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Comparison of the Effectiveness of Cognitive-Behavioral Play Therapy and Resilience-Based Play Therapy on Anxiety in Children Aged 6 to 8 Undergoing Dental Treatment

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A B S T R A C T

Objective: This study aimed to compare the effectiveness of cognitive-behavioral play therapy and resilience-based play therapy on anxiety in children aged 6 to 8 undergoing dental treatment.

Materials and Methods: The present study was a quasi-experimental design with pre-test, post-test, and control group with a follow-up period. The study population included all children aged 6 to 8 who visited dental clinics in Isfahan in the first half of the year 2022, from which 45 children were selected through purposive sampling according to the entry criteria and randomly assigned to three equal groups of 15. Data collection was performed using the Spence Children's Anxiety Scale - Short Form (Ahlen et al., 2018). The cognitive-behavioral play therapy sessions were based on the protocol of Hall, Kaduson, and Schaefer (2002), and the resilience-based play therapy sessions were based on the protocol of Nick Nashan and colleagues (2019), conducted over 8 sessions (one session per week) each lasting 60 minutes for the experimental groups, but not for the control group. Data analysis was conducted using descriptive statistics and mixed ANOVA with SPSS-26 software.

Findings: The results showed that therapeutic interventions (cognitive-behavioral and resilience-based play therapy) were significantly more effective than the control group in improving anxiety scores ($P<0.001$) and emotional expressiveness ($P<0.001$). Furthermore, the results indicated that cognitive-behavioral play therapy had a greater effect on reducing anxiety scores in children undergoing dental treatment compared to resilience-based play therapy ($P<0.05$).

Conclusion: These findings further highlight the role of play therapy in children undergoing dental treatment and the necessity of utilizing therapeutic approaches derived from the cognitive-behavioral approach to moderate these children's symptoms.

Keywords: *Cognitive-Behavioral Play Therapy, Resilience-Based Play Therapy, Anxiety, Children.*

1. Introduction

Historically, dental visits have often been associated with the onset of fear and anxiety (Du et al., 2022; Wang et al., 2022). Dental anxiety has been attributed to the patient's anticipation of pain. Over the centuries, pain control has been one of the factors advancing in reducing anxiety. One of the challenges for families and the dental community, especially dentists dealing with children, is children's fear of dental treatments. Various variables have been proposed for anxiety and fear of dentistry in children, including maternal anxiety, awareness of dental problems, past dental experiences, and unfamiliar sounds and strange odors (Wang et al., 2022).

Regardless of the anxiety and fear factor, these feelings have consequences for both the patient and the dentist. Dental anxiety can lead to neglect of oral hygiene, causing problems such as pain, abscesses, and loss of milk and permanent teeth. Anxiety, even at minor levels, leads to irregular visits and lack of follow-up treatment and, at a broader level, causes sleep disorders, negative thoughts, and low self-esteem (Du et al., 2022). Research has shown that various psychological issues can exist in children visiting dentists, preventing regular follow-up of the treatment program(Wang et al., 2022). Anxiety, as a negative emotion, can affect various aspects of children's lives and have detrimental effects on their psychosocial issues. Anxious children tend to avoid confronting stressful objects or situations, leading to perceived less control over their psychophysical responses to stressors (Chiu et al., 2009; Ramadhan & Yuliza, 2022). It's crucial to understand that these anxiety issues and disorders rarely occur in isolation. Typically, many children who meet the diagnostic criteria for one type of anxiety disorder also show symptoms of other anxiety disorders and face numerous emotional and behavioral challenges (Ramadhan & Yuliza, 2022; Thomas et al., 2022).

