

## Effectiveness of Parent Management Training in Addressing Externalizing Problems Among 6–8-year-old Female Students

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### Abstract

This study aimed to investigate the effectiveness of parent management training (PMT) in addressing externalizing problems among 6–8-year-old girl students. This quasi-experimental study, conducted in 2015, involved pretest-posttest and control groups that comprised mothers (primary caregivers) of pre-school and first-grade students in Tehran's District 5 schools. Thirty mothers were randomly selected among those whose children suffer from externalizing disorders, as determined and confirmed with the Child Behavior Checklist and the Teacher Report Form, respectively. The participants were then divided into two groups: an experimental group (n=15) and a control group (n=15). The experimental group received parent behavioral management instruction in eight 120-minute sessions for two months. The externalizing problems decreased after the treatment, and the results were evaluated by covariance analysis. Results indicated a significant difference between the experimental and control groups after training, with the former reporting a significant decrease in externalizing problems ( $P < 0.01$ ). Mean and SD in pretest and post-test of the control group was 14(2.82) and 15.33(2.4). Furthermore, the mean and SD in the pretest and post-test of the experimental group were 14.66(4.7) and 9.7(6.58). The findings confirmed that PMT influences and decreases children's externalizing disorders.

**Keywords:** Parent Management Training, Externalizing Disorders

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### Introduction

In today's world, parents face countless challenges in raising their children. The age of technology, which has increased access to information and power for all, has made traditional parental management, which is based on controlling information and power, difficult [1]. Concern about children's behavior and how to deal with them is the most common source of stress for today's parents. Also, the feeling of helplessness and hopelessness experienced by parents is due to the readiness of some of them to adapt to the new situation. However, having a child

is a potentially enjoyable experience and often the choice of the parents themselves. It is estimated that in the first 12 years of life, one in five children experiences behavioral and emotional problems, acute problems that require the help of professionals. However, only a minimal number of these children receive assistance [2].

In fact, successful parents in today's world are those who have adapted better to changing their role from the position of family leader to becoming a facilitator of raising children. However, most parents take

this path without the necessary training and preparation and learn through trial and error. On the other hand, it cannot be claimed that just one way exists to raise children and that each parent has the right to reinforce his or her desirable values, skills, and behaviors in his or her child and deal with undesirable. In this way, some parents sometimes make the mistake of thinking that proper upbringing means domination and the presence of the child in all aspects of life while raising children will be easier in a situation where the peace and personal needs of parents are better. Provide and effectively manage life stresses. Providing a safe, engaging, and enabling learning environment in such situations helps children's productive development. Another critical point is establishing discipline at home that gives stability and order to the family environment because of decisive and effective discipline amid realistic expectations. The primary hypothesis about parent-child relationships is that although children play a role in creating their problems and are responsible for most of the problems in parent-child relationships, they are still the best parents to help the child and can be substantial. Change the relationship. In fact, studies show that child-centered interventions in which the parent role is active are more effective than interventions that focus solely on the child. Therefore, in families with behavioral problems, parents need to be actively involved in improving the situation. Children with behavioral disorders create many challenges for their parents. These children exhibit behaviors that negatively affect those around them (parents, friends,

and teachers), and their unpleasant reactions to their behaviors reciprocate [3].

In 1990, Ingram attributed the group's increased focus to the outsourced group. People with externalized problems do not have the necessary strategies to self-regulate and control their behaviors, emotions, and cognitions. To the present knowledge, externalized behavioral problems can be considered the product of the interaction of a range of biological, psychological, and social variables that act as underlying, sustaining, and accelerating factors. Although the importance of biological factors is so clear, the unfavorable factors in the family environment in the emergence, spread, persistence, or Exacerbation of externalized symptoms plays a critical role such as dysfunctional parenting styles, poor parent-child relationship, excessive negativity, and lack of social skills [3]. Children with externalization problems have aggressive behaviors that lead to their exclusion from the peer group, and the combination of verbal problems and learning disabilities leads to poor academic performance. When such factors are accompanied by intra-family conflicts with parents and other family members, their self-esteem in these children is significantly reduced. The prognosis of these disorders is also unfavorable, and children with the disorder are at risk for other problems in the coming years, such as learning disabilities, mood disorders, anxiety, substance abuse and alcoholism, antisocial personality disorder, and juvenile delinquency. Problems in marital and work-life adjustments are other issues of this group. One of the most critical factors in the

etiology of these disorders are family variables [4].

