

Effectiveness of Storytelling Therapy on Creativity and Emotional Intelligence in Children with Separation Anxiety Disorder

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ABSTRACT

Objective: This study aimed to evaluate the effectiveness of storytelling therapy on creativity and emotional intelligence in children with separation anxiety disorder.

Methods and Materials: The present research is a quasi-experimental study with a pre-test, post-test design with a control group. The population of this study included all children aged 5 to 7 years old suffering from separation anxiety disorder, who attended clinical psychiatric centers in Tehran in the year 2023. The sample consisted of 30 subjects selected through convenience sampling and were randomly divided into two groups (15 in the experimental group and 15 in the control group), but the control group remained on a waiting list for treatment. Before and after ten treatment sessions, all participants were assessed with the Torrance Creativity Test (Torrance, 1979) and the Emotional Intelligence Scale (Mavroveli et al., 2008). Additionally, participants received a psychiatric diagnosis regarding the disorder in question. Data analysis obtained from the administration of questionnaires was performed using SPSS software in two parts: descriptive and inferential (covariance).

Findings: The results of the covariance analysis showed that storytelling therapy improves creativity and emotional intelligence in children with separation anxiety disorder at the post-test stage.

Conclusion: Therefore, it can be inferred from the findings that storytelling therapy can be effective in enhancing the creativity and emotional intelligence of children.

Keywords: Creativity, Emotional Intelligence, Storytelling Therapy, Separation Anxiety.

1. Introduction

Anxiety problems are more common in preschool children, with a global prevalence of approximately

6.5%, and separation anxiety disorder is found in 6 to 18% of children (Finsaas & Klein, 2023). Etiology of anxiety is attributed to various factors such as psychological, biological, behavioral, genetic, and cultural foundations

(Dotto et al., 2022). Stressful transitional events (like starting school), insecure attachment relationships, and negative family experiences are among other factors contributing to anxiety. Developmental theories of anxiety indicate that children's acceptance by parents, the type of control, and their behaviors are associated with the emergence of anxiety symptoms in children (Spruit et al., 2020). Consequently, concern about children's mental health and its impact on their development and function has significantly increased in recent years, along with an increase in the prevalence of diagnosable mental disorders. Professionals emphasize the importance of timely assessment and treatment of psychological disorders. According to research, anxiety disorders in children are among the most common disorders during childhood and adolescence, and there is substantial evidence that most adults with these disorders had the same problem in childhood (Pini et al., 2021). According to the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (2020), to diagnose separation anxiety in children, at least three symptoms related to excessive worry about separation from an attachment figure must be present for at least four weeks. These worries may manifest as refusal to go to school, fear and distress when separated from close ones, frequent complaints of physical symptoms like headaches, stomachaches during separation, and recurrent nightmares with a theme of separation (American Psychiatric Association, 2022).

Therefore, childhood plays a sensitive and determinative role in human life. Attention to this period is such that psychologists and education experts often regard childhood as the most prominent stage in the formation of human personality; and researchers consider conflicts, disorders, and psychological disarray at these ages as fundamental factors in the emergence of problems throughout an individual's life (Ten et al., 2020). Hence, in the formation of a modern and advancing world, creativity is considered an important component of social life. Psychological, philosophical, and political research supports the concept that creativity is a model of change in the method of understanding phenomena. Moreover, creativity is one of the most important fields in psychology and educational sciences (Fedotova & Latun, 2015).

In the current era, to face the amazing developments of the third millennium, children must enhance their creativity for proper decision-making and problem-solving. It is clear that a heavy responsibility lies on the shoulders of educational centers, especially schools. These centers have

