ISSN: 2588-5715; Health Education and Health Promotion. 2020;8(1):5-11

Effect of Parents Cognitive-Behavioral Group Counseling on Learning Problems and Anxiety of ADHD Students in Primary Schools

ARTICLE INFO

Article Type
Original Research

Authors
Hamidi F.*[1] *PhD,*
Mohammadi F. [1] *MSc,*
Paidar F.[1] *MSc*

How to cite this article
Hamidi F, Mohammadi F, Paidar F. Effect of Parents Cognitive-Behavioral Group Counseling on Learning Problems and Anxiety of ADHD Students in Primary Schools. Health Education and Health Promotion. 2020;8(1):5-11.

[1]Educational Sciences Department, Shahid Rajaee Teacher Training University, Tehran, Iran

Correspondence
Address: Education Department, Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran. Postal Code: 16788-15811
Phone: +98 (21) 22970035
Fax: +98 (21) 22970035
fhamidi@sru.ac.ir

Article History
Received: February 10, 2020
Accepted: March 11, 2020
ePublished: March 18, 2020

ABSTRACT

Aims One of the most common childhood disorders that cause many problems during school years is Attention Deficit Hyperactivity Disorder (ADHD). This disorder requires counseling and treatment. Therefore, the aim of this study was to determine the effect of parents' cognitive-behavioral group counseling on learning problems and anxiety of hyperactive children in primary school.

Materials & Methods This experimental study with pretest-posttest design with control group was conducted on 60 parents of 7 to 13-year children who were referred to Counseling Center of Education Department of Ramhormoz, Khuzestan, Iran in 2017-2018 academic year. The subjects were selected by purposive sampling method and randomly assigned into two experimental (n=30) and control (N=30) groups. The ADHD of their children was assessed using Conner's Parents Rating Scale. In experimental group, 9 sessions of cognitive-behavioral group counseling were conducted; however, the control group did not receive the intervention. After the sessions, hyperactivity of children in both groups was evaluated with the Conner's Parent Parents Rating Scale. Data were analyzed by SPSS 21 using multivariate analysis of covariance (MANCOVA) and univariate analysis of covariance.

Findings By controlling the pretest effect, a significant difference was observed between the experimental and control groups in terms of learning problems ($F=177.94$; $p<0.001$) and symptoms of anxiety ($F=279.56$; $p<0.001$).

Conclusion Cognitive-behavioral group counseling for parents can reduce the symptoms of ADHD children in primary schools.

Keywords ADHD; Parents; Counseling; Cognitive Behavioral Therapy

CITATION LINKS

[1] Parent training for solo mothers of children diagnosed with attention deficit hyperactivity ... [2] Family therapy: ensuring treatment ... [3] Efficacy of methylphenidate, psychosocial treatments and their combination in ... [4] The efficacy of problem-solving communication training alone, behavior management ... [5] Rational-emotive behavioral approaches to childhood disorders: History ... [6] Comparing the effectiveness of applying behavioral modification methods by parents ... [7] Enhancements to the behavioral parent training paradigm for families of children with ... [8] 3 Steps to Conquering ... [9] Child ... [10] Attention deficit hyperactivity disorder in teens and adults: they don't all ... [11] Attention-deficit hyperactivity disorders in ... [12] P01-192-Executive function in routine childhood ADHD ... [13] Brain reward systems and compulsive drug ... [14] Attention deficit hyperactivity disorder symptoms predict nicotine dependence and ... [15] Textbook of child and adolescent ... [16] Developmental psychopathology from infancy through ... [17] Comorbidity between ADDH and learning disability: A review and report in a ... [18] A feasibility study of enhanced group triple p—positive parenting program for parents ... [19] The effects of parental ADHD symptoms on parenting ... [20] the efficacy of mothers training on reducing behavioral problem of ADHD ... [21] Investigating the effect of behavior modification methods to mothers of ... [22] Growing Up With ADHD: clinical care ... [23] The efficacy of cognitive behavioral therapy for adults with ADHD: a systematic ... [24] Detecting autism spectrum disorder in children with ADHD and ... [25] The effectiveness of mindfulness-based therapies for ADHD ... [26] Association between parenting style and socio-emotional and academic ... [27] Normative data on revised Conners parent and teacher rating ... [28] Standardization, factor analysis, and reliability of the parent's short ... [29] Prevalence of medication treatment for attention deficit–hyperactivity ...

