

Research Paper

The Effectiveness of Transactional Analysis on Parent-Child Relationship in Mothers of Children With Oppositional Defiant Disorder



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ABSTRACT

Background: Oppositional Defiant Disorder (ODD) is one of the behavioral disorders that cause significant clinical disorder in a person's academic, social, and occupational functioning.

Objectives: The aim of this study was to investigate the effectiveness of Transactional Analysis (TA) for behavior training on parent-child relationships in mothers with children suffering from defiant disobedience in Isfahan City, Iran.

Materials and Methods: The present quasi-experimental study used a pre-test-post-test design with the experimental and control groups. The statistical population of this study included all mothers of children with the ODD and their children in Isfahan in 2017. The multistage cluster sampling method was used in this research. Thirty students, whose scores in the child symptom inventory-4 were high and had ODD symptoms, were randomly selected; 15 individuals were assigned to the experimental group and 15 individuals to the control group. Then, the mothers of the experimental group underwent 8 sessions of 90 minutes, each week one session, during a group training for TA. But, the control group did not receive any intervention. The research tool was Fine's parent-child relationship survey.

Results: The group TA for behavior training had a significant effect on parent-child relationships and its components ($P < 0.001$), including positive affect ($F = 22.32$, $P < 0.001$), role disturbance ($F = 11.91$, $P < 0.002$), and identity determination ($F = 9.87$, $P < 0.001$).

Conclusion: Considering that the TA for behavior training can increase the extent of interactions, it has critical developmental consequences. Therefore, it seems that in clinical situations, by doing these kinds of interventions and promoting the mental health of the parents, positive and lasting steps can be taken to eliminate or relieve children's behavioral problems.

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1. Introduction

Family is a network of communications, in which parents and children interact in a two-way process. In this community, the parties can exert tremendous effects on each other. By reflecting on the quality of parent-child relationships and scrutinizing it, one can understand the mother's critical role toward the child. In recent decades, psychologists have put much emphasis on the child's relationships with his/her caregivers, and they have cited mutual reactions as the basis for children's emotional and cognitive development. The child's personality development depends on the mother's behavior and character make-up. Opinions taken from the psychoanalytic viewpoint assume that primary interactions between a mother and a child should have a quality that is necessary for the early development of the child [1].

The presence of a child with behavioral problems and disorders, the most important and most prevalent of which is the Oppositional Defiant Disorder (ODD), in each family has affected its structure and overwhelmed the mental health of the family, especially the parents. In a family environment, a limited community, actions and reactions among members have a significant impact on increasing or decreasing the current problems. A kind of tension accompanies the birth of a child with adjustment problems in each family, and in such a situation, although all members of the family and its function are harmed, problems about taking care of the child suffering from disorder exposes parents, especially the mother, to the risk of psychological trauma [2]. Children suffering from defiant disobedience are generally incompatible and show negative behaviors. These problems have a progressive and chronic nature. Children with ODD show more positive and adamant behaviors than their peers. The particular behaviors of these children include defying, irritating, making a scene, disputing, and harassing others [3]. These behaviors reduce psychological health and the right parent-child relationship.

Also, the symptoms of ODD affect the interaction of children with their parents, as well as the way parents respond to these children because these children are talkative, pessimist, and indifferent, and have little involvement and collaboration. These children refuse to comply with rules and regulations, show extraneous behaviors such as aggression and violation of the law, are careless in carrying out their embarked work, and also face problems in doing necessary activities and having order in their everyday life [4]. Carnes-Holt believes

that parent-child interaction is the first reference to the world of child communications and is an essential and vital relationship for the creation of security and love, consisting of a combination of behaviors, emotions, and expectations that are unique to particular parents and a particular child [4]. Regarding its importance, most researchers have concluded that the family factor, especially parents' behavior during childhood, plays a vital role in the appearance of behavioral problems during childhood and adolescence [5]. Because the children are the mirror of parents, the child's behavior is a reaction to environmental factors, especially to the parent's performance [6].

The Transactional Analysis (TA) for behavior provides a systematic theory of personality and social dynamics that is the result of clinical experiences and a genuine and reasonable form of treatment that is readily understandable and applicable to the overwhelming majority of psychiatric patients [7]. In TA for behavior, the role of the environment and social communication is of prime importance. However, people are ultimately responsible for their lives and behaviors, and one must accept this responsibility and pay attention to his/her role in life more than any other factor. The interconnection analysis, in its purest form, has the ability to organize complex, confused, and distressed thoughts and feelings of a person so that he/she acquires a better understanding of himself/herself by separating and organizing his/her thoughts and feelings. Thereby, with further awareness of his/her weaknesses and strengths, he/she adopts healthy and constructive behaviors, which enables one to analyze and solve the problem in crises [8].

