

Original Article

The effectiveness of good enough parenting training with schema therapy approach and positive parenting training on parental locus of control and meta-parenting in mothers of children with conduct disorder

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Abstract

The current research was conducted with the aim of comparing the effectiveness of effective parenting training with the schema therapy approach and positive parenting training on parental locus of control and meta-parenting in mothers of children with conduct disorder. The method of the current research was a quasi-experimental one with pre-test-post-test and a control group with a follow-up stage. The population included all mothers of students with behavioral problems in the second period of elementary school in Tehran in the academic year of 2020-2021. From this population, after the implementation of the Sprafkin test (the fourth edition) a sample of 60 people (three groups of 20 children's mothers, including two experimental groups and one control group) was selected using the availability sampling. They were given Sprafkin children's behavioral syndrome questionnaires and parental locus of control questionnaire by Campiz et al. The data was analyzed using repeated measures analysis of variance. The results revealed that both interventions led to a significant increase in parental locus of control and meta-parenting. Also, there was no significant difference between their effectiveness. According to the results of the present study, it is suggested that educators, therapists and psychologists design and develop therapeutic and educational interventions to support children with conduct disorders, because effective parenting can provide the possibility of better control of behavioral problems in these children.

Keywords

Effective parenting training with schema therapy approach
Positive parenting education
Parental locus of control
Meta-parenting, Mothers of children with conduct disorders

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Introduction

Conduct disorder is a serious neurodevelopmental disorder characterized by a significantly higher prevalence rate in boys than in girls. Converging evidence suggests that conduct disorder is associated with impairments in recognition, learning, and emotion regulation (Kohls, Baumann, Gundlach, Scharke, Bernhard et al., 2020), with a prevalence of approximately 3% globally (Ghandour, Sherman, Vladutiu, Ali, Lynch et al., 2019). This disorder is defined by symptoms of aggression toward people and animals, destruction of property, cheating or stealing, and law breaking, with a childhood-limited, childhood-persistent, adolescent-onset subtype (Moore, Silberg, Roberson-Nay & Mezuk, 2017) that imposes a significant burden on patients, their families, the educational system, and society, along with a high economic cost (Erskine,

Norman, Ferrari, Chan, Copeland et al., 2016). During adolescence, parental control can support or hinder the psychosocial well-being of adolescents (Pinquart, 2017). According to Amato (1990), "Parental control is reflected in the number of decisions parents make, the amount of supervision they exercise, and the number of rules they have for their children." People who have an internal locus of control have serious control over their lives and behave accordingly. They often perform at a higher level, place greater value on their own skills and achievements, and are more alert to the environmental cues they use to guide their behavior. They report less anxiety and more self-confidence, more prepared to accept responsibility for their actions (Lefcourt, 2014). People with an external locus of control believe that reinforcements are controlled by external factors, and they are powerless against external forces. As a result, they do not see any benefit in trying to improve their situation, they do not have much

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faith in the position of control over their lives in the present or the future (Ismailzadeh, 2014). Parents with an external locus of control tend to attribute their children's development to forces beyond their control, while parents with an internal locus of control attribute their children's development to the efforts of their parents. Parents who have an external locus of control attribute parenting problems and conflicts between themselves and their children to external factors and consider them beyond their control. The association between parental control and psychosocial well-being outcomes is documented very well (Yan et al., 2020). Ravi, Havewala, Kircanski, Brotman, Schneider et al. (2022) reported that there is a relationship between the locus of parental control and children's irritability behaviors. Kim and Kochanska (2021) showed that the locus of parental control is related to destructive childhood behaviors.

