



SEX DIFFERENCES IN THE PREVALENCE OF AD/HD

Maniadaki, K., Karaba, R., & Kakouros, E.

18th Biennial Meeting of the International Society for the Study of Behavioural Development, Ghent, Belgium, July 2004

INTRODUCTION

THE ISSUE

- Children with Attention Deficit / Hyperactivity Disorder (AD/HD) display chronic, pervasive and developmentally inappropriate patterns of **disruptibility, impulsivity** and/or **hyperactivity**.
- 3-5% of the general child population meets the criteria for the AD/HD diagnosis (American Psychiatric Association, 1994).
- AD/HD constitutes one of the **most common reasons of referral** to child mental health services (Brown, Madan-Swain, & Baldwin, 1991).
- Male-to-female ratios** for AD/HD: **9:1 to 6:1** in *clinically based samples* **3:1** in *community based samples* (American Psychiatric Association, 1994)

THEORIES PROPOSED TO EXPLAIN

SEX DIFFERENCES IN THE PREVALENCE OF AD/HD

- Boys with AD/HD** usually display more **disruptive and aggressive behaviours**, which might lead to higher referral rates. On the other hand, **girls with AD/HD** often present more **cognitive impairments and poorer self-esteem**, which may lead only the most severely affected to be referred (Berry, Shaywitz, & Shaywitz, 1985).
- Boys** are more vulnerable than girls to **neuropsychological deficits** (Earls, 1987).
- Differential socialization practices** are used for **boys** and **girls** (Block, 1973).

AIM

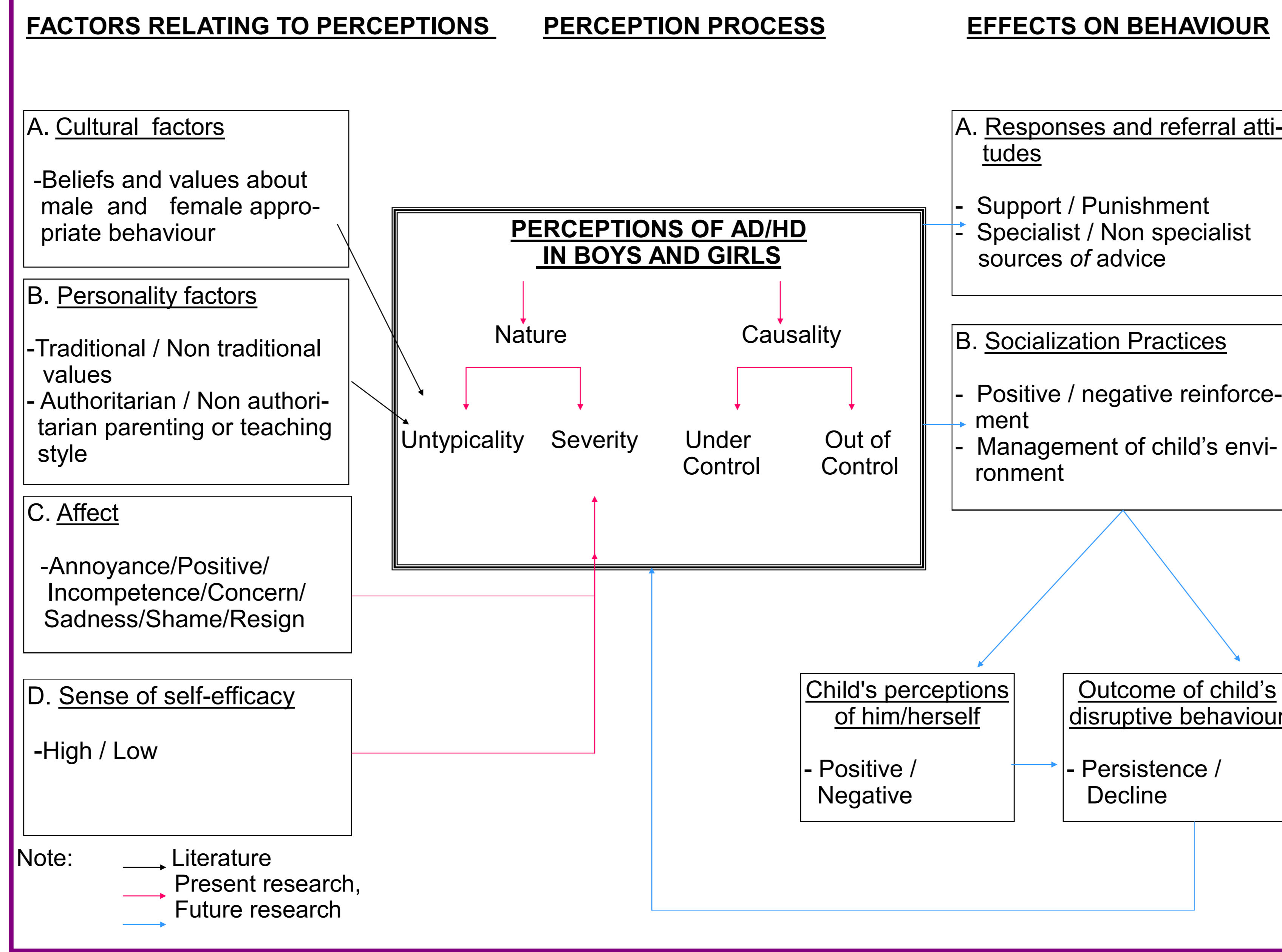
- The present study aims to propose an **integrative model** of the **social** and **cultural** factors that *interact* and might *contribute* to the reported **differences in the prevalence of AD/HD in the two sexes**.

