The present research on children with attention deficit hyperactivity disorder in China

(overview essay)

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Abstract: *A search of articles from 1993 to 2014 was made of the CNKI (China National Knowledge Infrastructure) databases. By studying the literature it was found that until now, the articles mainly come from journals of medicine and psychology. The study of attention deficit hyperactivity disorder (ADHD) in China are mainly concentrated on medicine, diagnosis methods and psychology approaches, such as performance of behavior problems, and the interventions of parents and school. The researches from the perspective of pedagogy and sociology are less. Overall, the two attitudes on children who display ADHD exist at the same time: one is thought they are patients, and need to accept intervention therapy; another view is that overemphasis on ADHD as a disease will bring adverse effect to these children. The interventions aimed to improve the behavioral, academic, cognitive and/or social functioning of children with ADHD have obvious effects by approaches as followed: drug therapy, cognitive-behavioral therapy, parents training, traditional Chinese medicine therapy and physical activities therapy. However, at the same time, it showed that lack of the long-term intervention study. The social environment of children who display ADHD living needs further improved. We should pay more attention to the psychological development of children with ADHD from the viewpoint of people-oriented.*

Keywords: *children with ADHD, treatment, China, attention deficit/hyperactivity disorder.*

1 Introduction

Attention-deficit hyperactivity disorder is most often identified during elementary school years, and inattention becomes more prominent and impairing. Generally speaking, when people are in childhood and adolescence, the emotional and behavioral

problems are common. Children who display attention-deficit/hyperactivity disorder (ADHD) have great difficulty attending to tasks, or behave overactively and impulsively, or both (Ronald J. Comer, Abnormal Psychology: 530). Recent studies have shown that the diagnosed ratio of children who display ADHD is 1.5% to 10% in China (YU Fang, GUO Ming, YU Zhimin, & ZHANG Huakun, 2013). The Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013) represents an update on the diagnostic criteria. ADHD is listed in the newly designated section on neurodevelopmental disorders. The DSM-5 requires that "several" relevant symptoms are present before the age of 12, replacing the previous 7-years-old age of onset criterion. The very fact that neurodevelopmental disorders have been acknowledged as distinct from other diagnostic categories represents a progressive change in diagnostic conceptualization (J. Russell Ramsay, & Anthony L. Rostain, 2015). The most basic core symptoms of ADHD are mainly attention disorders, excessive activity, impulsivity and delay of gratification difficult performance in four areas (DONG Qi, 1993). ADHD is not limited to children, in young children, teenagers, and even adults we can find such a performance. Different understanding of the etiology of ADHD in different countries to determine the definition of standards also will be different. For example, many British scholars believe that children's attention deficiency symptoms is a reflection of the children's behavior disorder, thus, a higher percentage of patients in the UK diagnosed behavioral disorder of children, and less risk of ADHD children. On the contrary, the US scholars more considered that many behavioral symptoms are caused by children's lack of concentration and hyperactivity, so the ratio of children diagnosed with ADHD is higher (DONG Qi, 1993).

2 The definition and evaluation of ADHD

ADHD was once regarded as a self-limiting disease, meaning that it will go away as patients age (GAI Xiaosong, LAN Gongrui, & LIU Xiping. 2008). However, most professionals rely on the American Psychiatric Association's (APA's) Diagnostic and Statistical Manual of Mental Disorders (DSM) for the criteria that used to determine whether an individual has ADHD (Daniel P. Hallahan, & James M. Kauffman, 2005: 212). The DSM-5 represents an update on the diagnostic criteria. ADHD is a neurodevelopmental disorder defined by impairing levels of inattention, disorganization, and/or hyperactivity-impulsivity. Inattention and disorganization entail inability to stay on task, seeming not to listen, and losing materials, at levels that are inconsistent with age or developmental level. Hyperactivity-impulsivity entails overactivity, fidgeting, inability to stay seated, intruding into other people's activities, and inability to wait—symptoms that are excessive for age or developmental level. ADHD often

persists into adulthood, with resultant impairments of social, academic and occupational functioning.

