

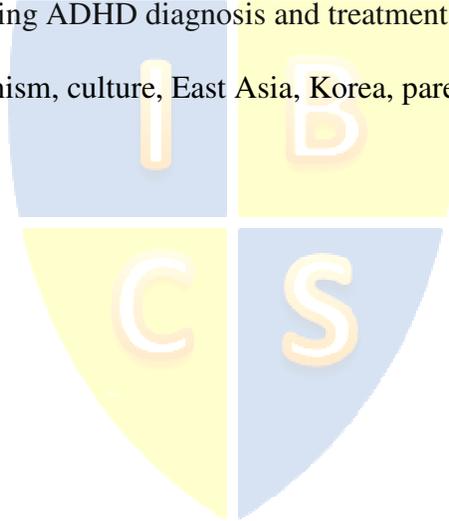
## **Cultural perspectives on attention deficit hyperactivity disorder: A comparison between Korea and the U.S.**

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### **Abstract**

Attention Deficit Hyperactivity Disorder (ADHD) is one of the most commonly diagnosed behavioral disabilities in US classrooms. Even though the exact cause of ADHD is not known, several factors are known as possible causes, including heredity, genetic, and organizational factors, head injury, poor nutrition, infections, substance abuse, and exposure to toxins in early childhood. Among many possible causes of ADHD, this author focused on cultural perspectives on ADHD based on Ross's (1987) statement that each culture has different rates, behaviors, and perceptions of ADHD. By comparing Korean and US parents/teachers perspectives on ADHD through review of research, cultural influence was determined to be one of the important factors affecting ADHD diagnosis and treatment.

Keywords: ADHD, Confucianism, culture, East Asia, Korea, parents, teachers, USA



## INTRODUCTION

Attention Deficit Hyperactivity Disorder (ADHD) is one of the most commonly diagnosed behavioral disabilities in the US classroom setting. According to the consensus of National Institutes of Health (NIH), ADHD is estimated to affect three to five percent of school-age children in the US (1998). Researchers with the Centers for Disease Control and Prevention (CDC) analyzed data from the 2003 National Survey of Children's Health that revealed approximately 4.4 million children aged 4 to 17 years old were reported to have a history of ADHD diagnosis; of these, 2.5 million (56%) were reported to be taking medication for the disorder (CDC, 2005, p. 842). Regardless of the high percentage of occurrence, however, children's ADHD is diagnosed only by teachers' or parents' observation in most cases. As Rowland, Lesesne, and Abramowitz (2002) pointed out, a lack of reliable diagnoses, such as laboratory tests, has made reported estimates of prevalence difficult to interpret.

Every culture has children with ADHD (Barkley, Cook, & Jr. Diamond, 2002). Ross (1987) found that classrooms in Thailand have comparatively fewer students with ADHD because children are expected and trained to behave and talk quietly in public in Thailand. Likewise, East Asian countries have lower rates of ADHD diagnosis, mainly due to their cultural background, Confucianism. East Asian societies highly value education, harmony with others, and loyalty to the country, parents, and elders. The cultural environment of East Asian countries contributes to having fewer students with ADHD and different concerns in the classroom setting when compared to US classrooms.

According to Lee (2008), students' socioeconomic (SES) background also contributes to ADHD. Based on the findings of the study, students from low income or single parent families, or families where both parents work, show a higher rate of ADHD than students from high income, two-parent families. Boyle, Offord, Racine, Szatmari, Fleming, and Sanford (1996) explained the reason could be family problems related to low economic status. Moore, DuPaul and White (2006) argued that the major contributive factors to ADHD are genetic and organizational factors: The brains of those with ADHD may differ with respect to the balance of certain chemicals, referred to as neurotransmitters, as well as the size and operation of specific brain components, such as the prefrontal cortex. Also, the nature of classroom tasks and behavior management styles at home and school could affect the expression of ADHD.

In this review of research, I answer the following question: "Do cultural influences impact ADHD diagnosis and treatment?" I compare different cultural views and treatments of ADHD among Korean teachers and parents and US teachers and parents. I also compare perspectives regarding ADHD in the two countries, focusing especially on medication, by looking at the history of ADHD.

