

Considerations Regarding the Use of Screening Tools in the Identification of Children with Attention Deficit/Hyperactivity Disorder (AD/HD)

Karaba, R., Zournatzis, Ev., Kakouros, E. & Christodoulea, St.

XXIX International Congress of Psychology
Berlin, 2008

Introduction

The range of new assessment measures that have become available over the last years and the data from studies that have been based on these measures have considerably improved our knowledge regarding the identification of child mental health problems (Carter, Briggs-Cowan & Davis, 2004; Ford, 2008).

Attention Deficit / Hyperactivity Disorder (AD/HD)

Attention Deficit / Hyperactivity Disorder (AD/HD) is one of the most common neurobiological disorder which affects 3% to 5 % of the school aged population (APA, 1994). Up to half of the children with AD/HD will continue to display symptoms into adulthood (Manuzza, Klein, Monagura et al., 1991). AD/HD increases the risk of additional problems such as conduct and personality disorders, substance misuse, offending and impaired social adjustment in adulthood (Klein & Manuzza, 1991).

Taking into consideration the low referral rates of children with AD/HD and the debilitating outcomes of the disorder if left untreated (Farmer, Burns, Philips et al., 2003; Kataoka, Zhang, & Wells, 2002), the field is challenged to further improve the identification process, in order to lead to an accurate diagnosis and effective treatment of AD/HD.

Standardized Rating Scales for AD/HD in the Greek population

The ADHD Rating Scale IV (DuPaul, Reid, Anastopoulos, & Power, 1998) is based on the DSM-IV Diagnostic Criteria of Mental Disorders for AD/HD. Each item has a 4-point scale ranging from 0 to 3. It is composed of 18 items. Nine of them reflect the symptoms related to inattention and nine items reflect the symptoms related to hyperactivity and impulsivity.

The Child Behaviour Checklist (CBCL) (Achenbach, 1991) is a standardized questionnaire designed for parents to report the frequency and intensity of their children's behavioural and emotional problems as exhibited in the past 6 months. It consists of 120 items. Each item has a 3-point scale ranging from 0 to 2. The Attention Problem scale (CBCL-AP) contains 11 items.

Rating Scales' Comparison

The AD/HD Rating Scale IV and the CBCL appear to correlate well between them and with other rating scales commonly used in the assessment of AD/HD:

AD/HD Rating Scale IV

Significant positive correlations (.66 - .85) have been demonstrated between the Home and School versions of the AD/HD Rating Scale IV and relevant subscales of the Conner's Parent Rating Scale (CPRS) and the Conner's Teacher Rating Scale (CTRS) respectively (DuPaul, Power, Mc Goey et al., 1998).

Child Behavioral Checklist (CBCL)

The Devereux Scales of Mental Disorders compared favorably with the CBCL in the ability to discriminate between children with AD/HD and those without AD/HD (Eiraldi, Power, Karustis, & Goldstein, 2000).

The combined use of the CBCL and the AD/HD Rating Scale IV has been found to serve as a useful clinical method of identifying children with AD/HD in Korean community - based samples (Kim, Park, Cheon, et al., 2005).

Aim of the study

The present study aimed to:

- examine the relationship between the AD/HD Rating Scale IV and the CBCL and
- investigate whether there is an agreement between parental perceptions regarding the presence of AD/HD, as reported in the two rating scales, and the diagnosis given by the mental health specialist.

Method

Participants

- ♦ The sample consisted of 170 Greek children, aged 6-17 (mean age= 127.2 months, sd =2.8)
- ♦ The DSM-IV diagnosis of AD/HD was assigned to the children by experienced clinicians.