Introduction

Attention deficit/hyperactivity disorder (ADHD) is one of the most common childhood disorders[1]. Children with this disorder continually move around without thinking. They may understand the demands and expectations of the people around, but because they are not able to pay enough attention, sit quiet and focus for a while, they do not have the ability to follow the instructions or obey their parents. According to the Diagnostic and statistical manual of mental disorders/fifth edition (DSM-5), hyperactivity and attention deficit is a behavioral and cognitive neurological condition characterized by high motor activity, inattention and impulsivity that are in an inappropriate or disordered evolutionary level. This disorder can cause serious problems for many students and effect on their cognitive, social, emotional and familial roles and also job performance and marriage in their adulthood. On the other hand, parents of children with ADHD experience excessive stress and depression, sense of limitation, frustration, low self-confidence and ability, and marital conflicts.

The family is the foundation of society, the pursuit of a healthy society depends on the health of the family which itself is hinged upon people that have mental health and good communication with each other. Considering that disorder or disease of a family member can affect the performance of others negatively, and also can be due to bad relation with others and especially parents, the presence of a problematic individual is a signal of disorder in the whole family system. Considering that family is the most important factor on children's personality development until the age of six, as less effective members compared to parents in family interactions, children are more vulnerable to be harmed through lack of healthy relationships in the family than others. The mental health of family members, especially children is formed by healthy interaction in this natural form. So, paying attention to family and trying to resolve the problems and difficulties of this institution can be promising of a valuable society[2]. In this regard, special attention to the family is particularly important in the treatment of disorders in children.

Problems may lead to low self-esteem, low tolerance for fails and frustration, depression and anger attacks. In addition, children with this disorder may suffer from moral judgment[3]. Prognosis of this disorder is unfavorable and ADHD children are at a high risk of juvenile delinquency, antisocial behavior, substance abuse and dropout and disorders such as conduct disorder, antisocial behavior, mood disorders and anxiety in long term[4].

Attention deficit is the most obvious problem of children with ADHD. Parents and teachers complain that child does not listen, does not concentrate, is easily distracted and leaves things unfinished. Barkley *et al*.[4] believe that sustained attention is the most significant problem in children. Sustained attention helps the person control other drivers and only respond to one stimulus and children with attention deficit hyperactivity disorder have difficulty in this area. Also, these children have problems with selective attention and since they are not able to control their attention, start daydreaming when doing works and assignments; this inability creates educational problems and antisocial behaviors. ADHD leads to problems in the academic, social, emotional and motor areas. Detection and early intervention can provide a good platform for the development of these children.

Although attention deficit hyperactivity disorder is generally considered to be a biological disorder, but secondary symptoms such as low tolerance for frustration, anxiety, depression, low educational achievement and interpersonal problems in this disorder can also be considered from an abiotic viewpoint[5]. Bringing up a child that has a lot of activity and excessive irritability and cannot obey and follow orders is very difficult and frustrating. For this category of children, conventional methods such as reasoning and giving awareness and blaming does not often work. For this reason, parents feel powerless and do not know what to do and may attempt to punish and ridicule the child. The incidence of these reactions by parents causes confusion and anxiety among family members[6]. In fact, because of the impulsivity and lack of attention to the consequences of their actions, their relationship is deteriorated with children and the conflict between the child and the mother increases during preschool and continues to adolescence[7]. Barkley *et al*.[4] examined the interaction of children with ADHD compared to normal children with parents and found that ADHD children receive more orders from their parents as well as blame and penalties. This approach reinforces inappropriate behavior. It is necessary to stop doing this cycle for children with this disorder. Although drug therapy is known as one of the most effective forms of short-term treatment for this disorder, but only about 75% of children with a clinical diagnosis, go under drug therapy [1]. 25% of them do not use drug therapy according to the experience of side effects from the treatment. Basically, the effects of stimulant drugs are temporary and can be seen only when the drug is taken[8].