The family is the first and most enduring factor known in most societies as the builder and foundation of the child's personality and subsequent behaviors. Even many psychologists believe that the root of many personality disorders and mental illnesses should be sought in the initial upbringing of the family [5]. Among the family members of the mother or the child's primary caregiver, the most crucial role is played in the development of the child's psychological and emotional characteristics. It is considered the center of health or illness. Given the importance of the parent-child relationship in the emergence of children's behavioral problems, parental education is one of the most common treatments for these disorders [6].

Parental Behavior Management is a reference for parents who want to get practical information on how to make healthy adjustments in their children and tips for solving common behavioral and developmental problems in children. Parent management training (PMT) is a solution to misbehaviors in children. PMT teaches parents how to increase positive interactions with their children, reduce conflict, and avoid inappropriate parenting practices. Parental management education includes positive reinforcement, discipline, non-violent regulation, adequate supervision, and problem-solving. The educational program pursues the following goals: increasing the knowledge, skills, self-efficacy, and good thinking of parents in educating their children, providing treatment through educational learning, problem-solving

through modeling, structured problem-solving therapy, expanding entertainment, safety, nurturing, and creating an environment with less conflict for children, increasing children's behavioral, intelligence, language, emotional and social efficiency through positive parenting skills [7].

Several studies have confirmed the positive effectiveness of the Parenting Program and the efficacy of the PMT Program. Bayrami showed that teaching parenting skills to mothers of boys with externalizing disorders, including parent training in maternal education and improving the mental health of mothers with disabled children, effectively addresses externalization [8]. Research has also been directed toward the effectiveness of positive parenting education in enhancing the psychological health of mothers with children who suffer from the oppositional defiant disorder. Jalali et al. demonstrated that, teaching positive parenting reduces ineffective parenting styles by mothers of oppositional defiant disorder [9]. Ghanbari et al. also examined the effectiveness of behavioral parent training in reducing externalizing problems. In the study, 60 parents with 7–9-year-old children earned the highest scores in the Child Behavior Checklist (CBCL); the existence of the disorders was also confirmed by the Teacher Report Form (TRF) (e.g., in the Choice section of the form). The parents were divided into two groups (experimental and control) of 30 individuals. The experimental group was classified into two subgroups of 15 individuals and provided parental behavior training for four weeks at two 2-

hour sessions per week. At the end of the training, the experimental groups reported a more significant reduction in overall externalizing problems and aggressive behaviors than in the control group. However, the two groups did not differ in terms of law-breaking behaviors [10]. Azarakhsh delved into the effectiveness of the PMT method proposed by Saunders in reducing aggression among elementary school boys. The study, which involved 40 mothers of 7–11-year-old boys, showed that the adopted PMT method reduced aggressive behaviors among the children [11]. Foote et al. examined the effects of parenting on children with behavioral problems. The authors taught the participating parents how to create warm and intimate relationships with their children, express admiration for good behavior, and ignore undesirable conduct. The results indicated a significant reduction in the behavioral problems of the children [12]. Costin and Chambers also used PMT as a treatment for children with oppositional defiant disorder. The sample consisted of 94 Australian parents, who were provided eight sessions of management instruction. The parents were again instructed in the period after treatment (10 months) [13]. The results revealed clinical efficacy and statistically significant reductions in the symptoms of the children. Danforth et al. discussed reducing stress, improvement in parental behavior, reduction in pain behavior (harassment of others), and reduction in kinetic aggression and hyperactivity following parental education [14].

Due to the effect of negative parent-child interactions and dysfunctional parenting

practices in causing behavioral disorders in children, there is a need to intervene to change dysfunctional parenting practices and thus reduce parental behavioral problems and thus reduce children's behavioral problems. In this regard, the present study seeks to answer whether behavioral family interventions in the manner of the Parental Behavior Management Program (PMT) can effectively solve the outsourcing problems of 6-8-year-old children in girls' schools in District 5 of Tehran?

