

Research Article

EFFECTIVENESS OF BEHAVIORAL PARENT TRAINING ON REDUCING EXTERNALIZING BEHAVIOR IN HYPERACTIVE CHILDREN

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ABSTRACT

The present research aims to examine effect of behavioral parent training on reducing externalizing behavior in hyperactive children. To conduct this research, 30 primary school students who have been studying at district 6 of Tehran during 2014-2015 and their mothers were selected via multistage random cluster. Mothers responded to Conners attention deficit hyperactivity questionnaires and Child Behavior Checklist and then the experimental group received behavioral parent training for twelve sessions and control group received no intervention. After ending the sessions, experimental and control groups responded to the questionnaires once more. Results of covariance analysis indicated that behavioral parent training to mothers with hyperactive children affected reducing externalizing behaviors at level (0.05).

Keywords: *Behavioral Parent Training, Externalizing Behavior, Hyperactive Children*

INTRODUCTION

Two extensive behavioral dimensions which have been obtained through factor and clustering analysis include dimensions of internalizing and externalizing behaviors (Wilmshurst, 2005). Externalizing problems include conflict with others, aggression, coping behaviors and rule breaking (Sourander & Helstela, 2005). Hyperactivity, inability to control, unreformable, social deviation, discipline problems, behavioral problems, the transition to action, anti-social behaviors, disobedience and unmanageable behaviors have been mentioned as symptoms of externalizing behaviors. When these behaviors are transformed to a permanent behavior pattern, a serious and significant damage is raised in person's daily life at home or school, or the person's behaviors cannot be suppressed by others, externalizing problems are diagnosed in three forms including attention deficit hyperactivity disorder assessment (ADHD), conduct disorder (CD) and oppositional defiant disorder (ODD) (Elizabeth William, 2005). Yet, diagnosis of internalizing disorders is destructive and aggressive, including aggressive responses that can be threatening verbally or physically (Wilmshurst, 2005).

A variety of studies indicated behavioral parent training as one of the factors contributing in preventing and treating children's behavioral disorders. Researchers have categorized parent training to two groups: behavioral and communicative. Behavioral category encompasses the interventions with behavioral approach and social learning. On the other hand, communicative category encompasses the interventions with three Adler's approach, Psychodynamics and humanistic approaches (Ismaeil Nasab *et al.*, 2010). Utilization of parenting skills training in treating oppositional defiant disorder has been confirmed in most of studies (Fossum *et al.*, 2009; Chastain & Chambers, 2007; Jalali *et al.*, 2008; Sadat Kheirieh *et al.*, 2009).

Further, most of studies have put emphasis on effectiveness of this method in treating the children with conduct disorder. According to the result of the present research, other studies have found behavioral parent training effective in reducing children's aggressive behaviors (Pearl, 2009; Davis *et al.*, 2006; Ismaeili Nasab *et al.*, 2010). With regard to results of research, in the present research the researcher seeks to give a response to this question: whether behavioral parent training to mothers reduces externalizing behavior in children with hyperactivity disorder.

Research Method

In the present research, quasi-experimental research plan named pre-test and post-test with control group has been used. Diagram of this plan has been represented below.

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Groups	Pre-Test	Independent Variable	Post-Test	R
Experimental	T1	X	T2	
Control	T1	--	T2	

Statistical Population and Sample Group

Statistical population consists of mothers of all the students who are studying in primary schools at district 6 of Tehran and diagnosed with hyperactivity disorder in the measurements made by education system. To ensure about it, Conners' attention deficit hyperactivity questionnaire was performed on mothers. Sample group consists of 30 mothers of hyperactive children selected via systematic random sampling among the checklists proposed by Learning Disorders Center and primary schools at this district and assigned to two experimental and control groups in random.

Research Instruments

Conners' attention deficit-hyperactivity questionnaire-target parents: diagnosis of children with attention deficit and hyperactivity

How to Score and Interpret

To achieve a suitable assessment in this test, it can say that mean of score equal to 1.5 or above implies attention deficit and hyperactivity. In other words, this questionnaire consists of 26 questions, thus, total score ranges from 26 to 104. If the child's score is obtained above 34, it will indicate attention deficit. The more score, the child's disorder increases and vice versa.

