

## Effect of Play Therapy on Behavioral Problems of Maladjusted Preschool Children

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**Objective:** The present research was conducted to study the effect of play therapy on reducing behavioral problems of children with oppositional defiant disorder.

**Method:** Using multistage cluster sampling, regions 6, 7, and 8 in Tehran were selected. Among kindergartens of these areas, 3 kindergartens which were supported by the welfare organization were randomly selected. Of all the pre-school children of these 3 kindergartens, 40 children who could have behavioral disorder, according to their teachers and parents, were carefully tested. Of them, 16 children who showed severe symptoms of oppositional defiant disorder, were selected via the results obtained from the child symptom inventory questionnaire (CSI-4), teacher's form, and a researcher-made self-control checklist. Then, the subjects were randomly divided into one control and one experimental group. This research is quasi-experimental, and is conducted using pre-test, post-test, and control group.

**Results:** values of the calculated F for oppositional defiant disorder in control group and experimental group was meaningful after fixing the effect of pre-test ( $P < 0/001$ ). Therefore, a meaningful difference existed between the means of post-test scores of disobedience disorder in the experimental and control groups through the fixed effect of the pre-test effect. Comparison of adjusted means of the 2 groups showed that the mean of attention-deficit hyperactivity disorder (ADHD) in experimental group was lower than control group. Therefore, applying play therapy reduced severity of ADHD in those children in experimental group compared to those in control group who did not receive such instructions.

**Conclusion:** Results of this research demonstrates that children's disobedience can be reduced by play therapy.

**Keywords:** Attention deficit and disruptive behavior disorder, child, Play therapy

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**D**irect effects of such problems as perceptual, physical, emotional, and social changes are stress; contradictions are followed by learning and behavioral problems that the child will experience. On the other hand, social conditions are changing so rapidly that they all cause serious and deep effects on the psychological and personal world of a child (1).

Some of the most common problems of children in this age range, which are often parents' complaints, are disobedience, defiance, and rebelliousness with aggression; and whenever adults fail to informatively face these problems, they could lead to disobedient conducts in children. Therefore, disobedient children in pre-school ages are those who are usually recognized by oppositional defiant disorder and some associated disorders with it.

Oppositional defiant disorder is an ongoing pattern of

disobedient, impudence negative activity, hostile and defiant behavior toward authority figures that lasts for longer than a 6-month period. It is recognized by continuous occurrence of at least 4 of the following behaviors: losing control, arguing with adults, deliberately doing what annoys others, being sensitive and easily annoyed, being often irritated and indignant, criticizing others for their own mistakes or bad behaviors, hostility, and being spiteful or vindictive. To have a diagnosis of oppositional defiant disorder, the frequency of symptoms should be more than the frequency of the same behaviors in people with the same biological and mental age; in addition, it must cause significant destruction of the individual and his/her social functions. If disorders in behavior occur only in psychotic or in temperamental disorders, or the evidences concord with behavioral disorders or antisocial disorders (for people above 18), it is not diagnosed as oppositional defiant disorder (2)

***Simultaneity of oppositional defiant disorder (ODD) with other disorders***

Attention deficit hyperactivity disorder (ADHD) is prevalent in children with oppositional defiant disorder (ODD). Learning and communicational disorders are also observed with (ODD) (2).

Symptoms of oppositional defiant disorder may occur with symptoms of behavioral disorder. Although all children with ODD do not show severe annoying behaviors, a feature of behavioral disorder, most children diagnosed with oppositional defiant disorder before puberty will have symptoms of behavioral disorder or the potential to have them when reaching older ages (3).

***Etiology***

Defying one's own tendencies and opposing others' is essentially important for natural development of a child. This is related to independence, identity creation, and adjusting inner criterions and controls. The most evident example of ODD may be that between the ages of 18 to 24 months, toddlers use oppositional behaviors as a sign of growing self-determination. Pathology starts when this stage of development takes unusual permanence, or when authorities show severe reaction, or oppositional behaviors appear much more than what are observed in children with the same mental age (4).

