



■ Original Article

A Comparative Study on the Effectiveness of Individual and Group Play Therapy on Symptoms of Oppositional Defiant Disorder among Children

Narges Morshed¹, Mohammad Babamiri^{2,*}, Mehdi Zemestani³, Nasim Alipour⁴

¹Department of Psychology, Islamic Azad University, Tehran Science and Research Branch, Tehran, Iran

²Department of Ergonomics, Social Determinants of Health Research Center, School of Public Health, Hamadan University of Medical Sciences, Hamadan, Iran

³Department of Clinical Psychology, University of Kurdistan, Sanandaj, Iran

⁴Department of Anesthesiology, School of Paramedicine, Hamadan University of Medical Sciences, Hamadan, Iran

Background: This research compared the effectiveness of play therapy provided individually or in groups for oppositional defiant disorder (ODD) symptoms among children.

Methods: This was a randomized controlled trial that used a multi-stage random sampling method. Participants included 45 children aged 6 to 10 years old with ODD, all of whom had been referred to medical consultation centers in Ahvaz, Iran in 2012. Experimental groups consisted of 15 children receiving individual play therapy and 15 receiving group play therapy, while the control group consisted of 15 randomly selected children. Data were collected using the child behavior checklist parent report form and teacher report form, along with clinical interviews with the parents. Play therapy took place weekly for eight total sessions; individual sessions lasted 45 minutes each, while group sessions were each 60 minutes in duration. Participants were assessed in three stages, including pre-intervention, post-intervention, and at 2-month follow-up. PASW SPSS ver. 18.0 software (SPSS Inc., Chicago, IL, USA) and analysis of covariance analysis methods were used to analyze data.

Results: Results showed meaningful decreases in ODD symptoms in the experimental groups in comparison with the control group, based on parent reporting ($P \leq 0.001$ and $F = 129.40$) and the teacher reports additionally showed meaningful decreases in ODD symptoms in the experimental groups compared to the control group, ($P \leq 0.001$ and $F = 93.14$). Furthermore, the effects were maintained after 2 months.

Conclusion: This research supports the efficacy of individual and group play therapy for the treatment of ODD in children, as well as the consistency of the effects at 2-month follow-up.

Keywords: Attention Deficit and Disruptive Behavior Disorders; Psychotherapy; Children; Play Therapy

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*Corresponding Author: Mohammad Babamiri <https://orcid.org/0000-0002-0824-8567>

Tel: +98-8138380090, Fax: +98-8138380090, E-mail: mohammad.babamiri@yahoo.com

INTRODUCTION

Over the past several days, researchers have been interested in the emotional-social development of children. Some researchers have assumed that children's problems arose from deficiencies in the developmental process that would disappear over time. Given that the developmental process and its subsequent rapid changes cannot be stable, it should be noted that emotional and behavioral disorders may continue until puberty or adulthood.¹⁾ In this respect, numerous research studies have revealed that about 30% of children and adolescents are likely to experience a diagnosable psychiatric disorder in their lifetime, and 70% to 80% of such individuals do not receive appropriate interventions. These impairments lead to dysfunctions in various dimensions, including educational and family functioning, which ultimately result in academic failure or delinquent behaviors.²⁾

The prevalence rate of childhood disorders has been estimated between 6% and 25%.³⁾ These investigations have been focused primarily on children with disruptive behavior disorders (DBDs).³⁾ Such disorders can create many problems for children; thus, children affected by these disorders are unable to accommodate the expectations of parents, teachers, and societal laws.⁴⁾ Among the DBDs, oppositional defiant disorder (ODD) is one of the most common, with a prevalence of 2% to 16%.^{5,6)} The prevalence of mental disorders in Iranian children is high.⁷⁾ ODD is considered chronic and progressive and almost always plays an interfering role in children's interpersonal relationships and academic achievement. Such children often do not have friends and feel unsatisfied with their human relationships.⁸⁾ Despite normal intelligence, these children fail to achieve academically. If this disorder is not treated, it can lead to problems such as conduct disorder, mood disorders, anxiety, substance use,^{9,10)} antisocial personality disorder, and delinquent behaviors.^{6,11)} Thus, considering the high prevalence of ODD,¹²⁾ and given the fact that childhood disorders tend to continue into adulthood, there is increasing attention on prevention and treatment.¹³⁾

Given that play therapy is effective for improving mental disorders in children,^{14,15)} the present study employed play therapy to attempt to reduce symptoms of ODD. Moreover, given the option of individual and group approaches in play therapy, as well as few comparative studies, the present study compared the effects of the individual approach with the group approach. Thus, based on the efficacy of play therapy and the effectiveness of individual versus group approaches in lowering the symptoms of ODD in children, the most effective approach can be implemented in various counseling and psychological centers.