### **Method**

This research is a quasi-experimental study with a pre-test and post-test design of two experimental and control groups and to investigate the effectiveness of parental behavioral management training on children's externalization problems.

### **Society, sample and sampling method**

The study population included children aged 6 to 8 years old in girls' schools in District 5 of Tehran. Sampling was done by random assignment. Externalization) It was announced that parents were invited to participate in a workshop on coping skills training for children with aggression and law-breaking problems (parental behavioral management training). Among the registrants, 40 mothers (primary caregivers) whose children scored average and above average in the pre-test (level score 60 and above) were selected. Then, to confirm the mothers' opinion, the teacher report form (TRF) was completed by the teacher of the relevant students. Finally, 30 mothers of children who received average and above average scores in both instruments were selected and randomly assigned to two

groups of 15 experimental and control. The sample size of 15 will give us approximately 80% power ( $\alpha = 0.05$ , two-tail) to reject the null hypothesis of zero correlation. In a two-sample testing situation with a given total sample size  $n$ , it is optimal to have equal numbers of observations from the two populations being compared (as long as the variances in the two populations are the same). The formula for sample size was as:

$$n_1 = n_2 = \frac{(S_1^2 + S_2^2)(Z_{1-\frac{\alpha}{2}} + Z_{1-\beta})^2}{(\bar{X}_1 - \bar{X}_2)^2}$$

Studies have shown that conducting training programs for parents with children who have severe psychological disorders before meeting with the parents is of little use. Thus, after the participants of the current work were selected based on questionnaire results, short separate meetings with the two groups were conducted. These meetings held a half-hour interview with the contributors to determine the psychological characteristics of the children, the mothers' parenting styles, family characteristics, couple relationships, school performance of the children, and the presence of acute psychological problems in the primary caregivers. The experimental group received eight sessions of two-hour training, whereas the control group received no such intervention. After the eighth meeting with the groups, the TRF was administered to the teachers of the students. An intensive teaching session with the control group was executed to conform to the ethical requirements for the research.

## Tools

### Achenbach's Child Behavior Checklist:

The CBCL/4-16 was the first of what has become a multi-axial empirically-based set of measures for assessing children's conditions based on the parent, teacher, and self-reports. In 1991, the CBCL/4-16 was revised to include children up to 18 years old and renamed the CBCL/4-18, with eight cross-informant constructs identified to directly compare problem behavior scores in the CBCL TRF and the Youth Self-Report Form (YSR)[15]. These three instruments measure the following constructs or syndromes: social withdrawal, somatic complaints, anxiety/ depression, social problems, thought problems, attention problems, delinquent behavior, and aggressive behavior. However, among the three, the CBCL is the only instrument that contains a scale for sex-related problems [15].

In addition to focusing on a child's behavior as defined by one of the eight syndrome scales, the CBCL, TRF, and YSR also enable examining two broad groupings of syndromes: internalizing and externalizing problems. Internalizing problems combine social withdrawal, somatic complaints, and anxiety/depression, whereas externalizing problems are the combination of delinquent and aggressive behaviors [15]. Items were derived from research and consultation with professionals and parents, and revisions were based on the findings of numerous pilot studies. For a complete description of item derivation for the CBCL, refer to the *Manual for the Child Behavior Checklist/4-18 and 1991 Profile* [15]: The CBCL is designed to be completed

independently by a caregiver and requires fifth-grade reading ability. The questionnaire can also be administered orally by an interviewer, who then records a caregiver's answers. A respondent is asked to elaborate on several items concerning endorsed behavior to avoid improper scoring. The construct validity and content of the two Iranians in the validation of the questionnaire were approved.

