have a negative impact on children as they grow older. Therefore, preventing and improving emotional regulation skills, as well as enhancing assertiveness, is essential from an early age. One practical therapeutic approach for improving emotional regulation and increasing assertiveness in children is cognitive-behavioral play therapy (CBPT). For elementary school children, play is a natural activity

that represents the universal expression of childhood through fantasy, symbols, and imagination. Through play, children naturally establish relationships with adults and peers. They learn to control impulses, manage stress, and develop social skills. Play can enable children to experience a sense of power and control when solving problems and coping with new ideas and interests, fostering feelings of confidence, courage, and success. Through play and play-based interventions, children can communicate symbolically and in an action-oriented manner. Trained psychotherapists utilize the therapeutic aspects of play to help children prevent or resolve psychosocial difficulties and achieve optimal growth and development (Raudenska et al., 2023).

Since the mid-1980s, cognitive-behavioral techniques and cognitive therapy have been integrated into play therapy, taking into account children's developmental levels. This integration primarily occurred in the 1990s, resulting in the development of cognitive-behavioral play therapy (CBPT), which adapted principles from adult cognitive-behavioral therapy to meet the developmental needs of children. CBPT has been effectively used for children experiencing mental health issues such as sexual abuse, trauma, domestic violence, poor social skills, emotional disorders, aggression, attention deficit hyperactivity disorder (ADHD), and pain management. Additionally, CBPT has been beneficial for anxious children by helping them practice self-regulatory behaviors, such as coping with medical procedures or systematic desensitization for phobias. It has also proven helpful for children with obesity or medical conditions who struggle with social situations at school and/or relationships with others (Raudenska et al., 2023).

Given the limited research conducted domestically on improving emotional regulation and enhancing assertiveness in elementary school children and considering the effectiveness of CBPT in addressing these variables, the present study aims to answer the following question: Does cognitive-behavioral play therapy impact emotional regulation skills and assertiveness in elementary school girls?

## Methods and Materials

### Study Design and Participants

This study employed a quasi-experimental pretest-posttest control group design. The statistical population included elementary school girls in Qods City during the 2024–25 academic year. The study aimed to assess the effectiveness of Cognitive-Behavioral Play Therapy (CBPT) on emotion regulation and assertiveness.

Participants were selected based on purposive sampling criteria and then randomly assigned to either the experimental or control group. A power analysis was conducted to determine the appropriate sample size, ensuring adequate statistical power. Inclusion Criteria: Female elementary school students (ages 7–10), scoring one standard deviation below the mean in emotion regulation and assertiveness (assessed using validated scales), absence of diagnosed psychological disorders, no concurrent participation in other psychological interventions, and parental consent and child willingness to participate. Exclusion Criteria: Presence of neurological or developmental disorders, regular participation in psychotherapy or counseling sessions, and excessive absences from the therapy sessions (more than two missed sessions).

After obtaining ethical approval and the necessary permits from the university and presenting them to the Department of Education in Savadkuh County, students meeting the inclusion criteria were selected from the study population. During the pre-test stage, 30 students who scored one standard deviation below the mean in the Emotion Regulation Skills Questionnaire for Children (Zeman et al., 2001) and the Gambrill and Richey Assertiveness Questionnaire (1975) were selected as participants and randomly assigned to two groups: the experimental group (15 students) and the control group (15 students).

The experimental group participated in 10 sessions of cognitive-behavioral play therapy (CBPT), each lasting 90 minutes. Meanwhile, the control group received no intervention. After completing the CBPT sessions, both the experimental and control groups participated in the post-test stage, where they were asked to complete the research questionnaires again.

### Instruments

Emotion Regulation Skills Questionnaire for Children (Zeman et al., 2001): This questionnaire, developed by

Zeman et al. (2001), includes a three-point Likert scale (1 = rarely, 2 = sometimes, 3 = often). It consists of 38 items that assess how children manage emotions related to anger (11 items), sadness (12 items), and worry (15 items). The total score ranges from 37 to 114, with higher scores indicating greater difficulty in regulating negative emotions (anger, sadness, and worry). The psychometric properties of the questionnaire were assessed, showing Cronbach's alpha reliability between 0.62 and 0.77 (Savage & Zeman, 2004). Additionally, Pourghanabadi (2011) calculated the reliability of this test in Iran using Cronbach's alpha, which was 0.74.