On the other hand, a large number of theoretical and experimental studies have tried to figure out and define parents' beliefs and attitudes on themselves and their children, however, there are still many things to be determined about the origin and consequences of parental cognition. Holden and Hawk (2003) suggest that a set of cognitions known as overparenting may be powerful predictors of changes in parenting behavior. Overparenting is defined as intentional and effortful cognitions (as opposed to automatic) in relation to child development and parenting strategies. According to Hawk et al. (2006), one of the factors related to the levels of the caregivers' thinking process is overparenting, which is related to explaining how parents think, the nature or quality of parents' social cognitions, and their levels of awareness in dealing with children's problem (Merrifield, Gamble & Yu, 2015). There are four main components of meta-parental cognition: anticipation (imagining or considering child-rearing issues before they occur), evaluation (trying to know and be aware of what is happening in the field of child-rearing), problem-solving, and reflection (parents' reevaluation of the child's behavior or the results of the parent-child interaction). According to the concepts of these four components, overparenting is, first and foremost, an internal thought process that directly leads to external manifestations in child's behavior so that mothers who have an accurate evaluation of their children's issues show a lower level of reactivity, have strong parenting, have more effective monitoring and management of their children's behavior, and have higher levels of authoritative parenting (Merrifield, Gamble & Yu, 2015). Holden et al. (2017) reported in their study that mothers who were high in meta-parenting were more reflective and used less corporal punishment and instead used non-forced discipline.

Numerous research evidence shows that one of the most important family factors in the development of behavioral problems of children with conduct disorder is parenting. Incompetent parenting leads to many problems in raising children (Kazdin, 2010). Lewis and Lewis (2008) believe that good enough parenting early intervention schema-therapy-based program can be taught to parents as a

solution to treat children's behavioral problems. It gives parents the chance to see the complexities of their personalities, life traps, and coping styles, and discover difficult and unique moments in their parenting and prevent reactions that lead to anger. It is assumed that parents should sufficiently provide their children's basic emotional needs, because if this need is not met, children are exposed to traumatic experiences and it causes the formation of active schemas or traps (De Los Reyes, Goodman, Kliewer & Reid-Quinones, 2010). The main goal of this treatment program is to raise children based on changing parents' behavior and paying full attention to children's behavioral and emotional problems. On the one hand, it is emphasized that parents pay serious attention to their children's emotional needs, including the need for relationship and acceptance, the need for healthy functioning and self-management, the need for reasonable limits, the need for realistic expectations, and the need for spiritual and social values, and on the other hand, schema domains are located that are related to basic emotional needs (Lewis & Lewis, 2008). Parenting training is such that instead of harsh punishment, it uses silence and positive reinforcement in response to child's appropriate behavior. In addition, it emphasizes coordinating parents in front of child's behavior (Deloseris et al., 2010).

Another intervention that is proposed in this field is a positive parenting program that emphasizes the role of parents and caregivers as agents of change and socialization of children (Sanders, 2008). Positive parenting provides a supportive solution for family and parenting in the field of public health. This is a multi-level strategic program about parenting with a preventive and supportive approach towards families, which includes five principles: a healthy and attractive environment, a positive learning environment, firm rules and regulations, realistic expectations, and being careful about parenting role (Sanders, 2008). In this program, parents are asked to provide other explanations for their behavior and their child's behavior, and thus their documents are targeted (Brown & Whiteside, 2008). The purpose of this program is to prevent severe developmental, emotional and behavioral problems in children through increasing knowledge, increasing skills, the ability to trust and resourcefulness of parents according to the intensity and strength of the intervention (Mehdipour, 2011). Positive parenting program is one of the effective methods in raising children and controlling aggression and childhood disorders in the form of a group behavioral intervention program in family interactions in which parents learn how to behave with their child so that they can be more effective parents and prevent child from creating or developing behavioral problems (Sanders, 2008). Wolchik, Tein, Winslow, Minney, Sandler et al. (2021) indicated that positive parenting program training reduces external problems and increases competence and better academic performance in teenagers.

In general, it can be said that negative mother-child interaction and neglect of child's needs have been identified as an important factor in the occurrence of

externalized problems such as conduct disorder (Mash & Wolf, 2015). Child-parent interaction is a complex and multidimensional phenomenon, and it is formed as a result of the interaction of several key factors, such as the attitude and degree of acceptance of parents, behavior control and management, a sense of social competence and self-control, the level of parenting knowledge and skill, self-confidence and thoughtfulness of parents in the upbringing of the child and the mother's emotional care of the child (Tajrishi, Aashouri, Afrouz, Arimandian & Ghiyari Bonab, 2015). Parents can improve their parenting quality through interaction and purposeful implementation of new strategies by adjusting behaviors and applying new behaviors. Investigating the relationship between meta-parental cognitions and other personal and relational characteristics that can affect this cognition should provide interventions aimed at improving the quality of parenting (Merrifield, 2015). Therefore, the present study was conducted with the aim of comparing the effectiveness of effective parenting training with the approach of schema therapy and positive parenting training on parental locus of control and meta-parenting of mothers of children with conduct disorder.

