

## ADULTS WITH ADHD – A RETROSPECTIVE ACCOUNT OF THE FAMILY SYSTEMS AND ATTACHMENT RELATIONSHIPS

Milla Syrjänen, Airi Hautamäki, Natalia Pleshkova, and Sinikka Maliniemi

### Abstract

**Objective:** This multiple-case study explores the self-protective attachment strategies of adults with ADHD and the history of the dangers in their family of origin.

**Method:** Nine respondents were interviewed using the Adult Attachment Interview, AAI (The Dynamic Maturational Model modification).

**Results:** All respondents had experienced dangers connected to the lack of protection and comfort in their families of origin, including unresolved traumas, such as early emotional neglect, later supervision neglect, abuse and witnessing discord, even domestic violence, in triangulated family relationships. Three subgroups were formed on the basis of the attachment classifications.

**Conclusions:** The recognition of the variety of attachment strategies, disorientation modifying, and unresolved traumas interrupting the strategic self-protective functioning, can contribute to the tailoring of individualized psychological treatment. The psychological treatment would help these adults with ADHD to understand how the unresolved traumas and triangulated family systems have impacted and still impact them.

**Key words:** ADHD, adult attachment interview, emotional neglect, later supervision neglect, abuse, witnessing discord, domestic violence, attachment strategies, unresolved traumas, strategic self-protective functioning

---

**Declaration of interest:** none

---

Milla Syrjänen,<sup>1</sup> Airi Hautamäki,<sup>2</sup> Natalia Pleshkova,<sup>3</sup> and Sinikka Maliniemi<sup>4</sup>

<sup>1</sup> Faculty of Educational Sciences, University of Helsinki, Finland.

<sup>2</sup> Swedish School of Social Science, University of Helsinki, Finland

<sup>3</sup> Division of Child and Parent Mental Health and Early Intervention, St. Petersburg State University, Russian Federation

<sup>4</sup> Private practice in psychotherapy, Helsinki, Finland

### Corresponding author

Milla Syrjänen

milla.syrjanen@helsinki.fi

### Introduction

Attention deficit hyperactivity disorder (ADHD) is a common psychiatric condition with high comorbidity, the symptoms of which, in even 65 % of the cases, last into adulthood (Faraone et al. 2006). In the review of Fayyad et al. (2007), the estimated prevalence of ADHD in adults was 3.4% (range 1.2-7.3%). Despite the dominant genetic explanation models (Gizer et al. 2009), ADHD is argued to develop as the result of interplay between genetic and environmental factors (Tarver et al. 2015). In attachment theory, ADHD has been conceptualized as a disorder of self-regulation rooted in troubled early caregiver-child interactions (Clarke et al. 2002) and connected with insecure attachment (for a review, see Storebø et al. 2016). In addition, several studies (review by Hechtman 1996, Ladnier and Massanari 2000) stress the discordant and disruptive relationships in families of children with ADHD: the lack of a balanced relationship between two caring adults, the inconsistent and unpredictable parenting and the exposure of the child to emotional or physical abuse and neglect. Studies indicate that ADHD is associated with insufficient protection and comfort, lack of sustained attention contributing to the 'bonding break' connected to spiraling, deteriorating cycles of

coercive interaction (Ladnier and Massanari 2000) and 'the demand-dissatisfaction cycle', undermining the creation of 'a routine of management' (Stiefel 1997).

The presence of the symptoms of inattention, hyperactivity and impulsivity suffices to diagnose ADHD (American Psychiatric Association 2013). Thus, the psychological function of the symptoms in family interaction is rarely taken into account (Landini 2014). However, adopting a strength approach, the characteristics of ADHD, being distractible and distracting, 'response-ready', able to scan widely for unexpected threats (Jensen et al. 1997) can also be conceptualized as an adaptation to stressful and unpredictable family circumstances and part of organized self-protective attachment strategies (Crittenden et al. 2014). Using the concept of family triangulation (Dallos and Vetere 2012), Crittenden et al. (2014) present a systemic hypothesis based on various functions of the ADHD symptoms in family interaction. Triangulation means that the child is drawn into schismatic spousal relationships, invited to collude with one parent against the other and to take sides. However, the child is unable to perceive the factors that motivate adult behavior (Crittenden 2016). The greater the exposure to danger and deception about danger, the more extreme is the self-protective strategy of the child.

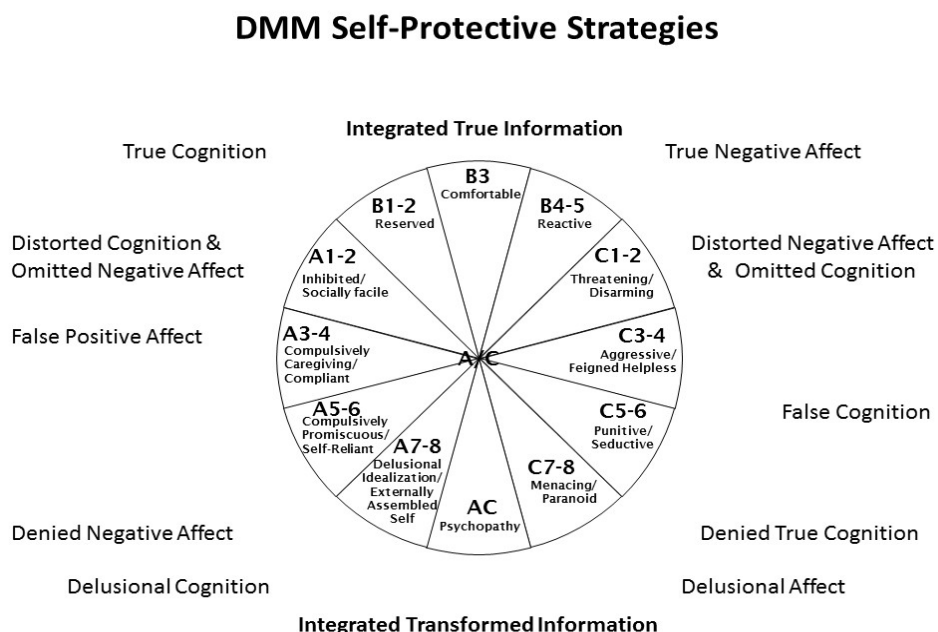
The function of the child's behavior may be to deflect parental problems by turning their attention to his own arousal problems by struggling with his parents and getting into trouble. This may reward the child for the exaggeration of negative affect and result in a Type C+ strategy. If the threat in the discordant family relationships is clear, predictable and inescapable, the child has to resort to a Type A+ strategy, sometimes connected to intrusions of negative affect (Crittenden et al. 2014). In addition, Crittenden and Kulbotten (2007) connected disorientation to a non-strategic high arousal state, because of problems in source memory (Schacter 1996). They state that, when the precise source of the memory is omitted from the dispositional representations, there is an over-attribution of representations (from different times and perspectives), creating an uncertainty in regard to the nature of the danger and its relevance to the self. As every dispositional representation appears self-relevant and must be acted upon, the person is characterized by a continuous diffuse hyper-arousal. At the same time, he does not know the reason for this. For a child this may mean that the imminent threat is not tied to, nor visible to the child, but may be acted out with him in a way as if he had caused the parents' behavior, e.g. when parents are responding to their own traumas or problems in spousal relationships. The child cannot perceive his parents' true intentions, accurately understand self-relevant causation and discern his contribution to the outcome (Crittenden 2016, Crittenden et al. 2014). In sum, the child's ADHD symptoms may serve a self-protective function in a family, where he feels unprotected, but cannot organize around a specific danger.