The Diagnostic features referred in DSM-5 are as followed: the essential feature of attention-deficit/hyperactivity disorder (ADHD) is a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development. ADHD children have three core clinical symptoms- attention deficit, hyperactivity and impulse. So, children with ADHD can be divided into three subtypes: attention deficit, hyperactivity and impulsive, and the two symptoms combined. In China, DSM-IV standards are commonly used.

It is better to assess ADHD children by combining the physiological-psychological and behavioral assessment. GU Qun, & LIU Xiangping (2004) argued that the assessment of ADHD has always two tropisms of physiological-psychological assessment and behavioral assessment in school psychology. In the field of physiological psychology, the assessment tropism is centered in cognitive process ability. In the short term the defects of the psychological process of children with ADHD can be tested. The shortcoming is that ignores the environmental factors and cannot exclude the children with poor hands-on capability. While in the field of school psychology, the assessment tropism is environment adaptation oriented. Through behavior observation, they describe the children's attention deficit or impulsive behavior and assess them. The assessment results can effectively guide to make special education programs. The deficiency of this standard is not objective. The assessment results will be affected by the estimator's subjective bias.

3 Why we should pay attention to ADHD

ADHD should arouse people's attention, although it is so hard to pinpoint its causes. At least one-third of children with ADHD have comorbidity. YI Xiangui, SUN Wei, & YI Gezixu (2013) refers that, in general, ADHD has these comorbidities, such as: anxiety disorder, mood disorder, learning disabilities, specific sports skill developmental disorders, and speech and language development disorders.

The reason why we should pay attention to ADHD is mainly based on these aspects: firstly, more researches show that the ADHD disorder will continue to adolescence or adulthood. When the ADHD children grow up into adults, they are more likely to appear antisocial behavior and other mental health problems (JIANG Suhua, ZOU Xiaobing, TAN Weitang, MAI Zhiguang, ZHANG Hongqiao, & HUANG Niukai, 2012). ADHD not only has a financial impact, but also is associated with family stress, school disruption, and risk for criminality and substance abuse. ADHD is not only influent on children themselves, but also for their families, schools and society.

Secondly, ADHD affects children's physical and mental development. DONG Qi (1993) thinks that the effect include not only the direct impact on the development of children with ADHD, but also the impact of external adverse environment which resulted from the ADHD children's behaviors. On the one hand, children with ADHD cannot concentrate on their studies, which hinder the development of their calculation, reasoning and other cognitive thinking skills. On the other hand, children with ADHD have too many activities and strong impulse, so they often cause troublesome, disrupt orders and other acts to provoke others, which make them form poor relationships within peers, teacher-students, and parent-child. They often get negative evaluation, such as blame, curse, punishment, rejected, contempt, etc. As a result, they may gradually form a poor self-concept, produce feelings of helplessness.

Thirdly, parents reported their own stress levels as well as the severity of their children's ADHD symptoms, aggression, emotional lability, and executive functioning difficulties. Results indicated that the severity of children's hyperactivity/impulsivity symptoms but not their inattention related to parenting stress. The study further demonstrated via a multiple mediation model that the association between hyperactivity/impulsivity symptoms and parenting stress is mediated by co-morbid self-regulation deficits across behavioral (i.e., aggressive symptoms), cognitive (i.e., executive functioning), and emotional (i.e., emotional lability) domains (Paulo A. Graziano, Joseph P. McNamara, Gary R. Geffken, and Adam Reid, 2011).

4 How children with ADHD are perceived in mainland China

Ideally, the child's behavior should be observed in several environmental settings (school, home, with friends) because the symptoms of hyperactivity and inattentiveness must be present across multiple settings in order to fit the DSM criteria (Ronald J. Comer, 2012: 532). Environmental contributors include natural environment factors, such as prenatal alcohol and nicotine exposure, exposure to other environmental toxins (i.e. lead), and social and cultural environment. The environment involved in this paper mainly refers to the social and cultural environment.