Oppositional defiant disorder is more common in those families whose childcare methods are harmed due to continuous change of child minders, or in those families whose methods of children upbringing are violent, unstable, or rejected. Prevalence of the disorder in males is more than females before puberty, but the same in both sexes after that. Symptoms are the same in both males and females except that oppositional behavior is more in males and its symptoms are more persistent.

Symptoms and concomitant disorders are different according to age and severity of oppositional defiant disorder. It was observed that disorders in males are more prevalent among those who had problematic behaviors (for example, too much reaction, unappeasable) or those who had too much physical activity (2).

***Treatment***

Counseling children is different from counseling adults. We counsel adults by having sessions and encouraging them to talk, but if we use the same method for children, it is unlikely that they talk to us about something important to them (5)

One of the important responsibilities of a clinical psychologist is to see if the disturbing behavior, for which the child is referred to psychologist, is normal and temporary, and what the importance of such behavior is from the clinical view. They also have to specify if these behaviors will be continued or could they get worse (6).

Pre-school children are not able to understand the points in a therapeutic relationship, for they do not see

asking for help and trusting others as what adults or older children have perceived. Recognizing operation of pre-school children is specified with self centered and non-reflective thinking. (7)

Treatment of ODD consists of individual psychotherapy of child, counseling, psycho-education of parents on controlling children, and careful assessment of family interactions. Children with oppositional defiant behaviors can use individual psychotherapy to the extent that the child can face a situation in which he/she can practice adaptive responses with an adult (4).

Bennet et al., (8) has suggested using "treatment by play therapy" instead of Freudian phrase "treatment by talking" especially when we are concerned with children's treatment. Revised approaches toward psychoanalysis of children have been used a lot. Some therapists investigate children's psychological life rather than using other approaches. Girolametto et al., believes that playing is considered children's secret language and they can express their experiences and emotions in a natural and self-treatment way through playing (9).

Play therapy is a technique during which the child would be given an opportunity to try and experience development under the most ideal circumstances. Playing is a natural way for children to express themselves, and it will provide them with an opportunity to gradually release suppressed emotions and tensions, disappointments, feeling of insecurity, aggression, and fear of confusion (10).

Behavior therapy, as a technique for treating ODD, place great emphasis on reinforcing proper behavior and ignoring undesirable behavior (4).

One of the suggested techniques for behavior therapy of this disorder is "withdrawing reinforcement" that is consists of omitting positive reinforcement for a short period of time. During withdrawing, child does not have access to those positive reinforcements that are naturally available in that environment. Withdrawing typically includes social seclusion, in which the child is sent out for a short period of time (for example, 5 minutes). Long periods of withdrawal are not essentially effective (11).

Nelson investigated the effect of training skills of revised behavior from dialectical behavior therapy in forms of a therapeutic group on teenagers with oppositional defiant disorder. Thirty two teenagers completed a 16-week program with assessment before and after treatment. Treatment was not only effective in reduction of negative behavior but it also had an impact on increasing positive behaviors. (12)

Webster, Stratton & Hammond (13) designed a general video plan which is consisted of the following skills: (1) controlling anger, (2) problem solving, (3) making friends, (4) getting along with being scoffed at or rejected, (5) paying attention to teachers, (6) finding other solutions for problems, (7) cooperating with parents, (8) whispering as a guild line for getting along (14).

Boulanger (15) in a research investigated the effect of group play therapy to find a solution for social skill problems of five year-old boys. Group members, in addition to communicative problems with children of the same age, had attention deficit hyper activity disorder (ADHD),\_intensive anxiety disorder, and childhood avoidance disorder. Result obtained from the research showed that there was a salient improvement in solving social skill problems after treatment.

Ray and Bratton (16) studied the effect of play therapy on treatment of children with conduct disorder. Ninety six researches were studied and results showed that using techniques of play therapy in most cases could have positive effect on treatment of these disorders. Moreover, studies show that play therapy will be more effective with parents' intervention and cooperation.

Daly and Grieger (17) in a case study reported the process of treatment period of a 4 year-old child with ODD. Patient's behavior improved considerably after usual sessions of treatment with planning a time for playing with his mother. They believe that some children may respond to unstructured play sessions in which they are able to express their emotions and have some control on their interaction with adults.