The present study was conducted using The Dynamic Maturational Model of attachment and adaptation (DMM) that focuses on adaptation to danger. The DMM is particularly suited to differentiate among endangered individuals who cope by developing more extreme self-protective strategies. The array of DMM protective attachment strategies are grouped as Types A,

B and C, originally identified by Ainsworth, with many sub-strategies, as described by the DMM (Crittenden 2016; see figure 1).

The stress of the DMM is on processing of information about attachment relationships and it is organized around two behavioral dimensions, cognition and affect. Children learn to rely on cognition, that is, sequential information of contingencies leading to safety or danger, if their displays of negative emotion (fear of abandonment, desire of comfort or anger) are consistently rejected. They learn to inhibit displays of emotion in order to prevent the stress-related feelings connected to the expected rejection by their parents. The threats connected to the development of Type A1-2 are low. The children are protected from real danger, but not comforted sufficiently, that is discouraged from protracted displays of emotion (Crittenden and Landini 2011). Besides the Type A in the normative range (A1-2), there are six compulsive strategies (A3-8). These strategies of endangered children are considered compulsive, because children not only inhibit behaviors rejected by their parents, but shape their behavior to fit the demands of other people in general (Crittenden 2016). Children, who use Type C strategies have had unpredictable parents. They have learnt that sequential information of contingencies promising safety or danger cannot be trusted. Affective information is given precedence over cognitive information (Farnfield et al. 2010). As the attachment figures tend to pay attention to what is seen as negative behavior from their perspective and, thereby, to reinforce overtly forbidden behavior, the preschool children learn to coerce their parents by using an affective logic, alternating between split and exaggerated affects, that is, displays of threatening anger versus vulnerability and helplessness. The function is to maximize the attention of the attachment figures and render them predictable (Crittenden 2016). Besides the Type C strategies in the normative range (C1-2) there are six obsessive strategies (C3-8). The DMM also includes

Figure 1. DMM Self-Protective Strategies (© Patricia M. Crittenden, used with permission)



the combinations of A and C patterns, alternating A/C or blended AC (Crittenden and Landini 2011). In the present study, A3-8 and C3-8 strategies are also termed as A+ and C+.

The present study aims to explore the self-protective attachment strategies of adults with ADHD and the history of the dangers and the traumas, as presented in retrospect, in terms of the DMM (Crittenden 2016). To our knowledge, the attachment strategies of adults with ADHD have not been studied earlier using the Adult Attachment Interview, AAI.

## Methods

### *Multiple-case study*

One aim of the multiple-case study is to analyze data by using explanation building technique that is, to formulate general explanations that fit the singular or multiple cases, based on commonality and differences, across manifestations (Yin 2003). The focus is to understand the meaning of the circumstances within cases though an exploratory case study cannot generate causal relations (Eisenhardt 1989). For this reason, a case study can be defined as a hypothesis-generating, not hypothesis-testing, process (Glaser and Strauss 1967). Because of the lack of previous research in regard to ADHD in adults and attachment, the multiple-case study design was fitted for the purpose of this study.

### *Respondents*

Nine respondents (females=5; males=4; mean age 29.7 years; range 22.7-37.3), identified as R1-R9, were recruited from a University Central Hospital, Department of Psychiatry, Clinic for Neuropsychiatry. All the clients of this clinic, who fulfilled the inclusion and exclusion criteria, were invited to participate in the study between May 2010 and May 2015. However, the respondents were hard to find, because individuals with ADHD often have other psychiatric diagnosis. The goal was to ensure that the sample would exemplify the disorder that was to be studied and that the conclusions would not be inflected by other comorbid disorders. Study inclusion criteria included: (1) age between 22 and 45; (2) ADHD diagnosis assigned in a University Central Hospital, Department of Psychiatry, Clinic for Neuropsychiatry; (3) the respondent who had moved away from his or her family of origin; (4) Finnish as the first language; (5) at least six Apgar points at the time of birth. Study exclusion criteria included: (1) a comorbid DSM-IV diagnosis and ongoing regular use of psychotropic medicines, except for the ADHD-medication, at the time of the study; (2) participation in any form of psychotherapy before or at the time of the study.

ADHD diagnosis had been assigned to each respondent by psychiatrists after the diagnostic assessment based on multiple sources of information, e.g., The Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) (First et al. 1996), The Structured Clinical Interview for DSM-IV Personality Disorders (SCID-II) (First et al. 1997) and Conners' Adult ADHD Diagnostic Interview for DSM-IV (CAADID) (Epstein et al. 2001). The respondents had received the ADHD diagnosis as adults, but during the diagnostic process, it was verified that they had shown ADHD symptoms already when they were children. Eight respondents met the criteria for the ADHD combined subtype and one for the predominantly inattentive subtype.

All but one respondents had the ongoing ADHD-medication at the time of the study. All of the respondents had completed secondary school and three had finished some kind of education after that. Six respondents had children of their own.