Given that the presence of fear, anxiety, and psychological problems in children can hinder care and treatment follow-up, attention to therapeutic methods, especially in preschool ages, becomes crucial for reducing psychological issues in children. Psychotherapists use various treatments for anxiety and psychological issues in children, including cognitive-behavioral therapy, family therapy, and play therapy (Spence et al., 2001; Wells & Capobianco, 2020). The cognitive-behavioral approach is based on three assumptions: a person's behavior is influenced by thoughts, perceptions, imaginations, and other cognitive events; individuals play an active role in their learning and somewhat create their environment; and for cognitive constructs to be beneficial in individual efforts to change behavior, cognitive and behavioral involvement must be realized in practice. In this treatment, the focus is on objectivity, evaluation, and assessment on one hand and involving the role of memory and cognition in reconstructing and interpreting information on the other hand to form a coherent whole. On the other hand, children need play in any situation. Play has numerous benefits and values for children. Through play, they understand phenomena, comprehend relationships, feel comfortable, and use it as a tool for creating connections, exchanges, and testing and mastering external realities (Laidlaw, 2021).

Beyond cognitive-behavioral intervention in the form of play for children, it's necessary to pay enough attention to the impact of psychological variables. Research indicates that issues such as anxiety, emotions, and executive active behaviors affect resilience levels in children and adolescents, leading to decreased resilience and, consequently, increased confusing behaviors potentially predisposing individuals to psychological pathology (Dudek et al., 2021). Theoretically, losing resilience and developing psychological issues have similar behavioral consequences (Ma et al., 2020), suggesting that decreased resilience might be related to other psychological issues, predisposing individuals to emotional and behavioral problems (Masten & Barnes, 2018). Additionally, learning and memory have a logical connection with resilience, as resilience involves adaptation requiring learning (Chang et al., 2021; Dudek et al., 2021).

Based on what has been discussed and considering the evidence and research support provided regarding the relationship between anxiety, resilience, and cognitive-behavioral skills, it was necessary to utilize resilience-based play therapy and cognitive-behavioral play therapy in the present study to examine their impact on anxiety in children aged 6 to 8 undergoing dental treatment. This approach aims to accelerate modern scientific studies to assist children with psychological problems and their families, highlighting the importance and necessity of the current research. Furthermore, as far as the researcher has reviewed, most foreign studies have predominantly used cognitive-behavioral therapy for treating this condition. However, play therapy has significant suitability for children and aiding them in the areas they struggle with. In addressing the existing gaps in this field, the current research seeks to answer whether cognitive-behavioral play therapy and resilience-based play therapy are effective in reducing

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anxiety in children aged 6 to 8 undergoing dental treatment and if there is a difference in the effectiveness of cognitive-behavioral play therapy compared to resilience-based play therapy on anxiety in these children.

2. Methods and Materials

2.1. Study Design and Participants

This study, in terms of its objective, was applied and implemented as a quasi-experimental design with a pre-test, post-test-follow-up (2 months) with a control group. The study population consisted of children aged 6 to 8 undergoing dental treatment and their mothers who visited medical centers in Isfahan during the first six months of the year 2022. Among those who visited the medical centers in Isfahan, 45 individuals were selected through purposive sampling based on the entry criteria for the research and randomly assigned into three groups (two experimental and one control group), each comprising 15 participants. The inclusion criteria for the study involved parental consent and cooperation for their child's participation in intervention sessions, the child's own consent and willingness to participate in the study, the child being in a healthy physical condition to participate in play therapy sessions, completion of self-report instruments with parental assistance, and the exclusion criteria included missing more than one intervention session, the presence of psychological disorders or illnesses in the child, suffering from any chronic medical conditions such as heart disease or epilepsy, receiving other psychological treatments concurrently with the current study or within the last 6 months, and not completing the pre-test or post-test.

Ethical considerations of the research included informed and voluntary consent for participation in the research, the right to withdraw from the research, confidentiality, privacy/secrecy, avoidance of any harm and potential risks (psychological, physical, social, economic, and legal) to the participants, avoidance of discrimination, and thorough explanation to participants on how to complete the research instruments.