Method

Participants

The current study is a quasi-experimental research with a pre-test/post-test design and a control group with a follow-up stage. The population included all students with behavioral problems in the second period of elementary school in Tehran in the academic year of 2020-2021. A sample of 60 participants was selected and equally assigned to three groups (3 groups of 20 children's mothers including two experimental groups and one control group) using the availability sampling from among the mothers who had diagnostic symptoms of conduct disorder after the implementation of the CSI-4 test according to the criteria for entering the research (mothers in the age range of 25 to 45 years, the minimum education level of the cycle and that both parents are alive) and the withdrawal from the experiment (mothers not participating regularly in three sessions of the meeting process).

Instrument

Conduct disorder diagnosis questionnaire:

To measure conduct disorder symptoms, the children's behavioral symptoms questionnaire, 4th edition (SCI-4) was used. This questionnaire was prepared and adjusted based on the third statistical classification system of mental disorders and includes two scales for parents and teachers and has several forms. Its first form was published in 1984 by Sprafkin, Gadow and Grayson, and following the publication of the fourth edition of the manual for the classification of mental disorders in 1994, the CSI-4 form was revised by Sprafkin. This scale contains 112 items; the first 18 items are related to Attention Deficit Hyperactivity Disorder. Each item in

the scale has a 4-point scale (never, sometimes, often, and most of the time). Various researchers refer to this instrument as a suitable tool in identifying and screening adolescents with conduct disorders. Scoring of the CSI-4 questionnaire is based on two different methods: screening cut and scoring method. For most disorders, the screening method is used. In this method, the words "never" and "sometimes" are scored with zero, and the words "often" and "most of the time" are scored with one. Therefore, the screening method is the result of the expressions "often" and "most of the time". Then the obtained score is compared with the criterion score of this symptom, which is the source of DSM-IV diagnostic criteria. If the results are equal to or greater than the criterion score of the symptom, the screening score will be "yes", which indicates the presence of a disorder in the individual. If the results are lower than the benchmark score; the screening cutoff score is "No". The validity and reliability of this questionnaire has been examined in various studies. The reliability of the questionnaire was determined by the test creators using the split-half method for teachers' form as 0.91 and for parents' form as 0.85 and its content validity was also determined through test-retest as 0.90.

Parental Locus of Control (PLOC):

The parental locus of control scale was created by Campis, Lyman and Steven Prentice-Dunn (1986), which consists of 5 subscales and 47 items: parental influence (10 questions), parental responsibility (10 questions), children's control over parents' lives (7 questions), parents' belief in fate and luck (10 questions), and parents' control over their children's behavior (10 questions). The scoring of the questionnaire is on a five-point Likert scale. In this questionnaire, questions 1, 2, 8, 11, 12, 14, 15, 16, 17, 18, 19, 20, 22, 23, 25, 26, 38, 41 are scored in reverse. The highest score a person can get is 235 and the lowest score is 47. A score close to 235 indicates a high parental locus of control and a score close to 47 indicates a low parental locus of control. The score of each of the subscales is also calculated by summing the points of the questions of each subscale. Campis et al. (1986) confirmed in their research that the scale of parental locus of control has very good internal consistency with an alpha coefficient of 0.92 for the whole scale and an alpha coefficient for the subscales with ranges from 0.56 to 0.77. Parental locus of control scale with correlation in directional prediction with general self-efficacy questionnaire, sense of sufficiency, responsibility, strictness for child and role limitation has good construct validity.