### *The DMM AAI*

Each respondent was interviewed using a semi-structured, standardized and validated interview, elaborated from the Adult Attachment Interview, AAI (George et al. 1985, Hesse 2008). The interviews were audiotaped and transcribed verbatim. The AAI includes questions regarding experiences in early close relationships, provision of protection and comfort, traumas and losses. The focus is on the dangers in the history of the respondent, in particular, the degree of coherence of the discourse around incidences that may have endangered the respondent and his development. Coherence of discourse, according to Grice's (1975) conversational maxims, is considered a crucial indicator of the coherence of mind (Hesse 2008, Crittenden and Landini 2011). In the integrative questions, the respondent is asked to assess the consequences and the meaning of his experiences, which gives information on his reflective functioning (Farnfield et al. 2010).

The DMM AAI also has markers for modifiers that indicate the failure of the self-protective strategies; the markers of a particular attachment strategy are present, but the speaker cannot use the strategy to protect himself (Crittenden and Landini 2011). Crittenden and Landini (2011) identify depression (Dp: refers to a sad awareness of self as object and that the strategy is not working), intrusion of forbidden negative affect (ina: refers to an uncontrollable rush of the forbidden affect) and disorientation (DO: refers to a confusion in regard to the source of a memory, where information of relationships springs from, paralleled by over-attribution of the self as the source of information). Reorganization (R) reflects an emergent process of change from one strategy to another.

George et al. (1985, Hesse 2008) focus on identifying evidence of preoccupying lack of resolution of trauma. In the present study, the DMM AAI was conducted in order to identify also other forms of psychological responses to unresolved trauma. A trauma is probable, if the child is not able to protect himself with his attachment strategy (Crittenden and Landini 2011). Unresolved trauma is characterized by the difficulty in discriminating between safe and dangerous situations. In coding the DMM AAI, the focus is on the coherence of discourse around the incidents of danger temporarily interrupting the self-protective functioning. Incoherent discourse indicates that the speaker is not yet resolved regarding a specific dangerous episode, and may defensively dismiss, displace, deny or block the danger (Crittenden and Landini 2011).

### *Data analysis*

Each AAI transcript was coded and assigned to a classification on the basis of its overall fit to the attachment categories elaborated by the DMM modification (Crittenden and Landini 2011) of the Main and Goldwyn (1984-1994, Hesse 2008) coding method. The transcripts were coded by two coders, trained by P.M. Crittenden, of which one had research-level reliability. The interrater agreement on the AAI major category was 100% for the Type A+C+ transcripts and DO. In regard to the A+ transcripts, the coders agreed on

the Type A+ component, but there was dissent regarding the additional C component. By a careful analysis of the number of markers in different memory systems, the functions of the markers and the level of arousal of the speakers (Crittenden and Landini 2011), the coders agreed that the sole outburst of affect should be coded as an intrusion of affect. The coders agreed in regard to unresolved traumas, in particular, regarding emotional and sexual abuse and witnessed domestic discord. In regard to two transcripts, the distinction between dismissed vs denied trauma regarding emotional neglect was discussed and agreed on.

Each transcript and the coding report was read several times to become familiar with each case (within-case analysis, see Eisenhardt 1989). Next, the cross-case patterns (Eisenhardt 1989) were searched with the help of the analysis of the discourse and the content of the history that was presented in the transcripts. Starting from the first transcript, attention of the coders was drawn to (1) the unresolved traumas, connected to several dangers, in particular, emotional neglect, emotional and physical abuse, and witnessed domestic discord, and (2) the highly incoherent discourse in the first three transcripts (the speaker sliding from one perspective to the next, as if different histories were told), which made it difficult for the coders to construct the history and psychological profile of the speaker (see markers of disorientation, Crittenden and Landini 2011). Gradually, a consistent theme emerged. The fourth transcript was the first one in which the speaker was able to portray the triangulated family system into which he had been drawn and in which his parents unintentionally imposed their perspectives of the behavior of each other on the speaker. After that, bits and pieces of a triangulated family pattern (Dallos and Vetere 2012) could be discerned in the transcripts. Through the familiarization with the data, hypotheses were shaped and they formed the emergent frame that was compared with the extant literature and again, with the evidence from each case. In terms of Eisenhardt (1989), the central idea was the constant comparison of theory and data. The hypotheses were: (1) Dangers, including unresolved losses or traumas in regard to neglect, abuse and witnessed marital discord including triangulation in the speaker's family of origin are part of the history of dangers presented in the AAI discourse. (2) Though the descriptive diagnosis (ADHD) is the same for the respondents, there is a variation of complex self-protective attachment strategies, because the adaptive functional significance of the ADHD symptoms in family interaction varies; (3) The long-term developmental cost for this adaptation may be disorientation. Markers of disorientation will be found in the discourse reflecting the failure of self-protective strategies (Crittenden and Kulbotten 2007, Crittenden and Landini 2011). After reading nine transcripts, a level of saturation was attained in regard to the hypotheses formulated.

The AAI transcripts were classified into three subgroups on the basis of the risk connected to the gradient of transformation of information related to the attachment classifications (Crittenden and Landini 2011, Crittenden 2016). Following Landini et al. (2016), the classic Ainsworth strategies in the normative range (A1-2, B1-5, C1-2) were considered low risk. The strategies elaborated by the DMM ranged from moderate risk (A3-6, C3-6) to high risk (A7-8, C7-8).

### *Ethical considerations*

The study was approved by the Medical Ethical

Committee of the University Hospital. The respondents gave written informed consent. Post-interview feedback was available.

## Results

### *Themes*

#### *Traumas in regard to abuse and domestic violence.*

For the respondents, emotional abuse, often connected to physical abuse was a typical trauma, an integral part of the affectively heated, escalating and deteriorating cycles of family interaction and so poignant that the respondents were still preoccupied by it. R1 told about the easily aroused, spiraling negative affect in the adverse cycles of family interaction coupled to the heightened risk of physical abuse. She also told about the violent fights between her and her brother, which, according to her, may have modeled their abusive parents. When asked about how she thought her childhood experiences had affected her adult personality, she showed some self-awareness in regard to her problem of reacting with anger. She was still preoccupied by the physical abuse:

We-ell (pause 1s) well hmm (pause 2s) I don't know, I, in a way, myself may, kind of really, or I mean, lose my temper in a way, really sort of not easily, but if I get angry, then I may, in a way, or somehow, I sort of totally lose my self-control, and then, but then again, I don't know, has it, in a way, been influenced by that my parents have been like that, or in a way, or am I just what as I am, or in a way, how is it in a way actually, and then.