These children have massive and widespread problems in the field of education. In fact, many of them at the very first are referred for treatment because of problems related to the school. These problems include motivational problems, academic problems, attention problems, lack of skills to respond to test questions[4]. When they become adolescent, the problems continue to persist and sometimes they face more serious problems.

Although hyperactivity and impulsivity behaviors in adolescence are reduced to some extent, but this behavior occurs at a higher level in ADHD students compared to 95% of their peers[9]. Children and adolescents with attention deficit/hyperactivity often have numerous behavioral, academic and interpersonal problems that unfortunately, they are misidentified by the thought that the disorder no more exists, and this leads to anxiety and a feeling of inner restlessness[10]. This is why the frequency of learning, mental, behavioral, personality and work problems in this group of people is more than the general population[11].

Main features of hyperactivity disorder include the inability to control behavior, attention deficit, learning disabilities, aggression, academic problems, motor restlessness and intolerable excitement for parents, teachers and peers[12]. On the other hand, the disorder disrupts the process of development of mental abilities and social-emotional skills of children, so that poor academic results are associated with low self-esteem, delinquency, depression personality disorders, alcoholism[13], substance abuse, psychosis and employment problems in these patients that are significantly higher than the general population[14].

Since hyperactive children have mobility issues, attention deficit and academic problems, their parents are violent to them, even sometimes they are severely beaten and humiliated. Parents and others try to discipline these children and control their behavior to focus on a particular topic, but it's not only ineffective, but also full of anxiety and worry, and may intrigue the child to resist others' demands and starts stubbornness and disobedience[15].

As a result of successive failures, physical punishment, parents' blame and family humiliation, self-confidence and self-esteem are reduced in these children and this would predispose them to depression. Imposing a harsh and wrong way to deal with the children, increases the risk of antisocial personality disorder in adulthood[16].

Because of the variety of problems associated with hyperactivity; of course, it is not possible that a type of treatment alone covers all the requirements for treatment of this disorder, that's why experts often adopt several treatment strategies combined together to take account for each different aspect of the psychosocial problems of child. One of the psycho-social and non-pharmaceutical interventions that is proven and documented the highest effectiveness in reducing behavioral and communication disorders in hyperactive children is parent training[17].

Different treatment methods are offered and used today for dealing with behavioral, cognitive and emotional problems of children with hyperactivity disorder. In this regard, a part of the treatment was on individual interventions and the rest was focused on family interventions; such training programs to help parents manage child's behavior include interpersonal psychotherapy for anger management, family therapy to improve communication, social skills training to increase the flexibility and frustration tolerance among peers, and cognitive-behavioral therapy to teach problem-solving and reducing negativism. These treatments increase children's awareness of the thinking patterns that stimulate and guide their behavior and teach them coping strategies.

Barkley *et al*. believe training parents increase their understanding of the nature of the disorder and raise their self-confidence and helps them to control and reduce inappropriate behaviors of their child and feel more successful in bringing up children. The therapeutic effect persists for 4 to 5 years after their training[4].

Education and counseling for parents has attracted the attention of many people because of its unique characteristics among other treatments; it is a complementary aspect of psychotherapy interventions, where the parents and other caregivers of children are taught the coping techniques for children behavioral problems at home[18]. In parents education programs the whole family and its impact on children is emphasized. The benefit of this program is to reduce children's disruptive behaviors and improving their relationship with parents, and other family members[19].

Given the high prevalence of this disorder and its associated problems for parents, children, and school, the use of this method in the treatment of behavioral problems in children with attention deficit/hyperactivity disorder is of particular importance.

Taqvaei *et al*. examined cognitive-behavioral therapy and medication to alleviate the symptoms of children with ADHD. They showed that cognitive-behavioral therapy is more effective than drug therapy[20]. Kordestani *et al*. examined the impact of behavior modification training to mothers on reduction of parenting stress and increase of behavioral and academic performance of children with ADHD[21].