the duty of teaching knowledge and equipping students with the required information, and they must also create an environment that contributes to the growth and nurturing of creativity and innovation and the proper and directed use of this talent and ability (Tubb et al., 2020). In today's world, fostering creativity is one of the fundamental axes of educational systems, and teachers play a significant role in the development or suppression of students' creativity. Educational psychologists believe that teachers can teach creative thinking methods and ways to enhance creative abilities to individuals, especially children, as it is assumed that children have an innate eagerness for discovery that education should nourish (Xia et al., 2017). Torrance, one of the most renowned theorists in the field of creativity, says: In 15 years of experience studying and teaching creativity and working with children, I have seen evidence that creativity can be taught (Pürgstaller, 2021). Torrance (1966) believes creativity consists of the process of sensing problems and discrepancies, making mistakes in elements and factors of objects, and also guessing and forming hypotheses about these deficiencies, evaluating and testing these guesses and hypotheses, possibly revising and retesting them, and ultimately correlating the results. Therefore, focusing on nurturing creativity in elementary school students is among the important issues that have always been of interest to experts and educationists and have continually been recommended by them.

On the other hand, the school environment is highly stimulating, both for children and for teachers (Hassan et al., 2021). The impact of social and emotional competencies on academic success represents a novel research area. The theoretical basis for this category of research is the concept of emotional intelligence (Bakola & Drigas, 2020). Emotional intelligence is the latest development in understanding the relationship between thinking and emotion. This term was first introduced in 1990 by Salovey and Mayer as a form of social intelligence that includes the ability to perceive emotion in oneself and others, understand these emotions, and manage emotion. Some researchers include emotional intelligence among personality variables that are related to inter-situational behavioral indicators such as empathy, assertiveness, and optimism (Nazemi Moghadam et al., 2017). Nowadays, emotional intelligence is considered a new topic in the field of psychology. Studies in this area all convey the message that emotional intelligence is a reliable predictor of individual success in various aspects of life (Salavera et al., 2017). Emotional intelligence is an effective and determining factor in real-life

outcomes such as success in school and education, job success, interpersonal relationships, and generally in health-related behaviors (Andrei et al., 2015). Salovey and Mayer (1990) define emotional intelligence as the ability of an individual to revise their own and others' feelings and emotions, to differentiate between emotions, and to use emotional information in problem-solving and regulating behavior. In this context, the results of the research by Stoica and Roco (2013) showed that possessing high emotional intelligence predicts positive educational and social outcomes in children (Stoica & Roco, 2013). Furthermore, Billings, Downey, Lomas, Lloyd, and Stough (2014) observed that continuing education is significantly associated with a high level of children's emotional and social competencies (Billings et al., 2014).

One of the methods that significantly affects creativity and emotional intelligence in children is storytelling. Storytelling is a flexible method that indirectly causes remarkable changes in children (Liu et al., 2010). Storytelling is a common method for conveying concepts to children and an appropriate communication tool compatible with their developmental level, which children use to describe their experiences, thoughts, and feelings (Betawi, 2015). In a story, the main idea is presented in the form of a tale, and storytelling is the artistic expression of the tale for conveying a message to the audience (Fallahnejad et al., 2018; Ghashghaei, 2016). Stories can provide a suitable platform for emotional discharge, enhance comprehension levels, and strengthen children's imagination, serving as an important source for change and improvement in children's issues and disorders (Dillon & Underwood, 2012). Some researchers in similar studies have shown that storytelling therapy is a very important factor in increasing problem-solving skills and reducing aggression in children (Bahmani & Barzegar, 2018). Fallahnejad and colleagues (2017) in their research found that storytelling training had an impact on the development of social skills and problem-solving skills related to empathy, making correct and reasonable decisions, and establishing effective communication with peers (Fallahnejad et al., 2018). Masi (2011) also states in a study that combining storytelling with group therapy can lead to an increase in self-esteem, building trust and finding purpose, improving problem-solving skills, and reducing aggression in children (Melzi et al., 2023).

Considering the research literature and taking into account the importance and necessity of learning creativity and emotional intelligence, especially in childhood, and considering that stories are an appropriate tool for enhancing

these skills, storytelling can create significant changes in children's learning, creativity, and emotional intelligence. Therefore, the growth and development of children from the preschool and elementary years begin during those sensitive years when a child's social, psychological, and physical development reaches its peak. However, contrary to these issues, our educational system, in fleeing from authentic traditions and avoiding the use of artistic activities in education, has overlooked the achievements and results that advanced societies have gained from employing such activities. Thus, the researcher in this study seeks to investigate the effect of storytelling therapy on creativity and emotional intelligence in children with separation anxiety disorder.