The various behaviors, thoughts, feelings, and emotions of man come from different parts of his personality, and the patient is one, whose states of ego have been denied or contaminated or he has had transactional conversations with others [9]. Transaction analysts believe that people can act in the "parent", "adult", and "child" manners. These modes form the behavioral structure of an individual [10]. An essential part of transaction analysis is the "inner child" that was introduced by Berne in the 1960s, and reached its peak of popularity in the 1970s and was regarded as part of the healing movement in 1980. The inner child is the same little child that the person was in the past and wished to be heeded and cared for [11]. The ability of parents to control and regulate emotions can be an essential factor in social functions, by which they can predict the behavioral problems of children. Regarding the role of TA for behavior training in personal developmental changes and the lack of research on this rubric, the aim of this

study was to determine the effectiveness of the TA for behavior training on parent-child relationships, control of anger, and anxiety in mothers with a child suffering from ODD.

2. Materials and Methods

The present quasi-experimental study used a pre-test-post-test design with the experimental and control groups. The statistical population of this study included all of the mothers of children with ODD and their children in Isfahan in 2017. The multistage cluster sampling method was used in this research. Because Isfahan has 6 educational districts, at first, regions 2 and 3 were randomly selected. Next, 10 schools from the other 3-year primary school and junior high schools were selected and, then, from these schools, 50 students with ODD were identified. Out of 50 students, 30 students were randomly assigned to the two groups, 15 in the experimental group and 15 in the control group. The inclusion criteria included having ODD, not having specific psychological illness, and not being under treatment. The exclusion criterion included dissatisfaction with a continuation of collaboration. The TA was done by Berne based on a book titled "Transactional Analysis in psychotherapy: A systematic individual and social psychiatry book" [12] (Table 1).

Child Symptom Inventory-4

The Child Symptom Inventory-4 (CSI-4) is a behavioral rating scale designed by Sprafkin and Gadow to screen behavioral and emotional disorders in children aged 5

to 12 years. CSI-4 has parent and teacher forms. The parent form has 110 questions to screen 18 behavioral and emotional disorders, and the teacher's form, which contains information about the educational environment and the child's training staff, contains 77 questions designed to screen 13 behavioral and emotional disorders. In the study of Gravison and Carlson conducted on CSI-3R, its susceptibility for the ODD, conduct disorder, and attention deficit hyperactivity disorder was 0.93, 0.93, and 0.77, respectively [14]. The content validity of the CSI-4 inventory in Mohammad Esmail's research, as well as the reliability of the parents' checklist through pre-test, was 0.90 [15].

Parent-child Relationship Questionnaire

Fine et al. developed the original version of this questionnaire to measure the relationship between parents and their children [16, 17]. This questionnaire contains 48 questions (24 questions for the relationship with the father and 24 questions for the relationship with the mother). It has 2 forms, one for measuring the relationship between the child and the mother and the other for measuring the relationship between the child and the father. Both scales are the same except that the words "father" and "mother" are changed. However, various factors are evident in father and mother forms. The total score is the sum of the means of subscales. Esmaeili and Eskandari [18] found that Cronbach's alpha was 0.50-0.89 for the subscales of the father. The alpha was -0.92 and the alpha coefficient was 0.66-0.82 for maternal subscales and Cronbach's alpha for the whole scale was 0.87. The parent-child interaction scale with Cronbach

Table 1. Contents of the training sessions of the experimental group

Sessions	Descriptions
1	Familiarizing learners with each other, group rules, goals of the basic definition, and initial functional analysis and assignment.
2	Familiarizing the members with the structural and functional problems of the personality (rejection, pollution, and disturbance) and the stabilization of states of ego.
3	Introducing the group to the concept of exchange and interaction, reciprocal exchange, crossover exchange, and its variants.
4	Familiarizing learners with the reinforcement of "Mature I", controlling "parent I", and "satisfying child I".
5	Familiarizing with all kinds of verbal and non-verbal strokes, positive and negative, conditional and unconditional, excellent and lousy stroke, and ways of acquiring stroke, self-stroking, and assignment.
6	Familiarizing with the concept of organizing time and its necessity, familiarizing with the drama triangle, providing a solution to break the psychological play flow, and providing an assignment.
7	Familiarizing with the root nature of the life draft, various winners, losers, non-winner drafts, and the need to adopt a healthy state in life and assignment.
8	Familiarizing with and explaining the unified adult concept and getting a post-test.

alpha coefficient from 0.89-0.94 for subscales relating to father, an alpha coefficient ranging from 0.61-0.94 for subscales relating to mother, and 0.94 for total alpha coefficient has a high internal consistency of questions.

