

## EFFECTIVENESS OF SAND PLAY THERAPY IN REDUCING EMOTIONAL DISORDERS IN CHILDREN

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### ABSTRACT

*Emotional disorders in children, including anxiety, depression, and behavioral dysregulation, can significantly impact their development and well-being. This study investigates the effectiveness of Sand Play Therapy as a nonverbal, child-centered intervention for reducing emotional disorders. Using a quasi-experimental design, 20 children aged 5–6 years were assigned to either an experimental group receiving Sand Play Therapy or a control group. Emotional symptoms were measured using the Emotional Behavior Problems Questionnaire before and after a four week intervention. Results showed the pre-post test scores between groups were significantly different ( $F(1,37) = 21.78, p < 0.001$ ), confirming the effectiveness of the intervention. Its mean a statistically significant reduction in emotional disorder scores among children who received therapy, supporting the efficacy of Sand Play Therapy in promoting emotional healing. These findings suggest that Sand Play Therapy is a valuable therapeutic tool, particularly for children who struggle with verbal expression.*

### KEYWORDS

Sand Play Therapy, emotional disorders, children



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## INTRODUCTION

Emotional disorders in children such as anxiety, depression, and behavioral dysregulation pose significant challenges to their psychological development, academic performance, and social functioning. As these disorders often manifest subtly and are difficult to articulate by young children, therapeutic approaches that allow for nonverbal expression have gained increasing attention. One such approach is Sand Play Therapy, a

form of expressive therapy that enables children to project their inner world through symbolic play in a sandbox environment (Zhang, Liu & Wang, 2021).

Rooted in Jungian psychology and widely used in child psychotherapy, Sand Play Therapy offers a safe and structured medium for children to externalize emotions, process trauma, and explore unresolved conflicts. Unlike traditional talk therapy, this method leverages the natural language of play to foster emotional healing and self-regulation. Despite its growing popularity, empirical evidence supporting its effectiveness remains limited and fragmented (Shahmoradi & Ghasemi, 2016).

Emotional disorders in children have become a growing concern in developmental psychology and pediatric mental health. According to the World Health Organization (2021), approximately 10–20% of children and adolescents worldwide experience mental health conditions, with emotional disorders such as anxiety and depression being among the most prevalent. These disorders, if left untreated, can impair cognitive development, social relationships, and academic performance (Erskine, et al, 2015).

Sand Play Therapy has emerged as a promising intervention for addressing emotional disturbances in children. Rooted in the work of Dora Kalff, who integrated Jungian analytical psychology with play therapy, Sand Play Therapy allows children to express unconscious emotions and internal conflicts through symbolic representation in a sandbox. The nonverbal and creative nature of sand play facilitates psychological healing by enabling children to construct a visual narrative of their inner world (Davita & Sandra, 2023).

Several studies have explored the therapeutic benefits of sand play. For instance, children who participated in structured sand play sessions showed significant reductions in anxiety and behavioral problems. Sand play therapy improved emotional regulation and social interaction among children exposed to trauma. These findings suggest that sand play can be particularly effective for children who struggle to articulate their emotions verbally (Freedle, Bozzi & Bergmann, 2015).

Despite its growing application, the empirical evidence supporting Sand Play Therapy remains limited, especially in non-Western contexts. Most existing studies have been conducted in clinical settings in North America and Europe, leaving a gap in understanding its effectiveness across diverse cultural backgrounds. Moreover, few studies have employed rigorous experimental designs to isolate the impact of sand play from other therapeutic variables (Freedle, Bozzi & Bergmann, 2015).

This study aims to examine the effectiveness of Sand Play Therapy in reducing emotional disorders among children. By evaluating changes in emotional symptoms before and after therapy sessions, the research seeks to contribute to the body of knowledge on child-centered therapeutic interventions and offer practical insights for mental health professionals working with pediatric populations.

## **RESEARCH METHOD**

This study employed a quasi-experimental design with a pre-test and post-test control group to evaluate the effectiveness of Sand Play Therapy in reducing emotional disorders among children. The design allowed for comparison between children who received the intervention and those who did not, thereby assessing the therapeutic impact of the treatment.

The sample consisted of children aged 5 to 6 years who exhibited symptoms of emotional disorders such as anxiety, depression, or behavioral disturbances. Participants were recruited from local elementary schools. A total of 20 children were selected using

purposive sampling and randomly assigned to either the experimental group (n = 10) or the control group (n = 10).

Children in the experimental group underwent Sand Play Therapy sessions twice a week for four weeks, each lasting approximately 45 minutes. The sessions were facilitated in a controlled therapeutic setting equipped with a sand tray and a variety of miniature figures representing people, animals, buildings, and symbolic objects. The therapy emphasized free expression, emotional exploration, and symbolic storytelling.

To measure emotional disorders, the study used the Emotional Behavior Problems Questionnaire, which is validated tools for assessing emotional and behavioral problems in children. Pre-test assessments were conducted one week before the intervention, and post-test assessments were administered one week after the final therapy session.

Quantitative data were analyzed using paired sample t-tests and ANCOVA to determine the significance of changes in emotional disorder scores between pre- and post-intervention phases.