Each questionnaire has 113 questions, to which respondents provide answers ranging from 0 to 2 (0 = completely, 1 = usually, 2 = never). In this study, externalizing problems, which cover behavior and aggressive behavior, is related to law violations. For externalizing behaviors and aggression, scores and subscales that are lower than 60 (which do not conform to the normal, average, or marginal range of 60 to 63) and scores and subscales higher than 63 indicate impairment. The first part of the CBCL, which is related to evaluating children's competence and adaptive functioning, was removed. This study focused only on the second part, which revolves around children's externalizing problems and checking aggressive behaviors and law violations. Minaeiet al. obtained 0.94 for the validity of the total Achenbach's Child Behavior Checklist [16]. Habibi measured the reliability of Achenbach's Child Behavior Checklist with the help of Cronbach's alpha in identical twins 0.94, heterogeneous twins 0.90 and the total sample 0.93, and the reliability of the two halves in identical twins 0.91, in non-identical twins 0.86 and the whole sample 0.89. Cronbach's alpha in the present study was 0.85 [17].

Ethical issues in the study were: Privacy and confidentiality have been described to all participants. The participant did not pay any cost for this research and training. No population of people was excluded from research or unfairly burdened unless there is an overwhelming reason. Sufficient reasons for the necessity of this study have been presented. Participants for participation or leaving their cooperation in the study were accessible at any time without obligation. The researchers and experts held the training.

### **Procedure**

The intervention carried out in this research was based on a positive parenting program (Triple-P), a multi-level program based on preventive orientation and strategies that support families; this was created by Saunders et al. [18].

*The following procedures were implemented in the group meetings:*

1. The children were matched in terms of diagnosis.
  2. The children were homogeneous in terms of gender and socio-economic status.
  3. To facilitate communication among the participants, they were asked to sit in circles.
  4. All the meetings lasted for a short period, and the discussed issues were considered in concluding.
  5. As much as possible, a relaxed, convenient, and flexible environment was created for the participants.
  6. Necessary supplies, such as pencils, paper, and drinking water, were provided.
- In these meetings, eight principles were followed to work with parents:

- Success

- Observe the order and sequence of skills
- Observe the general principles of skills
- Supporting and encouraging parenting efforts
- Provide Various Examples
- Practice
- Feedback
- Review

**First Session** (introduction, behavioral problems, and positive interaction): In this session, the participants acquainted themselves with one another after they familiarized themselves with the objectives and content of the program. Laws were discussed, and behavioral problems were described. The parents were encouraged to view and track their children's behaviors and change such conduct.

**Second Session** (admiration and positive attention): The parents were taught strategies for increasing positive behaviors, such as praise and descriptive or verbal encouragement. They were also instructed on when and how to apply the strategies tackled in this Session.

**Third Session** (rewarding, behavioral chart, and modeling): This Session was devoted to teaching new behaviors and skills to the children. The parents were taught strategies, such as giving rewards and prizes, charting, and role modeling. The parents were given guidelines on how to carry out modeling.

**Fourth Session** (ignoring negative behavior): This Session was spent discussing the negative consequences of corporal punishment and instructing the parents on how to teach children strategies for dealing with problems. One of the

strategies taught was ignoring negative behavior.

**Fifth Session** (ordering and eye contact): This meeting revolved around techniques for dealing with child abuse and maintaining eye contact in issuing orders.

**Sixth Session** (logical outcome techniques, prevention, imposing fines on back talk, rewarding good behavior): This session centered on advanced forms of alternative punishment, including the exclusion and withdrawal of rewards and penalties, to effectively address unfit parenting.

**Seventh Session** (time out): In this session, the parents were taught quiet time techniques, after which the techniques discussed in the previous sessions were reinforced. Such reinforcement was conducted because for every problem behavior, there is an appropriate technique for resolution.

**Eighth Session** (pre-planning): In this meeting, the parents were taught to identify high-risk situations on the basis of the techniques and management strategies introduced during the previous meetings. The parents were taught how to plan activities in high-risk situations at home and beyond this setting. This session was also intended to provide guidance on the survival of the mothers' families.

The principles and activities implemented in these meetings were as follows: (1) celebrating success, (2) observing the sequencing of skills, (3) adhering to the principles of general skills, (4) supporting and encouraging the efforts of parents, (5) providing various examples, (6) engaging in the practice, (7) providing feedback, and (8) reviewing the lessons learned.