Measures

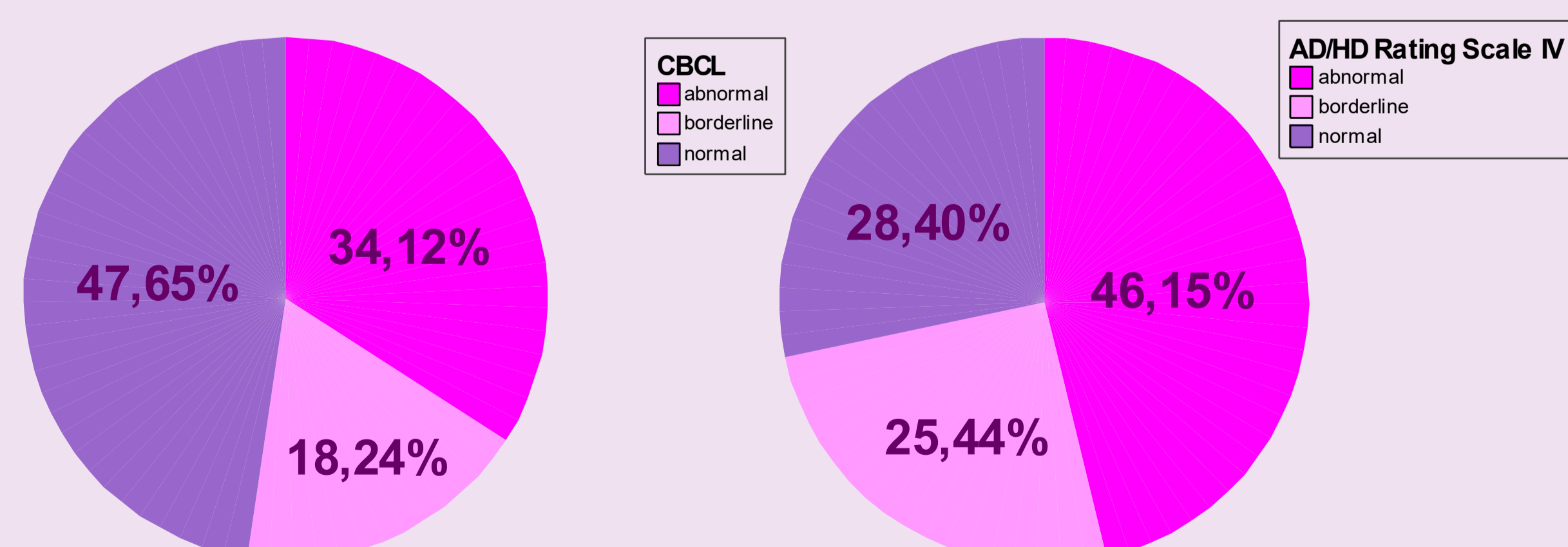
- ♦ The "AD/HD Rating Scale IV" (DuPaul, Reid, Anastopoulos, & Power, 1998)
- ♦ The "Child Behavior Checklist" (CBCL; Achenbach 1991)
- ♦ Rates of contact with mental health services

Procedure

Parents were administered the questionnaires prior to the announcement of the diagnosis (in the waiting room).

Results

Recognition of AD/HD



Parents perceived that 46.15% and 34.12% of the children diagnosed with AD/HD fell in the abnormal band of AD/HD Rating Scale IV and the CBCL respectively.

- ♦ In other words, the behavior of a great number of children diagnosed with AD/HD was considered by their parents as normal.

Results

Comparison of the two scales

Table 1: Correlations between problems in attention (as measured by the CBCL) and AD/HD (as measured by AD/HD Rating Scale)

		CBCL	AD/HD Rating Scale IV
CBCL	Pearson Correlation	1	,704(**)
	Sig. (2-tailed)		,000
	N	170	169
AD/HD Rating Scale IV	Pearson Correlation	,704(**)	1
	Sig. (2-tailed)	,000	
	N	169	169

** Correlation is significant at the 0.01 level (2-tailed).

The relationship between problems in attention (as measured by the CBCL) and AD/HD (as measured by AD/HD Rating Scale IV) was investigated using Pearson correlation coefficient. A strong, positive correlation between the two variables was found [$r=.70$, $p=0.01$].

Previous contact with mental health services

Almost 63% of parents with children with AD/HD reported having a previous contact with mental health services.

The difference between parental perceptions of the presence of AD/HD and previous contact with mental health services was not statistically significant either based on CBCL [$\chi^2(2, 170) = 2.8$, $p > 0.05$] or AD/HD Rating Scale IV [$\chi^2(2, 169) = 5.2$, $p > 0.05$].

- ♦ In other words, parents who had a previous contact with mental health services did not differ from parents who had not a previous contact with mental health services in identifying AD/HD symptoms in their child.

Discussion

1. Despite previous contact with mental health services, a great number of parents of children with significant problems with attention, impulsiveness and over activity seem to fail to recognize these behaviours as symptoms of a developmental disorder. This finding is consistent with other research findings indicating parental difficulty in identifying AD/HD behaviours (Maniadaki, Karaba, Kakouros, & Badikian, 2005; Maniadaki, Sonuga-Barke, Kakouros, & Karaba, 2006).

- ♦ One possible explanation is that AD/HD remains under diagnosed. Indeed, literature reports low rates of diagnosis of children with AD/HD (Jick, Kaye, & Black, 2004; Rey & Sawyer, 2003). Therefore, parental failure to acknowledge AD/HD behaviours in terms of a disorder may reflect under diagnosis.