In another research, Hood and Eyberg, (18) examined the maintenance and durability of the outcomes of treatment of oppositional defiant disorder (ODD) with parent-child interaction therapy approach. 3 to 6 years after the treatment period, 29 out of 50 treatment completers were located for this study. Mothers of 23 children between ages 6 to 12 were contacted by phone and E-mail. Results indicated that the mothers reported significant changes in their children's behavior and type of locus of control at the end of treatment and after a long-term follow-up. Mothers reported reduction in disordered behaviors since the start of treatment. Outcomes of this study reports long-term effects of this parent-child interaction.

Lavinge et al., (19) examined the effect of teaching Webster-Stratton's program to parents of children with oppositional defiant disorder. One hundred seventy parents of children aged 6 to 11 with ODD were taught. After completion of the treatment period in 12 months, recovery was observed in all groups. After 7 sessions in *Eyberg intensity scale* and 9 sessions in child behavior *checklist* (CBCL), there were effects on a fixed rate.

Larsson and Fossum, (20) studied the efficacy of instructing parents in contacting with oppositional defiant disorder and individual child treatment program in a controlled random study. Sample group consisted of 127 Norwegian children aged 4 to 8 years who were diagnosed to have ODD. Children were randomly put in to two groups of experimental and control. For experimental group, parents' training program or the combination of training parents and individual treatment was implemented. In both cases of treatment, symptoms of oppositional defiant disorder of two thirds of children in experimental group were significantly

reduced and with the same proportion, after a year of treatment, no recurrence of symptoms was observed.

Jager and Ryan (21) in a research compared the effect of play therapy in treatment of anxiety disorder and worries with skill learning and miniature learning treatments. Children in experimental group who received play therapy, showed better results in reduction of symptoms of anxiety disorder and worries. Generally, play therapy has been used a lot for children's treatments. For example, Ahmadi (22) studied the effect of intensive play therapy on reduction of children aggression. Out comes showed that play therapy had positive effect on examinees. Baedi (23) in a research investigated the effects of cognitive-behavioral therapy on reduction of aggression in children with behavioral disorders. Results showed that cognitive-behavioral therapy reduced aggressive behaviors of this group. Ashrafi Pouri (24) in a research studied the effect of story-therapy in reduction of symptoms of ODD in children. Results showed that story therapy in groups reduced the symptoms of oppositional defiant disorder of the examinees. Out comes show the applicability of story therapy in the treatment of conduct problems in children.

Yousefi Louyeh (25) in a research studied the effect of story therapy on reduction of emotional problems in children. Results showed that story therapy was effective for reducing emotional problems of these children. Alizadeh (26) in a research investigated the effect of play therapy on reduction of children's aggression in girls aged 9 to 11; and he found that play therapy was effective in reducing the level of aggression in examinees. According to the mentioned literature, the following question will be raised:

- 1- Does play therapy reduce the symptoms of oppositional defiant disorder in pre-school children?
- 2- Does play therapy reduce the concomitant problems with oppositional defiant disorder like symptoms of attention-deficit hyperactivity disorder (ADHD) in pre-school children?

## Materials and Method

### *Population, samples and sampling method*

Research method used in this research is quasi-experimental, and a pre-test, post-test model and a control group are also used. Participants in this research are 6 year- old pre-school children in kindergartens supported by the welfare organization in Tehran in 2008-2009.

Using multistage cluster sampling, regions 6, 7, and 8 in Tehran were selected. Among kindergartens of these areas, 3 kindergartens were randomly selected. Of the pre-school children of the selected kindergartens, 40 children who could have behavioral disorder were carefully tested. by the results obtained from the child symptom inventory questionnaire (CSI-4), and a self-control checklist , 16 children who definitely had conduct problems ,specially oppositional defiant disorder (ODD), stubbornness, and

hyperactivity Attention deficit hyperactivity disorder (ADHD) as deficiency disorder with disobedience disorder, were selected and randomly divided into 2 groups of experiment and control.