Reliability

Conners *et al.*, (1999) have reported reliability of this scale equal to 0.90. Validity of this questionnaire has been reported equal to 0.85 by Institute for Cognitive Science Studies (Alizadeh, 2006).

Child Behavior Checklist (CBCL)

This form of measurement is based on Steinbach's experience filled by parents based on the child's status in the past six months.

In this questionnaire, the scales have been organized based on DSM-IV-TR disorders including emotional, anxiety and physical problems, attention deficit and hyperactivity, bold contrasts and normative problems, that the first three ones develop internalizing problems and the next ones develop externalizing problems; it can obtain the scores pertaining to these two scales from sum of the symptoms which are considered in this scale.

Questions in this scale are in three items including always, often, never, in turn received scores 2, 1 and 0. Normalization of this questionnaire was made after necessary adaptations in terms of social, cultural and language aspects on Iranian sample.

Results indicated that there are satisfactory alpha coefficients ranging from 0.64 to 0.81 (Beirami, 2009). Internal consistency of this system has been satisfactory in children's emotional-behavioral problems. Further, concerning validity of test and re-test, all the Pearson correlations have been significant and all the correlations pertaining to the agreement between participants including agreement between parents, instructors, children have been significant (Minaei, 2006).

Procedure

Procedure has been in this way that 30 mothers among mothers of hyperactive children were selected as the sample group, categorized in two experimental and control groups; then Child Behavior Checklist (CBCL) was performed on them.

Behavioral parent training (BPT): parents of experimental group in a group consisting of 15 individuals received behavioral parent training during 6 weeks (2 sessions per week for 2 hours).

The sessions were organized in the stages below:

1-Introducing behavioral parent training program: in this session, objectives of session and the used method were explained to the parents and the members of group got familiar to each other.

2-Training how to make positive relationships with children: in this session, it has been discussed on how to make positive relationship and ignore negligent negative behaviors and put emphasis on positive behaviors.

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3-Training how to propose positive enhancement: using positive sentences and extrinsic enhancement against positive behaviors have been mentioned as the contents that were trained to the parents in this session.

4-Training how to use behavioral table: in this session, how to use token economy to increase positive behaviors and reduce negative behaviors was trained.

5-Training how to use punishment successfully: in this session, it has been discussed on how to deal with aggressive behaviors and the behaviors which are not reduced through ignorance.

6-Training how to employ assignments: in this session, how to use behavioral assignments in different situations under asking them properly from children and following these instructions were trained.

Table 1: Descriptive Statistics for the Components of Externalizing Behaviors between two Groups in Pre-Test and Post-Test

Variable	Situation	Experimental Group		Control Group	
		Mean	Standard Deviation	Mean	Standard Deviation
Rule-Breaking Behaviors	Pre-Test	6/80	1/65	6/80	1/72
	Post-Test	5/60	1/29	6/60	2/22
Aggressive Behaviors	Pre-Test	8/53	1/59	7/55	1/85
	Post-Test	6/80	1/52	7/40	2/52
Externalizing Behaviors	Pre-Test	12/66	1/67	11/96	1/57
	Post-Test	10/53	3/15	11/53	2/15

In table 1, scores of mean and standard deviation for experimental and control groups have been indicated that experimental group has been shown with a significant decrease in the scale of rule-breaking behaviors and aggressive behaviors in post-test than the control group.

Table 2: Results of Covariance Analysis Pertaining to the Variable of Externalizing Behaviors in Two Experimental and Control Groups

Variable	Source of Variation	Sum of Squares	Freedom Degree	Mean of Squares	F	Sig	Eta Square
Externalizing Behaviors	Pre-test	212/52	1	212/52	41/36	0/001	0/596
	Group	24/26	1	22/26	4/70	0/037	0/133
	Error	144/55	26	5/16			
	Sum	24669	30				

With regard to table 2, effect of pre-test has been significant statistically ($P < 0.05$, $F(1,26)=41.36$). In other words, post-test scores have been under influence of pre-test scores. To test effect of group or intervention (behavioral parent training program) on dependent variable (externalizing behaviors), effect of pre-test as covariate factor must be removed.