Meta-parenting questionnaire:

This scale was developed by Hawk et al. (2006) to measure the calculated thoughts (effortful cognition) of parents and has 24 questions and 4 components including anticipation, evaluation, reflection, and problem solving. Answers are presented on a 5-point Likert scale. At the same time, to check the validity and reliability of this short form questionnaire with 16

questions based on Likert scale (1=never/rarely to 5=always), for 4 evaluation subscales (5 items on how to evaluate children's development), predictability (including 3 items related to considering previous thoughts for parenting conditions), problem-solving (5 items for problem-solving strategies and expanding them) and reflectiveness (3 items related to having concerns about children and parenting) were used. Hawk and Holden reported Cronbach's alpha of subscales from 0.64 to 0.77. In Iran, Joulaiha et al. (2015) reported the psychometric characteristics of the questionnaire as follows by performing it on 170 mothers: The KMO test was equal to 0.88 and at the optimal level, and Bartlett's test was statistically significant. The results of the factor analysis confirmed the existence of 4 factors of the items, which explained 63.38 percent of the total variance of the scale. The confirmatory factor analysis confirmed the results of the exploratory factor analysis and the obtained model fitted the research data. In this study, Cronbach's alpha was 0.80 for the parenting questionnaire. Cronbach's alpha of the components of anticipation was 0.74, evaluation was 0.55, reflection was 0.76, and problem-solving was 0.82.

Procedure

In order to implement, two districts from Tehran's educational districts and 3 boys' primary schools from each district were randomly selected in multiple stages. Then, the diagnostic questionnaire of CSI-4 was provided to the manager, assistants and consultants to identify children with diagnostic symptoms of conduct disorder. Then, the mothers of students who had diagnostic symptoms of conduct disorder were invited to the training program. The data collection was in a way that due to the Covid-19 pandemic and the

conditions of quarantine and the lack of access to the groups in person, first after coordinating and obtaining permission from the university, while justifying the participants and stating the objectives of the research, they were requested to participate in the training program online. It should be noted that written consent was received from the subjects to participate in the research. Before starting the training sessions, all three groups in the pre-test phase were tested. The questionnaires were designed in the Pressline software and provided to them online through a link.

The first experimental group participated in effective parenting sessions with a schema therapy approach (therapeutic strategies using the parenting strategies training protocol of Lewis and Lewis, 2008) and the second experimental group in positive parenting sessions (therapeutic strategies based on the positive parenting strategies training protocol of [Sanders, 2003](#)) and the control group did not receive any training.

For the first experimental group, effective parenting training sessions with the schema therapy approach were regularly held in 8 sessions twice a week and each session lasted 90 minutes (the eighth session was employed to review the sessions and practice emotion processing and examine the obstacles to change and possible measures and administer the post-test). We provide a brief description of the titles of effective parenting sessions with schema therapy approach (Table 1) and positive parenting program (Table 2).

Descriptive statistics such as mean and standard deviation of scores were used for data analysis. Inferential statistics were also used to test the hypotheses. To determine the effect of the treatment on dependent variables, repeated measures analysis of variance was used in SPSS software version 25.

Table 1. Effective parenting intervention program with schema therapy approach taken from Lewis and Lewis (2008)

First session	Getting to know the members and establishing a relationship, explaining the plan and its goals and emphasizing participation in all meetings and the pre-test, introducing effective parenting (importance of parenting, introducing four basic emotional needs)
Second session	Introducing and training on the concept of the first basic emotional need of relationship and acceptance (including defining and expressing the importance of the concept of relationship and acceptance, the domain of relationship termination and rejection as the first domain of the four domains related to schemas, explaining and expressing the importance of the concept of spending time in the sense of spending quality time considering the essential needs of each age group, empathy and validation of feelings)
Third session	Introducing and training on the concept of the second basic emotional needs of self-management and healthy performance (including the concept of self-management, healthy performance, self-esteem and motivation, the scope of self-management and investigating the causes of impaired performance)
Fourth session	Teaching the concept of the third basic emotional need of accepting reasonable limits (including the definition of reasonable limits, the scope of defective limits, things that prevent the fulfillment of the basic need of accepting reasonable limits, saving from the vortex which refers to the establishment of a solid foundation in the family and providing 10 instructions for this purpose)
Fifth session	Introducing the basic emotional need of realistic expectations (including the definition of realistic expectations and the scope of exaggerated expectations, factors affecting the weakness and strength of parents' intervention and addressing the issue of how their intervention can be a strength and weakness)
Sixth session	Moving towards a healthier outcome by introducing and teaching the basic emotional need that is the need for spiritual and social values (including providing awareness of children's views of themselves and others that are formed by explaining the three strategies of creating space at home that promotes empathy, focus on the causes and effects of parents' actions and parents being as role models, the appropriate method of correcting children's mistakes, curbing conflicts, forgiveness and compromise, communication with peers, communication with adults)

Seventh session	Repair and reconnection (including expressing the importance of being grateful and emphasizing that progress is the result of it and teaching parents how to be critical, the principles that parents should consider when there is an argument regarding issues that concern them, and forgiveness that understanding and implementing it in the family is a central part in the structure of a healthy family)
Eighth session	Reviewing sessions and practicing emotion processing (including parents' review of their reactions to their children's emotions by answering 8 questions related to this task), examining barriers of change and possible prudence, and implementing the post-test.