**Instruments**

To identify sample group, the child symptom inventory questionnaire (CSI-4), and a self-control checklist (researcher made), and a teacher's form were used. The child symptom inventory questionnaire (CSI-4) is a behavior gradation scale that was first used by Spiraphkin & Gudo in 1984, according to DSM-III, to screen 18 behavioral and emotional disorders designed for children aged 5 to 12. Later in 1978, the CSI-3R questionnaire was designed after DSM-III-R ; and then in 1994, after the fourth publication of DSM-IV with minor changes this questionnaire was revised and published with the name of CSI-4 (27).

CSI-4 contains two questionnaires of parent and teacher. Parents' questionnaire includes 112 questions and it is designed for 11 major and one extra group of behavioral disorders. Teacher's questionnaire contains 77 questions and covers 9 major groups of behavioral disorders. Two scoring methods are designed for CSI-4. The inventory offers both the screening cut-off score method, and the symptom severity score method. The screening cut-off score method is used in most studies and scored in a 14-scale scoring of never=0, sometimes=0, often=1, and most of the time=1. In most disorders, the score of screening cut-off is the sum of the number of questions answered with "often" or "most of the times".

Then, the obtained score is compared with the scale score sign whose source of assessment is DSM-IV and if it is equal or more than the criterion score, the cut-off score will be "Yes", and in this case the person has the disorder. If results are lower than the sign criterion, the cut-off score will be "NO". Therefore, if a symptom in this method is graded "never" or "sometimes", then it will be considered a clinical problem (27).

In the present research, to estimate the reliability (internal consistency of questions) of sub-scales of the symptom questionnaire, Chronbakh's alpha coefficient was used for each of the 4 sub scales in the symptom questionnaire, and the result was obtained in a domain of 0.67 to 0.96.

**Self-controlling Checklist**

A checklist was prepared based on visual observations of children, and teachers and parents' complaints. Although the check list was mostly descriptive, its internal reliability was calculated according to Chronbakh's alpha and in the final post test, it was computed as 0.85. In this check list, increase indicates disobedience, and decrease indicates self-control.

**Procedure**

In the main stage, the experimental group received play therapy for 15 sessions, each of which lasted for 45 minutes. After the last session, the CSI-4 questionnaire and self-control check list were given to both groups

again and results were studied. The experimental group received play therapy with different techniques (such as free and indirect, guiding, and patterning techniques, different positive reinforcing techniques, forming behavior, and problem solving). Contents of the plays were designed in such a way that children had the most corporations in doing the plays, and the therapist took up the role of a guide in sessions. Some sessions were held individually and some in groups.

**Data analysis**

This research is quasi-experimental, and is done by the use of pre-test, post-test, and control group. For statistical data analysis of the research, in descriptive statistics, deviation and central ; and in inferential statistics, covariance analysis was used.

**Results**

*Question 1:* Does play therapy decrease the symptoms of oppositional defiant disorder in pre-school children? For investigating the effects of play therapy on oppositional defiant disorder in pre-school children and to fix the effect of pre-test on both groups of experimental and control, inferential statistics test of covariance was used. Results are presented in table 1. According to the results of table 1, values of calculated F for oppositional defiant disorder in control and experimental group is meaningful after fixing the effect of pre-test (F(1,12)=74/94, P<0/001). Therefore, there is a meaningful difference between means of disobedience symptoms post-test scores in experimental and control groups by having the fixed effect of pre-test effect. Comparison of adjusted means of the 2 groups shows that the mean of oppositional defiant disorder in experimental group (M=5/57) is lower than control group (M=12/63). Therefore, application of play therapy reduced oppositional defiant disorder in those children in experimental group compared with those in control group who did not receive play therapy.

*Question 2:* Does play therapy reduce symptoms of oppositional defiant disorder and symptoms of attention-deficit hyperactivity disorder (ADHD) in pre-school children?