Brown, in a study investigated socio-psychological treatment with parental intervention and found it effective on reducing the symptoms of anxiety and improving academic performance of children with ADHD[22]. Young *et al*. examined a combination of cognitive-behavioral therapy and parent training to reduce educational problems and aggressive behavior in 18 children with ADHD, and found that cognitive-behavioral therapy can reduce symptoms of hyperactivity. Also, symptoms decreased in the group that received parent management training, particularly in terms of anxiety[23].

Øien *et al*.'s research showed that psychotherapy has a considerable impact in reducing symptoms

related to anxiety, and hyperactivity in children and adults[24]. Cairncross and Miller conducted a research to evaluate the effectiveness of educational intervention based on mindfulness in parents of children with ADHD. The results of this study showed that parental education reduced all the symptoms of hyperactivity/attention deficit and also decreased parental stress[25].

Bhide *et al*. in a study compared the efficacy of parent training program and routine clinical treatments in reducing symptoms of anxiety and improving academic performance in hyperactive children; they concluded that parental education program in reducing anxiety symptoms of hyperactive children is more effective than conventional clinical therapies and dramatically improves the academic performance of children[26].

The abundance of studies that have been done in this area also indicates the importance of this issue. Given the high prevalence of this disorder and its associated problems for parents, children, school and community, the use of this method in the treatment of behavioral problems in ADHD children is of particular importance; so the aim of this study was to determine the effect of parents' cognitive-behavioral group counseling on learning problems and anxiety of hyperactive children in primary school.

Materials and Methods

This experimental study with pretest-posttest design with control group was conducted on parents of 7 to 13-year children who were referred to Counseling Center of Education Department of Ramhormoz, Khuzestan, Iran in 2017-2018 academic year. The subjects were selected by purposive sampling method, that way the questionnaires were administered on parents whose children were referred by schools to the counseling center and were suspected of ADHD. And among them 60 students who scored a standard deviation higher than the average in the questionnaire were selected. Then they were randomly assigned into two experimental (n=30) and control (N=30) groups.

In order to collect the required information, Conner's Parents Rating Scale was used, that has two versions, and in this study the short form with 48 items was used. This grading is filled by parents. Each question is answered by one among four answers (never, just a little, almost high and very high) and scored as 0, 1, 2 and 3. The score of each item is considered as a sign of hyperactivity. So overall high scores in sub-scales and main scale proves hyperactivity. The initial questionnaire has 93 questions that have been reduced to 48 questions after various surveys. Learning problems and anxiety are subscales of it. The questionnaire is scored manually. In each subscale as well as hyperactivity in general, having an average score of 1.5 and higher indicate hyperactivity of the child and having less than 1.5 means child is normal. Goyette *et al*.[27] calculated reliability coefficient using split-half by even and odd items division which was equal to 0.71 and its content validity was verified by neurologists and psychiatrists abroad[28]. Internal consistency of the questionnaire has been reported between 0.41 to 0.57. Reliability and validity of the questionnaire in Iran was confirmed by Shahaeian *et al*.[28]. To check the reliability, factor analysis with principal components and varimax rotation test was performed to determine the underlying structures that have produced similar results.

Cognitive-behavioral group counseling that was used in this study consisted of 9 sessions (one session per week for 90 minutes), which was applied in the experimental group. The general framework was adapted from the book "cognitive behavioral therapy" by Rena Branch[29].

The content of counseling sessions was as follows:

In first session participants were introduced and a friendly atmosphere was created and objectives and rules were determined. In the second session ABC model of cognitive behavioral therapy was taught so that team members understood how thoughts lead to feelings and ideas. The third session focused on identifying errors of thought such as catastrophic view to things, thinking nothing or everything, predictions, mind reading, emotional reasoning, exaggerated generalization, tagging, expectations, criticisms, mental filter, not tolerating discomfort and disappointment, and personalization. In the fourth session the aim was dealing with cognitive errors by inserting feelings, action and behavior and discovering the cause of feelings and thoughts, attitudes and mental mistakes. At the fifth session, healthy and unhealthy feelings were identified and attention was given to feeling and behavior, then emotional problems were specified to attempt to be solved. The sixth session started with introduction of hyperactive children and their features, and challenging the thoughts and emotions of parents towards their children. The seventh session focused on designing and implementing new behavioral experiences. Eighth session was dedicated to setting a target in terms of emotional and behavioral changes and self-motivation through recording advances. At the ninth session the main topics for strengthening new beliefs and attitudes and how to deal with doubts about the new mindset, trying a new mindset in different positions and preparation for the return of old habits and coping with them were discussed.