### Causes of ADHD

The exact cause of ADHD is not known. However, several factors are known as possible causes, including genetic factors: the brains of those with ADHD may differ with respect to the balance of certain chemicals, size, and operation of specific brain components. Ronald, Simonoff, Kuntsi, Asherson, Plomin, and McLoughlin (2008) examined genetic and environmental influences on ADHD in a large-scale twin study. Substantial genetic influences were found for inattention and hyperactivity, as well as moderate to high genetic correlations between the two symptom domains. Even so, the genetic correlations between inattention and hyperactivity also

show some etiological independence of the two symptom domains. Heredity is another factor. ADHD tends to run in families, which suggests that children may inherit a tendency to develop ADHD from their parents. Organizational factors, such as the nature of classroom tasks and behavior management styles at home and school, also are known to affect the expression of a child's ADHD. Other possible factors are head injury, poor nutrition, infections, substance abuse, exposure to toxins such as lead in early childhood.

### **ADHD Diagnosis and Treatment**

According to Singh (2008), reliable diagnosis rates for ADHD are difficult to find in most countries because medical or scientific diagnoses are not used to diagnose ADHD. Instead, teachers or parents observe symptoms of ADHD in a child and refer the child to doctors. Then doctors check whether symptoms have persisted for at least six months and whether symptoms and impairment have been present in at least two settings, such as at school and at home. Most of the time, if the child meets the criteria, doctors recommend that the child be medicated. Breggin (2000) negatively described this process because under-resourced teachers may advise a parent of a misbehaving child to get immediate medication rather than utilize pedagogical techniques and resources. Generally, treatment with stimulant medication is known to improve the core symptoms of ADHD and has resulted in positive responses in more than 75 % of the children (APA, 2000). However, as many as 20 % of children showing ADHD symptoms derive no real benefit from medication. Rabiner, Anastopoulos, Costello, Hoyle, McCabe, and Swartzwelder (2009) stated that some children experience side effects, such as decreased appetite, weight loss, sleep problems, headaches, jitteriness, social withdrawal, and stomachaches that prevent the child from receiving medication. Moreover, many children who benefit from medication still have difficulties with primary ADHD symptoms or associated problems that must be targeted via other means. Parents, teachers and doctors disengaging from the social responsibility to raise well-behaved children have been pointed out as another negative aspect of ADHD medication. Timimi (2002) argued that millions of children and their families are being treated unfairly by placing the children on highly addictive drugs with no evidence of long term benefits. Since stimulants are known as potentially addictive drugs with cardiovascular, nervous, digestive, endocrine and psychiatric side effects (Breggin, 2000), authors of a U.S. federal government report on ADHD concluded that no compelling evidence was available to support the claim that ADHD was a biochemical brain disorder (National Institutes of Health, 1998).

### **Social and Cultural Perspectives on ADHD**

According to Batchelder (2003), social and cultural factors are keys to understanding trends in ADHD diagnosis and methylphenidate treatment. Batchelder (2003) pointed out that consumption rates of methylphenidate have increased dramatically across the world; in many countries, five-to seven-fold increases in consumption rates have occurred over the past decades. However, different diagnoses and treatments among different countries also have been observed. For example, Jacobson (2006) studied a group of 53 English 10 and 11-year-olds to investigate why the English diagnose ADHD much less frequently than Americans, and found that English children who were defined as normal in England exhibited the symptoms of ADHD as it is defined in America. According to the results of the study, less than one percent of English

children are diagnosed as having ADHD while approximately five percent of American children are labeled as having ADHD.

According to Isanski (2009), people in western cultures value autonomy and independence while people in East Asia feel a very strong moral obligation associated with learning and education. In addition, East Asian children are more accepting of what Americans might call excessive parental involvement. Interpretation of behavior also varies among parents, health care providers, and school personnel. According to Bussing, Koro-Ljungberg, Gary, Mason, & Garvan (2005), parents interpret their observations of children's behavior based on their own sociocultural and ethnic experience, in combination with what they have been taught about ADHD.