Table 2. Positive parenting intervention program taken from Sanders's package (2003)

First session	Introduction, explanation of disorder symptoms, types and causes of conduct disorder treatment methods, positive parenting.
Second session	Description of positive parenting (creating a safe environment, positive learning environment, self-expression, having realistic expectations, taking care of yourself as a parent) explaining children's behavioral problems with genetic causes, family, environment outside the home.
Third session	Review of the second session, strengthening the parent-child relationship by creating positive relationships with children (spending more time whether verbal or non-verbal with the child, encouraging desirable behavior, how to praise verbally, methods of teaching skills, providing suitable examples through role modeling, using accidental training, encouraging individual independence through asking, saying, doing, using behavior chart), homework (behavior chart assignment and ask, tell, do method)
Fourth session	An overview of the third session, how to deal with problematic behavior (creating a clear rule, using the ignoring method against a mild behavioral problem), in case of disobedience, using logical consequences (deprivation, silence, dismissal) instead of punishment. Homework (holding a family meeting and establishing 4-5 rules at home and dealing with children's behavior appropriately).
Fifth session	Recommendations for family survival (act as a group, not arguing, having fun and setting rules, recognizing troublesome situations, assigning homework) and behavior management in public situations. Correct communication with children, aggression and behavioral problems in controlling and managing their behavior in public situations, situations where parents predict that problems will arise, tips on parental shame in public and useful techniques to control behavior will be taught to mothers.
Sixth session	In this meeting, the way to communicate with the child and how to execute the commands will be discussed, and question and answer session will be run.
Seventh session	Reviewing the previous topics, teaching how to record the positive behaviors of the child at home and how to score these behaviors, teaching parents to plan for difficult situations, practicing and role-playing in pairs.
Eighth session	In this session, a short review of what they have learned from the whole program will be done, and then their opinion will be asked about social problems in the future and how to deal with these problems, training on how to monitor the child's behavior.

Results

A total of 60 mothers with children with conduct disorders participated in this study in three experimental and control groups of 20 participants in each. The mean

and standard deviation of the age groups of positive parenting training and effective parenting training with schema therapy approach and the control group are 38.05+9.08, 39.20+8.38 and 36.65+7.17 respectively.

Table 3. Distribution of mean and standard deviation of variables in experimental and control groups

Variables	Groups	Pre-test		Post-test		Follow-up	
		Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Parental control source	Effective parenting	128.08	8.34	142.40	11.6	145.90	8.04
	Positive parenting	128.52	7.81	137.86	12.13	139.76	11.24
	Control group	13.31	8.47	130.84	8.04	132.84	8.35
Over parenting	Effective parenting	29.75	4.05	41.75	6.77	43.00	6.61
	Positive parenting	29.14	2.92	39.29	5.05	41.00	5.21
	Control group	29.74	3.12	33.21	3.69	33.05	3.69

The results of Table 3 show the mean and standard deviation of the scores of the participants' parental and meta-parental locus of control in the pre-test, post-test and follow-up of the experimental and control groups. Before doing the analysis, its default assumptions were tested. The results showed that the assumption of equality of the regression slopes in the post-test for the variables of parental control source ($F=0.94$, $Sig=0.43$) and mothers' meta-parenting ($F=0.23$, $Sig=0.88$) was

confirmed. The results of Mbox test showed that the assumption of equality of the covariance matrices was confirmed in the post-test stage (Box's $M=17.33$, $F=1.33$, $Sig=0.19$). Levene's test showed that the assumption of variance error equality in parental locus of control variable ($F=1.79$, $Sig=0.18$) and meta-parental ($F=0.56$, $Sig=0.58$) is confirmed. The results of the analysis of variance with repeated measures are shown in the following tables.