She paused, was very dysfluent regarding the negative affect and questioned herself. She could not sort out her own perspective, why she felt that she was prone to react impulsively with anger and was not able to draw self-protective conclusions. Although R7 was able to describe early emotional neglect by his hard-working parents, he dismissed some of its impact on his development. His deep-seated feelings of worthlessness were also connected to emotional abuse by his father, who in their heated and escalated fights had shouted that the speaker was "good for nothing". Emotional abuse is a risk factor for internalizing problems, because it negatively impacts the development of the self-system and regulating self-esteem (McGee et al. 1997). If the child has to experience intense negative affect by parents that cannot be displayed, the child's capacity to self-regulate may be compromised, increasing the risk for internalizing difficulties (McGee et al. 1997). The lack of parental warmth (Nicholas and Bieber 1996) connected to the derogation of the child decreases the availability of emotional scaffolding and social support (Cecil et al. 2017). Cecil et al. (2017) stress that emotional abuse is associated with negative mental health outcomes, because it indexes something that is common to all types of maltreatment. R7's fear was to be left alone, rejected and un-loved, if failing parental expectations. He did his best to perform, currently studying to become a trained professional.

The speakers reported that they had witnessed quarrels between their parents, even escalating to domestic violence. They either tried to minimize or dismiss the parental fighting, or were preoccupied by the domestic violence. R4 was on his way to resolve his trauma and asserted that something good had come out of it, that is, he was not going to treat his spouse as his father treated his mother, and his children would not witness similar scenes of domestic violence. R9,

after her first child was born, ended all communication with her father, because she did not any longer want to be drawn into the triangulation of her family in origin and her children to witness the alcohol abuse and life-threatening domestic violence. She was capable of drawing self-protective conclusion for herself and her children. She told, in a dysfluent way, lacking memory at some points, questioning herself, also in present tense, the following episode to illustrate that her relationship to her father had been frightening:

Um-m, I don't remember, how it has sort of started. I remember there was such a closet in the end of that hallway, and then there was a telephone (inhales). And then, when mother always called the cops, so then mother, father said that (swallows) um-m that (pause 2s) was it mother, probably (she) was sort of heading at that closet to call up, so that it (father) wouldn't hear that it (mother) is calling (inhales) and then there probably has been such, which you needed to grind at that time so (pause 2s) so well and have certainly been then so (inhales) then father came there and then I don't know, if it (father) has hit there. Then it (father) has kind of said that 'now you will call those cops, or I will beat you. And then, if you call, then I will beat you up', so there was no sort of (pause 2s) in a way, in principle that's all I remember (inhales). And then father, I don't, I don't remember, I don't know, if I have, or probably I have seen, because I have been the one who always has been (a go-) between them in a way, so that I have seen those, probably all those incidents pretty well. Mm, but I don't sort of remember it (talks slowly trying to access memories) (pause 2s) as it happened sort of very well, nothing else than that (pause 2s) hallway. And I don't even remember what happened after that. Probably (pause 2s) father has left from there and then the cops have arrived and taken it (father). I don't know (inaudible word), that time, that mother's (inaudible word) sort of eye is kind of bruised up and then it (mother) told the doctor that it (mother) fell on ice and then the doctor said that falling in that way wouldn't result in such an injury, but in a way nobody (pause 2s), but it is perhaps, probably in a way such a thing.

She was still preoccupied by her frightening experiences concluding vaguely that nobody intervened. Her transcript did not meet the criteria of the depression (Dp) in the DMM AAI (Crittenden and Landini 2011), but she was sad about that she had not been able to impact the destructive relationship of her parents, and that she had to take a distance from them.

**Traumas in regard to emotional neglect.** Early emotional neglect and later supervision neglect could be discerned in all transcripts. The emotional neglect was dismissed, sometimes displaced to a younger sibling, even denied. In some transcripts, it could only be derived indirectly, e.g., the child having thoughts about running away from home, building a phantasy home in the woods; listening to the ever-changing sounds of the city from the open window, in order to self-soothe; peeing in one's pants as a 4-year-old child in the night and not daring to call her mother or go to the restroom alone. R6 told about familial Christmas celebrations, when she was asked to tell what happened when she was ill as a child:

... But that I remember that I was sick one Christmas and I certainly remember that (laugh) I was lying (laugh) there on the floor of our long hallway and I looked at the

living room. There was the Christmas tree and in a way the presents. I have such a memory that probably it only sort of (groans) that probably I have in no way been left there on the floor, but I have been that exhausted that I haven't had the strength to enjoy those presents, instead I have gone to lie down there, that somehow I have felt as if I was lonely sort of that I am alone there (inhales) on the hallway floor, that our Christmases were always extremely sort of wonderful, and nobody ever drank or anything like that, but somehow i-, that it is almost the only thing that I remember that I would have been sick.

She remembered only one time being ill, lying abandoned in the hallway, when she was needy. She took responsibility for not being able to take part and dismissed feeling lonely. The episode ended in a positive wrap up of the wonderful Christmas celebrations (nobody drank, although her father had a chronic drinking problem) dismissing the emotional neglect.

The supervision neglect was expressed in some transcripts (R2, R4, R7) by the narratives of mothers not reacting to their children's early experimentation with tobacco and alcohol. R2 told how he nearly drowned (which he took the responsibility for), when he was six years old and went swimming alone. He told how he took care of himself and his brother as they were school-aged children, because their divorced single parent mother worked and travelled much.

**Triangulation.** The family relationships were triangulated. All respondents monitored their speech, expressed by pauses, indicating cautiousness in regard to what could be said. R1 told in a contradictory way how she felt, when her parents were fighting:

(pause 1s) Hmm, actually one was really afraid somehow, I don't know why (sneers) or in that way, because it was not sort of related to me, or perhaps then I sort of was afraid that if I say something, then they will get angry at me, too, or something sort of like that.

The speaker said that she was frightened, but distanced herself. She did not know why, because she claimed that it was not connected to her. She went on and changed her perspective ending with a vague statement minimizing the parental anger. Apparently, she had been exposed to conflicting parental responses and take sides in conflicts between her parents. However, she was not aware of the situation and could not causally connect her anger and fear to the contradictory expectations connected with being stuck into the family triangle.

