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Institute of Education, London

# International Attachment Conference 2017

## Book of Abstracts



**29<sup>th</sup> June – 1<sup>st</sup> July 2017**  
**Institute of Education, London**

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O-1

## **The Role of DNA methylation in the link between early adversity and child and adolescent psychopathology**

**Barker E<sup>1</sup>**

<sup>1</sup>*King's College London, UK*

Keynote Session 1, Logan Hall, Level 1, June 29, 2017, 09:00 AM - 10:00 AM

Abstract: DNA methylation is a potential mechanism through which the genome can 'capture' the effects of early adversity and propagate their influence on child and adolescent mental health. In recent years, publications have shown steady growth, especially those indexing child DNA methylation through peripheral samples (blood, buccal cells). In this talk, I will provide a review of the current child and adolescent research – including that of my own group – to evaluate evidence for a mediating role of DNA methylation in the link between adversity and psychopathological outcomes. The 'promise' of a meditational framework is that – if DNA methylation is identified as a causal link in the aetiology of a disease – then reversing epigenetic marks might help alleviate the burdens of disease. It is also equally possible, however, that DNA methylation functions as a non-causal biomarker of adversity and/or stress-related disorders. Yet even in this situation DNA methylation can still serve as an important biomarker of disease and have clinical utility. As will be discussed, overall, very few studies have examined DNA methylation in relation to both exposures and outcomes, and almost all analyses have been correlational in nature. Hence the exact role of DNA methylation in child psychopathology is presently not known. I will conclude by discussing current challenges and the potential of DNA methylation.

## Young adult outcomes following severe childhood institutional deprivation: Revisiting the role of social disinhibition and attachment quality in the English and Romanian Adoptees study

**Sonuga-Barke E<sup>1</sup>**

<sup>1</sup>*Department of Child and Adolescent Psychiatry*

Keynote Session 2, Logan Hall, Level 1, June 29, 2017, 10:00 AM - 11:00 AM

Secure selective attachments between infants and their primary carers are considered a key building block of later psychological health. This is because they both promote personal resilience by establishing a deep-seated sense of personal agency and create a template for, and a network of, intimate social relationships that buffer negative effects of external threats. Once established, secure attachments produce a cascade of benefits across the life-span. Conversely, their absence increase risks for poor mental health outcomes. Secure attachments are formed through the reciprocity that naturally develops during interactions between infant and their carers in the first year, or so, of life. Establishing such reciprocity depends both on, the availability and/or ability of primary carers to respond sensitively and consistently to their infant's psychological needs and their infant's temperamental willingness to have those needs met.

Situations in which infant are raised in extreme social deprivation and have no opportunity to develop such selective attachments - where this essential psychological building block is never cemented into place - provide the strongest test of these ideas. Simply put, from an attachment perspective the effects of such early deprivation on psychological development should be widespread and profound and persist over time, even after individuals are removed from the depriving environment. Developmental outcomes are hypothesized to be marked, in particular, by a constellation of anomalies in social behaviour which disrupt close relationships, so called Reactive Attachment Disorders, but also be tied to a broader pattern of neuro-developmental and mental health problems. The case in favour of such a *deprivation - disrupted attachment - disorder* pathway has often been made by pulling together fragmentary findings from methodologically weak studies of an observational and retrospective nature: studies compromised by heterogeneity in exposure type, timing, and severity; confounding between initial and continuing adversity; and familial correlations between genetic and environmental risks; factors which limit causal inference.

The English and Romanian Adoptees (ERA) study - a long-term longitudinal research programme using a natural quasi-experimental design - was established to address some of these limitations. ERA has now charted the infant-to-adult developmental trajectories in adoptees who experienced varying durations (2 weeks to 43 months) of severe early deprivation in the Romanian institutions that existed in the late 1980s during the final days of the Ceauşescu regime. At the fall of the regime in 1989, many of the children were adopted internationally, triggering a sudden, precisely-timed, radical change from a profoundly depriving environment to an above average adoptive one. In this talk I will describe the long-term effects of institutional deprivation on cognition, neuro-development and mental health - exploring, in particular, the centrality of disinhibited social behaviour - until recently considered a marker of Disinhibited Attachment Disorder - as part of the broader deprivation-related presentation. I will conclude by examining the impact of deprivation on post-adoption attachment status, the overlap between this and disinhibited social behaviour and its links to adult social relationships. Finally I will test whether early attachment status moderates and/or mediates the effects of early deprivation on neuro-developmental and mental health outcomes.