Table 4. Determining the effect of between subjects factors in terms of parental locus of control and meta-parental control in the post-test and follow-up phases

Condition	Variable	Source of changes	Sum of squares	df	Mean of squares	F	Sig.	Partial η^2
Post-test	Parental control source	Group	1476.03	2	738.02	7.01	0.002	0.206
		Error	5685.22	54	105.282			
	Over parenting	Group	818.499	2	4109.25	19.05	0.001	0.414
		Error	1160.26	54	21.94			
		Error	1233.014	54	22.148			

The results showed that after adjusting the effect of the pre-test, the effect of effective parenting training with schema therapy approach and positive parenting program on parental locus of control and meta-parenting was significant in the post-test. The Eta coefficient

shows that 20.6% of the parental locus of control and 41.4% of meta-parenting can be explained by parenting training with the schema therapy approach and positive parenting program.

Table 5. Pairwise comparison of mean scores between experimental and control groups

Variable			Difference	Standard error	Level
Parental locus of control	Effective parenting	Positive parenting	4.74	3.28	0.46
		Control	12.17	3.33	0.001
	Positive parenting	Control	7.43	3.38	0.09
Overparenting	Effective parenting	Positive parenting	1.58	1.48	0.84
		Control	8.62	1.48	0.001
	Positive parenting	Control	7.04	1.5	0.001

The pairwise comparison of means in Table 5 shows that there is no significant difference between the two groups of effective parenting training and positive parenting training program in terms of parental locus of control variables and meta-parenting. However, there is a significant difference between the two groups of parenting training with effective and positive parenting training program and the control group in terms of the variables of parental locus of control and meta-parenting ($p=0.001$). Therefore, both interventions increased parental locus of control and meta-parenting and there is no significant difference between their effectiveness.

Discussion

This study aims to compare the effectiveness of effective parenting training with schema therapy approach and positive parenting training on parental locus of control and meta-parenting of mothers of children with conduct disorder. According to the results of the current research, effective parenting training with the schema therapy approach has a significant effect on increasing parental locus of control. So that it has increased the score of parental locus of control in the post-test and follow-up phase, which indicates the durability of this treatment. This finding is in line with the results of the studies by Delosris et al. (2010) and Ljubetic (2007). To account for this finding, it can be stated that Ljubetic (2007) defined effective parenting as a two-faceted structure including parental self-efficacy and parental satisfaction. Parental self-efficacy refers to the perceived ability of parents to successfully manage challenges related to their child's behavior and development. Self-efficacious parents believe that their

efforts to calm or discipline their child are successful (Brown, 2012). In fact, it can be said that parental self-efficacy is the perceived ability of parents to positively influence and control the child's behavior and development (Coleman & Karraker, 2003). Parent training programs usually seek to shape attitudes, beliefs and parenting methods. Intervention strategies include sharing information about children's development and parenting techniques, supporting skill building through modeling and practice, promoting self-awareness, or supporting parents' ability to solve problems.

Another result of the present study showed that effective parenting training with the schema therapy approach has a significant effect on increasing meta-parenting, so that it has increased the score of meta-parenting in the post-test and follow-up phase, which indicates the durability of this treatment. This finding is consistent with the studies of Holden et al. (2017) and Merrifield Gamble and Yu (2015). The goal of the parenting training program is to acquire knowledge and skills that improve the understanding of the attitude and behavior regarding the parent-child relationship. Parenting training causes strengthening cooperation, using problem-solving strategies, reducing conflicts, and increasing coordination in family and parenting. In general, the results showed that after the program, mothers were able to develop self-regulation ability in parenting and teach their children strategies to solve life's problems and challenges. Effective parenting training with the schema therapy approach leads to improvement of parental competence and parental behavior. Self-regulation of parenting skills is the central structure of the program. In addition to improving parenting skills, the purpose of this program is to increase parents' sense