When ADHD children are labeled, it is easy to be treated unfairly by society, and form a vicious circle, which will have bad influence on these children in the end. In 1995, YAN Wenwei (2006) followed up those children living in Nanshi district of Shanghai who were diagnosed as hyperactive children in 1979, and compared with the matched youth with similar area of age and gender, then he regards that despite their learning achievement is not so good, there is still a normal life and work. Thus, he argues that the ADHD children are not sick. They are part of the normal population, while that part has relatively poor self-control. He also regards that there are no "absolutely clear" boundaries between hyperactive children and not hyperactive children. He thought that good or poor performance of self-regulation was not qualitatively

different. He suggested calling them "hyperactive child", and does not advocate called them patients. Sociocultural theorists have noted that ADHD symptoms and a diagnosis of ADHD may themselves create interpersonal problems and produce additional symptoms in the child (Ronald J. Comer, 2012: 532). Here is a case:

> Xiaowen, is an 8 years old boy. He was a child with ADHD diagnosed by hospital, and his behavior disorder is moderate. One Sunday morning, Xiaowen's mother invited me to her home for lunch. When I prepared for lunch, Xiaowen suddenly ran out from his room, quickly took away the chopsticks from the dinner table that I just set, and then ran back to his room satisfied cachinnation. I ignored him for I know earlier that he is a child with ADHD. Xiaowen ran out again and pat on my back heavily then ran back to his room laughing. I feel a little angry. Xiaowen' mother yelled at Xiaowen to make him stop his mischief. Xiaowen made a face at his mom and laughed loudly. She was very angry, and caught up with him to beat him. Xiaowen ran back to his room with laughing and locked the door. His mother knocked hard at the door, shouting loudly. Xiaowen hid in his room, and his mother had to give up, leaving a word "don't come out when we have lunch".
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> Sitting at the table, Xiaowen still could not be quiet. However, his mother did not severely criticize him. Xiaowen's mother began to tell us something about her child, such as: how the teachers and his friends view him, or he is very not obedient at ordinary times, et al. I noticed that Xiaowen seems to be not happy. At the beginning, he did not seem to care. But he frowned when he saw we laughed after listening to his mother talking about him. Suddenly, he threw his chopsticks at his mother. Xiaowen's mother was enraged, rushing to him and dragging his arm to beat him. Xiaowen sobbed hysterically. We several guests felt very embarrassed. The nanny of this family said: "This kid is really not persuasible. He must be beaten." Xiaowen was crying loudly in the corner. His mother, leaving him alone, returned to the table and apologized to us. About five minutes later, Xiaowen was quiet down, and back to the table for lunch. But he was active again after keeping silence about five minutes. He ate a little then ran to his room hurriedly and ran back, again and again. I do not know what this meant. The nanny said that this happens almost every day. Xiaowen's mother often cries for the child's behaviors.
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> Xiaowen's mother told me as followed: our child is not simply hyperactive but suffering from an illness. Xiaowen is suffering from a mental illness. Our family environment is very poor. We cannot take care of Xiaowen well, because his father and I are all busy with work. In addition, the person we hired to help us looking after the child is almost an illiterate.
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> After a short silence, Xiaowen's mother said: "I really can't stand it, really can't stand. We have intended to send him away." Then she sobbed (YANG Lingyan, 2004).

4.1 At home

For ADHD children, family environment is one of the main external environments. Parents' attitudes and behaviors will bring significant effects on children's cognitive development, personality formation and behavior. Self-regulation is very important both to children with ADHD and to their parents.

The family functioning is poor in areas such as affective involvement, roles, communication, and problem solving. Parents are busy working, and ignore the ADHD children's emotions, when children lost temper, parents do not deal with them (SU Ying, 2012). YU Fang, GUO Ming, YU Zhimin, & ZHANG Huakun (2013) think that the main parental rearing appearances of children who display ADHD exist as followed: parents' refused to accept, harsh punishment, and overprotection. "Unfortunately, it can be difficult to get parents who need the most improvement in parenting skills to participate in therapy." In addition, the demands of the parenting role create stress for almost all parents (Paulo A. Graziano, et al., 2011). Xiaowen is a child with ADHD, which also gave Xiaowen's mother a certain psychological pressure. However, evidence suggests that effective treatment of the ADHD symptoms in children can improve family relations and overall family functioning (Gustafsson et al., 2008). Generally speaking, both parents and teachers pay more attention to children's academic performance in China. XU Tong, SU Yuan, YU Liping, QIAN Yan, & ZHOU Yi (1998) analyzed the psychological status of fathers and mothers in ADHD outpatient department. They found that, among 232 children, there are 59% who were suggested to see a doctor by their fathers and mothers together. It means that the other 41% whose father and mother have different opinions on their children's behaviors. However in these children the ADHD positive rate was high and they were in serious status. The poor academic performance of children with ADHD is often misunderstood not only by their parents but also their teachers.