O-3

## **Attachment and Biobehavioral Catch-up: Intervening to Enhance Attachment Quality among at-Risk Children**

**Dozier M**<sup>1</sup>

<sup>1</sup>*University of Delaware, USA*

Keynote Session 3, Logan Hall, Level 1, June 29, 2017, 11:30 AM - 12:30 PM

In this talk, I will describe an intervention that we have developed that targets specific issues identified as critical among young children who have experienced adversity. Attachment and Biobehavioral Catch-up (ABC) is a 10-session home visiting program that is designed to help parents become more nurturing when children are distressed, to follow their lead more often when children are not distressed, and to avoid frightening behavior at all times. Parent coaches implement the intervention with parents and children present, and make frequent “in the moment” comments about ongoing parent-child interactions that relate to intervention targets. Through randomized clinical trials, we have found that children of parents who receive the ABC intervention are more likely to develop secure attachments (and less likely to develop disorganized attachments) than children in a control intervention condition. Children in the ABC intervention also show more normative cortisol production, better executive functioning, better inhibitory control, and stronger language development, than children in the control condition. ABC enhances parental sensitivity, with sensitivity mediating the relationship between the intervention and some important child outcomes. Issues in disseminating the intervention will also be discussed.

## S1.1

### **Attachment Disorders with School-Age Children: Questions of Definition, Assessment, and Treatment**

**Allen B<sup>1</sup>, Minnis H<sup>2</sup>, Green J<sup>3</sup>, Schuengel C<sup>4</sup>**

*<sup>1</sup>Penn State College of Medicine & Penn State Children's Hospital, <sup>2</sup>Institute of Health & Well-Being, University of Glasgow, <sup>3</sup>University of Manchester, <sup>4</sup>Vrije Universiteit Amsterdam*

Symposia 1.1, Logan Hall, Level 1, June 29, 2017, 1:45 PM - 3:15 PM

#### **Paper #1 Title: Make a Diagnosis of Attachment Disorder - But Not Always, and Don't Stop There**

**Paper #1 Abstract:** This presentation will begin with a brief “historical” overview to explain the stance that Attachment Disorder (AD) diagnoses can be helpful if used judiciously - and if a holistic assessment for other diagnoses and for language and cognitive problems is always conducted. Observations made while working in a Guatemalan orphanage in the early '90s and seeing the contrast in social behaviour between the children in the orphanage and their family-reared peers in the local villages will be discussed. A brief summary of the development of measures used to investigate AD behaviour will be provided along with findings showing that insecure attachment was neither necessary nor sufficient for a diagnosis of AD. Although the nomenclature is problematic, these diagnostic categories are useful in helping a previously “hidden” group of children access child and adolescent mental health services (CAMHS). Abused and neglected children often do not access CAMHS because their behaviour problems are construed as being simply understandable non-specific correlates of maltreatment. However, increasingly, the recognition of the abnormal social behaviour that we describe as AD signals the need for these children to receive a holistic CAMHS assessment-as suggested in the NICE Guidelines on Attachment. Evidence is now gathering that AD behaviour might be a sign of neurodevelopmental vulnerability in the context of maltreatment. Research has shown that children who fulfil criteria for an AD diagnosis nearly always have other co-occurring psychiatric disorders. New research will briefly be described showing that maltreated children are nearly ten times as likely to have three or more neurodevelopmental disorders.

This presentation will discuss how AD diagnoses can be helpful clinically, how they can be assessed, how and when diagnosis can be problematic and suggest how we might move forward.

#### **Paper #2 Title: Attachment Disorder in School Age and Adolescence following Early Family Adversity**

**Paper #2 Abstract:** Attachment disorder (AD) remains one of the least understood and intriguing phenomena in development. Classic descriptions of its developmental presentation following early institutionalization – from early UK studies and later post- Romanian orphanage experiences – suggest uniqueness and striking persistence into early adulthood. But significant questions remain about whether it is seen also in non-institutionalised, but neglected or maltreatment children, how its detailed psychopathology relates to other attachment and social impairment difficulties; and above all what treatment interventions are best suited for it. This presentation will be focused around the research I have undertaken with colleagues into attachment disorder in middle childhood and adolescence following high levels of early family adversity. This includes i) a controlled observational study of adolescents in looked after care, studying the phenomenology of attachment disorder and its relationship to other psychopathology (n = 153, Kay and Green 2012); ii) a longitudinal controlled cohort of adopted children in middle childhood and early adolescence, using detailed phenotyping to investigate the relationship to ADHD and ASD (n = 60, Kay et al 2016); and iii) other smaller cohorts testing the relationship to other attachment dynamics. From these studies I will review our findings on the developmental nature and persistence of both disinhibited social engagement disorder and reactive attachment disorder in non-institutionalised samples. I will particularly focus on the reliability of description, the relationship with social cognition, dissociation, ADHD and ASD; and evidence on the significant functional impact of the disorders. I will present initial but intriguing evidence linking DSED with a critical period of disrupted care, as well as the relationship between AD and disorganized attachment – and use this to discuss the potential nature of the mechanism of psychopathology of the condition. From this I will go on finally to discuss what treatment approaches may make most sense for the disorder in development.