### **Confucianism**

Confucianism is an ethical and philosophical doctrine developed from the teachings of the Chinese philosopher Confucius (551–479 BC), who emphasized human morality and right action. East Asian cultures strongly influenced by Confucianism include China, Singapore, Taiwan, Japan, Korea, and Vietnam. Just like other Confucian cultures, Koreans value “Harmony by morality,” the best philosophy according to Confucius’ doctrine. To maintain harmony, people should know the social order according to hierarchies of age, social status, gender, and family. Lower hierarchs are expected to respect higher hierarchs by obeying, and higher hierarchs are expected and have authority to care for lower hierarchs. Since high social status could be reached by education, education is one of the great values in Confucian cultures. Any delinquent behavior that breaks the harmony is regarded as “non-moral” and the individual and the group to which the individual belongs should feel shame.

### **School as a Culture**

Schools are institutions in which prominent cultural values and expectations are infused in the developmental and learning processes of young people. According to Singh (2004), school can be viewed as a culture in which children's development intersects with prevailing expectations and values in relation to their behavior, performance, and achievement. One of the functions of schools is to generate cultural knowledge about children's behavior. Also, educators in schools must have ways of interpreting and handling children who do not meet the normative expectations. Prout and James (1997) stated that although the immaturity of children is a biological fact, the ways in which this immaturity is understood and made meaningful is a reflection of culture.

### **ADHD in Korea**

The term ADHD was introduced in Korea in 1987 with a study entitled “Effect on behavioral modification for children with attention deficit hyperactivity disorder through attention training” (Choi, 1987). After 10 years, about 7.6% to 9.5 % of Korean children were reported to have ADHD (Cho & Shin, 1994; Kim & Chae, 1998). In Korea, ADHD was introduced through a public education campaign: “An ADHD awareness day” was held in 2004 and 2005 by the Korean Academy for Child and Adolescent Psychiatry. In a 2005 campaign, 103 psychiatrists and 8000 audience members participated in the education program nationwide. A

media campaign was carried out simultaneously. After the campaign, public awareness about ADHD in Korea increased and many people sought psychiatric help (Cho, 2006)

Approximately half of children with ADHD show overt symptoms by the time they are five years old, and most begin to display behavioral problems during the early school years when they have to follow instructions from teachers and obey school rules. In Korea, children with ADHD are reported to have difficulty with self-control both at home and in school, to have a tendency to show aggressive behaviors, to suffer from low self-esteem, to have frequent fights with peers, to experience isolation in social situations, to display problems with underachievement, and to have learning disabilities (Silver, 1992). Students who are diagnosed as having ADHD also show developmental disorders (11.6 %), conduct disorders (9.3%), oppositional defiant disorders (7%), anxiety (7%), enuresis (4.7%), and mental retardation (4.7 %) (Hong, Kim, Shin, & An, 2009). Currently, the Korean Ministry of Health and Welfare does not recognize either developmental disorders or learning disorders as disabilities. ADHD is not recognized as a disability either (Lee, 2008). Therefore, finding an accurate prevalence rate of children with ADHD in Korea is difficult.

## **METHOD**

### **Selection of Empirical Research**

Basic information about ADHD and general concerns about ADHD in different cultures were gathered through reviewing articles and related books. I analyzed selected articles to review the different cultural perspectives on ADHD between Korea and the US. Searches of Education Abstracts Full text, ERIC, and PsycInfo using the descriptor “ADHD” yielded about 12,000 articles. Then I added three more keywords “culture,” “Korea,” and “USA” and limited the date published to between 1999 and 2009. Among the 38 articles found, I chose 21 studies that were focused on cultural perspectives on ADHD as well as peer reviewed, data-based, and empirical for this review.

## **RESULTS**

### **Teachers’ Perspectives on ADHD in the U.S. and Korea**

Lee (2008) conducted in-depth interviews with 10 U.S. teachers who had 4 to 30 years experience in pre-kindergarten through third grade. Teachers were concerned mostly about ADHD behaviors that disrupted the regular flow of class, i.e., by not paying attention, being constantly off task, excessive movement and talking, and being physically and verbally aggressive to other children. Teachers worried about losing instruction time by having to constantly stop such distractions and redirect students. Teachers’ reactions to the interruptive behavior were to refer the child to third-party school personnel, such as a counselor, principal, or special education teacher.