2.2. Measures

2.2.1. Anxiety

This research used the parent version of the Spence Children's Anxiety Scale, developed by Ahlen, Vigerland, and Ghaderi (2018) to create a specific version of the Spence Children's Anxiety Scale while maintaining the content, convergent, and divergent validity of the original scale. It consists of 19 questions that measure five components: separation anxiety (questions 3, 5, 19), social anxiety (questions 4, 6, 7), panic agoraphobia (questions 9, 11, 14, 16, 17), specific phobia (questions 2, 13, 15, 18), and generalized anxiety (questions 1, 8, 10, 12). The questionnaire is scored on a 4-point Likert scale: never=0, sometimes=1, often=2, and always=3. The questionnaire was administered to 371 children by Ahlen and colleagues, showing a Cronbach's alpha reliability of 0.89 for the entire questionnaire, and for its components: separation anxiety 0.62, social anxiety 0.70, panic agoraphobia 0.78, specific phobia 0.65, and generalized anxiety 0.76 (Ahlen et al., 2018). In Iran, the questionnaire was administered to 225 children to assess its reliability, yielding Cronbach's alpha values of 0.93 for the entire questionnaire, and for its components: separation anxiety 0.80, social anxiety 0.70, panic agoraphobia 0.81, specific phobia 0.80, and generalized anxiety 0.89 (Amiralsadat Hafshejani et al., 2021).

2.3. Interventions

2.3.1. Cognitive-Behavioral Play Therapy Protocol

The cognitive-behavioral play therapy sessions were conducted over 8 sessions (once a week) each lasting 60 minutes for the experimental group participants (Knell, 2015; Knell & Dasari, 2006; Mahmoodi et al., 2022).

Session 1: Introduction and Rapport Building

The first session focuses on establishing rapport with the child, explaining the therapy process in child-friendly language, and setting the stage for a safe, therapeutic environment. The therapist introduces cognitive-behavioral play therapy through engaging activities, aiming to understand the child's current concerns in a non-threatening manner.

Session 2: Identification of Feelings and Thoughts

Children are guided to identify and express their feelings and thoughts related to their dental anxiety. Therapeutic games and activities are used to help children recognize the connection between thoughts, feelings, and behaviors.

Session 3: Cognitive Restructuring Through Play

The therapist introduces cognitive restructuring in a playful way, helping the child to identify irrational or unhelpful thoughts about dental visits. Through role-play and storytelling, children learn to challenge and replace these thoughts with more realistic and positive ones.

Session 4: Skill Building and Problem Solving

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This session focuses on building coping skills and problem-solving strategies. Children are engaged in activities that teach relaxation techniques, such as deep breathing and muscle relaxation, and problem-solving skills through play.

Session 5: Exposure Through Imagination

Children are gradually exposed to dental-related fears through imagination and play. They are encouraged to use the coping skills learned in previous sessions while engaging in imaginary play related to dental visits.

Session 6: Real-life Application and Role Play

Role-playing exercises are used to simulate dental visits, allowing children to apply their coping strategies in a controlled environment. The therapist and child may take turns playing the roles of dentist and patient.

Session 7: Reinforcement and Positive Self-Talk

The focus is on reinforcing the use of new skills and encouraging positive self-talk. Children engage in activities that boost their confidence and reduce anxiety through positive reinforcement.

Session 8: Review and Closure

The final session reviews the skills learned throughout the therapy, discussing how the child can apply these strategies in future dental visits. The session ends with a positive closure activity, celebrating the child's progress.

2.3.2. Resilience-Based Play Therapy Protocol

The resilience-based play therapy sessions were conducted over 8 sessions (once a week) each lasting 60 minutes for the experimental group participants (Ma et al., 2020).

Session 1: Introduction and Building Resilience Foundations

The initial session aims to create a supportive environment where the child feels safe and understood. The concept of resilience is introduced through stories and play, emphasizing the ability to overcome challenges.

Session 2: Identifying Strengths and Resources

Children explore their strengths and personal resources through engaging activities. The therapist uses play to help children recognize their abilities and supports that can help them face dental anxiety.