4.2 At school

Teachers' knowledge of children with ADHD will influence their beliefs and values in subtle but multifarious ways. Most of the school-age children's time in the day is in school. So they often contact with teacher. The behaviors of children with ADHD are easier to be found by teachers. Susan Nolen-Hoeksema (2011: 301) referred that children with ADHD often do poorly in school. Because they cannot pay attention or calm their hyperactivity, they do not learn the material and perform below their intellectual capabilities. ADHD children's intelligence is usually normal or near normal. It will let the teachers give them poor evaluation for their hyperactivity behavior and/or deficit of their attention. This is also easier to make ADHD children in a bad circle in their emotion, behavior, and studies. Under the background of Chinese

culture, the parents of children with ADHD pay more attention to their academic performance. So they will give more measures and supervision on ADHD children's academic guidance. For teachers it is hard to focus on these ADHD children for a large number of children in class (SU Ying, 2012). SHEN Ping (2013) also thinks that the attention of children with ADHD is easily influenced by environment and transfer. Their poor academic performance is an inevitable result. Although they know they should obey the rules and order, but they cannot control their behaviors. They are seen as different students for their abnormal behaviors. They will interrupt in any occasions, which makes them being rejected in group and their relationships are also influenced. Impulsive behavior characteristics of children with ADHD will lead to trouble in the process of interaction with peers, his partner status and self-esteem will be affected also.

To face with ADHD students' behavior problems, the teachers in ordinary school are still used to use the methods of punishment or isolation, or blame them with words. But the effects are limited. On the contrary, it increased their emotional distress. SU Ying (2012) refers that ADHD children have many behavior problems, such as crying, difficult to calm down, lose temper, impulse in group activities. They have low self-evaluation, negative thoughts, and lack of self-confidence.

5 How ADHD children are treated in mainland China

For better treating with children with ADHD, the school psychological consultants, clinical psychologists, teachers and parents should be involved in the intervention. In recent years, the treatment of children with ADHD tends to adopt a combined method of physiological, psychological and social treatment (YANG Fan, & XIA Zhichen, 2014). The most commonly applied approaches are drug therapy, traditional Chinese medicine therapies, behavioral therapy, parents training, and sports exercises et al. GAI Xiaosong, LAN Gongrui, & LIU Xiping(2008) through the comparison of the effects of different interventions, they think that the interventions aimed to improve the behavioral, academic, cognitive and/or social functioning of children with ADHD have obvious effects. Overall, the intervention that combined drug therapy and cognitive behavior therapy have the best effects, then larger for only medical interventions and smaller for behavioral or cognitive-behavioral interventions alone. To assess the effectiveness of Russell Barkley's parent training combined with Ritalin in children with ADHD comorbidity oppositional defiant disorder, a study were carried out. The conclusion were drawn that parents' training combined with Ritalin is useful to comorbidity of attention deficit hyperactivity disorder and oppositional defiant disorder and deserve to be generalized in clinical practice (ZHANG Wenwu, WANG Xiaojia, CHENG Fang, LIU Zhiwang, YUAN Hong, & HU Zhenyu, 2011). The effects of comprehensive intervention on children with ADHD are also con-

firmed in the experimental study of WU Zengqiang, MA Zhenzhen, & DU Yasong (2011). At the same time, the drugs have side effects. Ritalin, for example, has these adverse reactions such as a loss of appetite, trigger twitch, relying on drugs, and heart rate increasing (NI Xinqiang, & HAN Xinmin, 2013).