Gambrill and Richey Assertiveness Questionnaire (1975). This questionnaire consists of 40 items, some of which have been modified for cultural adaptation in Iran. Each item presents a specific situation requiring assertive behavior. The questionnaire has two sections: (1) measuring the level of discomfort experienced in assertive situations and (2) assessing the likelihood of demonstrating assertive behavior. The scoring system is as follows: 1 = Not uncomfortable at all, 2 = Slightly uncomfortable, 3 = Moderately uncomfortable, 4 = Very uncomfortable, and 5 = Extremely uncomfortable. This questionnaire was translated and validated for use in Iran by Bahrami (1996). Additionally, Manesh (2013) reported the reliability of the questionnaire using Cronbach's alpha at 0.89.

### Intervention

Session 1: Introduction and establishing rapport with group members

Session 2: Drawing activities and emotional recognition

Session 3: The magic bag and its cards

Session 4: Thoughts, feelings, and behaviors

Session 5: Enjoyable experiences and creative modeling

Session 6: "Some people say... What do they say?" activity

Session 7: "There are people who love me" activity

Session 8: "Seasons of my life" activity

Session 9: Friendship exhibition

Session 10: "On the magic carpet of dreams" (Setting goals for the future)

## Data Analysis

The study applied both descriptive and inferential statistical analyses: Descriptive statistics included charts, mean, and standard deviation. Inferential statistics involved Multivariate Analysis of Covariance (MANCOVA) and Univariate Analysis of Covariance (ANCOVA). All statistical analyses were conducted using SPSS 27.

**Table 1**

*Mean and Standard Deviation of Research Variables*

Variables	Experimental Group				Control Group			
	Pre-test		Post-test		Pre-test		Post-test	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Emotion Regulation Skills	86.73	8.67	79.47	8.91	86.07	7.90	85.87	7.45
Assertiveness	101.33	5.77	110.33	6.97	103.07	8.25	102.67	8.33

The results indicate that the Box's test is not significant, meaning that the assumption of homogeneity of covariance matrices is met. Thus, the equality of variances for the dependent variables, emotion regulation skills and assertiveness, is confirmed, and conducting MANCOVA is feasible. Furthermore, based on Levene's test results, the dependent variables (emotion regulation skills and assertiveness) in the post-test stage

## Findings and Results

Table 1 presents the mean and standard deviation of the pre-test and post-test scores for the variables of emotion regulation skills and assertiveness in the experimental and control groups.

were not statistically significant, confirming the assumption of equal variances and making MANCOVA applicable. To verify the normality of the data, the Shapiro-Wilk test was used. The results showed that the dependent variables (emotion regulation skills and assertiveness) were not significant, confirming that the normality assumption was met and justifying the use of MANCOVA.

**Table 2**

*Results of Multivariate Analysis of Covariance (MANCOVA) for Experimental and Control Groups*

Test Name	Value	F	df Hypothesis	df Error	P-value	Effect Size
Pillai's Trace	0.873	85.565	2	25	0.001	0.873
Wilks' Lambda	0.127	85.565	2	25	0.001	0.873
Hotelling's Trace	6.845	85.565	2	25	0.001	0.873
Roy's Largest Root	6.845	85.565	2	25	0.001	0.873

The results of the multivariate analysis of covariance (MANCOVA) in Table 2 indicate that the experimental and control groups significantly differ in at least one of the dependent variables (emotion regulation skills and

assertiveness), as all four tests (Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root) were statistically significant.

**Table 3**

*Results of Univariate Analysis of Covariance (ANCOVA) for Emotion Regulation Skills and Assertiveness in Experimental and Control Groups*

Source of Variation	SS	df	MS	F	P-value	Effect Size
Emotion Regulation Skills	380.192	1	380.192	136.495	0.001	0.840
Error	72.420	26	2.785			
Assertiveness	654.875	1	654.875	78.832	0.001	0.752
Error	215.988	26	8.307			

The results in [Table 3](#) indicate a significant difference between the experimental group (which received cognitive-behavioral play therapy) and the control group (which received no intervention) in emotion regulation skills at the post-test stage:  $F(1,26) = 136.495$ ;  $P < 0.01$ ; Partial  $\eta^2 = 0.840$ . Similarly, there is a significant difference between the experimental and control groups in assertiveness at the post-test stage:  $F(1,26) = 78.832$ ;  $P < 0.01$ ; Partial  $\eta^2 = 0.752$ .