In Hong’s study (2008), however, Korean teachers answered that inability of children to control themselves was the most challenging problem in the classroom. Korean teachers worried most about students with ADHD stubbornly refusing teacher direction and ignoring classroom rules. Korean teachers’ reaction to children with ADHD was shame and concern over their inability to fulfill their duties as a teacher. Another challenge teachers faced was to maintain the

trust they earned from the other children in their classrooms. Teachers worried that other students would think that their teacher was no longer capable of stopping the problematic behaviors demonstrated by their peers with ADHD.

### **Parents' Perspectives on ADHD in the US and Korea**

Collett, Gimpel, Greenson, and Gunderson (2001) found significant relationships between parental discipline styles and children's ADHD behaviors. Parents of children with ADHD had more parent-child interaction problems than parents of children without ADHD (Seipp and Johnston, 2005). According to Barkely (2006), parenting contributed to symptom exhibition and development of comorbid disorders. According to Lee (2008) and Hong (2008), Korean and US parents' perspectives on ADHD also were different. The U.S. parents were concerned more about their children's behavior while Korean parents were concerned more about their children's academic achievement.

An interesting difference related to parental concerns is that U.S. parents responded positively or neutrally regarding the use of medication because medication helps to reduce behavioral problems, while Korean parents responded negatively because medication does not help to increase children's academic achievement. In Korea, in most cases, the mother is the primary and critical caregiver of children with ADHD (Kendall, Leo, Perrin, & Hatton, 2005). Also, the traditional culture of Confucianism has a strong influence on parenting practices, and obedience is seen as an essential value to family harmony and functioning, upholding the family's right to raise their children as they see fit (Yang, Jang, Hong, Ji, Kim, Park, and Joung, 2008). Although Korean traditional values of parenting and family life have been influenced by western culture, majority of beliefs and practices in Korea still grounded in traditional Confucianism. Korean traditional values of parenting are based on the concept of filial piety, or Hyo. In Hyo, parents have absolute authority over their children and teach their children the laws of family honor (Choi, 1997). Children have to obey their parents. Korean traditional culture is family-based with more value placed on family than on personal or individual needs or desire, whereas in the US, individualists tend to stress independence, autonomy in choice and actions, self-reliance, uniqueness, and achievement orientation.

### **Alternative Treatments of ADHD**

Both in the US and Korea, social skills training was regarded as a very important alternative treatment to teach children how to read others' reactions and how to behave more acceptably (Sawyer, 2004). The limitations were long waiting lists for public services and the expense of private services. In the U.S. setting, Singh (2008) suggested the need for more resources, such as better classroom environments, more special educational services, and smaller class sizes to reduce the need for more ADHD diagnoses and stimulant drug use in the classroom. Armstrong (2000) advocates for Gardner's theory of multiple intelligences, a concept that takes a more multicultural approach to human learning and cognition. Gardner says that our educators and culture focus most of their attention on linguistic and logical-mathematical intelligence. Unfortunately, children without skills in these areas end up being labeled learning disabled, ADHD, or simply underachievers. Gardner stated that instead of overly focusing on traditional views of intelligence as uni-dimensional, the various types of intelligence, including linguistic,

logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, intra-personal, and naturalist intelligences should be considered.

Within national contexts, cultural attitudes and practices in relation to child behavior have made a big difference in mediating the ways in which a child is perceived at home and at school. In Korea, public understanding of ADHD is still quite poor and the stigma of child psychiatric diagnosis and stimulant treatment is high. Often parents are the ones who view their child's behavior as being symptomatic of ADHD, having consulted websites and /or friends in their efforts to deal with their child's behavior (Singh, 2000). Schools were still under-resourced to deal with children with ADHD-type behaviors and teachers tend not to know very much about the diagnosis and behavioral/educational methods of treatment. According to Hong (2008), Korean teachers have difficulties in distinguishing ADHD from other disorders, including emotional disturbances.