Results indicated that effect of group or intervention has been significant statically through removing covariate variable ($P < 0.05$, $F(1,26)=41.36$). Hence, it can deduce that behavioral parent-child training program has raised change in the groups. In addition, 13% of the changes in externalizing behaviors are due to the group membership.

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Table 3: Results of Covariance Analysis Pertaining to the Variable of Aggressive Behaviors in Two Experimental and Control Groups

Variable	Source of Variation	Sum of Squares	Freedom Degree	Mean of Squares	F	Sig	Eta Square
Aggressive Behaviors	Pre-test	21/68	1	21/68	10/77	0/01	0/295
	Group	16/52	1	16/52	4/21	0/039	0/117
	Error	54/31	27	2/012			
	Sum	8347	30				

With regard to table 3, effect of pre-test has been significant statistically ($P < 0.05$, $F(1,26)=10.77$). In other words, post-test scores have been under influence of pre-test scores. To test effect of group or intervention (behavioral parent training program) on dependent variable (aggressive behaviors), effect of pre-test as covariate factor must be removed. Results indicated that effect of group or intervention has been significant statically through removing covariate variable ($P < 0.05$, $F(1,26)=4.21$). Hence, it can deduce that behavioral parent-child training program has raised change in the groups. In addition, 11% of the changes in aggressive behaviors are due to the group membership.

Table 4: Results of Covariance Analysis Pertaining to the Variable of Rule-Breaking Behaviors in Two Experimental and Control Groups

Variable	Source of Variation	Sum of Squares	Freedom Degree	Mean of Squares	F	Sig	Eta Square
Rule-Breaking Behaviors	Pre-test	24/19	1	24/192	6/02	0/025	0/173
	Group	24/60	1	24/60	4/13	0/042	0/111
	Error	108/34	27	4/013			
	Sum	7186	30				

With regard to table 4, effect of pre-test has been significant statistically ($P < 0.05$, $F(1,26)=6.02$). In other words, post-test scores have been under influence of pre-test scores. To test effect of group or intervention (behavioral parent training program) on dependent variable (rule-breaking behaviors), effect of pre-test as covariate factor must be removed. Results indicated that effect of group or intervention has been significant statically through removing covariate variable ($P < 0.05$, $F(1,26)=4.13$). Hence, it can deduce that behavioral parent-child training program has raised change in the groups. In addition, 11% of the changes in rule-breaking behaviors are due to the group membership.

RESULTS AND DISCUSSION

Discussion and Conclusion

Results indicated that behavioral parent training program affects reducing externalizing behaviors of hyperactive children and their mothers. This result is consistent with the results of research below. A variety of factors have contributed in development of externalizing behaviors during childhood (Deater-Deckard *et al.*, 1998). Parenting style has been mentioned as one of the important factors contributed in children's behavioral problems (Campbell, 1995). A large body of research has shown that parenting linked with much violence (Baumrind *et al.*, 2010), domestic violence (Renner, 2012), parental depression (O'Connell *et al.*, 2012), instability in the rules of maternal parenting, children's perception from dissimilarity in parenting styles (Berkien *et al.*, 2012), mother's psychological inhibition (Taylor *et al.*, 2012; McLoyd *et al.*, 2008), use of punishment (Mahan *et al.*, 2012) associate to externalizing behaviors. Costin *et al.*, (2004) have reported prevalence of externalizing behavior among the clients referred to clinics over 50%. Further, Najafri *et al.*, (2009) in their research on 1300 girl and boy students across Shiraz reported prevalence of behavioral disorders including attention deficit hyperactivity disorder assessment (ADHD), conduct disorder (CD) and oppositional defiant disorder (ODD) about

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17.5%. Hashemi (2012) indicated that training play therapy based on parent-child relationship to mothers causes reducing their children's behavioral problems and increasing parental acceptance. Further, research by Mostafavi (2009) indicates that training play therapy based on parent-child relationship to mothers causes reducing children's behavioral problems and parenting stress. Children influence family and undergo influence of family. In the early years of life, the child's experiences from the outside world are made in the family. Children learn the points about the outside world, relationship with others and social life firstly in family. Hence, family's performance will largely influence the child's growth. The parent-child relationship is the one of fundamental aspects of the family's influence. The early poor relationship, abandonment, aggressive parents and frequent changes by caretakers raise the children's mental problems (Mozaffari, 2013).

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