The descriptive statistical data analysis includes Mean±SD and the interpretive statistical data Analysis includes the Analysis of Covariance (ANCOVA) test. To use the ANCOVA test, the statistical assumptions (Levene’s test and Shapiro-Wilk test) were used. The data were analyzed, using SPSS V. 23.

3. Results

The participants in both control and experimental groups were in the age range of 25-55 years. that the number of participants in between the age range of 25-

35 years was (0.86.8), between 36-45 years was (0.53.2), and between 46-55 years was (0.60). The most frequent age group in the control group was in the age range of 25-35 years, and also the most frequent age group in the experimental group was in the range of 25-35 years. In both groups, individuals in the age range of 25-35 years had the most frequency regarding age, which was 46% and 40% of the sample volume for the control and experimental groups, respectively. The academic level of participants in the two groups included elementary to university levels. The number of sample members with primary education was (0%), middle school degree (33.4%), diploma (46.6%), associate diploma (53.4%) and Bachelor’s degree and higher (%66.6). In total, 13 (43%) individuals were housewives and 17 (57%) individuals were employees.

Table 2. The Mean±SD of dependent variables in the experimental and control groups

Variables	Group	Mean±SD	
		Pre-test	Post-test
Parent-child relationships	Control	122.20±18.39	127.53±13.33
	Experimental	98.06±17.60	141.93±10.50
Positive emotions	Control	32.93±7.61	32.33±3.48
	Experimental	22.13±3.48	36.20±6.29
Role disturbance	Control	7.06±2.08	7.00±1.73
	Experimental	11.20±1.37	6.33±1.54
Identity determination	Control	14.60±3.11	15.06±2.93
	Experimental	9.46±2.97	16.13±2.94
Communications	Control	34.93±6.18	36.66±7.04
	Experimental	27.80±4.84	45.13±5.40

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Table 3. The results of the multivariate analysis of covariance for parent-child relationships

Source of Changes		Sum of Squares	Degree of Freedom	F	Sig.	Eta-Squared	Statistical Power
Parent-child relationships	Pre-test	1299.452	1	12.82	0.001	0.322	0.93
	Group	2803.654	1	27.67	0.001	0.506	0.99
Positive emotions	Pre-test	549.278	1	21.66	0.001	0.445	0.994
	Group	566.008	1	22.32	0.001	0.453	0.995
Role disturbance	Pre-test	44.015	1	13.30	0.001	0.330	0.940
	Group	39.42	1	11.91	0.002	0.306	0.914
Communications	Pre-test	501.024	1	13.39	0.001	0.453	0.995
	Group	937.567	1	41.90	0.001	0.608	1.00
Identity Determination	Pre-test	73.932	1	11.83	0.002	0.305	0.912
	Group	61.705	1	9.87	0.004	0.268	0.852

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The implementation of the ANCOVA test on the data obtained from the research requires several conditions. If one or all of these conditions are not met, the ANCOVA test cannot be used, and its equivalent nonparametric test should be used to examine the hypotheses. The establishment of 3 conditions for the implementation of the ANCOVA test was considered:

The distribution of the trait should be reasonable in the groups. The single-group Shapiro-Wilk test was used and the results showed that the significance level of this statistic was higher than 0.05. The distribution of the scores of the variables in the control group had no significant difference with normal distribution; so, the distribution of the trait was normal.

Variance homogeneity of errors of dependent variables in groups: the Levene's test was used to examine this assumption (Table 2). Based on the obtained results, the test statistics were not significant at $P \leq 0.05$. Therefore, there was no significant difference between the variance of the errors of the two groups, and the homogeneity condition of the variance of the errors was established. According to the obtained results, the F test statistic was not significant at $P \leq 0.05$. Therefore, the assumption of the equation of the regression slope was considered.