METHODS

This study was a randomized controlled trial. The population of the study included 45 children, boys and girls aged 6 to 10 years, with symptoms of ODD; they all had been referred to psychological counseling and treatment centers in Ahvaz, Iran. Using random cluster

sampling as the first step, two counseling centers were selected (Mehrawaran psychological counseling center and Rayan psychological counseling center, which had a play therapy room); next, a list of children referred to both centers was prepared. By assuming at least 2 scores differences between experimental and control groups in terms of dependent variable,¹⁶⁾ the 5% alpha, the power of 80%, and the probability of a 10% drop, the sample size for each group was estimated to be 15. The parents of the selected children provided informed consent for their children's participation in this study. The parents of the selected children provided informed consent for their children's participation in this study. Also this research has been reviewed by the Islamic Azad University Research Committee and has been approved ethically. Parents were also informed that if their child was reluctant to continue treatment for any reason, they could remove their child from the study at any time. After that, children's parents were asked to complete the child behavior checklist (CBCL) as a pre-test. Following this, those children who obtained scores above the cutoff point (equal to or greater than 4) on the ODD index were selected (59 individuals), and their intelligence was then assessed using Raven's Progressive Matrices for Children; those who scored lower than the mean were excluded from the study (two children). Finally, to obtain accurate diagnoses, parents were invited to take part in a 30-minute clinical interview conducted by the researcher. The interviews were administered to the parents (mostly mothers) of all of the children based on the diagnostic and statistical manual of mental disorders, 4th edition, text revision ODD criteria. The interviews were conducted without the children present in order to match the results obtained from the questionnaires and the existing interviews, as well as to acquire more accurate information about the children. All of the children remained in the study. Finally, the 45 children were randomly assigned to three groups: 15 to individual play therapy, 15 to group play therapy, and 15 to the control group. The play therapy sessions lasted for 8 weeks (one session per week).

The inclusion criteria were parental and child willingness and consent to participate in therapy sessions, normal intelligence, and age between 6 and 10 years. The exclusion criteria for this study were consumption of psychiatric drugs, comorbidity with other psychiatric disorders, psychiatric disorders in the parents, and more than one missed therapy session. The study began after explanations of the objectives of the study and completion of the informed consent forms by parents, as well as assurance of confidentiality. Group play therapy was considered an independent variable in the present study.

The CBCL parent report form and teacher report form were the main data collection instruments used in this study. The CBCL contains 120 items measuring children's behaviors in six areas. This questionnaire is applicable for subjects aged 4 to 18 years and can be completed based on a child's behavior in the last 6 months, either by a parent or by a caregiver.¹⁵⁾ In the section on behavioral and emotional problems, ODD is measured with five items, producing a subscale score ranging from 0 to 10. Scores of four and higher are clinically significant for the disorder. The reliability of the checklist was determined

using the test-retest method with a 1-week time interval, and the reliability of the interviewers for the CBCL scores was between 0.93 and 1.00. The validity and reliability of this questionnaire were confirmed in the Iranian population.^{17,18)} The teacher report form is applicable for children aged 5 to 18 years¹⁶⁾ and can be completed by teachers or other school personnel. This form has two parts associated with educational aspects and the CBCL. The items and scoring methods are similar to the CBCL. The reliability and the validity of this test have been also approved.¹⁵⁾ The validity and reliability of this questionnaire were confirmed in the Iranian population.^{17,18)}

The interventions were the same in both groups (individual and group play therapy). This means that the methods listed below were used in both groups and differences between the groups were related to group effects. Individual play therapy sessions consisted of only the therapist and the child, while the group play therapy sessions consisted of all 15 children within one group. The interventions included encouraging collaboration, a family painting test, addressing selective session activities, playing with toys and role playing with animals, identifying main emotions using paintings, puppet shows and emotion images, emotion training, positive reinforcement, recognizing anger and its consequences using an angry balloon game, anger management using a game bubble to exercise deep breathing, relaxation and positive self-talk, teaching good social behaviors by playing with tattoo dolls, creating insight into problems and finding appropriate solutions using the trash bin game, and role playing to develop insights into behaviors.