Four respondents (R4, R6, R7, R9) were able to verbalize how they had been drawn into their parents' conflicts. In particular, the partially reorganizing respondents (R4, R7 and R9) told how they, as children, were invited to collude with one parent against the other. R7 described how his mother derogated his father in the aftermaths of a jealousy attack:

... It (he) was sort of most jealous of that that mother was an (occupation removed) and it (mother) travelled a lot, so then it (father) kind of made it (her) feel guilty that it (mother) had some work trips and then sort of blamed it (her) that it (she) surely had another man or that, and something like that that (inaudible word) some really stupid things in the presence of children, retrospectively thought, but (pause 4s) so (they) have been angry also at each other. And then moth..., mother, however, did not shout ever in those situation, but then

it (she), however, may have sort of, not slandered, but in a way talks a bit then sort of when father is not present, so then it (mother) says again, that it (father) is such an idiot and blaa, blaa, blaa in that way, that...

He was open about the problem and verbally articulated the perspectives of his father accusing his mother, and his mother devaluing his father, and concluded that, in retrospect, it was stupid to act like this, when the children were listening. He ended with 'that' and left the self-relevant conclusion about the affective impact of his role on himself open. Integrative thinking was partly forestalled in regard to his own feelings.

R9 described how her father's strong derogation of her mother had impacted her perception of her mother:

Mm that I remember that I considered father as, kind of a real, such a hero in that way that (inhales) it (father) was just kind of a really great guy (inhales). And perhaps my, my and my mother's perhaps in a way slightly such (pause 2s) more icy, not icy relationships, but in that way that we are not so close, may also be a result of that father despised mother really much (inhales) and talked about it (mother) or talked really disrespectfully and really rudely, so that, although I don't think like that, but I feel that it certainly also has affected this, because then sort of reciprocally (inhales), but well.

However, the speakers were not yet able to fully articulate the impact of being exposed to conflicting parental responses. They were only partially able to causally connect their anger and frustration with their roles in the family triangle.

**Self-blame: the internal causal attribution of oppositional behavior.** Self-blame (Dallos et al. 2012, Martel et al. 2011) was the clearest semantic conclusion for the respondents. They recalled predominantly negative experiences for which they blamed themselves. R8 remembered that her mother was always angry, shouting at her being "a walking disaster." R3 offered her immutable intrinsic character as an explanation to how her childhood experiences had impacted her personality. She spoke dysfluently, accompanied by false positive affect:

(pause 2s) Well, I really can't say anything to that (talks slowly) umm-m (pause 6s) in fact I have actually always kind of, I have thought sort of that (pause 1s) that the intrinsic character of a human being is that that (pause 1s) strong that (pause 1s) that (pause 1s) or well sort of that (pause 3s) um-m (pause 2s) what a human being is now, so that can't that can't in my opinion in a way, can at best be used as a bad excuse for that that (stutters) someone is what one is, because of this and that, but or well, I don't know, or (laugh) I would say that (pause 3s) um-m well, yes of course now (pause 2s) (stutters) some things can in a way affect something (pause 2s) or I mean in sort of that, I think I am I am (stutters) um-m, I have somehow such (pause 1s) such (pause 1s) um-m, how can it be said, um-m (stutters) a strong (pause 1s) intrinsic character that in a way, nothing won't have an impact on it that I would be like this anyway in spite of whatever would have happened (laugh) and nothing can be done about that (laugh).

The respondents considered the punishments as legitimate, caused by themselves, because, in retrospect, they described themselves as challenging children. R1 explained her parent's physical punishments by portraying herself negatively, taking all the responsibility

and ending in an inconclusive metacognition, that is, she really did not know:

Well, probably they have been that angry that then I only sort of, I don't know, just acted as (I) have acted, that they haven't sort of really thought of what they are doing (sneers) or then I have been a really irritating brat or something (sneers). I don't know.

The ADHD diagnosis had ultimately confirmed that something, from the beginning, had been wrong with them and they considered their behavior as an internal, immutable trait. Because they had been stubborn children, they were responsible for the intersubjective problems in their family systems. This could be considered a depression marker in the DMM AAI. The ADHD diagnosis may even enhance deterministic thinking, 'I am suffering from genetically determined disorder; there is no other cure than medication'. If social failures accumulate, learned helplessness, even depression may result.

## Risk levels

**The high risk group** consisted of three female respondents. R1 and R3 were classified as DO A+C+. Due to the rapid variations in the discourse, no specific sub patterns could be designated. There was evidence of bits and pieces of A+ and C+ patterns thrown into the discourse, but these were used non-strategically, i.e., did not help the respondent to dismiss the negative affect in order to wind down or to involve the interviewer. R6 was classified as DO A3,4,7 C3 (a blended combination of A+ and C+ strategies modified by disorientation).

The AAI discourse indicated that the respondents lived in a vague and fluid intersubjective reality, difficult for them to decipher and interpret in terms of self-relevance (Crittenden et al. 2014). They were diffusely hyper-aroused, but could not decide what to attend to, so they tried to attend to everything. The transcripts were incoherent with lack of the connection between different parts of the interview. The speakers slid from one perspective to the next without being aware of it themselves. They were not able to sort out, in a self-relevant way, their own perspective, neither in childhood nor adulthood. They could not remember episodes substantiating the idealizing semantic words of their parents and blamed themselves for misfortunes. Yet, they tried to explain why unfortunate things had happened and concluded that they did not know for sure. Though a broad range of information appeared to be available for the respondents, it was difficult for them to integrate information to yield new understanding and more adaptive behavior in terms of self-protection. Their integrative analyses in the AAI represented a combination of 'analytic' (looking at themselves from the outside with the eyes of a professional, taking the perspective of the interviewer) and 'psychobabble' resulting in inconclusive metacognitions, i.e., self-questioning attempts at reflective thought that did not lead to self-relevant or – protective conclusions (Crittenden and Landini 2011). Indications of their blurred inter-subjective reality were the use of vague expressions, e.g., 'sort of', 'kind of', 'in a way'. Procedurally, the confusion of the speakers was the most evident when they requested reorientation from the interviewer, questioned or tried to reorient themselves through self-talk. They confused the interviewer, who had to work hard to stay on track and to make sense of what was said. The coders had difficulties in constructing

a psychological profile binding together the past and the present in a psychologically plausible way, because of the different versions of history told.