The analysis of data was performed by SPSS 21 statistical software. In order to analyze the data descriptive statistics of mean, variance and standard deviation were used as well as analysis of covariance in inferential statistics. In order to do analysis of covariance, at first the necessary assumptions (normality of variables, homogeneity of variance)

were addressed by kolmogorov-smirnov test and Levin's test, also the test M-box was used to check the homogeneity of variance-covariance matrix. Then multivariate analysis of covariance (MANCOVA) and univariate analysis of covariance was used to evaluate the data.

Findings

The mean scores of anxiety and learning problems in the experimental group reduced in post-test, while in the control group, the mean scores did not significantly changed (Table 1).

Table 1) The mean scores of anxiety and learning problems of two groups in pre-test and post-test

Variables	Pretest	Posttest
Anxiety		
Experimental group	17.16±2.11	9.53±1.52
Control group	17.40±2.29	17.20±2.04
Learning problems		
Experimental group	25.16±2.45	16.16±2.48
Control group	24.40±2.25	24.60±2.47

By controlling the pretest effect, a significant difference was observed between experimental and control groups in at least one of the dependent variables (F=194.78; p<0.001). Therefore, to understand the difference, univariate analysis of covariance was used. The effect of difference was equal to 0.974. In other words, 97% of individual differences in the post-test scores on hyperactivity was related to the effect of cognitive-behavioral therapy.

By controlling the pretest effect, a significant difference was observed between the experimental and control groups in terms of learning problems (F=177.94; p<0.001). In other words, according to the mean score of learning problems in the posttest of experimental group compared to the control group, cognitive-behavioral group counseling reduced the learning problems of children with attention deficit hyperactivity disorder.

By controlling the pretest effect, a significant difference was observed between the experimental and control groups in terms of symptoms of anxiety (F=279.56; p<0.001). In other words, according to the mean score of anxiety in the posttest of experimental group compared to the control group, cognitive-behavioral group counseling reduced the anxiety symptoms of children with attention deficit hyperactivity disorder.

Discussion

The aim of this study was to determine the effect of cognitive-behavioral group counseling for parents of hyperactive children on the child's anxiety and learning problems.

Results of this study indicate the efficacy of cognitive-behavioral group counseling for parents of hyperactive children on reducing child behavioral disorders in learning difficulties component. This subscale deals with issues that have a direct relationship with attention problems, encouragement and tolerance of the subject. Learning problems seen in ADHD children are among the multifactorial problems and factors such as sensory integration and the status of motor perception, cognition, attention and concentration, motivation and educational and cultural factors are involved in it.

Results confirm the efficacy of cognitive-behavioral group counseling for parents of hyperactive children on reducing child behavioral disorders in terms of anxiety symptoms. The behavioral problems of many hyperactive children are due to their different sensory properties and situation. On the other hand, most parents do not have an accurate understanding of the sensory characteristics and needs of their children and many child-related behaviors, including sensory-low, defensive or avoidant behaviors are misunderstood as stubbornness, aggression, or shyness, and other communication problems and so on. Since group counseling sessions provide solutions and information for parents, increased understanding of parents from the emotional needs of their child can be considered as a contributing factor to the improvement of their relations, enhanced mutual acceptance, and significant reduction of behavioral problems and anxiety in them.

The results of this study are consistent with previous research, including Taqvaei *et al.*[20], Kordestani *et al.*[21], Brown[22], Young *et al.*[23], Øien *et al.*[24], Cairncross and Miller[25], and Bhide *et al.*[26].

In this method, factors such as unconditional self-acceptance, flexible thinking, high tolerance of failure, the right of free choice, and strong determination are more effective in treatment.

