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Research on the Therapeutic Effect of Sandplay Intervention on Emotional and Behavioral Problems of a Primary School Student

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Abstract: With the aim to explore the therapeutic effect of sandplay therapy on children with emotional and behavioral problems, in this study, a primary school student with emotional and behavioral problems was selected as the research object undergoing 12 times sandplay intervention, combining the methods of observation, interview, and questionnaire. It turns out that: (1) The traumatic theme indicates an overall downward trend in the process of intervention, while the cure theme indicates an overall upward trend. (2) The results of "strengths and difficulties questionnaire" were found to be consistent with the results of descriptive evaluation before and after sandplay intervention. (3) Based on the interview, sandplay, and questionnaire analysis, it is found that sandplay therapy shows a better therapeutic effect on children with emotional and behavioral problems.

Keywords: Primary school student; Sandplay therapy; Emotional problems; Behavioral problems

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1. Introduction

Emotional behavior problem is a concrete manifestation of an individual's insalubrious state of mind, which has the characteristics of externality and internality, as well as other psychological and behavioral problems. External behavior is mainly characterized by explicit hyperactivity and aggression, while internal behavior is mainly characterized by cognitive or emotional conflict [1]. Currently, the detection rate of emotional and behavioral problems in children in China accounts for 12.7% to 17.4% [2-4]. Issues such as learning, social adaptation, and interpersonal communication are all affected by emotional and behavioral problems [5]. It is also accompanied by other behavioral characteristics such as disobeying adults or rules [6]. Therefore, it has important practical significance to explore effective intervention methods for children with emotional and behavioral problems.

Sandplay therapy, known as psychotherapy, is a symbolic way to apply to children, adolescents, and adults which emphasizes the spontaneous and dynamic nature of creative experience itself. When energy in the form of "life symbols" is touched in time in the individual and collective unconscious, healing can occur

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spontaneously at a person's unconscious level ^[7,8]. It can promote the development of visitors' self-awareness and the formation of healthy self-concept ^[9,10], and alleviate post-traumatic stress problems ^[11,12], as well as emotional and behavioral problems ^[13,14]. At present, the number of children with emotional and behavioral problems is increasing, and it has been widely concerned by the whole society. The purpose of this study is to explore the intervention effect of sandplay therapy on primary school students with emotional and behavioral problems.

2. Objects and methods

2.1. Object

2.1.1. Case profile

The 9-year-old male student Xiao Gao (pseudonym) is in third grade, with normal development and mental state, clear consciousness, stable mood, and good expression.

2.1.2. Problem assessment

- (1) Interview: Through the interview with the parents before the intervention, it was found that the case was often unable to concentrate, lacked vitality in academic and daily life, had poor interpersonal communication, frustration prone to emotional collapse, and resistance to language and behavior.
- (2) Initial sandplay: The initial sandplay theme of the case was the traumatic theme, showing the appearance of a large number of wars, traumatic meaning of chaos and injury, and lack of signs of life [15]
- (3) Strengths and difficulties questionnaire: In this paper, the mother of the case was asked to fill in the parent version of the questionnaire. From the point of view of the score, the three dimensions of emotional symptoms, character, and peer communication problems had reached abnormal values. The abnormal value of the total score of difficulty is 17–40, and the score had reached 33.

Combined with the analysis of the results of interviews, initial sandplay performance, and strengths and difficulties questionnaire, the case showed the typical characteristics of children with emotional and behavioral problems.

2.2. Methods

The purpose of this study is to improve emotional and behavioral problems through sandplay therapy, and to analyze the sand table, interviews with their parents, and pre- and post-test scores of the strengths and difficulties questionnaire to evaluate whether the related symptoms have improved after the intervention.

2.3. Device

2.3.1. Sandplay device

Sandplay device mainly includes the tables and tools when conducting sandplay activity. The size of the actual table is 57-72-7 (in centimeters). The inside and bottom are blue, and the outside is yellow.

2.3.2. Strengths and difficulties questionnaire

The strengths and difficulties questionnaire (SDQ) has a total of 25 items, using 3-point scores, including 5 dimensions: emotional symptoms, conduct problems, hyperactivity, peer interaction problems, and prosocial behavior. The first four dimensions add up to the total difficulty score. In the parental version of SDQ, except for the α coefficient of hyperactivity dimension \geq 0.7, the other α coefficients are between 0.3 and 0.68 [16].

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2.3.3. Auxiliary tool

This tool refers to asking parents to sign the "parent consent form" and prepare sand table records, cameras, clocks, pens, and so on before sandplay therapy intervention.