The parents' attitudes are cautious about whether children take drugs although doctor suggested the drug therapy. They hope to be able to improve their children's symptoms. Meanwhile, they worry about the adverse side effects of medicine (XU Tong, SU Yuan, YU Liping, et al., 1998).

5.1 Drug therapy

A pilot comparison of the safety and efficacy of methylphenidate (MPH) combined with clonidine, clonidine monotherapy, or MPH monotherapy in 6–16 years old children diagnosed with ADHD and comorbid aggressive oppositional defiant disorder or conduct disorder was completed. The results suggest the safety and efficacy of clonidine alone or in combination with MPH for the treatment of ADHD and aggressive oppositional and conduct disorders (Daniel F. Connor, Russell A. Barkley, & Heather T. Davis, 2000).

The preschool ADHD treatment study carried on children ages 3 to 5.5 years with ADHD. They drew the conclusion: MPH produced significant reductions on ADHD symptom scales in preschoolers compared to placebo, although effect sizes (0.4–0.8) were smaller than those cited for school-age children on the same medication (Laurence Greenhill, Scott Kollins, Howard Abikoff, James McCracken, Mark Riddle, James Swanson, James McGough, Sharon Wigal, Tim Wigal, Benedetto Vitiello, Anne Skrobala, Kelly Posner, Jaswinder Ghuman, Charles Cunningham, Mark Davies, Shirley Chuang, & Tom Cooper, 2006). The children with ADHD in China are currently treated with methylphenidate, a stimulant drug that is commonly used to treat ADHD. Parents in China have more apprehensions on drug treatment and attach more importance on academic performance.

5.2 Traditional Chinese medicine therapies

Traditional Chinese medicine therapies are from a whole view to diagnose and treatment ADHD. It includes Chinese medicine, acupuncture and massage treatments. Traditional Chinese medicine is an important treatment of ADHD in China. To drug treatment of ADHD, compared with western medicine, parents are more likely to accept Chinese medicine treatment for its adverse effects are less.

Traditional Chinese medicine plays a significant role to improve the function of the dopamine system. However, these related studies' results are varied (NI Xinqiang, &

HAN Xinmin, 2013)). The doctor of traditional Chinese medicine thinks that ADHD is associated with the dysfunction of heart, liver, spleen and kidney. Traditional Chinese medicine combined with acupuncture and massage can adjust the balance of Yin and Yang and organs' function. Then it can significantly improve the symptoms of children with ADHD. A massage therapy study, 30 students between the ages of 7 and 18 years (M = 13 years) diagnosed with ADHD were randomly assigned to a massage group or a wait-list control group. The massage group received massage therapy for 20 minutes twice per week over the course of one month. The results revealed that massage therapy benefited students with ADHD by improving short-term mood state and longer-term classroom behavior (Sonya Khilnani, Tiffany Field, Maria Hernandez-Reif, & Saul Schanberg, 2003). Simple massage manipulation was adopted in treatment of the 33 ADHD children. The common manipulations included head manipulation, chest-abdominal manipulation and back manipulation. Of the 33 cases of ADHD children treated with massage, 10 were cured, 9 were remarkably effective, 9 were improved and 5 had no effect (WANG Yinglei, & SHI Xiaoping, 2005). However, mainly with behavioral observation, the traditional Chinese medicine lacks of strictly experimental design, which reduces the credibility of observations and repeatability.

5.3 Behavioral therapy

Behavioral therapy is mainly implemented through group game counseling and individual counseling. To explore the effects of intervention, 117 ADHD children were chosen from 4 500 children ranging from grade 2 to grade 4 in ten primary schools in Shanghai (WU Zengqiang, MA Zhenzhen, & DU Yasong, 2011). The behavior modification and self-management was undertaken once a week, the group game consultation done thirty minutes a time, once a week within eight weeks. The difficulty of the game is successive ascending and each game was done twice. The individual consulting is carried for promoting the self-regulation, self-control and problem solving skills. It includes two aspects: one is to correct children's most prominent behavior problems. The other is to improve the abilities of planning and arranging their daily life. The result of this research showed that the children with ADHD more effectively improved the hyperactivity symptom, reduced the difficulty faced by the children tested in daily life, bettered their adaptive behaviors, and highly enhanced the level of their self-esteem only in a short-term effect.