In general, the PMT began with creating a comfortable environment for the mothers in every meeting, followed by expressed inquiries into the main issues they have questions about or view as problems. These issues are then put forward, and the mothers are asked to reconstruct how they deal with the problems. A therapist and the participants engage in debate regarding the issues identified. Then a summary of the training session and the duties required of them were presented to the participants. They were also given exercises to complete at home. At the beginning of each session,

### Findings

**Table 1.** Frequency distribution according to characteristics

Groups	Level of the formal education	Frequency	Percentage
Experimental group	Literacy	2	13.3
	Diploma	3	20
	Associate's degree	5	33.3
	B.A.	5	33.3
	Total	15	100
Control group	Literacy	1	6.6
	Diploma	8	53.3
	Associate's degree	1	6.6
	B.A.	5	33.3
	Total	15	100

As shown in Table 1, the same number of participants was assigned to each group (n=15), and no significant differences were found in the mothers' levels of formal education and children's ages. The two groups' pre-test and post-test mean scores were compared by statistical covariance analysis to determine the influence of Triple P on the children's externalizing problems. The results showed that the mean scores(SD) for externalizing problems of the control group (i.e., no training in the pre-test

the participants were asked to review the lessons learned in previous sessions. The homework provided, the problems encountered in the implementation of the assigned activities, and the potential problems and questions for new topics were discussed.

The collected data were analyzed using SPSS. The covariance analysis also examined the descriptive statistics in relation to frequency, the mean and standard deviations of the data, and inferential statistics.

and post-test) were 14.46 (7.2) (pre-test) and 17.33(9.9) (post-test), and those of the experimental group (i.e., with training in the pre-test and post-test) were 14 (4.1)(pre-test) and 8.9(2.6) (post-test). The mean score(SD) for law violations of the control group was 3.7(2.02), and that of the experimental group was 3.33(1.95).

The experimental group had mean scores (SD) 2.86 (1.8) (pre-test) and 2(1.13) (post-test) for aggressive behavior, whereas the control group achieved mean scores (SD)of

10.46 (6.2) (pre-test) and 11.66(5.6) (post-test). The mean scores(SD) of the experimental and control groups were 11.2(2.92) and 7(5.6), respectively.

**Statistical indicators in the TRF**

As indicated in the TRF results, the mean scores(SD) of the control group for externalizing problems were 14(2.82) (pre-test) and 15.33 (2.4)(post-test), whereas those of the experimental group were 14.66 (4.7)(pre-test) and 9.7(6.58) (post-test). The

mean scores (SD)of the control group for law violations were 4.73 (2.18)(pre-test) and 5(1.73)( post-test). The mean scores (SD) of the experimental group for law violations were 4.46 (1.8)(pre-test) and 2.66(1.46) (post-test). The mean scores (SD) of the experimental group for aggressive behavior were 10.2(5.1) (pre-test) and 6.86(6.16) (post-test), and those of the controls were 10.4(3.9) (pre-test) and 10.9(2.49) (post-test).

**Table 2.** Results of the Kolmogorov–Smirnov test and Levene Test for evaluating assumptions on homogeneity of variance

Variable	F	Df1	Df2	P	K	P
Externalizing problems	2.7	1	28	0.151	1.3	0.064
Law Shattering behavior	3.06	1	28	0.091	0.854	0.459
Aggressive behavior	0.456	1	28	0.953	0.983	0.289

The data in Table 2 show that the calculated variables are smaller than the F value in the table. Therefore, the null hypothesis on the homogeneity of variances is confirmed. The table also shows the results of the Kolmogorov–Smirnov test for the normality of distribution. As can be seen, the value of this statistic was non-significant. The assumption of the normal distribution is satisfied.

Assumptions of ANCOVA were as follow:

The covariate was independent of the treatment effects (i.e., the covariant and independent variables were independent.

The relationship between the dependent variable (y) and the covariate (x) was linear for the independent variable.

The lines expressing these linear relationships were all parallel (homogeneity of regression slopes).

The slopes of the different regression lines were equivalent, i.e., regression lines were parallel among groups.