METHOD

- Sample:** 118 mothers of boys and girls aged 4-6, enrolled in kindergartens and nursery schools in Athens.
- Measures:** The "Scale for Assessment of Attributions about the Severity of Problem Behaviour"
The "Emotional Response to AD/HD Behaviour Scale"

THE CURRENT MODEL

The effect of adult perceptions of AD/HD on sex differences in the prevalence of the disorder



1. First Stage

- Adult perceptions of AD/HD are shaped by the way adults perceive the **nature** (*untypicality, severity*) of the disorder and the **causal attributions** (*under or out of the child's control*) they make.
- According to the literature, adult perceptions about a child's **'typical'** behaviour are influenced by **cultural and personality factors**.
- Emotions and personal sense of self-efficacy** towards the child's behaviour are considered to relate to perceived **'severity'** of AD/HD.
- The above perceptions are thought to **differ for boys and girls with AD/HD**.

2. Second Stage

- Since adult perceptions might be different according to the child's sex, **adult responses, referral attitudes, and socialization practices** may also **differ for boys and girls with AD/HD**.

3. Third Stage

- Sex differences in responses, referral attitudes, and socialization practices towards boys and girls with AD/HD might ultimately influence the **child's perceptions of him/herself** and the **outcome of AD/HD symptoms** in the two sexes.

RESULTS

- AD/HD behaviours in **girls** are considered to be **no more severe** than AD/HD behaviours in **boys** ($t=1.01, p>.05$).
- AD/HD behaviours are regarded as **less typical** for **girls** than boys ($t=-2.07, p<.05$).
- Adults attribute **girls'** AD/HD behaviour to **biological causes** more often than they do for boys [$F(1, 118)=5.00, p<.05$].
- Adults regard **boys'** AD/HD behaviour as being more often **the parents' fault** than they do for girls [$F(1, 118)=10.43, p<.01$].
- Mothers consider that it is much **easier to control girls' AD/HD behaviour** than boys' ($t=-3.00, p<.01$).
- The **more severe** mothers consider the behaviour in **boys** the more likely they are to report feelings of **incompetence** towards them ($r=.39, p<.01$).
- The **more severe** mothers consider the behaviour in **girls** the more likely they are to report feelings of **annoyance** ($r=.32, p<.05$), **concern** ($r=.37, p<.01$) and **sadness** ($r=.37, p<.01$) towards them.

DISCUSSION

- Adult perceptions** about children's behaviour not only regulate **adult reactions** to children and **socialization practices** to which children are exposed, but they also influence **children's conceptions of themselves** and of **how adults want them to act**.
- Females:** Since behaviours of AD/HD are considered by adults as more **untypical** in **females**, girls may be socialized in a way that leads them to **control** these behaviours and **attain the desirable gender identity**.
- Males:** AD/HD behaviours seem to be **more tolerated**— and even reinforced— in **boys** (Maniadaki, Kakouros & Sonuga-Barke, 2003).
- Therefore, aspects of male roles** can contribute to the **development of disruptive behaviour** and **persistence of AD/HD symptoms** in **boys** at risk for the manifestation of the disorder, whereas **aspects of female roles** can contribute to **early decline of AD/HD symptoms**.
- As a result**, referral agents may **fail to identify AD/HD symptoms in girls** and to refer them to mental health specialists. This attitude may partially explain the reported **sex differences in the prevalence of AD/HD**.

REFERENCES

- American Psychiatric Association (1994). *Diagnostic and Statistical Manual of Mental Health Disorders (4th ed.)*. Washington, DC.
- Berry, C. A., Shaywitz, S. E., & Shaywitz, B. A. (1985). Girls with attention deficit disorder: a silent minority? A report on behavioural and cognitive characteristics. *Pediatrics*, 76, 801-809.
- Block, J. H. (1973). Conceptions of sex role: Some cross-cultural and longitudinal perspectives. *American Psychologist*, 28, 512-526.
- Brown, R. T., Madan-Swain, A., Baldwin, K. (1991). Gender differences in a clinic-referred sample of attention-deficit disordered children. *Child Psychiatry and Human Development*, 22(2), 111-128.
- Earls, F. (1987). Sex differences in psychiatric disorders: origins and developmental influences. *Psychiatric Developments*, 5(1), 1-23.
- Maniadaki, K., Kakouros, E., & Sonuga-Barke, E. (2003). Trainee nursery teachers' perceptions of disruptive behaviour disorders; the effect of sex of child on judgements of typicality and severity. *Child: Care, Health and Development*, 29(6) 433-440.