Other studies have shown that the abnormal brain electrical activity exists in the right prefrontal brain area of people with ADHD, and the 5-HT system function is reduced. It is effective to ADHD by using EEG biofeedback training along with drugs to improve 5-HT function (SHEN Xiaoming, 2006).

5.4 Parents training

Parents training is based on the scientific and systematic guidance to the parents of children with ADHD, let parents tobe better in management and to guide their children. The most important thing is to guide parents to take specific strategies, and intervene children's bad behavior one by one, then achieve the purpose of reduce or eliminate the bad behavior (DU Yasong, 2010). The method of parents training is mainly to guide parents manage their children's behavior, and enhance their adherence and self-control. When the children's compliance is improved, the behavior without targeted intervened also has an improvement. To explore effectiveness of Russell Barkley's parent training in children with comorbid ADHD and oppositional defiant disorder (ODD), and to evaluate its applicability in mainland China, LIU Jin, & WANG Yufeng (2007) gave ten weekly trainings to thirty parents of children with ADHD and ODD. The conclusion was drawn that parent training could be applicable in Chinese culture and current social status, and can alleviate both ODD and ADHD symptoms. Through the form of the parents training salon, the parents increased the knowledge of ADHD, knew the methods to help their child in daily life, and the score of ADHD Questionnaire was raised, and could last for a long period of time, which means the degree of coordination from parents was effectively improved (WU Zengqiang, MA Zhenzhen, & DU Yasong, 2011).

However, some aspects will hinder the parents to ask for help with their children with ADHD, for example, the past painful memories in the process of no effect treatment, worried about the people around who know their children suffering from the ADHD disease, the lack of professional psychological services (MA Chao, 2011).

5.5 Sport exercises

Children with ADHD often experience difficulties in emotional, behavioral, social, and psychological functions. There are many studies carried on from the view of sport exercises intervention of children with ADHD. Research suggests that participating in martial arts improves practitioners' physical, social, educational, psychological, and behavioral functions. Its training fosters self-discipline, motivation, and positive social change. Martial arts is one form of behavior modification with potential to mitigate ADHD symptoms (Ramfis L. Marquez-Castillo, 2013). The researcher got results by meta-analysis that martial arts training can alleviate symptoms of ADHD and can help improve academic performance. Social change implications include the potential for confirming martial arts treatment as a nonpharmacological treatment for ADHD, which would benefit sufferers, mental health practitioners, educators, and parents.

Some scholars think that until now, the empirical study of the influence of sports participation to children with ADHD also is very few. The sports participation intervention theory model and the corresponding prevention mechanism of children with ADHD is also in urgent need to exploration and development (SUN Yongjun, WU Xiufeng, LIU Jun, & HAN Kun, 2012).

6 Conclusions

The final purpose of the treatment on children with ADHD is to assist them better self-management, integrate into society, and achieve self-fulfilling. For better treating with children with ADHD, the school psychological consultants, clinical psychologists, teachers and parents should be involved in the intervention. The current study is generally lack of ADHD individual emotions and social concerns, such as how do children with ADHD (mis)manage their real-life dyadic friendships. The influence of the long history of feudal patriarchal still exists more or less in China today. It is necessary to train parents regularly. Most study claims ADHD treatment effect are immediately available after the intervention, and which lack of the continued follow-up results. Treatment can help people with ADHD adapt better to their environment. At present, the social environment of children who display ADHD living needs further improved. We should pay more attention to the psychological development of children with ADHD from the viewpoint of people-oriented, respect people's value, and advocating personality dignity.

References

[1] American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.). Arlington, VA: Author.

[2] Braun, J. M., Kahn, R. S., Froehlich, T., Auinger, P., & Lanphear, B. P. (2006). Exposures to Environmental Toxicants and Attention Deficit Hyperactivity Disorder in U.S. Children. *Environmental Health Perspectives*. 114(12): 1904–1909.

[3] Daniel F. Connor, Russell A. Barkley, & Heather T. Davis. (2000). A pilot study of methylphenidate, clonidine, or the combination in ADHD comorbid with aggressive oppositional defiant or conduct disorder. *Clinical Pediatrics*. (1): 15–25.