In general, Korean teachers try to give a child with ADHD an opportunity to develop responsibility, and suggest support for the child through individual tutorials for schoolwork as much as possible. For example, a teacher could have a student stay after class, because if the teacher pays too much attention to a child with ADHD during a class period, it might cause inconvenience to other children, and this way, the teacher can check whether the student is following along with his/her studies. The teacher cannot cure a child with attention deficit in an hour or in a year. Therefore, as a fundamental responsibility, the teacher tries to help the child accomplish the goal of a day's study by keeping him after school (Hong, 2008). Korean teachers believe that when a problem occurs in class, teachers should be able to guide and cope with children based on their knowledge of developmental characteristics and should provide the children with appropriate methods for learning. They have tended to blame themselves for being unable to control the situation and provide appropriate guidance and care for the child with ADHD. While teachers in the US would seek help from a third party, Shwerder (1998) argued that Korean teachers focused more on emotional difficulties than behavioral problems, compared to U.S. teachers. According to Shwerder (1998) being able to sensitively consider other people's emotions, desires, and needs, and to control one's own in order to fit in, is regarded as an important social skill in Confucian cultures where the interdependent self is valued.

In the United States, on the contrary, public education provides expert alternatives such as psychosocial therapies to focus on the behavioral, psychological, social, and school problems associated with ADHD; behavior modification (parent training, classroom behavior modification), and applying a section 504 plan (providing preferential seating in the classroom, reduction in length of assignments, extra time during testing, or testing in a quiet space to compensate for distractibility) to benefit students with ADHD (Moore, DuPaul, & White, 2006).

## **DISCUSSION**

In the studies reviewed, different responses between Korean and US teachers about the most challenging behavior of students with ADHD in the classroom were based on the cultural influences on the teachers. In the US culture, each individual regards him/herself as an independent being, so teachers did not want other individuals (i.e., students with ADHD) to interrupt their class time. Also, in the process of treating students with ADHD, U.S. teachers brought in third parties, such as school personnel, for diagnosis, planning interventions, and the student's replacement into special education. Inviting third parties to the classroom can be interpreted as meaning that US teachers do not consider students' interruptive behaviors during

class to reflect negatively on the teacher him/herself. On the other hand, Korean teachers emphasized their responsibility for disciplining students, so that when the Korean teachers were interrupted by students with ADHD, the teachers took it as an offense to their authority. In other words, under the Confucian influence, Korean teachers are afraid of losing face or authority over the students. Also, according to Hong (2008), another concern that Korean teachers had about children with ADHD, which is distinct from those of U.S. teachers, was that the students did not have any friends: the students were psychologically or physically isolated from other children in their daily group lives. The teachers were afraid that a child with ADHD might not be able to form friendships even after he/she grew up, and this would cause the student to have difficulty living a normal life as an adult. The concern for “normal life” in harmony with others also is an influence of Confucianism. U.S. teachers, on the other hand, focused more on students’ current and individual behaviors in the classroom.

## CONCLUSION

While investigating whether teachers’ and parents’ perspectives on ADHD are influenced by culture, I found that cultural influence plays an important role: In Korea, according to Confucianism, parents and teachers tend to focus more on children’s academic achievement and take children’s distractive behaviors as a negative reflection on themselves and their authority. Korean teachers and parents try to take personal responsibility for children’s distractive behaviors, and have negative attitudes toward medication because the medication does not help to increase academic improvement. U.S. parents and teachers, influenced by western culture’s focus on independence, tend not to take personal responsibility for the children’s behaviors but to focus more on children’s current problems and treatment. U.S. parents and teachers did not mind a third party’s engagement in dealing with children with ADHD and their behaviors. U.S. parents were more positive about medical treatments because medication helps to reduce children’s distractive behaviors. As I learned in this literature review, different perspectives on ADHD exist due to different cultures, different histories, and different personnel who are in charge of the setting. However, I could find only a limited number of empirical studies that focused on cultural perspectives on diagnosing and treating ADHD. Further research could test parental and school environment variables in longitudinal studies and revisit the way we approach ADHD. Hartmann noted that in light of the findings (evolutionary ADHD), we must consider the way we access ADHD treatment in adults, moving from a broken/pathology/therapy model to a skill-set/opportunity/coaching model.