RESULTS

The group receiving individual play therapy included eight boys and seven girls, while the group undergoing group play therapy was composed of seven boys and eight girls and the control group was made up of 12 boys and three girls. The differences between the groups in terms of gender were investigated using the chi-square statistical method, and the difference was not significant. The average age of the subjects in the individual play therapy group was 7.6 years, and it was 7.4 years in both the group play therapy and control groups. In both groups, the maximum and minimum ages of the subjects were 10 and 6 years, respectively. The means and standard deviations associated with the variables in each group and all the steps of the study are presented in Table 1. Differences between the groups in terms of age and mean pre-test scores were investigated using the analysis of variance statistical method, and the differences were not significant.

To examine the research hypotheses, an analysis of covariance (ANCOVA) was conducted on the post-test scores by controlling for the pre-test scores of the dependent variable conditions. Table 2 illustrates the results of the ANCOVA. The results presented in Table 2 indicate that group differences in the dependent variables in terms of ODD symptoms reported by parents ($F=129.40$ and $P\leq 0.001$) and by teachers ($F=93.14$ and $P\leq 0.001$) were significant. Accordingly, a modified Bonferroni comparison follow-up test was also used; those results are presented in Table 2. The results of the paired comparisons using the Bonferroni test revealed that the mean differences in both the individ-

Table 1. Descriptive statistics

Variable	Gender (boys/girls)	Age (y)	Parent report form			Teacher report form		
			Pretest	Posttest	Follow-up	Pretest	Posttest	Follow-up
Individual play therapy	8/7	7.6±1.76	7.73±1.10	2.87±0.91	3.36±1.44	7.60±1.60	2.67±0.61	3.40±1.59
Group play therapy	7/8	7.40±1.45	7.87±0.83	2±0.65	3.13±1.12	8±1.60	2.13±0.74	3.07±1.16
Control	10/5	7.4±1.54	7.47±1.40	7.07±2.34	6.53±2.29	7.80±1.65	6.47±2.06	6.33±1.83
P-value	≥0.01	≥0.01	≥0.01	≤0.01	≤0.01	≥0.01	≤0.01	≤0.01

Values are presented as mean±standard deviation.

Table 2. Results of ANCOVA and Bonferroni follow-up test in the posttest phase

Variable	ANCOVA	Bonferroni				
		Comparisons		Mean differences	P-value	Eta coefficient
Parent report form	$F=129.40$, $P\leq 0.001$	IPT	GPT	1.07	0.013	0.86
			Control	-4.37	≤0.001	
		GPT	IPT	-1.07	0.013	
			Control	-5.44	≤0.001	
		Control	IPT	4.37	≤0.001	
			GPT	5.44	≤0.001	
Teacher report form	$F=93.14$, $P\leq 0.001$	IPT	GPT	0.74	0.13	-
			Control	-3.83	≤0.001	
		GPT	IPT	-0.74	0.13	
			Control	-4.57	≤0.001	
		Control	IPT	3.83	≤0.001	
			GPT	4.57	≤0.001	

ANCOVA, analysis of covariance; IPT, individual play therapy; GPT, group play therapy.

Table 3. Results of ANCOVA and Bonferroni follow-up test in the follow-up phase

Variable	ANCOVA	Bonferroni				
		Comparisons		Mean differences	P-value	Eta coefficient
Parent report form	F=28.63, P≤0.001	IPT	GPT	0.69	0.56	0.58
			Control	-3.03	≤0.001	
		GPT	IPT	-0.69	0.56	
			Control	-3.72	≤0.001	
		Control	IPT	3.03	≤0.001	
			GPT	3.72	≤0.001	
Teacher report form	F=30.47, P≤0.001	IPT	GPT	0.53	0.13	0.60
			Control	-2.97	≤0.001	
		GPT	IPT	-0.53	0.13	
			Control	-3.51	≤0.001	
		Control	IPT	2.97	≤0.001	
			GPT	3.51	≤0.001	

ANCOVA, analysis of covariance; IPT, individual play therapy; GPT, group play therapy.

ual and group play therapy conditions were significant compared with the control group. Moreover, the comparison of the mean scores for play therapy through the individual and group approaches showed that the mean difference was 1.07, with a significance level of P=0.013. Therefore, a significant difference was observed between these two approaches in terms of reducing parent-reported ODD symptoms. However, when examining the teachers' reports, there was no significant difference between these two groups in terms of reduction in ODD symptoms (P=0.134).