[4] Daniel P. Hallahan, & James M. Kauffman. (2005). *Exceptional learners: introduction to special education (10th ed.)*. Pearson Education: 212.

[5] DONG Qi. (1993). 论儿童多动症的几个问题 [Several problems of children with ADHD]. *Journal of Beijing Normal University (Social Sciences)*. (1): 1–8.

[6] DU Yasong. (2010). 促进注意缺陷多动障碍患儿社会功能的改善 [to promote the improvement of social function of the children with ADHD]. *Chinese Journal of Child Health Care*. 18 (4): 265–266.

[7] GAI Xiaosong, LAN Gongrui, & LIU Xiping. (2008). 国内注意缺陷/多动障碍儿童干预效果的元分析 [A Meta-analytic Review on Treatment Effects of Attention Deficit/Hyperactivity Disorder Children in China]. *Acta Psychologica Sinica*. 40 (11): 1190–1196.

[8] Gustafsson, P., Hansson, K., Eidevall, L., Thernlund, G., & Svedin, C.G. (2008). Treatment of ADHD with amphetamine: Short-term effects on family interaction. *Journal of Attention Disorders.* 12 (1). 83–91.
[9] GU Qun, & LIU Xiangping. (2004). 注意力缺损多动障碍的两种评估取向的整合及评估模式的建立 [The integration of two assessment tropisms of ADHD and the establishment of assessment model]. *Chinese journal of special education.* 51 (9): 92–95.
[10] J. Russell Ramsay, & Anthony L. Rostain. (2015). Cognitive-behavioral therapy for adult ADHD: an integrative psychosocial and medical approach. *Routledge*: 5.
[11] JIANG Suhua, ZOU Xiaobing, TAN Weitang, MAI Zhiguang, ZHANG Hongqiao, & HUANG Niukai. (2012). 未成年罪犯共患注意缺陷多动障碍的父母教养方式调查 [Relationship between juvenile crime and delinquency with attention deficit hyperactivity disorder and parental rearing patterns]. *Chinese Journal of Obstetrics & Gynecology and Pediatrics.* 8 (2): 171–174.
[12] Laurence Greenhill, Scott Kollins, Howard Abikoff, James McCracken, Mark Riddle, James Swanson, James McGough, Sharon Wigal, Tim Wigal, Benedetto Vitiello, Anne Skrobala, Kelly Posner, Jaswinder Ghuman, Charles Cunningham, Mark Davies, Shirley Chuang, & Tom Cooper. (2006). Efficacy and safety of immediate-release methylphenidate treatment for preschoolers with ADHD. *J. Am. Acad. Child Adolesc. Psychiatry*. 45(11): 1284–1293.
[13] LIU Jin, & WANG Yufeng. (2007). 父母培训对共患对立违抗性障碍的注意缺陷多动障碍的作用 [an open trial on effectiveness of parent training in children with comorbid attention deficit hyperactivity disorder and oppositional defiant disorder]. *Journal of Peking University (Health Sciences)*. 39 (3): 310–314.
[14] MA Chao. (2011). 父母视角下ADHD求助模型的研究 [study on seeking help models of parents of children with ADHD]. *Journal of Inner Mongolia Normal University (Educational Science)*. 24 (12): 58–60.
[15] NI Xinqiang, & HAN Xinmin. (2013). 中医药对注意力缺陷多动障碍的研究进展 [a research progress on traditional Chinese medicine of attention deficit hyperactivity disorder]. *Chinese Journal of Integrated Traditional and Western Medicine*. 33 (3): 428–431.
[16] Paulo A. Graziano, Joseph P. McNamara, Gary R. Geffken, & Adam Reid. (2011). Severity of Children's ADHD Symptoms and Parenting Stress: A Multiple Mediation Model of Self-Regulation. *Journeral of Abnormal Child Psychology*. 39: 1073–1083.
[17] Ramfis L. Marquez-Castillo. (2013). *Martial arts and attention deficit hyperactivity disorder (ADHD): a meta-analysis* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database.
[18] Ronald J. Comer. (2012). *Abnormal Psychology*. Worth Publishers: 532.
[19] Sonya Khilnani, Tiffany Field, Maria Hernandez-Reif, & Saul Schanberg. (2003). Massage therapy improves mood and behavior of students with attention-deficit/hyperactivity disorder. *Adolescence*. 38 (152): 623–638.
[20] SHEN Ping. (2013). 基于2397名学生注意缺陷多动障碍的调查报告 [Survey report on 2397 students' attention deficit hyperactivity disorder]. *Jiangsu Education Research*. (10): 35–38.
[21] SHEN Xiaoming. (2006). 儿童脑科学研究的临床和教育学意义：从研究到应用 [the clinical and educational significance of research on children brain]. *Chinese Journal of Child Health Care*. 14 (1): 1.
[22] SU Ying. (2012). 学龄期多动症儿童情绪教育策略研究 [A Research into Emotion Education Strategies for School-age children with ADHD]. *Journal of Nanjing Technical College of Special Education*. (3): 66–71.
[23] SUN Yongjun, WU Xiufeng, LIU Jun, & HAN Kun. (2012).体力活动:ADHD儿童认知功能改善的干预选择 [physical activity: intervention options in ameliorating the symptoms of ADHD]. *Journal of Beijing Sport University*. 35 (8): 76–79 + 87.