## Discussion and Conclusion

The results of this study indicate that cognitive-behavioral play therapy (CBPT) is a practical approach for improving emotion regulation skills and assertiveness in elementary school girls. These findings are consistent with previous research ([Gholinejad & Naderi, 2020](#); [Gupta et al., 2023](#); [Hagberg et al., 2023](#); [Jabbari Daneshvar et al., 2022](#); [Kristanti et al., 2019](#); [Kuroda et al., 2022](#); [Mohammadpour et al., 2023](#); [Norouzi Homayoun et al., 2023](#); [Sadeghi et al., 2022](#); [Vacher et al., 2022](#)).

Cognitive-behavioral play therapy is an innovative and effective therapeutic approach in child psychology that helps children enhance their cognitive and behavioral skills through interactive play. This method is designed based on cognitive-behavioral therapy (CBT) principles and allows children to confront their emotions and challenges through play indirectly. One of the key aspects of this approach is its impact on emotion regulation. Emotion regulation refers to the ability to recognize, understand, and manage emotions in various situations. Within the framework of CBPT, children learn to recognize their emotions, label them, and respond appropriately in stressful situations. Group and individual play activities, emotional simulation exercises, and real-time feedback are practical tools for enhancing these skills ([Gholinejad & Naderi, 2020](#)).

Assertiveness, as a fundamental component of psychological and social well-being, plays a crucial role in shaping children's personalities. CBPT enhances assertiveness by strengthening self-efficacy, boosting self-confidence, and reducing social anxiety. In this method, children are placed in a safe and supportive environment where they learn how to express their emotions and needs assertively yet respectfully. Play-based exercises such as role-playing, real-life scenario

simulations, and problem-solving games enable students to practice assertive behaviors. This process helps them interact more effectively with peers and teachers, particularly in school environments ([Vacher et al., 2022](#)).

One of the distinguishing features of CBPT is the use of positive reinforcement strategies. These strategies help children choose constructive responses when dealing with negative emotions such as anger, fear, or sadness. For example, play-based activities present children with challenges that require immediate decision-making and emotion management. Providing positive feedback and timely encouragement strengthens desired behaviors and reduces undesirable emotional reactions. Over time, this process can lead to significant improvements in emotion regulation and assertiveness ([Norouzi Homayoun et al., 2023](#)).

Additionally, CBPT emphasizes group interactions and cooperation among students. In group activities, children have the opportunity to manage their emotions in social settings, respect diverse perspectives, and express their viewpoints assertively. These interactions are particularly beneficial for young girls, who may face cultural constraints in expressing their emotions and needs. Moreover, this method helps reduce feelings of isolation and fosters empathy and acceptance among peers. Ultimately, CBPT creates an engaging and non-judgmental space that enhances children's motivation to learn. Through play-based techniques focused on emotion regulation and assertiveness, students develop skills that extend beyond the school environment and into their daily lives. Thus, CBPT not only improves individual abilities but also positively influences the quality of students' social relationships ([Sadeghi et al., 2022](#)).

One limitation of the present study was the insufficient time allocated for follow-up assessments. Additionally, family factors such as parenting styles, emotional support from family, and parent-child interactions could influence students' assertiveness levels and were not controlled in this study. Future research is recommended to conduct longitudinal studies to evaluate the long-term effectiveness of CBPT on assertiveness and related skills. Compare the effectiveness of CBPT with other interventions such as individual counseling, group therapy, or life skills training to determine the most effective approach. Investigate the role of family factors such as parenting



styles, parental support, and family relationships in the success of CBPT to enhance intervention strategies. Implement CBPT as part of school-based life skills programs to help students develop assertiveness, self-confidence, and social skills in a structured and supportive environment. Train teachers through workshops on CBPT techniques, enabling them to integrate play-based interventions into classroom settings and encourage students to engage in assertive behaviors. Utilize CBPT in school counseling centers to conduct group therapy sessions where students can practice assertiveness skills and share experiences in a peer-supported setting. Provide parents with training on play-based techniques to help children develop and reinforce assertiveness and emotional regulation skills at home.

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### Declaration of Interest

The authors of this article declared no conflict of interest.

### Ethical Considerations

The study protocol adhered to the principles outlined in the Declaration of Helsinki, which provides guidelines for ethical research involving human participants. Ethical considerations in this study included the fact that participation was entirely optional. This article is extracted from the first author's Master's thesis at Ayandehgan Higher Education Institute, Tonekabon, Iran. The thesis topic was approved by the Educational and Graduate Studies Council of Ayandehgan Higher Education Institute, under registration code 1905941, on April 7, 2024, by the relevant specialized committee.

### Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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### Authors' Contributions

All authors equally contribute to this study.

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