Some experts argue that attention deficit/hyperactivity disorder manifests in social contexts and family is the first social environment for the child. This disorder is significant in a systemic context and only in such a context its causes, prognosis, process and consequences can be judged. Without taking child's interaction with the environment into account, any effort will be impossible or ineffective for these children. In this regard, parents' influences on children and the impact of children on parents and method of parental management greatly help to better understand the child and the start, process and consequences of the disorder[4].

The aim of parent training is development of certain skills by parents that are usually easy to apply on simple undesirable behaviors which are easily observed. Parents become more adept at these skills and focus on the most problematic behaviors and cover other areas as well. Another explanation can be attributed to the effectiveness of cognitive-behavioral approach that is that if people have

sufficient skills in the use of attitudes of this method, they will enjoy greater ability to overcome difficulties in different life situations, especially in relation to their hyperactive children; as a result, the mental health of family members will increase.

Though this study sought to randomly replace subjects with experimental and control groups in order to reduce interfering and confounding variable and possible biases, the most important limitation of the study was using the purposeful sampling method and absence of follow-up stage. Another limitation was limiting the samples to female students with attention deficit/hyperactivity disorder in Najafabad City, Iran. The tool used to measure the questionnaire was parents' reporting of their children's behavior, which has limitations to other methods such as interviews. In addition, this study was conducted to determine the effectiveness of parental counseling on the symptoms of hyperactivity in their elementary school children, and since the characteristics of individuals vary across age groups, they cannot be generalized to students in other levels. Given the importance of other life stages in addition to childhood, it is suggested that further research be carried out for the same life stages. It is also suggested that the effects of other methods, in comparison to parent-group cognitive-behavioral group counseling, on reducing the symptoms of overactive children.

Conclusion

Cognitive-behavioral group counseling for parents can reduce the symptoms of ADHD children in primary schools.

Acknowledgements: I would like to extend my deep gratitude and appreciation to Ramhormoz County Education and Primary School Administrators.

Ethical Permission: The Iranian registry of clinical trial (IRCT) Code was 46599.

Conflicts of Interests: The authors declare no conflict of interests.

Authors' Contribution: Hamidi F. (First Author), Methodologist/Discussion Writer (40%); Mohammadi F. (Second Author), Introduction Writer/Original Researcher (40%); Paidar F. (Third Author), Assistant Researcher/Statistical Analyst (20%)

Funding/Support: The financial source of this research has been provided by researchers.

References

1- Lees D, Ronan K. Parent training for solo mothers of children diagnosed with attention deficit hyperactivity disorder: An effectiveness and multiple baseline evaluation [Internet]. USA: The Incredible Years; 2005 [cited 2019, August 12]. Available from: https://bit.ly/2IwSae3.

2- Carlson J, Lewis J. Family therapy: ensuring treatment efficiency. Navabinejad S, translator. Tehran: Teachers and Parents Community Press; 1999. [Persian]

3- Van der Oord S, Prins PJ, Oosterlaan J, Emmelkamp PM. Efficacy of methylphenidate, psychosocial treatments and their combination in school-aged children with ADHD: a meta-analysis. Clin Psychol Rev. 2008;28(5):783-800.

4- Barkley RA, Edwards G, Laneri M, Fletcher K, Metevia L. The efficacy of problem-solving communication training alone, behavior management training alone, and their combination for parent–adolescent conflict in teenagers with ADHD and ODD. J Consult Clin Psychol. 2001;69(6):926-41.

5- Bernard ME, Ellis A, Terjesen M. Rational-emotive behavioral approaches to childhood disorders: History, theory, practice and research. In: Ellis A, Bernard ME, editors. Rational emotive behavioral approaches to childhood disorders. New York; Springer; 2006. p. 3-84.

6- Gorji Y, Seif AA, Delavar A, Karimi Y. Comparing the effectiveness of applying behavioral modification methods by parents, teachers and both on reducing ADHD symptoms in primary school students. Knowledge Res Appl Psychol. 2005;(23):1-22. [Persian]

7- Chronis AM, Chacko A, Fabiano GA, Wymbs BT, Pelham WE. Enhancements to the behavioral parent training paradigm for families of children with ADHD: Review and future directions. Clin Child Fam Psychol Rev. 2004;7(1):1-27.