2. Methods and Materials

2.1. Study Design and Participants

The present research is a quasi-experimental study with a pre-test, post-test design with a control group. The study population comprised all children with separation anxiety disorder attending clinics in Tehran in 2023. For sampling, two psychiatric clinics in Tehran were selected randomly. 30 children who were diagnosed with separation anxiety disorder by a psychiatrist were selected through convenience sampling and randomly divided into two groups (experimental group included 8 boys and 7 girls, and the control group included 7 boys and 8 girls). The children in the experimental group underwent storytelling therapy in 10 one-hour sessions, while the control group remained on a waiting list for treatment. The selection criteria for the children were being aged between 5 to 7 years, having a separation anxiety disorder, and not having other psychiatric disorders.

2.2. Measures

2.2.1. Creativity

Torrance Test of Creative Thinking: The measurement tool in this study is the Torrance Tests of Creative Thinking-Figural (TTCT) (1987), which are performance-based tests offering open-ended tasks. The participant is asked to respond to the given task as much as possible. The Torrance Test of Creative Thinking was chosen for its efficiency, validity, and reliability in research. This test has been repeatedly used in research and educational measurements. The figural forms of the TTCT require responses that are primarily of a drawing or visual nature, and the use of a

series of figural tests from kindergarten through levels above high school has been recommended. Torrance considers creativity to be a combination of four main factors: 1. Fluency: the ability to produce numerous ideas, 2. Elaboration: the ability to focus on details, 3. Originality: the ability to produce new and unusual ideas, and 4. Flexibility: the ability to produce diverse approaches or ideas. The TTCT-Figural consists of three activities: 1. Creating a picture using a shape, 2. Completing incomplete pictures, 3. Creating a picture using parallel lines. Torrance (1990) reported the reliability of the figural scales of the test to be between 94% to 99%. In the Iranian sample, Pirkhayefi (1993) reported the test's reliability through retesting on 48 students for the elements of fluency 78%, originality 74%, flexibility 81%, and elaboration 90%. Zakariaei et al. (2008), with the opinion of several experts in educational psychology, confirmed the content validity of this test and also reported the reliability coefficients for the elements of fluency 868%, originality 972%, flexibility 920%, and elaboration 652% (Doost Mohammadi et al., 2017).

2.2.2. Emotional Intelligence

This questionnaire was adapted from the Trait Emotional Intelligence Questionnaire by Petrides and Furnham (2001). The Trait Emotional Intelligence Questionnaire - Child Form is for children aged 8 to 12 and consists of 75 short sentences (e.g., "It is easy for me to show how I feel") rated on a 5-point Likert scale from strongly disagree to strongly agree. It comprises 9 sub-tests including adaptability, emotional readiness, emotional expression, emotional regulation, low impulsivity, peer relations, self-esteem, and self-motivation, and measures the subject's ability in different situations. This questionnaire is self-reported and paper-pencil based. The English version of the Trait Emotional Intelligence Questionnaire - Child Form has shown satisfactory levels of internal and external consistency. This questionnaire is based on the Trait Emotional Intelligence Questionnaire by Petrides and Furnham (2001), which includes 153 items rated on a 7-point Likert scale from strongly disagree to strongly agree, and its scoring is based on samples from English individuals and on 4 global factors of general mood including well-being, self-control, emotionality, and sociability. The English version of the Trait Emotional Intelligence Questionnaire - Child Form reported satisfactory levels of internal consistency (0.79) and reliability over a 3-month period ($r = 0.79$) (Mavroveli et al., 2008), and also satisfactory levels of internal consistency

(0.72) and reliability over a 3-month period ($r = 0.79$) have been reported. In Iran, Nazemi Moghaddam and colleagues (2017) reported a Cronbach's alpha coefficient of 0.89 for the questionnaire (Nazemi Moghaddam et al., 2017).