of competence in parenting ability, reduce couples' conflict over parenting, and reduce parental stress. Another finding of the current research is that positive parenting training has a significant effect on increasing parental locus of control of mothers of children with behavioral disorders is in line with the studies of [Brown and Whiteside \(2008\)](#) and [Sanders \(2008\)](#). Mothers of this group of teenagers think that reinforcements are controlled by external factors and that they are powerless against external forces, so they see no benefit in trying to improve their situation. They do not believe in controlling their lives in the present and the future, and they tend to attribute parenting problems and conflicts between themselves and their children to external factors and consider them beyond their control. They also attribute the results and estimates of events to luck, fortune, or under the control of powerful others, or believe that events are unpredictable due to the great complexity of the environment. In this heterogeneous situation, the parents consider the child incompatible and the child does not accept the behavior of his parents and disobeys their wishes (Javani, Shariatmadar & Farrokhi, 2017). As a result, this group of parents have lower self-efficacy in controlling their children's behavior. In the positive parenting program, multi-level strategies on parenting and a preventive and supportive approach for families are presented, so that parents learn how to recognize the causes and consequences of their children's inappropriate behaviors and change them to achieve appropriate and desirable behaviors, how to reinforce appropriate behaviors and how to reduce inappropriate behaviors ([Sanders, 2005](#)). In this program, parents are asked to provide other explanations for their behavior and their child's behavior, and thus their documents are targeted ([Brown & Whiteside, 2008](#)). In other words, one of the sessions of the positive parenting program was based on creating a positive learning environment ([Sanders, 2008](#)), which included "effective communication" and "interaction". The "effective communication" session helped mothers understand and use effective communication to help teenagers express their thoughts and feelings, stimulate their minds, and communicate their parents' values and goals. A positive parenting program can improve harmony in family interaction, in this way, when parents are warm and responsive, teenagers feel accepted and comfortable to disclose information. In the "interaction" session, mothers are facilitated to understand participation in adolescent activities as a strategy to demonstrate interest and knowledge in those activities. Another finding from the analysis of the present study showed that positive parenting training has a significant effect on increasing meta-parenting, so that it has increased meta-parenting in the post-test and follow-up stage, which indicates the durability of this treatment. In line with this finding, Volchik et al. (2021) showed in their study that positive parenting training program reduces external problems and increases competence and better academic performance in adolescents. In explaining this assumption, it can be said

that one of the principles of the positive parenting program is to have realistic expectations, which was taught as "values and expectations through positive habits". This session helped mothers identify values as the base of parenting behaviors. Another principle of the positive parenting program was parental self-care, which can be identified in the "Positive parenting" and "Calm" sessions. In the "Calm" session, mothers were helped to develop stress management skills in parenting. The goal of positive parenting training is to promote family harmony and reduce parent-child conflict by helping parents to create a safe environment, foster and promote positive relationships and care of their children, and develop effective and non-violent management strategies to deal with various childhood and adolescent behavioral problems and common issues through growing up.

Another finding of the current research showed that both interventions increased parental locus of control and overparenting and there is no significant difference between their effectiveness. In explaining this finding, it can be said that both types of positive parenting training program and effective parenting training have the same effectiveness since it has caused parents to grow in awareness of how to behave with their children.

Conclusion

In general, the results from the present study showed that effective parenting training with schema therapy approach and positive parenting training has a significant effect on parental locus of control and meta-parenting. In this study, like other studies that are conducted in the field of behavioral sciences and psychology, there were limitations. Among the limitations of this research, we can point out that the research was conducted only on mothers plus the impossibility of following up the participants in different and long-term intervals. Also, the implementation of the parenting training method with the approach of schema therapy and positive parenting training was carried out by the researcher, which can cause bias in the results. Considering the importance and role of parenting with effective and positive parenting training in reducing behavioral symptoms it is suggested. Similar studies should be carried out on fathers (men) and the findings should be compared with the results of the present study. Also, long-term follow-up with a larger sample size is recommended to check the durability of effective parenting training programs and positive parenting. The implementation of educational programs by someone other than the researcher will lead to the elimination of the researcher's bias, which will make it possible to generalize the results more.

Research findings of this type help us in planning with the aim of creating and maintaining prevention systems, effective monitoring and treatment to minimize risk and maximize protective factors and lead to greater efficiency of those programs. Therefore, the design and development of therapeutic and educational

interventions to support children with behavioral disorders is suggested to educators, therapists and psychologists, because effective parenting can provide the possibility of better control of behavioral problems in these children.

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