

CONTRIBUTIONS OF ATTACHMENT AND PARENTING PRACTICES ON EXPRESSION OF ADHD SYMPTOMS IN SCHOOL-AGED CHILDREN: A STUDY PROTOCOL

J.-F. Wylock^{a,c}, A. Borghini^b, V. Delvenne^c, H. Slama^{a,d}

^aUR2NF - Neuropsychology and Functional Neuroimaging Research Group at CRCN - Center for Research in Cognition and Neurosciences and UNI - ULB Neurosciences Institute, Université Libre de Bruxelles (ULB), Brussels, Belgium. ^bHigher School of Social Work (HETS), Geneva, Switzerland. ^cDepartment of Child and Adolescent Psychiatry, Queen Fabiola Children's University Hospital (QFCUH), Brussels, Belgium. ^dDepartment of Neuropsychology and Speech Therapy, Erasme Hospital, ULB, Brussels, Belgium.

Introduction

Several studies observed an association between insecure and disorganized attachment and ADHD symptoms in clinical and community samples [1]. Relationships between the child and his caregivers could minimize or amplify the effects of neurodevelopmental factors that underlie phenotypic expression of ADHD [2]. Other studies suggested that this association is secondary to presence of comorbidities (e.g., conduct disorders) [3]. Few studies have simultaneously investigated influences of confounding factors such as comorbidities, cognitive profiles, contextual factors (e.g., parental mental health) or attachment assessment method [see 4 for review].

Objective: The main objective of this research is to help investigate disentangle the contributions of parents-child relationships and cognitive characteristics on child ADHD symptoms, using an intergenerational perspective.

Method

This ongoing cross-sectional study compares ADHD and typically developing (TD) children aged 7 to 10 years old and their parents. TD children (N=50) are recruited from primary schools and youth movements. ADHD children (N=50) are recruited from child psychiatric and child neurology outpatient clinics of two university hospitals.

Inclusion/exclusion criteria of ADHD children are the presence of an ADHD diagnosis confirmed by semi-structured psychiatric interview (Kiddie-SADS), absence of intellectual deficit (IQ > 80), epilepsy, prematurity or any neurological condition.

Child assessment includes behavioral questionnaires rated by parents, and measures of attentional, executive functions and emotional regulation. Child attachment is investigated using interview and self-report.

Assessment of parents includes measures of mental health, ADHD and depressive symptoms, cognitive functions and attachment style. Parenting practices are assessed by parent self-report.

Measures

Child symptoms rated by parents

- Child Behavior Checklist (CBCL)
- ADHD-Rating Scale-IV (ADHD-RS-IV)
- Behavior Rating Inventory of Executive Function (BRIEF)
- Emotional Regulation Checklist-vf (ERC-vf)
- Children's Sleep Habit Questionnaire (CSHQ)

Parental symptoms rated by interview and self-reports

- Mini International Neuropsychiatric Interview (MINI)
- Adult ADHD Self-report Scale (ASRS)
- Wender Utah Rating Scale (WURS)
- Behavior Rating Inventory of Executive Function for Adult (BRIEF-A)
- Beck Depression Inventory-II (BDI-II)

Child cognitive assessment

- Weschler Intelligence Scale for Children, fifth edition (WISC-V)
- Test of Attentional Performance (TAP)
- Revised Card Sorting Test (RCST)
- Counting Stroop
- Tower of London (child version)

Parental cognitive assessment

- Matrices, Figure Weight and Digit span (WAIS-IV)
- Test of Attentional Performance (TAP)
- Stroop
- Tower of London
- Relationship Scale Questionnaire (RSQ)

Child attachment assessment

- Attachment Security Scale - vf (ASS-vf)
- Cards for the coding of Attachment and Mentalization in Children (CAME)

Parent attachment and parenting practices

- Relationship Scale Questionnaire (RSQ)
- Evaluation des Pratiques Educatives Parentales (EPEP)

Administration procedure

Semi-structured
interview with
child and parents
Questionnaires

Child intellectual
assessment

Child cognitive
assessment

Child attachment
assessment

Parental cognitive
assessment

Discussion

- This study is the first that aims to investigate the contributions of parents-child relationships and cognitive characteristics on child ADHD symptoms, using an intergenerational perspective.
- This work investigates also the influence of attachment assessment by using simultaneously tools to assess perception and representation of attachment.
- Finally, this design makes it possible to study the contributions of parental attachment style and cognitive functions on parenting practices and whether these mediate or moderate the association between parents and the child's executive functions.
- Results could help develop parenting- skills training programs to improve attachment, symptomatic expression of ADHD and reduce functional impairments

References: [1] Storebø et al. Association between insecure attachment and ADHD: Environmental mediating factors. *J. Attention Disorders*, 2016; 20 (2), 187-196. [2] Franck et al. ADHD and attachment process: Are they related? *L'encéphale*, 2009; 35, 256-261. [3] Franke et al. Attachment in Children with ADHD. *Journal of Behavioral and Brain Science*, 7, 497-510. <https://doi.org/10.4236/jbbs.2017.711035> [4] Wylock et al. Child attachment and ADHD: a systematic review. *Eur Child Adolesc Psychiatry*, 2021. <https://doi.org/10.1007/s00787-021-01773-y>

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