2.3. Interventions

2.3.1. Storytelling Therapy

The intervention implemented in this study is based on the application of storytelling therapy, aimed at enhancing creativity and emotional intelligence among children with separation anxiety disorder. This therapeutic approach utilizes stories with specific moral and psychological themes designed to foster personal growth and understanding in participants. Each session within the intervention follows a structured format, revolving around a central story that conveys unique lessons aligned with the therapeutic goals (Akgün et al., 2015; Dillon & Underwood, 2012; Doost Mohammadi et al., 2017; Fallahnejad et al., 2018; Lenhart et al., 2020; Liu et al., 2010).

In the first session, titled "Introduction and Objective Explanation," the purpose of gathering and the methodology of the intervention were outlined. This foundational meeting set the stage for the entire program, emphasizing the importance of engagement and explaining how the tasks would be executed and discussed in subsequent sessions.

The second session, featuring the story "The Well-Singing Donkey," aimed to teach that imitating others is not beneficial and that everyone should strive to be themselves. The task associated with this session reinforced the idea that imitation can be detrimental, encouraging children to value their unique qualities.

In the third session, "The Kind Stone Fish" story was shared, highlighting that a person's worth is not determined by their appearance but by their abilities. This session's task focused on promoting inclusivity and the importance of friendships over physical appearances.

The fourth session presented "The Most Beautiful Egg in the World," teaching that an individual's value lies in their abilities and the outcomes of their efforts rather than their physical appearance. The corresponding task emphasized that true friendships are found through kindness and avoiding aggression, not through beauty.

The fifth session introduced "The Little Polar Bear and the Brave Rabbit," illustrating that physical size does not aid in solving problems; rather, using one's intellect and abilities does. This session's task encouraged thinking and bravery as means to overcome significant obstacles.

The sixth session, centered around "The Yellow Kite," reviewed tasks and highlighted that creativity and thought can produce beautiful objects and entertainment for oneself.

In the seventh session, "A Bed for the Lion" conveyed that through consultation and thoughtful consideration, even the strongest bullies can be overcome. The task underscored that being small and protected by parents is not a weakness but a sign of their love and care.

The eighth session, titled "I Am Myself," emphasized that every individual is capable of independently accomplishing tasks using their own abilities, encouraging self-reliance and confidence.

The ninth session, "Do Good," showcased that helping others, even when one is in need, can lead to positive outcomes, fostering a sense of altruism and empathy among the participants.

The tenth and final session involved children coloring a picture of themselves and writing a story about themselves.

This creative activity was designed to encourage self-expression and reflection, allowing children to explore and articulate their identity and experiences.

2.4. *Data analysis*

The analysis of the data obtained from the administration of the questionnaires was performed using SPSS software version 24 in two parts: descriptive and inferential (analysis of covariance).

3. **Findings and Results**

As observed in Table 1, the mean scores and standard deviations for the subscales of creativity and emotional intelligence in the experimental group increased in the post-test compared to the pre-test but did not change in controlled group.

Table 1

Descriptive Statistics (Normalized Scores with 2.5 average score)

Variables	Pre-test		Post-test	
	Mean	Standard Deviation	Mean	Standard Deviation
Control				
Fluency	3.12	0.32	3.62	0.20
Originality	2.14	0.27	3.10	0.38
Flexibility	2.81	0.23	3.15	0.24
Elaboration	2.48	0.30	3.09	0.35
Adaptability	2.63	0.31	3.12	0.28
Emotional Readiness	2.92	0.29	3.54	0.34
Emotional Expression	2.88	0.42	3.40	0.11
Emotional Regulation	2.50	0.48	2.99	0.39
Low Impulsivity	2.30	0.44	3.79	0.41
Peer Relations	2.42	0.29	2.96	0.40
Self-esteem	2.91	0.31	3.66	0.27
Self-motivation	2.55	0.30	3.09	0.35
Experimental				
Fluency	2.90	0.28	2.95	0.26
Originality	2.30	0.29	2.21	0.21
Flexibility	2.74	0.28	2.70	0.30
Elaboration	2.39	0.34	2.44	0.19
Adaptability	2.66	0.31	2.71	0.44
Emotional Readiness	2.53	0.35	2.60	0.32
Emotional Expression	2.54	0.40	2.51	0.33
Emotional Regulation	2.87	0.37	2.82	0.30
Low Impulsivity	2.29	0.31	2.27	0.38
Peer Relations	2.32	0.33	2.33	0.26