As presented in Table 3, by controlling the pre-test, there was a significant difference between subjects in the control and experimental groups in terms of the score in parent-child relationships ($F=27.75$, $P=0.001$), positive emotions ($F=22.32$, $P=0.001$), role disturbance ($F=11.91$, $P=0.001$), communications ($F=41.90$, $P=0.001$), and identity determination ($F=9.87$, $P=0.001$).

4. Discussion

The results showed that the difference in the post-test scores of the two control and experimental groups was significant on the scale of the parent-child relationship. Therefore, the training of interaction behavior analysis led to the improvement of parent-child relationships. This finding is consistent with the findings of Rinaldi and Howe [19], Morris [20], Barrow [21].

TA for behavior is one of the theories that focus on interpersonal relationships, life events, as well as the actions and reactions of individuals in communicational situations. The first goal is for the individual to achieve self-knowledge; that is, an insight, based on which he/she can explain the patterns of his/her action and behavior in different situations of life. Improving commu-

nication skills is one of the main results of achieving this insight, which has been confirmed in numerous empirical studies [22, 23].

Teaching the concepts of TA for behavior for behavior to the mothers with a disobedient child, in the simplest way, creates insight regarding the communication dynamics between family members and, in particular, mother-child communication. A mother understands herself better and sees how to interact with her disobedient child. The mother gets a better understanding of the content and purpose of any message or behavior and can identify and satisfy her child's mental needs better. The problem-solving skill of the mother and her level of tolerance increase and can exert a mature control on her behaviors and her disobedient child. Utilizing more "Mature I" capacity in self-awareness manner plays a vital role in reducing mother-child conflicts and mother-father conflicts that may directly or indirectly affect parent-child relationships [24].

TA for behavior tutorials allow the mother to know, at any time in interaction with the disobedient child, what role she plays, in which of the states of the "I" she is communicating, and which mental game or which part of the play of life she is implementing. This insight helps the mother to move from the point of view "You are not fine-I am not fine" to the insight of "You are good-I'm good" -though it is incomplete- which ultimately improves communication and improves the efficiency of the role in the family [23]. When people enter the game to get caught up in hegemony, they ignore the reality; that is, many choices that an adult has in order to make positive ways of cuddling. When a child repeatedly shows ODD, parents, in particular mothers, are forced to adopt strategies that temporarily solve the problem of the child's TA. These strategies may, in the long run, turn out to be psychological games, from which the mother benefits facing their child's disobedience behavior.

The other reasons for the effectiveness of TA for behavior on improving a parent-child relationship are the breakdown of the psychological process game that a mother may pursue about her disobedient child because of the temporary and early benefits. Therefore, breaking the flow of games, as well as failing to enter the game and adult reinforcing as an executive responsible for the personality, can cut the defective cycle of problem creation - problem solving-accumulation of the problem [24]. TA for behavior helps mothers to stop these psychological games more effectively and adopt more adaptive strategies based on communication skills, and these factors improve the parent-child relationship. Training of the TA for

behavior increases happiness and pleasure and experience of positive emotions and higher satisfaction with life. Accordingly, the correct and better analysis of the disobedient child's behaviors by the mother will cause the parent and child action to interact with the disobedient child to be under observation and adaptive control. The positive stroke between mother and child increases and the parent-child emotional accompaniment improves [25].

TA for behavior can lead the mother to recognition, and she understands that it is better to engage with the child with the adult part of her personality, and aggression and anger against the child's disobedient behaviors is a sign of the domination of the child or the blaming parent part of the personality. Therefore, this recognition encourages the mother to strengthen her mature personality and control the signs of the child and the parent and avoiding pollution, rejection, and modification of the crossover relations take a step toward achieving the "I am good-you are good" state [26]. Positive or negative feelings are hidden "I child" and children with ODD use their child's negative emotions to create a tense atmosphere and bring their parents, especially mothers, into a series of unhappy and crossover connections; these relationships originate primarily from the "blaming parent" by the mother. So, some training such as the organization of a better time, the creation of intimacy, and the natural relationship with baby, such as being happy, spending time, and recreating with family lead relationships to completeness and non-intersection and bring about pleasant common feelings. This interactive style gradually improves the family's emotional atmosphere and increases the frequency of positive emotions in the parent-child relationship [27].