## REFERENCES

- Armstrong, T. (2000). In their won way: Discovering and encouraging your child’s multiple intelligences. *New York: The Putman Publishing Group*
- Barkley, R.A., Cook, E.H., Jr. Diamond, A. (2002). International Consensus Statement on ADHD. *Clinical Child and Family Psychology Review*, 5, 89-111
- Breggin, P. R. (2000). The NIMH multimodal study of treatment for attention-deficit/hyperactivity disorder: A critical analysis. *International Journal of Risk & Safety in Medicine*, 13(1), 15-22.

- Boyle, M.H., Offord, D.R., Racine, Y., Szatmari, P., Fleming J.E., & Sanford, M. (1996). Identifying thresholds for classifying childhood Psychiatric disorder: Issues and prospects. *Journal of the American Academy of Child & Adolescent Psychiatry*, 35 (11), 1440-1448.
- Chae, P. K., Jung, H., & Noh, K. (2001). Attention deficit hyperactivity disorder in korean juvenile delinquents. *Adolescence*, 36(144), 707-25.
- Cheon, K., Cho, D., Koo, M., Song, D., & Namkoong, K. (2009). Association between homozygosity of a G allele of the alpha-2a-adrenergic receptor gene and methylphenidate response in korean children and adolescents with attention-deficit/hyperactivity disorder. *Biological Psychiatry*, 65(7), 564-570. doi:10.1016/j.biopsych.2008.12.003
- Cheon, K., Jun, J., & Cho, D. (2008). Association of the catechol-o-methyltransferase polymorphism with methylphenidate response in a classroom setting in children with attention-deficit hyperactivity disorder. *International Clinical Psychopharmacology*, 23(5), 291-298. doi:10.1097/YIC.0b013e328306a977
- Cho, S., Hwang, J., Lyoo, I., Yoo, H., Kin, B., & Kim, J. (2008). Patterns of temperament and character in a clinical sample of korean children with attention-deficit hyperactivity disorder. *Psychiatry and Clinical Neurosciences*, 62(2), 160-166. doi:10.1111/j.1440-1819.2008.01749.x
- Cho, S., Kim, B., Kim, J., Rohde, L. A., Hwang, J., Chungh, D., Shin, M., Lyoo, I. K., Go, B., Lee, S., & Kim, H. (2009). Full syndrome and subthreshold attention-deficit/hyperactivity disorder in a korean community sample: Comorbidity and temperament findings. *European Child & Adolescent Psychiatry*, 18(7), 447-457. doi:10.1007/s00787-009-0755-7
- Cho, S., Kim, J., Kim, B., Hwang, J., Park, M., Kim, S. A., Cho, D., Yoo, H., Chung, U., Son, J., & Park, T. (2006). No evidence of an association between norpinephrine transporter gene polymorphisms and attention deficit hyperactivity disorder. *Neuropsychobiology*, 57(3), 131-138. doi:10.1159/000138916
- Collett, B.R., Gimpel, G.A., Greenson, J.N., & Gunderson T.N. (2001). Assessment of discipline styles among parents of preschool through school-age children. *Journal of Psychopathology and Behavioral Assessment*, 23(3), 163-170, doi: 10.1023/A:1010965220517
- Hong, H. J., Hong, N., Yoon, H. J., Choi, T. K., Lee, S. H., & Yook, K. (2008). Differences in the clinical characteristics of remission and non-remission groups with once-daily OROS-methylphenidate treatment of attention-deficit/hyperactivity disorder. *Clinical Psychopharmacology and Neuroscience*, 6(1), 24-30.
- Hong, Y. (2008). Teachers' perceptions of young children with ADHD in korea. *Early Child Development and Care*, 178(4), 399-414.
- Kim, B., Cho, S., Kim, Y., Shin, M., Yoo, H., Kim, J., Yang, Y. H., Kim, H., Bhang, S., & Hong, Y. (2009). Phthalates exposure and attention-deficit/hyperactivity disorder in school-age children. *Biological Psychiatry*, 66(10), 958-963. doi:10.1016/j.biopsych.2009.07.034
- Koro-Ljungberg, Gary, F., Mason, D., Garvan, C. (2005). Exploring help-seeking for ADHD symptoms: a mixed-methods approach. *Harvard Review of Psychiatry*, 13(2), 85-101
- Lee, K. (2008). ADHD in American early schooling: From a cultural psychological perspective. *Early Child Development and Care*, 178(4), 415-439.
- Lee, K., & Neuharth-Pritchett, S. (2008). Attention deficit/hyperactivity disorder across cultures: Development and disability in contexts. *Early Child Development and Care*, 178(4), 339-346. doi:10.1080/09500690701321501