To perform the analysis of covariance, the researcher examined the following assumptions, all of which were met: 1. Normality of score distribution, 2. Homogeneity of variances, which was examined with the Levene and Box tests, 3. Reliability: the control variable, i.e., the test performed as a covariate, must be reliable and relevant to the

research topic and design, 4. Administration of the covariate before the start of the research, 5. Moderate correlation of covariates with each other: if the research includes two or more covariates, the correlation between all covariates should not be large, 6. Homogeneity of regression slopes: the F-value for the interaction between the covariate and the

independent variable was calculated and found to be not significant, 7. Linearity of the correlation between the

covariate and the independent variable: the F-value for the covariate became significant after calculation.

Table 2

One-Way Analysis of Covariance (ANCOVA) within Multivariate Analysis of Covariance Context for Creativity

Variable	Source of Variation	SS	df	MS	F	Significance Level	Eta Squared
Fluency	Group	448.822	1	448.822	8.879	.005	.207
	Error	1718.576	34	50.546			
Originality	Group	81.335	1	81.335	8.437	.006	.199
	Error	327.786	34	9.641			
Flexibility	Group	227.275	1	227.275	3.647	.065	.097
	Error	2119.052	34	62.325			
Elaboration	Group	1873.577	1	1873.577	4.931	.033	.127
	Error	12919.724	34	379.992			

The results in Table 2 show that, after removing the pre-test variable's effect, the research hypothesis regarding the significant difference in the variables of fluency and originality between the experimental group with separation anxiety disorder and the control group is confirmed. As seen in the results from Table 2, the significance level obtained for fluency and originality, compared to the significance

level of 0.012 obtained from the Bonferroni correction (dividing the significance level of 0.05 by 4 dependent variables), is lower. Thus, based on the obtained means, it can be stated with 95% confidence that fluency and originality in the experimental group have increased compared to the control group.

Table 3

One-Way Analysis of Covariance (ANCOVA) within Multivariate Analysis of Covariance Context for Emotional Intelligence

Variable	Source of Variation	SS	df	MS	F	Significance Level	Eta Squared
Adaptability	Group	50.187	1	50.187	28.688	.000	.489
	Error	52.482	30	1.749			
Emotional Readiness	Group	28.065	1	28.065	24.742	.000	.452
	Error	34.029	30	1.134			
Emotional Expression	Group	14.219	1	14.219	6.380	.017	.175
	Error	66.865	30	2.229			
Emotional Regulation	Group	51.337	1	51.337	38.053	.000	.559
	Error	40.473	30	1.349			
Low Impulsivity	Group	21.543	1	21.543	5.456	.026	.154
	Error	118.452	30	3.948			
Peer Relations	Group	28.786	1	28.786	8.646	.005	.224
	Error	99.881	30	3.329			
Self-esteem	Group	126.271	1	126.271	8.669	.005	.224
	Error	436.955	30	14.565			
Self-motivation	Group	55.929	1	55.929	12.195	.002	.289
	Error	137.590	30	4.586			

The results in Table 3 show that, after removing the pre-test variable's effect, the research hypothesis regarding the significant difference in the variables of adaptability, emotional readiness, emotional regulation, peer relations, self-esteem, and self-motivation between the experimental group with separation anxiety disorder and the control group is confirmed. As seen in the results from Table 5, the significance level obtained for adaptability, emotional readiness, emotional regulation, peer relations, self-esteem, and self-motivation, compared to the significance level of

0.006 obtained from the Bonferroni correction (dividing the significance level of 0.05 by 8 dependent variables), is lower. Thus, based on the obtained means, it can be stated with 95% confidence that adaptability, emotional readiness, emotional regulation, peer relations, self-esteem, and self-motivation in the experimental group have increased compared to the control group.