**Table 3.**Results of covariance analysis

Source	Sum of squares	Df	Mean of squares	F	P	Effect size	Test power
Training course	325.77	1	325.77	12.98	0.001	0.325	0.935
Error	677.33	27	25.08	-	-	-	-
total	5409	30					

The results in Table 3 showed that F=12.98 is higher than the F value in Table 2, with df(1,27) and at 0.01 level of significance. So with 99% confidence level, PMT decreased the externalizing problems of the 6–8-year-old girl students of the District 5 schools in Tehran city.

**Table 4.** Analysis of covariance

Source	Sum of square	Df	Mean of square	F	P	Effect size	Test power
training course	11.85	1	11.85	4.5	0.04	0.142	0.534
Error	71.06	27	2.63				
Total	298	30					

Table 4 shows the F(4.5) value with df(1,27) and significance level higher than 0.01. So with 99% confidence level, PMT could reduce the tendency of the children to violate the law. The mean results indicated that the mean of behavior after training significantly decreased compared with the mean behavior before training 2.86.

**Table 5.** Analysis of covariance

Source	Sum of square	df	Mean of square	F	P	Effect size	Test power
training course	162.53	1	162.53	7.79	0.01	0.224	0.768
Error	563.31	27	20.86				
Total	3340	30					

Table 5 presents an F value of 7.79, with df(1,27) and at 0.01 level of significance so, with 99% confidence level, PMT reduced aggressive behavior in the children. The mean showed a decrease in such behavior after training compared with the behavior before training.

**Table 6.** Results of TRF covariance analysis for externalizing problems and subscale of law violations and aggressive behavior

source	Sum of squares	df	Means of squares	F	P
Externalizing problems	291.6	1	291.6	29.57	0.000
law shattering behavior	35.28	1	35.28	28.78	0.001
Aggressive behavior	114.94	1	114.94	10.95	0.003

The table also shows that the F had with df(1,27) and was higher than 0.01 level of significance; therefore, with 99% confidence level, the PMT significantly reduced the externalizing problems of the girl students.

### Discussion

The findings of this study suggest that the PMT sessions reduced the children's

externalizing problems. The results also showed a decline in aggressive behaviors and law violations after the PMT. These findings align with those of previous research. Bayrami[15], for instance, concluded that behavioral training for parents and improvements to the mental health of mothers with children suffering

from externalizing disorders are practical. Jalali et al.[9] demonstrated that teaching positive parenting and addressing ineffective parenting styles through training can reduce behavioral problems in children. Azarakhsh[11] revealed that the Saunders style of PMT reduces aggressive behavior. Foote et al. [12] also indicated a significant reduction in child behavioral problems. Examination of Costing & Chambers [13] on PMT implemented for children with oppositional defiant disorder showed clinical efficacy and statistically significant reductions in children's symptoms during and after treatment (10 months). Danforth et al.[14] discussed the reduced stress, improved parental behavior, reduced pain behavior (harassment of others), and reduced kinetic aggression and hyperactivity that resulted from parental education. Given the importance of training children and addressing externalizing behaviors, step-by-step logical PMT methods should be tested to reduce further the stress experienced by children[19]. Many childhood externalizing disorders stem from factors in their natural environment, such as family factors and sources of support. Therefore, a plausible strategy is to educate individuals who spend the most time with children and exert the most significant influence on them to decrease the likelihood of inappropriate behaviors.

In explaining externalizing problems in children, Peterson & Hawley[20] stated that the cycle of coercion among parents as they deal with their children and a show of parental strength in the face of pressure develop children into dominant and stubborn individuals. The combination of coercion

and mutual pressure, which in most cases is intended to drive compliance with parents' commands, causes many externalizing problems. The sessions conducted in Peterson's work taught mothers how to reduce the likelihood that children will disobey instructions. The mothers learned about the different ways through which parents ineffectively capture children's attention. For example, when a child firmly asks for something, the mother informs the child of the consequences of such a demand. This type of behavior may result in a vicious cycle that affects the relationship between a parent and a child[21].