- ♦ Another possible explanation is that - despite contact with a mental health specialist - parental recognition and knowledge of the disorder has not been improved. Given that parents usually have an alternative 'explanatory' model of their child's AD/HD behavior, which is not perceived as medical issue (Bussing, Schoenberg, Rogers et al., 1998), it is implicated that the diagnostic procedure should not be restricted to the announcement of the diagnosis, but should also involve the modification of parents' maladaptive perceptions regarding the nature of AD/HD.

2. The AD/HD Rating Scale IV and the CBCL constitute valuable tools in the identification of AD/HD in Greek children.

3. Nevertheless, they reflect adult perceptions regarding problematic child behavior which - in many cases - are maladaptive. Therefore, behavior rating scales should not substitute the clinical assessment.

4. Within a cognitive behavioral framework, AD/HD rating scales may give access to maladaptive parental perceptions regarding the disorder and facilitate the mental health specialist in the implementation of an effective intervention plan.

References

- Achenbach, T. (1991). *Manual for the Child's behaviour Checklist/4-18 and 1991 profile*. University of Vermont Department of Psychiatry, Burlington, VT.
- American Psychiatric Association (1994). *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed. (DSM IV), Washington D.C.
- Bussing R., Schoenberg N., Rogers K., Zima, B. T., Angus, S. (1998). Explanatory models of ADHD: Do they differ by ethnicity, child gender or treatment status? *Journal of Emotional and Behavioural Disorders*, 6, 233-242.
- Carter, A. S., Briggs-Cowan, M. J., & Davis, N. O. (2004). Assessment of young children's social-emotional development and psychopathology: recent advances and recommendations for practice. *Journal of Child Psychology and Psychiatry*, 45(1), 109-34.
- DuPaul, G. J., Reid, R., Anastopoulos, A. D., & Power T. J. (1998). *ADHD Rating Scale-IV: Checklists, Norms, and Clinical Interpretation*. New York: The Guilford Press.
- DuPaul, G.J., Power, T. J., Mc Goey, K., Ikeda, M., & Anastopoulos, A.D. (1998). Reliability and validity of parent and teacher ratings of attention-deficit/hyperactivity disorder symptoms. *Journal of Psycho educational Assessment*, 16, 55-68.
- Eiraldi, R., Power, T., Karustis J., & Goldstein, S. (2000). Assessing ADHD and comorbid disorders in children: the Child Behaviour Checklist and the Devereux Scales of Mental Disorders. *Journal of Clinical Child Psychology*, 29(1), 3-16.
- Farmer, E., Burns, B., Philips, S., Angold, A., & Costello, J. (2003). Pathways into and through mental health services for children and adolescents. *Psychiatry Services*, 54, 60-66.
- Ford, T. (2008). Practitioner Review: How can epidemiology help us plan and deliver effective child and adolescent mental health services? *Journal of Child Psychology and Psychiatry*, 2008 Jun 19. [Epub ahead of print].
- Jick, H., Kaye, J., & Corri, B. (2004). Incidence and prevalence of drug-treated attention deficit disorder among boys in the UK. *British Journal of General Practice*, 54, 345-347.
- Kataoka, S., Zhang, L., & Wells, K. (2002). Unmet need for mental health care among U.S. children: variation by ethnicity and insurance status. *American Journal of Psychiatry*, 159, 351-358.
- Kim, J.W., Park, K.H., Cheon, K.A., Kim, B.N., Cho, S.C., & Hong, K.E. (2005). The child behavior checklist together with ADHD rating scale can diagnose ADHD in Korean community samples. *Canadian Journal of Psychiatry*, 50 (12), 802-5.
- Klein, R., & Manuzza, S. (1991). Long-term outcome of hyperactive children: a review. *Journal of the American Academy of Child and Adolescent Psychiatry*, 30, 383-387.
- Maniadaki, K., Karaba, R., Kakouros, E., & Badikian, M. (2005). The influence of having a preschool child with AD/HD on parental perceptions regarding the nature of AD/HD symptoms. *Oral presentation at the 9th European Conference of Psychology, Granada, Spain*.
- Maniadaki, K., Sonuga-Barke, E., Kakouros, E., & Karaba, R. (2006). Parental beliefs about the nature of ADHD behaviours and their relationship to referral intentions in preschool children. *Child: Care, Health and Development*, 33.2, 199-195.
- Manuzza, S., Klein, R., Bonagura, N., Malloy, P., Giampino T., & Addalli, K. (1991). Hyperactive Boys almost grown up. V. Replication of Psychiatric Status. *Archives of General Psychiatry*, 48, 77-83.
- Rey, J., & Sawyer, M. (2003). Are psychostimulant drugs being used appropriately to treat child and adolescent disorders? *The British Journal of Psychiatry*, 182, 284-286.

ARSI