- Lesese, A., Abramowitz, A.J., Rowland, A.S. (2002). The epidemiology of attention-deficit/hyperactivity disorder: A public health view. *Mental Retardation and Developmental Disabilities Research Reviews*, 8(3), 162-170. doi: 10.1002/mrdd.10036
- Mayes, R., & Rafalovich, A. (2007). Suffer the restless children: The evolution of ADHD and paediatric stimulant use, 1900-80. *History of Psychiatry*, 18(4), 435-457. doi:10.1177/0957154X06075782
- Moore, S.G., Dupaul, G.J., White, G.P. (2006). The effects of self-management in general education classrooms on the organizational skills of adolescents with ADHD. *Behavior modification*, 30 (2), 159-183
- Prater, G., Minner, S., Islam, M., Hawthorne, D., & International Association of, S. E. (1997). *New hopes, new horizons: The challenges of diversity in education. proceedings of the biennial international conference of the international association of special education (5th, capetown, south africa, august 3-8, 1997)*
- Prout, A. & James, A. (1997). *Constructing and reconstructing childhood: Contemporary issues in the sociological study of childhood*. London: Falmer press
- Rabiner, D.L., Anastopoulos, A.D., Costello, E.J., Hoyle, R.H., McCabe, S.E., & Swartzwelder, H.S. (2009). *Journal of Attention Disorders*, 13 (2), 144-153.
- Robbins, K. (2004). Struggling for Equality/Struggling for hierarchy: Gender dynamics in an english as an additional language classroom for adolescent vietnamese refugees. *Feminist Teacher: A Journal of the Practices, Theories, and Scholarship of Feminist Teaching*, 15(1), 66-79.
- Ronald, A., Simonoff, E., Kuntsi, J., Asherson, P., Plomin, R. (2008). Evidence for overlapping genetic influences on autistic and ADHD behaviors in a community twin sample. *Journal of Child Psychology and Psychiatry*, 49(5), 535-542
- Salmon, G. (2007). Review of 'attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment (3rd ed.)' and 'attention-deficit hyperactivity disorder: A clinical workbook (3rd ed.)'. *Clinical Child Psychology and Psychiatry*, 12(4), 630-632. doi:10.1177/13591045070120041203
- Schmitz, M. F., & Velez, M. (2003). Latino cultural differences in maternal assessments of attention Deficit/Hyperactivity symptoms in children. *Hispanic Journal of Behavioral Sciences*, 25(1), 110-22.
- Sherwin-White, S. (2006). Reviews: Naughty boys anti-social behaviour, ADHD and the roles of culture. *Journal of Child Psychotherapy*, 32(2), 251-252.
- Singh, I. (2008). ADHD, culture and education. *Early Child Development and Care*, 178(4), 347-361.
- Silver, A (1992). The heterogeneity of ADHD and some implications for education. paper presented at the International Conference of the Learning Disabilities Association (Atlanta, GA, March 4-7, 1992)
- Suh, C., Kim, J., Yoo, H., Hwang, J., Kim, B., Shin, M., & Cho, S. (2007). Comparison of the child behavior checklist profiles between community- and clinic-based children with attention deficit hyperactivity disorder in korea. *The Canadian Journal of Psychiatry / La Revue Canadienne De Psychiatrie*, 52(1), 61-65.
- Timimi, S. (2004). ADHD is best understood as a cultural construct. *The British Journal of Psychiatry*, 184, 8-9.

Yang, J., Jang, W., Hong, S. D., Ji, Y. I., Kim, D. H., Park, J., Kim, S. W., & Joung, Y. S. (2008). A case-control association study of the polymorphism at the promoter region of the DRD4 gene in Korean boys with attention deficit-hyperactivity disorder: Evidence of association with the -521 C/T SNP. *Progress in Neuro-Psychopharmacology & Biological Psychiatry*, 32(1), 243-248. doi:10.1016/j.pnpbp.2007.08.016