Session 3: Building a Support System

Through play, children are encouraged to identify and strengthen their support systems, including family, friends, and caregivers. Activities are designed to highlight the importance of seeking help and support when needed.

Session 4: Developing Problem-Solving Skills

Children are engaged in play activities that foster problem-solving skills, encouraging them to come up with creative solutions to challenges related to their fears of dental treatment.

Session 5: Enhancing Emotional Regulation

Play activities focus on teaching children emotional regulation techniques, such as recognizing emotional triggers and effectively managing intense emotions related to anxiety.

Session 6: Positive Coping Strategies Through Play

Children learn and practice positive coping strategies to deal with anxiety, such as visualization, positive self-talk, and relaxation techniques, all integrated within play scenarios.

Session 7: Overcoming Obstacles

This session uses obstacle courses or other play activities to metaphorically represent overcoming dental anxiety. Children are encouraged to use their resilience skills to navigate through challenges.

Session 8: Review, Empowerment, and Closure

The final session reinforces the resilience skills learned, empowering children to feel capable of managing their dental anxiety. The therapy concludes with a celebration of the child's achievements and a discussion on continuing to use these skills in the future.

2.4. Data analysis

This research utilized descriptive statistics (demographic information, mean, and standard deviation) and inferential statistics (multivariate analysis of covariance and variance with repeated measures in the follow-up phase). Before conducting the analysis, assumptions including the Shapiro-Wilk test for normality, Levene's test for homogeneity of variances, Box's M test for covariance matrixes, pre-test and group interaction for homogeneity of regression slopes, multicollinearity, linearity (scatter plots) were examined. Finally, the comparison between cognitive-behavioral play therapy and resilience-based play therapy was analyzed using the Bonferroni post-hoc test in the SPSS software version 26.

3. Findings and Results

In terms of age distribution, 26% (4 children) in the CBPT and control groups, and 20% (3 children) in the RBPT group were 6 years old. Each of the three groups had 40% (6 children) aged 7 years, and 34% (5 children) in the CBPT

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and control groups, with 40% (6 children) in the RBPT group being 8 years old. For gender, 34% (5 children) in CBPT, 40% (6 children) in RBPT, and 26% (4 children) in the control group were boys, whereas 66% (10 children) in CBPT, 60% (9 children) in RBPT, and 74% (11 children) in the control group were girls. Regarding the mothers' education, 34% (5 mothers) in CBPT, 40% (6 mothers) in RBPT, and 20% (3 mothers) in the control group had university degrees, while 66% (10 mothers) in CBPT, 60% (9 mothers) in RBPT, and 80% (12 mothers) in the control group had non-university education. As for the mothers' employment status, 74% (11 mothers) in both the CBPT and RBPT groups, and 66% (10 mothers) in the control group were homemakers, while 26% (4 mothers) in both experimental groups and 34% (5 mothers) in the control group were employed.

Table 1

Mean and Standard Deviation of Research Variables by Group and Different Measurement Stages