## RESULT AND DISCUSSION

The analysis revealed a statistically significant reduction in emotional disorder scores among children who received Sand Play Therapy. Pre-test and post-test scores were compared using paired sample t-tests and ANCOVA to control for baseline differences.

Table 1. Emotional disorder scores of the Experimental Group before and after intervention

	Mean	SD	t	p
pre-intervention	18.6	4.2	6.45	0.0001
post-intervention	11.3	3.7		

The Experimental Group, Children who underwent Sand Play Therapy showed a marked decrease in emotional disorder scores. The mean score dropped from M = 18.6 (SD = 4.2) pre-intervention to M = 11.3 (SD = 3.7) post-intervention (t(19) = 6.45, p < 0.001).

Table 2. Emotional disorder scores of the Control Group before and after intervention

	Mean	SD	t	p
pre-intervention	17.9	4.0	1.02	0,31
post-intervention	17.1	4.3		

The Control Group no significant change was observed. The mean score remained relatively stable, from M = 17.9 (SD = 4.0) to M = 17.1 (SD = 4.3) (t(19) = 1.02, p = 0.31).

Table 3. Analysis pre-post test scores between groups

F	p
21.78	0.0001

ANCOVA results after adjusting for pre-test scores, the post-test scores between groups were significantly different (F(1,37) = 21.78, p < 0.001), confirming the effectiveness of the intervention.

Observational insights noted increased emotional expressiveness, improved social interaction, and reduced behavioral outbursts among children in the experimental group. Children engaged more confidently with symbolic figures and demonstrated greater narrative coherence in their sand scenes over time.

The results of this study provide strong evidence for the effectiveness of Sand Play Therapy in reducing emotional disorders among children. In the experimental group,

children who underwent Sand Play Therapy showed a significant decrease in emotional disorder scores, with the mean score dropping from  $M = 18.6$  ( $SD = 4.2$ ) before the intervention to  $M = 11.3$  ( $SD = 3.7$ ) after the intervention. The statistical analysis confirmed this change was highly significant ( $t(19) = 6.45$ ,  $p < 0.001$ ), indicating that the therapy had a substantial impact on emotional well-being.

In contrast, the control group did not exhibit any meaningful change. Their mean scores remained relatively stable, shifting only slightly from  $M = 17.9$  ( $SD = 4.0$ ) to  $M = 17.1$  ( $SD = 4.3$ ), with a non-significant result ( $t(19) = 1.02$ ,  $p = 0.31$ ). This lack of change reinforces the conclusion that the observed improvements in the experimental group were due to the therapeutic intervention rather than natural emotional development or external factors.

These findings highlight the value of Sand Play Therapy as a nonverbal, developmentally appropriate method for helping children process and regulate their emotions. The therapy provides a safe and symbolic space where children can express inner conflicts and emotional distress through play, which is especially beneficial for young children who may struggle to articulate their feelings verbally (Lee & Kim, 2023).

Overall, the significant reduction in emotional disorder scores among children who received Sand Play Therapy supports its use as an effective intervention in early childhood mental health programs. It offers a gentle yet powerful approach to emotional healing, making it a promising tool for clinicians and educators working with emotionally vulnerable children.

The findings of this study provide compelling evidence for the effectiveness of Sand Play Therapy as a nonverbal, child-centered intervention in reducing emotional disorders among young children. The statistically significant difference in pre- and post-test scores between the experimental and control groups ( $F(1,37) = 21.78$ ,  $p < 0.001$ ) highlights the therapeutic impact of this approach. Children who participated in Sand Play Therapy demonstrated a marked reduction in emotional disorder scores, suggesting that the intervention facilitated meaningful emotional healing.

These results align with previous literature emphasizing the value of play based therapies in early childhood mental health. Sand Play Therapy, in particular, offers a safe and expressive medium through which children can externalize internal conflicts, process difficult emotions, and develop coping mechanisms all without the need for verbal articulation (Baranne & Falissard, 2018). This is especially critical for children aged 5–6, who may lack the verbal sophistication to articulate complex emotional experiences (Mark & Helen, 2019).

The child-centered nature of Sand Play Therapy allows for autonomy and creativity, fostering a sense of control and emotional resilience. The tactile and symbolic elements of sand play may also contribute to sensory regulation and emotional grounding, which are essential components in managing behavioral and emotional challenges (Lee & Kim, 2023).

While the results are promising, it is important to acknowledge the limitations of the study. The small sample size and short duration of the intervention may limit the generalizability of the findings. Future research should consider larger, more diverse populations and extended follow-up periods to assess the long-term effects of Sand Play Therapy.

In conclusion, this study supports the integration of Sand Play Therapy into early childhood mental health programs. Its nonverbal, developmentally appropriate framework makes it a valuable tool for clinicians working with emotionally distressed children, offering a pathway toward healing that is both gentle and effective.

## CONCLUSION

In conclusion, Sand Play Therapy demonstrates significant potential as an intervention for emotional disorders in children. Its ability to engage children in a safe, expressive, and therapeutic process makes it a valuable addition to the repertoire of child mental health treatments.

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