These respondents had been confronted with dangers in their family of origin, but they appeared unaware of it. Although they described domestic discordance including triangulation, they were not aware of or could not verbally articulate their roles in regulating their parents' relationship. Domestic violence and physical abuse was expressed indirectly in accounts of, e.g., playing in a risk-taking way a game of being sent to the gallows and being nearly killed by hanging as well as sadistic nightmares. R1 feared her uncontrollable anger and that she would be at risk hurting her presumptive own children like her parents hurt her and her siblings. She sadly doubted whether she, for this reason, could have any children of her own.

R6 showed some capacity to verbally articulate her role in regulating the spousal relationship. However, she acted out her high arousal and anxiety through an excessive flow of words. She was able to talk, on the semantic level, about the sources of danger, but could not get in touch with and actually feel her negative affect in regard to the threats even denying negative parental intentions. Because of her strong denial of negative affect, she could not take a clear affective stance in regard to her attachment figures and draw self-relevant conclusions of how to protect herself against excessive parental demands still put on her.

**The moderate risk group** consisted of one female respondent, R8, and two male respondents, R2 and R5.

R8 was classified with the Type A3 C3,4 attachment classification (a blended combination of compulsive and obsessive strategies), interrupted by strong traumas. These unresolved traumas, i.e., the early loss of her father and later sexual and physical abuse by her stepfather, pervaded her functioning all through the discourse and derailed her A+C+ strategy at these points. She was still preoccupied by childhood traumas and losses, though she tried to deny, displace and dismiss them.

R2 and R5 were classified as compulsive Type A6 strategy, interrupted by traumas, and R2 combined with an affective intrusion. Although they had been confronted with threats in their childhood families, in particular, emotional neglect and marital discord, the uniting feature was that they dismissed the impact of any sort of danger on themselves. R2, who had met the criteria for the ADHD predominantly inattentive subtype, sat still all through the interview avoiding affectively rousing topics by monitoring his discourse, being dysfluent regarding the negative affect by cutting-off them and by becoming very vague. The only time he did not succeed was in the context of probing his plans for suicide. For a short moment, angry affect intruded, he came alive and he presented a cruel suicide phantasy in terms of the unconnected images of chopping (his) head and limbs off using a guillotine like machine.

**The low risk group** consisted of two male, R4 and R7, and one female transcript, R9, classified as IO(R) (Insecure Other, partial reorganization) (Crittenden 2014). IO means Insecure Other (dysfluencies of speech and distortions of thought do not fully fit the DMM attachment patterns and the discourse shows some features of reorganization, see Crittenden and Landini 2011). The transcripts allowed the coders to construct a psychologically plausible picture of a harsh childhood. Yet, although the respondents were able to verbally articulate the dangers in their families of origin and their own negative affect elicited by their role in the

family triangle, they were not yet fully able to discern the affective impact of the dangers and the triangulated relationships on themselves. R4 and R7 acknowledged the triangulation, but because they still idealized their mother, they were not able to recognize the emotional neglect they had experienced and they still displayed some mixed feelings toward their father. R9 was sad about having to withdraw from her parents' self-destructive relationship in order to protect her children and herself. Her greatest fear was that she would repeat her parents' tragic relationship not being able to protect her children. Expressing self-efficacy, she thought she had been able to create a more balanced family than her own family of origin:

... Bu., I don't know, I have always had so- sort of such a joy of life and (inhales) a need sort of to live and progress forwards (pause 1s), yet sort of not to leave those issues unprocessed, but such that I haven't in a way got stuck (pause 1s) in those sort of (inhales) deep muds, and (pause 2s) well.

However, the partial reorganization did not include all the traumas. R9 was still partly caught up in past childhood traumas, in particular, the domestic violence connected to parental alcohol abuse. The unresolved traumas among the partially reorganized respondents might still affect them and their understanding of their own safety and that of their children.

## Conclusions and implications for treatment

The AAI transcripts of nine adults with ADHD were analyzed. The variety of self-protective attachment strategies was found, some of which were modified by disorientation, and all transcripts containing dangers and resulting unresolved traumas. However, the respondents differed in their awareness of the unavoidable and imminent dangers as expressed by their capacity to verbally articulate them, by using internal mental state language (Beeghly and Cicchetti 1994), in a self-relevant way. Fonagy et al. (2015) term this mentalization, i.e., an individual's capacity to understand himself and others in terms of mental states, acquired in the context of attachment relationships. Although the disoriented respondents described fragments of domestic discordance and violence including triangulation, they were not able to articulate the impact of being exposed to conflicting parental responses, drawn into take sides in conflicts between their parents and not being noticed and seen as the unique children they were. They seemed to have learnt that anything they say from the perspective of one parent may be undermined by the other, and that they would not get any support in articulating their own stance based on their own feelings. Because the causal conditions affecting them were hidden, they made erroneous self-attributions of causality, acted on this erroneous information and felt confused, even disoriented, as Crittenden (2016) has proposed. Except for the partially reorganizing respondents, they could not affectively take a stance and draw self-protective conclusions.

Findings support the hypothesis of Crittenden et al. (2014) that the characteristics of ADHD could be conceptualized as adaptation to a triangulated family system and connected to a variety of organized self-protective attachment strategies. One adaptive short-term function of the ADHD symptoms may be to avoid attending to threatening, but inescapable parental problems (Crittenden et al. 2014). In family systems

terms, easily distracted behavior and short attention spans may allow the child to procedurally monitor problems in his parents' relationship, without becoming fully aware of the information, e.g., what is the nature of the danger I am responding to, and when and where does it recur? (Crittenden 2015). Distracting behavior may, in turn, redirect the parents' attention from their own problems to their child, thus defusing the problems of the parents. However, in a retrospective study we can only pose questions requiring further investigation, for example: Has the adaptation to triangulated family situations hindered them from fully accessing source memory? Would a long-term developmental consequence of this adaptation be disorientation? Could problems in accessing source memory also be conceptualized as a collateral damage of triangulated family systems, in which the child may imagine that he has a direct relationship to his parent, although it is mediated by the desires originating from the relationship between his parents?