4. Discussion and Conclusion

The current research aimed to investigate the effectiveness of storytelling therapy on creativity and emotional intelligence in children with separation anxiety disorder. The findings indicated that storytelling leads to an increase in creativity among children with separation anxiety disorder. These results align with previous studies that utilized storytelling as a tool to enhance children's creativity, such as those (Akgün et al., 2015; Doost Mohammadi et al., 2017; Masi et al., 2011; Zilberstein, 2018) found in their study on the effectiveness of creative storytelling on problem-solving abilities and creativity in preschool children that creative storytelling significantly improved problem-solving abilities and creativity. Stories are considered fundamental tools for meaning-making and a natural pattern of thought learned through fairy tales, children's stories, and family history before schooling. Storytelling frames everyday events in a meaningful narrative that helps children gain a better understanding of themselves and others, as stories are a powerful combination for organizing and transmitting information and imbuing life with meaning (Zeini et al., 2016). It appears that the stories used in these programs could have taught new behaviors to children, introducing them to new and practical behavioral scenarios through the characters and heroes of the stories. The metaphorical space of the story prepares them to act on their learnings. The effectiveness of storytelling on children's creativity can be explained and elucidated by two very important and influential factors: first, the storytelling techniques used, and second, the process of story execution by the researcher, which was accompanied by continuous questioning of the children. In this study, active storytelling techniques such as the technique of omission in incomplete storytelling, where children were asked to conclude the story to their liking, encouraged children to find sophisticated solutions for the story's main problem or dilemma.

Furthermore, the results demonstrated that storytelling therapy increased emotional intelligence in children with separation anxiety disorder. In line with these findings, the results of Rasooli et al. (2020) showed that storytelling therapy increased emotional intelligence in preschool children (Rasooli et al., 2020). Similarly, the findings are consistent with Melzi et al. (2023) regarding the effectiveness of storytelling on problem-solving and emotional intelligence in preschool children (Melzi et al., 2023). Lenhart et al. (2020) used stories to calm children with anxiety, asking them to verbally express events and feelings related to the incident or event during anxiety-inducing situations (Lenhart et al., 2020). Although in such

conditions, the child might be too upset, scared, or out of control to express the event verbally, the research showed that storytelling was effective in calming anxious children (Fallahnejad et al., 2018). Therefore, it seems that during storytelling therapy, children, by observing story characters with anxiety problems, identify separation anxiety symptoms in themselves and learn that there are other children with their problems. By engaging with the story and discussing the hero's problem and their anxiety issues, children learn ways to deal with the problem. Then, the anxious child tries to resolve their issues and confront their anxiety in the way the story's hero did. The cognitive process that begins in the child through the story ends with learning ways to overcome their problems. It should be noted that children, including anxious ones, receive negative feedback from their environment, which exacerbates their issues. Since stories are of interest to children, it helps better modeling in them. This requires selecting suitable stories for the child, and the behavior of the story's hero must be designed for the intended purpose so that children try to emulate them (Bahmani & Barzegar, 2018).

5. Limitations & Suggestions

In conclusion, it is necessary to mention that the present research faced certain limitations. Among the limitations of this study, it should be noted that since the research was conducted on children with separation anxiety disorder and with lower creativity and emotional intelligence in elementary schools in Tehran, the results should be generalized to other children in different community groups and cities with caution. At the same time, it is recommended that storytelling sessions be held as a permanent program in elementary and preschool centers to help reduce inhibiting factors towards treating disorders such as separation anxiety in children. Additionally, through actions such as organizing training workshops in elementary centers and educational programs in the media, creating brochures, billboards, CDs, parents, and teachers can be informed and educated about the importance and process of storytelling therapy and its positive outcomes. What was employed in this research as the technique of storytelling therapy focused only on anxiety, creativity, and emotional intelligence in children; in various fields of child psychotherapy, storytelling therapy can provide researchers with controversial topics for exploration.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethics Considerations

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

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 contributed equally to this article.

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