TA for behavior as a method of interactive treatment, increasing awareness, and the power of individuals is to take new decisions and personal responsibility in order to change the flow of their lives. The person's personality boundaries become clear to each other and manifest the occurred contamination in each person's personality structure. This consciousness makes it possible, as individuals tend to be independence and individuality, to provide a platform for growing the independence and the perception of one's relatives (in this case, the disobedient child). Bern believes that before drafting, all children are in the state of "I am good-you are good", but after the draft of life and getting the contrary and conditional cares, the individual is placed in a situation that tries more in every manner to satisfy others, not for his sincere and hearty desire. Thus, it distances himself from the real ego and causes role disturbance in children and leads them to the "I'm not good-you're not good" state. By TA training perhaps can bring parents to breeding their mature ego

and de-pollution of the adult, and by teaching the non-conditional and positive stroke to stimulate the growth of positive thoughts in them [28].

Therefore, through this training, mothers have a better ability to communicate and reduce stress in their children, which leads to more self-esteem in children. While teaching TA for behavior to mothers, they can manage parent-child relationships better, provide a more adaptive picture of the parent-adult-child relationship, and establish a more positive emotional relationship with their disobedient child. This increases the parent-child replication among the children. The child's conscious and unconscious awareness of his role and position improves, and the disobedient child can better fulfill the duties and expectations associated with his or her role. Teaching communication skills to an individual instructs him to initiate and continue the relationship and actively listen to the words of the party in the relationship, express his/her thoughts and feelings easily, and understand the feelings of the other person. The TA for behavior familiarizes individuals with how to communicate effectively by teaching how to analyze relationships, especially the types of complementary, crossover, and latent relationships. In other words, it equips individuals with appropriate communication skills so that by recognizing states of his/her "I" and others, in particular concerning verbal and non-verbal clues, they can establish an appropriate complementary relationship [29].

Individuals with poor communication skills react sharply to others' opinions toward themselves and limitations in gaining profits for themselves. Moreover, inevitably, aggression is seen as an available strategy for these individuals. Therefore, the training and acquisition of communication skills, which play an essential role in reducing aggressive behaviors, is an integral part of the activities of TA for behavior sessions. Under the influence of the TA for behavior training and having a systematic look at the relationship, knowing the impact of the type of their relationship on their children, which can be a reason for increasing intimacy or intensifying conflicts, mothers will recognize their contribution to communication and will not recognize their child's behaviors only as a problem. Hence, with better conditions, they ignore their child's mistake or foul play. The mother will realize that in the stable condition, she is one of the effective actors in shaping the relationship and that she, consciously or unconsciously, has been involved in the initiation and continuation of the psychological games that ended in distress between the parent and the child [26]. This insight plays a useful role in changing behavior and, thus, improving the quality of the parent-child relationship. Providing positive stroke, free expression of feelings, complementary, cross-linking and

latent relationship analysis, attention to verbal and non-verbal clues regarding the child, parent rejection, avoiding blame and negative caresses, and avoiding entrance into psychological games are among skills that help mothers to establish a proper relationship with their children and even their spouses, increase satisfaction, and improve the views of individuals toward each other. The mother's "You are not good" or "I am not good" view toward her child suffering from disobedience behaviors, which results from the child's behaviors, transits to the "You're good, I'm good" view that is related to the forgiveness of the child's negative behaviors, emotional relation and proximity of family members with each other, and the improvement of the parent-child relationship [30].

The limitations of the present study include the uniqueness of the sample under study, the lack of opportunities, and the possibility of pursuing at least one month for the follow-up session. Also, the investigator himself has been the facilitator of intervention. Given the nature of interventions that have deep emotional links between facilitators (researchers) and members, these links may lead to bias in providing responses that are accepted by the researcher. It is suggested to develop a teacher-specific TA package and a TA package for students with a classmate with coping disorder behaviors. Also, the intervention on the group of fathers or a combination of the group of mothers and fathers and comparing their results with the present research are suggested. Considering the severity and frequency of coping non-obedience behaviors and child's age in the analysis and repetition in different environments and cultures are other suggestions for this study.

Considering that the TA for behavior training can increase the extent of interactions, it has essential developmental consequences. Therefore, it seems that in clinical situations, by doing these kinds of interventions and promoting the mental health of the parents, positive and lasting steps can be taken to eliminate or relieve children's behavioral problems.

Ethical Considerations

Compliance with ethical guidelines

All ethical principles were considered in this article. The participants were informed about the purpose of the research and its implementation stages and signed the informed consent. They were also assured about the confidentiality of their information; moreover, they were allowed to leave the study whenever they wish and, if desired, the results of the research would be available to them. This article was excerpted from the

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Authors' contributions

All authors contributed equally in preparing all parts of the research.

Conflict of interest

The authors declared no conflict of interest.

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