Though some of the respondents had got outpatient counselling, none of them had received regular individual psychotherapy. The present study shows that it is not enough to treat these adult respondents with ADHD only by using medication and to explain their behavior only with the presence of clinical symptoms. Except for the partially reorganizing group, the respondents used strategies including substantial distortions of information. In particular, if they were parents, there was a potential conflict of interest between the parent and the child, the parent using a self-protective rather than a child-protective strategy (Landini et al. 2016). It is difficult for a child to cope with a highly unpredictable and aroused parent, who is responding to past unresolved trauma in the present, who changes strategies frequently and who may be confused in regard to her own perspective. Thus, the respondents would need psychotherapy themselves, tailored to their needs (see Crittenden 2016, 270). The lack of internal mental state language showed the need for mentalization-based treatments (Fonagy and Bateman 2006), in which the client is recognized as an intentional agent and a virtuous cycle may be established characterized by growing epistemic trust and the re-generation of the patient's own capacity to mentalize (Fonagy et al. 2015). In addition, Schore (2001, 2003) analyzes how relational traumas in attachment transactions that are imprinted into procedural memory may contribute in the development of the psychiatric disorders, including deficits in attention. He makes the distinction between the single episode, acute stress and cumulative, chronic stress in infants in interaction with their parents (Schore 2003). He states that his regulation theory strongly supports psychodynamic models of psychotherapy (Schore 2014; see also Carney 2002, Rothstein 2002 and Zabarenko 2002). DMM draws the same distinction and raises the question of the capability of the child to organize defensive behavior around the pervasive trauma. If coping with a pervasive threat is subsumed into the defensive strategy, unresolved trauma appears redundant (Crittenden and Landini 2011).

Any treatment should address the unresolved traumas, which affected the respondents' understanding of their own safety and that of their children in an almost continuous way. The recognition of the variety of attachment strategies, disorientation modifying and unresolved traumas interrupting strategic self-protective functioning contributes to an individualized psychological treatment. Starting with the regulation of arousal by working with unresolved traumas and exploring the denied anger, fear and desire for comfort

would gradually help them to access, to verbalize and to draw self-relevant and -protective conclusions in regard to their family of origin and their current close relationships. They could learn better to understand how their roles in triangulated family systems have impacted and still impact them. The psychological treatment would help them to make true their benevolent (reversal) wishes in regard to their own child, that is, reversal parenting (Crittenden and Landini 2011, Hautamäki et al. 2010) instead of re-enacting scenes from their own childhood experiences of easily triggered anxiety connected to feeling unprotected and uncomfortable.

## Limitations and further research

This was an exploratory attachment study which was conducted by using time-consuming, in-depth attachment assessments that require extensive training. The study was carried out as a multiple-case study, which had only a small number of respondents with the exclusive ADHD diagnosis. Probably the results would have differed, if also cases with comorbid diagnosis would have been included the unique way in which a general explanation fits a singular case. A retrospective multiple-case study cannot establish causal relations, but heuristic hypotheses may be drawn about the perceived dangers in the family relationships that constitute a risk for developing ADHD symptoms. Longitudinal studies, including structural equation modelling, are needed in exploring the causal relationships. However, in terms of the current transactional thinking about family dyads and circular thinking about family triads, the search for linear causal relationships appears futile. At best, the study can highlight the multifaceted functions of ADHD symptoms in the dyadic-transactional and triadic-circular family relationships of coercive interactions, which in turn, further impair the development of the self-regulatory capacities of the child. Prospective longitudinal studies are needed to separate the effects of these factors on the development of attachment and the symptoms of ADHD. Treatment studies focusing on the family system and using the DMM methods (Crittenden et al. 2014, Dallos et al. 2012) deepen the knowledge of the functions of the ADHD symptoms in family interaction, as well as the processes of transmission, how troubled parents, in spite of opposite intentions, may reproduce adverse family functioning enhancing easily distractible and distracting behavior in their children.

## Acknowledgements

The authors would like to thank Pekka Tani for all his help during this study and also Sami Leppämäki, Elina Sihvola, Anniina Koski and Laura Korhonen for taking part in recruiting the participants for the study. We would also like to thank Mikael Kivelä for his technical assistance and all the participants of this study.

## References

- American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders*, 5th ed. Author, Washington, DC.
- Beeghly M, Cicchetti D (1994). Child maltreatment, attachment and the self-system: Emergence of an internal state lexicon in toddlers at high social risk. *Development and Psychopathology* 6, 5-30.
- Carney JK (2002). Self- and interactive regulation: Treating a patient with AD/HD. *Psychoanalytic Inquiry* 22, 3, 355-371.