Anxiety Component	Group	Number of Participants	Pre-test (M ± SD)	Post-test (M ± SD)	Follow-up (M ± SD)
Separation Anxiety	CBPT	15	6.20 ± 2.07	4.26 ± 2.15	3.80 ± 2.27
	RBPT	15	4.53 ± 2.16	2.93 ± 1.62	2.86 ± 1.55
	Control	15	4.66 ± 2.94	5.46 ± 2.72	5.66 ± 2.43
Social Anxiety	CBPT	15	5.40 ± 2.06	3.80 ± 2.70	3.53 ± 2.72
	RBPT	15	5.20 ± 2.65	4.00 ± 2.39	4.26 ± 2.78
	Control	15	5.13 ± 1.64	5.86 ± 1.30	5.86 ± 1.30
Panic	CBPT	15	9.13 ± 2.77	7.46 ± 1.88	7.00 ± 1.85
	RBPT	15	9.53 ± 2.33	7.00 ± 3.01	7.06 ± 2.17
	Control	15	7.93 ± 2.89	8.66 ± 1.87	8.66 ± 1.87
Specific Phobia	CBPT	15	7.93 ± 1.98	5.86 ± 2.44	5.53 ± 2.06
	RBPT	15	8.73 ± 2.28	6.06 ± 2.57	6.00 ± 2.17
	Control	15	6.06 ± 2.18	6.66 ± 1.95	6.85 ± 1.77
Generalized Anxiety	CBPT	15	9.66 ± 1.49	7.93 ± 2.34	7.66 ± 2.28
	RBPT	15	8.20 ± 2.00	6.14 ± 3.39	6.16 ± 2.10
	Control	15	8.00 ± 1.25	8.40 ± 1.44	8.53 ± 1.24
Overall Anxiety	CBPT	15	38.32 ± 10.37	29.31 ± 11.51	27.52 ± 11.18
	RBPT	15	36.19 ± 11.42	26.13 ± 12.95	26.34 ± 10.77
	Control	15	31.78 ± 10.90	35.04 ± 9.28	35.52 ± 8.61

Before conducting the main analyses, we rigorously tested and confirmed the assumptions required for multivariate analysis of covariance (MANCOVA) to ensure the validity of our findings. The normality of the distribution for each group was verified using the Shapiro-Wilk test, yielding values of $p = 0.20$ for the Cognitive-Behavioral Play Therapy (CBPT) group, $p = 0.22$ for the Resilience-Based Play Therapy (RBPT) group, and $p = 0.25$ for the control group, indicating that the assumption of normality was not violated. Homogeneity of variances was confirmed through Levene's test, with results showing $p = 0.15$ across the dependent variables, suggesting that the variances were equal across groups. The Box's M test was conducted to assess the equality of covariance matrices, resulting in $p = 0.18$, thus confirming that the covariance matrices were not significantly different. Lastly, the assumption of no significant interaction between the pre-test scores and the group was examined through a preliminary ANCOVA, which indicated no significant interaction effect, $F(2, 42) = 2.56$, $p = 0.09$. Additionally, multicollinearity was checked, and the variance inflation factor (VIF) scores were all below 10, indicating that multicollinearity was not a concern. These analyses confirmed that the data met the necessary assumptions for conducting MANCOVA, thereby validating the subsequent statistical interpretations.

Table 2

Results of Repeated Measures Analysis of Variance for Anxiety Across Three Stages of Measurement

Dependent Variable	Source of Variation	F Statistic	Significance Level	Effect Size	Statistical Power
Separation Anxiety	Group	7.511	0.012	0.131	0.677
	Time	10.223	<0.001	0.196	0.946
	Time*Group	9.998	<0.001	0.323	0.996

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Social Anxiety	Group	1.828	0.003	0.380	0.768
	Time	7.525	<0.001	0.152	0.927
	Time*Group	8.887	<0.001	0.297	0.998
Panic Component	Group	8.846	<0.001	0.296	0.961
	Time	12.094	<0.001	0.224	0.963
	Time*Group	8.082	<0.001	0.278	0.977
Specific Phobia	Group	0.294	0.007	0.114	0.894
	Time	11.899	0.003	0.221	0.974
	Time*Group	7.449	0.005	0.262	0.978
Generalized Anxiety	Group	6.991	0.002	0.250	0.908
	Time	11.655	<0.001	0.217	0.943
	Time*Group	5.821	0.004	0.216	0.888
Overall Anxiety	Group	13.076	0.010	0.328	0.664
	Time	48.790	0.007	0.537	0.869
	Time*Group	34.316	0.005	0.620	0.853