3. Intervention process and analysis

The frequency of intervention is once a week, with a total of 12 times, each time for 50 minutes from October 2021 to January 2022.

3.1. Presentation stage: the first sandplay

3.1.1. Sandplay process

In terms of initial sandplay, the theme of the sand table is "untitled." **Table 1** shows the types and quantity of sand tools in the initial table.

Table 1. Statistics on the types and quantity of sand tools in the initial table

Plant	Characters	Animals	Food	Traffic	Construction	Weapons	Daily necessities	Other	Total
0	27	46	28	17	4	6	1	13	142

3.1.2. Sandplay analysis

The following five aspects mainly reveal the theme of trauma in the initial sandplay:

- (1) Chaos: the placement of sand tools is random.
- (2) Threat: the sand table shows a conflicting war scene.
- (3) Prone: some sand tools are put down.
- (4) Split: the parts of the sand table are isolated with a lack of logical connection.
- (5) Concealment: some sand tools are buried.

Thematic statistics: traumatic theme (chaos, threat, prone, split, hidden); healing theme (none).

3.2. Healing stage: the 12th sandplay

3.2.1. Sandplay process

The theme of this sand table is "primitive ecological forest." **Table 2** shows the types and quantity of tools in the 12th sandplay.

Table 2. Statistics on the types and quantity of tools in the 12th sandplay

Plant	Characters	Animals	Food	Traffic	Construction	Weapons	Daily necessities	Other	Total
134	0	4	66	0	2	0	0	0	206

3.2.2. Sandplay analysis

- (1) Integration: the appropriate organized structure is reflected in the whole sand table.
- (2) Centralization: the whole sandplay is centered on dinosaurs, and other verses surround it, showing a state of balance with the brain.
- (3) Connection: there is a good logical relationship between sand tools.
- (4) Cultivation: there are a lot of energetic fruits and flowers around dinosaurs.

Thematic statistics: traumatic theme (none); healing theme (integration, centralization, connection, cultivation)

4. Result

4.1. Changes in the number of sandplay themes

This study collates and analyzes Xiao Gao's 12 sand table works according to the sand table theme coding table. The number of traumatic theme and healing theme in individual cases is shown in **Figure 1**.

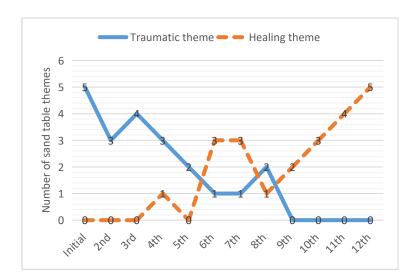


Figure 1. Trend chart of the number of traumatic theme and healing theme in individual cases

In the process of intervention, the traumatic theme gradually decreased, while the healing theme began to appear and increased. Although the process fluctuated, it also suggested that the role of Xiao Gao's self-healing gradually appeared.

4.2. Descriptive assessment

After the intervention, the parents were interviewed, and it was found that Xiao Gao's interpersonal relationship was significantly improved and academic self-efficacy was also improved.

4.3. Quantitative evaluation

Table 3 shows that all dimensions of Xiao Gao's emotional and behavioral problems have been significantly improved, which is consistent with the results of descriptive assessment.

 Table 3. Comparison of SDQ scale before and after sandplay intervention

	Emotional symptoms	Personality problems	Hyperactivity	Peer interaction problems	Prosocial behavior	Total
Pre-test	8	5	6	8	6	27
Post-test	1	1	2	2	9	6

5. Discussion and conclusion

Sandplay games have obvious intervention effect on children's emotional and behavioral problems, which

is reflected in the changes of traumatic theme and healing theme in sandplay works, which reflect the improvement of emotional and behavioral problems [17].

The main results are as follows:

- (1) During the initial sandplay, the tools are thrown in more violent ways, but in the end, the action is relatively light.
- (2) The initial sandplay is messy, but in the end, the table shows logical progress layer by layer.
- (3) The sand tools of the initial sandplay are all related to war or evil, but in the end, the tools of the sandplay are full of vitality and energy, indicating that the original energy of the heart has been aroused [18].

It was found that the case gradually carried out self-healing, energy accumulation, and finally reached self-localization from the behavior of the case before and after the intervention, combined with interviews with parents, and pre- and post-test analysis of SDQ [19].

Combined with the previous analysis, it is found that sandplay therapy can significantly improve the mood of visitors, as well as their prosocial behavior [20]. Based on the comprehensive analysis of interview, sandplay, and questionnaire, it is concluded that sandplay therapy can produce better therapeutic effect on children with emotional and behavioral problems.

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Disclosure statement

The authors declare no conflict of interest.

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