[24] Susan Nolen-Hoeksema. 2011. *Abnormal Psychology (fifth edition)*. McGraw-Hill.: 301.
[25] WANG Yinglei, & SHI Xiaoping. (2005). 推拿治疗儿童注意力缺陷多动症的效果观察 [observation on the effects of massage on treatment of attention deficit hyperactivity disorder in children]. *Chinese Journal of Clinical Rehabilitation*. 9 (4): 216–217.
[26] WU Zengqiang, MA Zhenzhen, & DU Yasong. (2011). 基于学校的儿童注意缺陷多动障碍综合干预 [a school-based study of comprehensive intervention for children with ADHD]. *Journal of Psychological Science*. 34 (4): 947–980.
[27] XU Tong, SU Yuan, YU Liping, QIAN Yan, & ZHOU Yi. (1998). 父母对注意障碍、多动综合征患儿就诊的心态分析 [an analysis of the psychological status of fathers and mothers in ADHD outpatient department]. *Chinese Journal of Child Health Care*. 6 (1): 35–36.
[28] YANG Fan, & XIA Zhichen. (2014). 国内注意缺陷多动障碍研究的综述 [Review of Domestic Studies of Attention Dificit Hyperactivity Disorder]. *Science of Social Psychology*. 29 (5): 41–44 + 77.
[29] YAN Wenwei. (2006). 回顾"多动儿童"三十年 [Review of children with hyperactivity for 30 years]. *Shanghai Archives of Psychiatry*, 18(5): 310–314.
[30] YANG Lingyan. (2004). 她为什么放弃了小文—一个多动症儿童家庭教育的研究 [Why did she give up her son – a case study of a family with ADHD child]. *Chinese Journal of Special Education*. 54 (12): 85–90.
[31] YI Xiangui, SUN Wei, & YI Gezixu. (2013). 儿童注意缺陷多动障碍研究进展 [Recent development on the research of Children with attention deficit/hyperactivity disorder]. Jilin *Medical Journal*. 34 (31): 6555–6557.
[32] YU Fang, GUO Ming, YU Zhimin, & ZHANG Huakun. (2013). 父母教养方式对有无共患其他精神障碍注意缺陷多动障碍的影响 [the effect of parental rearing on ADHD children with and without comorbidity]. *Matemal and Child Health Care of China*. 28 (34): 5691–5694.
[33] ZHANG Wenwu, WANG Xiaojia, CHENG Fang, LIU Zhiwang, YUAN Hong, & HU Zhenyu. (2011). 父母培训结合利他林治疗对立违抗障碍ADHD患儿疗效观察 [A follow-up study of parent training treatment in children with attention deficit hyperactivity disorder comorbidity oppositional defiant disorder]. *Chinese Journal of School Health*. 32 (9): 1086–1088.

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