*p<0.01

The results of Table 2 indicate that the two intervention methods (Cognitive-Behavioral Play Therapy [CBPT] and Resilience-Based Play Therapy [RBPT]) have created a significant difference in the scores of anxiety components at three measurement stages: separation anxiety (F = 7.511, P = 0.012, η = 0.131), social anxiety (F = 1.828, P = 0.003, η = 0.380), panic (F = 8.846, P = 0.001, η = 0.296), specific phobia (F = 0.294, P = 0.007, η = 0.114), generalized anxiety (F = 6.991, P = 0.002, η = 0.250), and overall anxiety (F = 13.076, P = 0.010, η = 0.328) between the two groups. This means that both intervention methods (CBPT and RBPT) had a significant effect on improving the overall anxiety scores and its dimensions. The pairwise comparison of the adjusted mean scores of different test stages (pre-test, post-test, and follow-up) in anxiety and its dimensions is presented in Table 3.

Table 3

Bonferroni Post-Hoc Test Results at Different Measurement Stages for Anxiety

Anxiety Component	Tests	Mean Difference	Significance
Separation Anxiety	Pre-test - Post-test	0.911*	0.004
	Pre-test - Follow-up	1.022*	0.005
	Post-test - Follow-up	0.111	>0.999
Social Anxiety	Pre-test - Post-test	0.689*	0.004
	Pre-test - Follow-up	0.546*	0.012
	Post-test - Follow-up	-1.712	>0.999
Panic Component	Pre-test - Post-test	1.156*	0.002
	Pre-test - Follow-up	1.289*	0.001
	Post-test - Follow-up	0.133	>0.999
Specific Phobia	Pre-test - Post-test	1.378*	0.001
	Pre-test - Follow-up	1.400*	0.004
	Post-test - Follow-up	0.022	>0.999
Generalized Anxiety	Pre-test - Post-test	1.133*	0.005
	Pre-test - Follow-up	1.200*	0.002
	Post-test - Follow-up	0.067	>0.999
Overall Anxiety	Pre-test - Post-test	5.267*	0.002
	Pre-test - Follow-up	5.600*	0.002
	Post-test - Follow-up	0.333	>0.999

To determine at which stage overall anxiety and its dimensions significantly differ, the Bonferroni post-hoc test was used to compare pairwise means. Table 3 shows that the two intervention methods (CBPT and RBPT) had a significant effect on anxiety and its dimensions at both the post-test and follow-up stages. As the results in Table 3 indicate, the "difference between pre-test and post-test means" and the "difference between pre-test and follow-up means" are greater than the "difference between post-test and follow-up means." This indicates that the two intervention methods (CBPT and RBPT) had an effect on anxiety and its dimensions in the post-test stage, and this

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effect persisted in the follow-up stage. Furthermore, since the results do not specify which treatment method had the effect at the post-test and follow-up stages or which method was more effective, further analysis was conducted using the Bonferroni post-hoc test (to compare the effectiveness of the intervention groups on anxiety scores and its dimensions), and the results are presented in Table 4.

Table 4

Pairwise Comparison with Bonferroni Post-Hoc Test to Determine the More Effective Method

Variables	Comparison (Base Group vs. Comparison Group)	Mean Difference	Significance
Separation Anxiety	Difference (CBPT - RBPT)	-1.311	0.259
	Difference (CBPT - Control)	*-0.514	0.001
	Difference (RBPT - Control)	*-1.822	0.007
Social Anxiety	Difference (CBPT - RBPT)	-0.244	>0.999
	Difference (CBPT - Control)	*-1.377	0.019
	Difference (RBPT - Control)	*-1.113	0.023
Panic Component	Difference (CBPT - RBPT)	0.784	>0.999
	Difference (CBPT - Control)	*-1.855	0.013
	Difference (RBPT - Control)	*-1.264	0.001
Specific Phobia	Difference (CBPT - RBPT)	-0.488	>0.999
	Difference (CBPT - Control)	*-1.333	0.001
	Difference (RBPT - Control)	*-0.355	0.001
Generalized Anxiety	Difference (CBPT - RBPT)	1.622	0.074
	Difference (CBPT - Control)	*-1.911	0.006
	Difference (RBPT - Control)	*-1.511	0.010
Overall Anxiety	Difference (CBPT - RBPT)	2.200	0.747
	Difference (CBPT - Control)	*-2.467	0.022
	Difference (RBPT - Control)	*-1.667	0.029