The tendency of children to violate laws is driven by compatibility problems and conflicts in family environments. Thus, mothers should be provided education on externalizing disorders and violation behaviors and explanations of the nature and causes of behavioral problems. They can also be educated in terms of knowledge, skills, confidence, and self-efficacy. The soundness with which parents rear their children reduces the possibility of forming false cognition about them and modifies child behavior accordingly[22]. Implementing treatment at all levels, from primary caregiver training to child development enhancement, can improve children's social sense of competence and self-control [23].

Learning how to appropriately interact with children and developing mothers' self-regulation can help parents create better relationships with their children and develop the competence and self-control of their offspring. This, in turn, helps reduce law violations among children. Parents of

externalizing disabilities typically educate their children based on unstable laws, poor skills, poor problem-solving abilities, weak accountability, and inconsistent imposition of harsh punishment. The parents of their parental discipline violent conflicts inconsistent [24]. In some cases, this increases aggressive behavior in children. Education should therefore feature modern and efficient methods of addressing dysfunctional parenting styles.

Substitution and withdrawal techniques, such as the provision of bonuses, the imposition of quiet time, and the establishment of a place for giving orders to violent reactions of parents to control children, transform children's educational environment from a harsh one to a healthier setting. At the same time, such measures are powerful tools for reducing aggressive behavior among children.

The TRF results in the current work showed improvement in the children after the training session.s Note that the TRF is an efficient and economical way of capturing a glimpse into children's academic performance and can be used to compare the reports contained in parental forms [15]. The training provided in this work may help children better adapt to their environment and find peers. A requirement is to help children realize their value and achieve self-discipline. Equally important is developing their ability to exceed their current skills, engage in consistent behaviors, and exercise independence and responsibility [23]. As a result of behavioral changes, children are expected to perform better in school.

The findings of this study resemble those derived from different cultural conditions.

Externalizing disorders are generally cross-cultural phenomena, although differences in content and cultural conditions may occur. Based on the principles of Triple P, theories that explain their role in human behavior are undeniable because the results obtained in the present research are remarkably similar to those of other studies.

### **Conclusion**

PMT exerts a significant effect on reductions in externalizing problems because it illuminates the nature and underlying causes of children's behavioral problems. It also offers solutions and sheds light on the common concerns of parents about their children's behaviors. Such training is a source of practical information on dealing with problems that usually arise when implementing proposed interventions and explaining how to implement ideas and advice. The training thus helps parents provide a safe environment for both themselves and their children and subsequently reduce externalizing problems. The YSR results in this work validate the reduction in externalizing disorders.

The irregular participation of some of the participants in the training for the experimental group may have caused error rates in a number of the sessions. Based on the results, researchers are advised to evaluate the effectiveness of PMT in addressing the externalizing problems of children belonging to other age groups. PMT should also be applied to train and increase the awareness for parents of children of all ages.

### **Contributions**

The authors had equal contributions in this study.

### Conflicts of Interest

"The authors declare that they have no competing interests."

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### References

1. Bloom Quest, Michael. L. *Adaptation Skills for Incompatible Children: A Practice Guide for Parents and Therapists*, translated by JavadAlaghandrad. (2004). Tehran, Senate Publications.
2. Sanders MR, Markie-Dadds C, Tully LA, Bor W. The triple P-positive parenting program: a comparison of enhanced, standard, and self-directed behavioral family intervention for parents of children with early onset conduct problems. *Journal of consulting and clinical psychology*. 2000 Aug;68(4):624
3. Hicks, B.M., South, S.C., Dirago, A.C., Iacono, W.G., &Mcgue, M. (2009). Environmental adversity and increasing genetic risk for externalizing disorders. *Archives of General Psychiatry*, 66 (6), 640-648 .
4. Denita, M.R., Elizabeth, C., & William, J.K. (2005). Behavioral parent training as a treatment for externalizing behaviors and disruptive behavior disorders. *School Psychology Review*, 34, 702-709 .
5. Mason, Powell Henry (1994). *Child development and personality*. Translated by MahshidYasaii (1997). Tehran: Markaz Publishing.
6. Turner, K.M.T., and Sanders, M.R. Help when it's needed first: a controlled evaluation of brief. Preventive behavioral family intervention in a primary care setting behavior therapy, 2006; 37,131-142.
7. Sanders, M.R. *Triple P-Positive Parenting Program, professional training*. The university of Queensland. 2003.
8. Bayrami M. effect of the parent management training to mothers of school-boys with externalizing disorders on their general health and parenting styles. *Journal of Fundamentals of Mental Health [The]*. 2009:105-14. [In Persian]
9. Jalali M, Pour Ahmadi E, BabapourKh, ShiariM. The effect of positive parenting program on reducing the symptoms of children with disorders of externalization, Tabriz University, 2008;15-36. [In Persian]
10. Ghanbari S. The effect of externalizing problem behavior parent training on children 7-9 years old. Master's thesis, ShahidBeheshti University.2006. [In Persian]
11. Azarakhsh S. Parent management training (PMT) Saunders on reducing aggression in children through elementary school boy. Master's thesis, AllamehTabatabaei University.2010. [In Persian]
12. Foote R, Eyberg S, Schuhmann E. Parent-child interaction approaches to the treatment of child behavior problems. In *Advances in clinical child psychology 1998* (pp. 125-151). Springer US.
13. Costin J, Chambers SM. Parent management training as a treatment for children with