8- Bennet J. 3 Steps to Conquering ADD-ADHD. Raleigh, NC: J Bennett Management: 2006.

9- Mash EJ, Barkley RA. Child psychopathology. 2nd Edition. New York: Guildford; 2003.

10- Resnick RJ. Attention deficit hyperactivity disorder in teens and adults: they don't all outgrow it. J Clin Psychol. 2005;61(5):529-33.

11- Wender EH. Attention-deficit hyperactivity disorders in adolescence. J Dev Behav Pediatr. 1995;16(3):192-5.

12- Dineen P, Fitzgerald M. P01-192-Executive function in routine childhood ADHD assessment. Eur Psychiatry. 2010;25(Suppl 1):402.

13- Kenny PJ. Brain reward systems and compulsive drug use. Trends Pharmacol Sci. 2007;28(3):135-41.

14- Fuemmeler BF, Kollins SH, McClernon FJ. Attention deficit hyperactivity disorder symptoms predict nicotine dependence and progression to regular smoking from adolescence to young adulthood. J Pediatr Psychol. 2007;32(10):1203-13.

15- Wiener JM, Dulcan MK, editors. Textbook of child and adolescent psychiatry. Washington, DC: American Psychiatric Pub.; 2004.

16- Dadsetan P. Developmental psychopathology from infancy through adulthood. 1st Edition. Tehran: SAMT Publication; 1999. [Persian]

17- Semrud-Clikeman M, Biederman J, Sprich-Buckminster S, Lehman BK, Faraone SV, Norman D. Comorbidity between ADDH and learning disability: A review and report in a clinically referred sample. J Am Acad Child Adolesc Psychiatry. 1992;31(3):439-48.

18- Hoath FE, Sanders MR. A feasibility study of enhanced group triple p—positive parenting program for parents of children with attention-deficit/hyperactivity disorder. Behav Change. 2002;19(4):191-206.

19- Friedrich A, Moning J, Weiss J, Schlarb A. The effects of parental ADHD symptoms on parenting behaviors. Health. 2017;9(7):1054-74.

20- Taqvaei M, Khaier M, Shekofit N. the efficacy of mothers training on reducing behavioral problem of ADHD kids. J Disabil stud. 2012;1(2):87-92. [Persian]

21- Kordestani D, Radmanehs H, Salari S. M, Amiri M, Farhoodi F. Investigating the effect of behavior modification methods to mothers of ADHD children on reducing behavioral stress of children. J Behav Sci. 2013;7(3):263-9. [Persian]
22- Brown TE. Growing Up With ADHD: clinical care issues. Psychiatr Times. 2016;33:1-5.
23- Young Z, Moghaddam N, Tickle A. The efficacy of cognitive behavioral therapy for adults with ADHD: a systematic review and meta-analysis of randomized controlled trials. J Atten Disord. 2016:1087054716664413.
24- Øien RA, Siper P, Kolevzon A, Grodberg D. Detecting autism spectrum disorder in children with ADHD and social disability. J Atten Disord. 2016:1087054716642518.
25- Cairncross M, Miller CJ. The effectiveness of mindfulness-based therapies for ADHD: a meta-analytic review. J Atten Disord. 2020;24(5):627-43.
26- Bhide S, Sciberras E, Anderson V, Hazell P, Nicholson JM. Association between parenting style and socio-emotional and academic functioning in children with and without ADHD: a community-based study. J Atten Disord. 2019;23(5):463-74.
27- Goyette CH, Conners CK, Ulrich RF. Normative data on revised Conners parent and teacher rating scales. J Abnorm Child Psychol. 1978;6(2):221-36.
28- Shahaeian A, Shahim S, Bashash L, Yousefi F. Standardization, factor analysis, and reliability of the parent's short version of Conners rating scale for 6-11 year old children in Shiraz. J Psychol Stud. 2007;3(3):97-120. [Persian]
29- Rowland AS, Umbach DM, Stallone L, Naftel AJ, Bohlig EM, Sandler DP. Prevalence of medication treatment for attention deficit–hyperactivity disorder among elementary school children in Johnston County, North Carolina. Am J Public Health. 2002;92(2):231-4.