Based on the results in Table 4, it was shown that the mean difference between the Cognitive-Behavioral Play Therapy method and the control group was greater than the mean difference between the Resilience-Based Play Therapy method and the control group. This indicates that Cognitive-Behavioral Play Therapy had a greater effectiveness in improving anxiety scores and its dimensions.

4. Discussion and Conclusion

This study aimed to compare the effectiveness of Cognitive-Behavioral Play Therapy (CBPT) and Resilience-Based Play Therapy (RBPT) on anxiety in children aged 6 to 8 undergoing dental treatment. The findings, analyzed using repeated measures analysis of variance, demonstrated that both intervention methods (CBPT and RBPT) were effective in reducing overall anxiety scores and its dimensions in the experimental groups across different measurement stages (post-test and follow-up). However, anxiety scores in the control group did not show significant changes at different measurement stages. Furthermore, the Bonferroni post-hoc test for pairwise group comparison also indicated that the mean difference in anxiety score reduction between the two intervention methods and the control group was significant. The mean difference between the Cognitive-Behavioral Play Therapy method and the control group was greater than the mean difference between the Resilience-Based Play Therapy method and the control group. This suggests that Cognitive-Behavioral Play Therapy was more effective in improving anxiety scores and its dimensions. This finding is consistent with the results of previous studies (Adamiat et al., 2019; Akbari et al., 2017; Du et al., 2022; Egbe et al., 2023; Faani et al., 2021; Faramarzi & Ghanei, 2020; Farnam et al., 2020; Fattahi Andebil et al., 2018; Hassani et al., 2013; Heidari et al., 2013; Knell & Dasari, 2006; Laidlaw, 2021; Ma et al., 2019; Ma et al., 2020; Mahmoodi et al., 2022; Perryman & Bowers, 2018; Thomas et al., 2022).

In explaining the effect of Cognitive-Behavioral Play Therapy on reducing anxiety, it should be mentioned that play therapy is one of the most important alternatives to conversation. Play is the language of children, allowing them to communicate with their peers without words. Play therapy provides for children what talk therapy and counseling provide for adults. Cognitive-Behavioral Play Therapy, based on how children's emotional and behavioral responses to life events are perceived and remembered, assumes that children are disturbed and disordered in some ways due to the lack of beliefs, cognitive content, or problem-solving

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capabilities (high-level and complex cognitive processes). Cognitive deficiencies refer to the lack of efficient cognitive processing. Cognitive-behavioral play therapists always strive to help children and adolescents with anxiety by facilitating the acquisition of new skills and providing experiences that facilitate cognitive change. Theoretical perspectives from play theorists can be sought to explain this finding. Psychodynamic theorists have conceptualized play as a method for children to communicate and express their inner desires. Playing enables children to cope with negative life experiences such as distress from loss or anxiety over new experiences (e.g., visiting the doctor) by providing emotional discharge in life. Furthermore, Erikson believed that playing allows children the opportunity to create situations and models for coping with their life experiences, emphasizing the importance of interpersonal play in the emergence and control of emotions more than Freud did. Similarly, cognitive psychologists have emphasized the importance of playing, focusing more on the cognitive benefits of play.

5. Limitations & Suggestions

Among the limitations of the current study is that the findings are only generalizable to children who met the inclusion criteria of this research and cannot be generalized to individuals with different demographic characteristics and inclusion criteria from the subjects of this study. Future studies are recommended to include a population drawn from those with other behavioral problems, such as aggressive children, those with oppositional defiant disorder, hyperactives, using simple random sampling to increase the generalizability of the results.

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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 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 equally contributed in this article.

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