- oppositional defiant disorder referred to a mental health clinic. *Clinical child psychology and psychiatry*. 2007 Oct;12(4):511-24.
14. Danforth JS, Harvey E, Ulaszek WR, McKee TE. The outcome of group parent training for families of children with attention-deficit hyperactivity disorder and defiant/aggressive behavior. *Journal of Behavior Therapy and Experimental Psychiatry*. 2006 Sep 30;37(3):188-205.
  15. Achenbach TM, Rescorla LA. Multicultural Supplement to the Manual for the ASEBA Preschool Forms & Profiles: Child Behavior Checklist for Ages 1 1/2-5, Language Development Survey, Caregiver-teacher Report Form; an Integrated System of Multi-informant Assessment. University of Vermont, research center for children youth & families; 2010.
  16. Minaei A. Reliability and Validity of behavioral code of Achenbach's Child Behavior Checklist , self-report questionnaire and teacher's report. *Exce Chi J*.2006;1(1):558-529.[In Persian].
  17. HabibiAsgharabad M, Besharat, M, Fadaei Z. Psychometric Properties of Self-Reporting Scale of Behavioral Problems of Children and Adolescents in Achenbach. *Re in Psych He*.2009;1(4):50-66. [In Persian]
  18. Sanders MR, Markie-Dadds C, Tully LA, Bor W. The triple P-positive parenting program: a comparison of enhanced, standard, and self-directed behavioral family intervention for parents of children with early onset conduct problems. *Journal of consulting and clinical psychology*. 2000 Aug;68(4):624
  19. Barlow J, Smailagic N, Huband N, Roloff V, Bennett C. Group-based parent training programmes for improving parental psychosocial health. *The Cochrane Library*. 2014.
  20. Peterson J, Hawley DR. Effects of stressors on parenting attitudes and family functioning in a primary prevention program. *Family Relations*. 1998 Jul 1:221-7.
  21. Tugade MM, Fredrickson BL. Regulation of positive emotions: Emotion regulation strategies that promote resilience. *Journal of Happiness Studies*. 2007 Sep 1;8(3):311-33.
  22. Sanders MR. Every parent: A positive guide to children's behavior. Sydney: Addison-Wesley. Sanders, MR (1999). Triple P-positive parenting program: towards an empirically validated multilevel parenting and family support strategy for the prevention of behaviour and emotional problems in children. *Clinical Child and Family Psychology Review*. 1992;2(2):7189.
  23. Sanders MR. Development, evaluation, and multinational dissemination of the Triple P-Positive Parenting Program. *Annual review of clinical psychology*. 2012 Apr 27;8:345-79.
  24. Kashikar-Zuck S, Sil S, Lynch-Jordan AM, Ting TV, Peugh J, Schikler KN, Hashkes PJ, Arnold LM, Passo M, Richards-Mauze MM, Powers SW. Changes in pain coping, catastrophizing, and coping efficacy after cognitive-behavioral therapy in children and adolescents with juvenile fibromyalgia. *The Journal of Pain*. 2013 May 31;14(5):492-501.