**Table 1. Analysis of covariance for scores of stubbornness-disobidience disorder in 2 groups of experimental and control**

Sources of Variation	Sum of Squares	Degree of Freedom	Mean of Squares	F	P
Pre-test	34.14	1	34.14	16.92	0.001
Group	151/21	1	151.21	74.94	0.001
Error	24/21	12	2/02		
Total	157/73	14			

**Table 2. Analysis of covariance for scores of attention-deficit hyperactivity disorder (ADHD) on 2 groups of experiment and control**

Sources of Variation	Sum of squares	Degree of freedom	Mean of squares	F	P
Pre-test	184/56	1	184/56	18/57	0/001
Group	2022/93	1	2022/93	203/56	0/001
Error	129/19	13	9/94		
Total	2249/76	15			

To investigate the effect of application of play therapy on ADHD in pre-school children for fixing the effect of pre-test on 2 groups of experimental and control, statistical test of analysis of covariance was used. Results are presented in table 2.

According to the results of table 2, size of calculated F for scores of attention-deficit hyperactivity disorder (ADHD) in 2 groups of experiment and control after fixing the effect of pre-test is meaningful  $F(1,13)=203/56$ ,  $P> 0/001$ . Therefore, a meaningful difference exists between the mean of scores of post-test of attention-deficit hyperactivity disorder (ADHD) in experimental and control groups by having a fixed effect of pre-test. Comparison of adjusted means of 2 groups shows that the mean of attention-deficit hyperactivity disorder (ADHD) in experimental group ( $M=14/09$ ) is lower than control group ( $M=36/66$ ). Therefore, applying play therapy reduced attention-deficit hyperactivity disorder (ADHD) in those children in experimental group compared to those in control group who did not receive play therapy.

## Discussion

Many studies have investigated therapeutic techniques and processes on children with disorders; and the current research studied the effect of *cognitive-behavioral play therapy* (CBPT) on reduction of symptoms of disobedience disorder in children.

Recent investigations of the literature on the results of behavioral therapy techniques for children show that intermediation is effective in general. Previously mentioned conclusion is based on conforming outcomes of some ultra analysis, which are based on literature of result of treatment. Extents of effects estimated in this research are consonant and better than 75 percent of children who are not treated (28).

For children with oppositional defiant disorder, various techniques of treatment have been used. Lavinge (19) also believes that teaching social skills are effective in reducing the symptoms of this disorder. Many studies have been conducted in the field of play therapy, proving its positive effects in reduction of children's behavioral disorder.

This research demonstrates the desirable effect of cognitive-behavioral play therapy on reduction of ODD in children with oppositional defiant disorder, and it also emphasizes the effectiveness of cognitive-behavioral play therapy on reduction of emotional and

behavioral problems of these children. This research investigated and tested the 2 following hypotheses:

1) Application of play-therapy reduces the symptoms of oppositional defiant disorder in pre-school children. This hypothesis was supported by the results obtained and it was in accordance with results of previous researches.

2) Application of play therapy reduced the symptoms of attention deficit hyperactivity disorder in pre-school children. This hypothesis was confirmed by the result obtained from this research.

Generally, considering the results obtained from this research, it can be claimed that play therapy is effective in reducing oppositional defiant disorder in children. Findings of this research support that of other studies on effectiveness of play therapy in reduction of behavioral disorder in children. For example, the results of this study are in accordance with results of Jager and Ryan (21), Alizadeh (26), and Ahmadi (22). Therefore, using this technique is effective in reduction of behavioral disorders of these children.

## Limitations

Parents' cooperation in this research was very limited. As this research was conducted in kindergartens, the researcher had limitations of place and proper time to hold sessions.

Impossibility of conducting this research project for a larger sample size caused less generalizability of the obtained results for a more extended population.

## Future research

Based on research result, following suggestions are made:

1- If it is possible to have a real situation with natural environment out of kindergarten and unreal clinical situation, play therapy sessions will be held with better quality and more effective.

2- Inviting parents to cooperate actively when sessions of play therapy are held can be of special importance in persistency of treatment effects.

Replication of this research with necessary changes about children with other disorders seems beneficial.

3- It will be beneficial to have pursuing programs when sessions of play therapy are completed.

4- Performing projects from A-B-A-B type is also suggested.

5- Conducting projects to compare effectiveness of different kinds of treatment techniques for children are beneficial.

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