- Cecil C, Viding E, Fearon P, Glaser D, McCrory E (2017). Disentangling the mental health impact of childhood abuse and neglect. *Child Abuse & Neglect* 63, 106-119.
- Clarke L, Ungerer J, Chahoud K, Johnson S, Stiefel I (2002). Attention deficit hyperactivity disorder is associated with attachment insecurity. *Clinical Child Psychology and Psychiatry* 7, 179-198.
- Crittenden PM (2014). Personal communication with the second author, March 2, 2014, email to the advanced coders of the LSAAIs.
- Crittenden PM (2015). Personal communication with the second author, Nov. 6, 2015, Miami.
- Crittenden PM (2016). *Raising parents. Attachment, representation, and treatment*, 2nd ed. Routledge London, New York.
- Crittenden PM, Dallos R, Landini A, Kozłowska K (2014). *Attachment and family therapy*. Open University Press, Berkshire, New York.
- Crittenden PM, Kulbotten G (2007). Familial contributions to ADHD: An attachment perspective. *Tidsskrift for Norsk Psykologforening* 44, 10, 1220-1229.
- Crittenden PM, Landini A (2011). *Assessing adult attachment. A dynamic-maturational approach to discourse analysis*. W.W. Norton & Company, New York, London.
- Dallos R, Denman K, Stedmon J, Smart C (2012). The Construction of ADHD: Family dynamics, conversations and attachment patterns. *Journal of Depression and Anxiety* 1, 4.
- Dallos R, Vetere A (2012). Systems theory, family attachments and processes of triangulation: Does the concept of family triangulation offer a useful bridge? *Journal of Family Therapy* 34, 117-137.
- Eisenhardt KM (1989). Building theories from case study research. *The Academy of Management Review* 14, 4, 532-550.
- Epstein J, Johnson D, Conners C (2001). *Conners' Adult ADHD Diagnostic Interview for DSM-IV (CAADID)*. Multi-Health Systems, Toronto.
- Faraone SV, Biederman J, Mick E (2006). The age-dependent decline of attention deficit hyperactivity disorder: A meta-analysis of follow-up studies. *Psychological Medicine* 36, 159-165.
- Farnfield S, Hautamäki A, Nørbech P, Sahhar N (2010). DMM assessments of attachment and adaptation: Procedures, validity and utility. *Clinical Child Psychology and Psychiatry* 15, 313-328.
- Fayyad J, De Graaf R, Kessler R, Alonso J, Angermeyer M, Demyttenaere K, ... Jin R (2007). Cross-national prevalence and correlates of adult attention deficit hyperactivity disorder. *British Journal of Psychiatry* 190, 402-409.
- First MB, Spitzer RL, Gibbon M, Williams JB (1996). *Structured Clinical Interview for DSM-IV Axis I Disorders*. American Psychiatric Press, Inc., Washington.
- First MB, Gibbon M, Spitzer RL, Williams JB, Benjamin LS (1997). *Structured Clinical Interview for DSM-IV Axis II Personality Disorder*. American Psychiatric Press, Inc., Washington.
- Fonagy P, Bateman AW (2006). Mechanisms of change in mentalization-based treatment of BPD. *Journal of Clinical Psychology* 62, 411-430.
- Fonagy P, Luyten P, Allison E (2015). Epistemic petrification and the restoration of epistemic trust: A new conceptualization of borderline personality disorder and its psychosocial treatment. *Journal of Personality Disorders* 29, 5, 575-609.
- George C, Kaplan N, Main M (1985). *Adult attachment Interview*. Unpublished manuscript. Department of psychology, University of California, Berkeley.
- Gizer IR, Ficks C, Waldman ID (2009). Candidate gene studies of ADHD: A meta-analytic review. *Human Genetics* 126, 51-90.
- Glaser BG, Strauss AL (1967). *The discovery of grounded theory: strategies for qualitative research*. Aldine De Gruyter, New York.
- Grice P (1975). Logic and conversation. In P. Cole & J.L. Moran (eds) *Syntax and semantics: Vol. 3. Speech acts*, pp. 41-58. Academic Press, New York.
- Hautamäki A, Hautamäki L, Neuvonen L, Maliniemi-Piispanen S (2010). Transmission of attachment across three generations: Continuity and reversal. *Clinical Child Psychology and Psychiatry* 15, 3, 347-354.
- Hechtman L (1996). Families of children with attention deficit hyperactivity disorder: A review. *The Canadian Journal of Psychiatry* 41, 350-360.
- Hesse E (2008). The Adult Attachment Interview: Protocol, method of analysis, and empirical studies. In J. Cassidy & P.R. Shaver (eds) *Handbook of attachment. Theory, research, and clinical applications*, 2nd ed., pp. 552-598. The Guilford Press, New York, London.
- Jensen PS, Mrazek D, Knapp PK, Steinberg L, Pfeffer C, Schowalter J, Shapiro T (1997). Evolution and revolution in child psychiatry: ADHD as a disorder of adaptation. *Journal of American Academy of Child and Adolescent Psychiatry* 36, 12, 1672-1679.
- Ladnier RD, Massanari AE (2000). Treating ADHD as attachment deficit hyperactivity disorder. In T.M. Levy (ed) *Handbook of Attachment Interventions*, pp.27-65. Academic Press, San Diego.
- Landini A (2014). Psychotherapists' and patients' dispositional representations of danger: Intervention planning using DMM assessments'. In A. Hautamäki (ed) *The Dynamic-Maturational Model of Attachment and Adaptation – Theory and Practice*, pp.72-101. University of Helsinki, Swedish School of Social Science: SSKH Skrifter, 37.
- Landini A, Crittenden PM, Landi G (2016). The parents of child psychiatric patients. *Annals of Psychiatry and Mental Health* 4, 7, 1087.
- Main M, Goldwyn R (1984-1994). *Adult attachment scoring and classification system*. Unpublished manuscript. Department of psychology, University of California, Berkeley.
- Martel MM, Nikolas M, Jernigan K, Friderici K, Waldman I, Nigg JT (2011). The dopamine receptor D4 gene (DRD4) moderates family environmental effects on ADHD. *Journal of Abnormal Child Psychology* 39, 1, 1-10.
- McGee RA, Wolfe DA, Wilson SK (1997). Multiple maltreatment experiences and adolescent behavior problems: Adolescents' perspectives. *Development and Psychopathology* 9, 1, 131-149.
- Nicholas K, Bieber S (1996). Parental abusive versus supportive behaviors and their relation to hostility and aggression in young adults. *Child Abuse & Neglect* 20, 12, 1195-1211.
- Rothstein A (2002). Plea for a balanced conception of AD/HD and its diagnosis and treatment. *Psychoanalytic Inquiry* 22, 3, 391-412.
- Schacter DL (1996). *Searching for memory: The brain, the mind, and the past*. Basic Books, New York.
- Schore AN (2001). The effects of early relational trauma on right brain development, affect regulation, and infant mental health. *Infant Mental Health Journal* 22, 1-2, 201-269.
- Schore AN (2003). *Affect dysregulation and disorders of the self*: W.W. Norton, New York, London.
- Schore AN (2014). The right brain is dominant in psychotherapy. *Psychotherapy* 51, 388-397.
- Stiefel I (1997). Can disturbance in attachment contribute to attention deficit hyperactivity disorder? A case discussion. *Clinical Child Psychology and Psychiatry* 2, 1, 45-64.
- Storebø O, Rasmussen P, Simonsen E (2016). Association between insecure attachment and ADHD: Environmental mediating factors. *Journal of Attention Disorders* 20, 2, 187-196.
- Tarver J, Daley D, Sayal K (2015). Attention-deficit hyperactivity disorder (ADHD): An updated review of the essential facts. *Child: care, health and development* 40, 6, 762-774.
- Yin RK (2003). *Case study research. Design and methods*, 3rd ed. Sage, Thousand Oaks.
- Zabarenko LM (2002). AD/HD, psychoanalysis, and neuroscience: A survey of recent findings and their applications. *Psychoanalytic Inquiry* 22, 3, 413-432.