The ANCOVA was similarly used to investigate the effects of intervention at follow-up by controlling for the pre-test scores. Table 3 shows the results of the ANCOVA. The results provided in Table 3 indicate that group differences in parent reports (F=28.63 and P≤0.001) and teacher reports (F=30.74 and P≤0.001) of ODD symptoms at follow-up were significant when controlling for pre-test scores. Consequently, the modified Bonferroni comparison follow-up test was also used; the results are listed in Table 3. The results of the paired comparisons using the Bonferroni test revealed that the mean differences at follow-up—in both the individual and group play therapy conditions—were significant. Furthermore, the comparison of the mean scores for play therapy in the individual and group approaches as reported by parents (P=0.56) and teachers (P=0.13) showed no significant differences in the follow-up step.

DISCUSSION

The purpose of the present study was to compare the effectiveness of individual and group play therapy for reducing the symptoms of ODD in children aged 6 to 10 years. The participants were children who had been referred to counseling and treatment centers in Ahvaz, Iran. The results of this study showed a difference between individual and group play therapy in terms of relieving parent-reported ODD symptoms. In this respect, the results were consistent with other studies.^{19,20} However, there were no differences between these two approaches in terms of decreasing the teacher-reported symptoms of ODD.

The findings regarding the differences between the attitudes of parents and teachers towards the greater effectiveness of group play therapy could also be due to differences between the home and school environments. Due to larger numbers of students and greater stimulation in classrooms and school environments, children require more intervention in order to show self-control in such contexts. Moreover, mothers in the group play therapy condition could closely and objectively observe improved communication and social interactions in their children following play therapy sessions, whereas teachers did not have such opportunities; this could have led to different reports of results by parents.

Additionally, the results of this study did not demonstrate a difference between individual and group play therapy in terms of reducing parent- and teacher-reported ODD symptoms at 2-month follow-up. It can be argued that both individual and group play therapy can be effective in reducing the symptoms of ODD. Nevertheless, based on the comparison of results from the post-test and follow-up steps, it is worth noting that group play therapy showed more rapid effectiveness in reducing ODD symptoms, but individual play therapy had greater continuity in lessening such symptoms. Play therapists such as Axline²¹ have argued that individual play therapy could have its own considerable effects on the treatment of children's emotional problems, while group play therapy could provide greater opportunity to acquire social skills. Dale Jones,²² on the other hand, has concluded that children experience acceptance, emotional discharge, reduced painful effects, re-oriented impulses, and corrected emotional thrill during individual play therapy through interpersonal interactions with the therapist, while group play therapy has a greater impact on respect, self-acceptance, acceptance of others, and improved social skills. It can be argued that individual play therapy, regardless of being costly, focuses on the emotional treatment of children and is more continuous than group play therapy, which is mostly concentrated on improving social skills in children. This issue revealed that children show better performance in their interpersonal relationships at home and school as their emotional and cognitive problems are tackled. However, it should be

noted that due to the low cost and faster results of group play therapy, follow-up steps are necessary in order to review the therapy process and its continuation in children, as well as to evaluate treatment results.

In conclusion, based on the results of this study indicating the effectiveness of play therapy for symptoms of ODD, child therapists are recommended to employ play therapy based on a cognitive-behavioral approach while also considering what was cited in this study. Given that there was no difference between the outcomes of individual and group play therapy, and with regard to the cost-effectiveness of group play therapy, therapists are recommended to use the group play therapy approach in their treatment of ODD.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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ORCID

Narges Morshed: <https://orcid.org/0000-0003-2886-3257>

Mohammad Babamiri: <https://orcid.org/0000-0002-0824-8567>

Mehdi Zemestani: <https://orcid.org/0000-0002-2140-2434>

Nasim Alipour: <https://orcid.org/0000-0003-0827-1019>

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