**Paper #3 Title: (Mis-) Specifying Attachment Disorders: Changing Our Conceptualization to Improve Clinical Practice**

**Paper #3 Abstract:** The behavioural concerns codified as Reactive Attachment Disorder and Disinhibited Attachment Disorder/Disinhibited Social Engagement Disorder are well documented and few would disagree that these disorders are etiologically associated with deprivation in the early years of life. However, developmentally-derived attachment constructs, whether assessed using separation-reunion procedures or narrative representation measures, rarely coincide in predictable ways with these diagnosable disorders. Indeed, these disorders have historically focused on identification of aberrant social behaviour, not attachment behaviour or working models. The available evidence suggests that, while early deprivation may be related to these disorders, attachment processes are related in complex ways to varying degrees while alternative theoretical and empirical perspectives appear necessary to understanding these presentations. As such, continuing to define these presentations as attachment disorders is problematic from a conceptual standpoint. As recently argued (Allen, 2016), the definition of these disorders as attachment-related likely resulted in unfortunate consequences for clinical practice. To demonstrate this contention, data from over 100 looked-after children (adopted or foster) receiving mental health assessments at a specialty clinic for maltreated children will be presented. In a sort of replication of a previous study (Woolgar & Baldock, 2015), RAD/DAD were greatly over-diagnosed in community settings and children often received ineffective treatment for a number of years. Recommendations for the delivery of attachment-informed and research-supported interventions for school-age children commonly described as displaying RAD/DAD will be discussed (Allen, Timmer, & Urquiza, 2014). A small pilot study examining the efficacy of one of these interventions for the treatment of looked-after children, including those diagnosed with RAD/DAD, will be discussed. In short, it will be argued that relabelling these presentations to de-emphasize the role of attachment processes will improve research and clinical practice.

## S1.2

### Re-visiting the effect of early networks of infant attachments to mother and father on later developmental outcomes: An unsettled issue

**Sagi-Schwartz A, Dagan O, Dozier M, Fearon P, Van IJzendoorn M**

<sup>1</sup>University Of Haifa, <sup>2</sup>New School for Social Research, <sup>3</sup>University of Delaware, <sup>4</sup>University College London, <sup>5</sup>Leiden University

*Symposia 1.2, Clarke Hall, Level 3, June 29, 2017, 1:45 PM - 3:15 PM*

#### Lead presentation

In this lead presentation, we will propose five mutually exclusive early attachment network models derived from theory and empirical evidence gathered from related longitudinal studies over the past 30 years. In doing so, we will address them by exploring three main, unsettled issues.

First (Issue 1), we will ask: Are interrelated multiple attachment relationships stronger indicator of developmental outcomes than the quality of one attachment relationship alone? We will propose two models addressing this issue. The first is the ***Independence model***, according to which the attachment relationship with each parent independently might impact different developmental outcomes. The second is the ***Integrative model***, suggesting that the network of child-mother and child-father attachment relationships predicts future outcomes stronger than these attachment relationships independently.

Second (Issue 2), we will ask: Which integrative parental attachment network model best predicts later developmental outcomes? Delving further into the aforementioned integrative model, we will discuss two competing integrative models – the ***Additive model***, according to which the higher number of secure relationships the infant forms, the better early childhood developmental outcomes are; the ***Buffering model***, according to which it takes an early secure relationship to at least one of the parents to offset the risk effects of an insecure relationship to the other.

Third (Issue 3), we will ask: Does one parent contribute more than the other to later developmental outcomes within each integrative parental attachment network? To address this issue, we will contrast the ***Hierarchy model***, according to which only one attachment figure (either the mother or father) is significant in buffering the negative effect of the insecure attachment with the other parent, with the ***Horizontal model***, according to which secure attachment to either of the parents *equally* offsets the potential negative impact of the insecure attachment with the other parent on developmental outcomes.

#### Discussants' Remarks

The full lead presentation will be shared with the three discussants before the roundtable, so that they can prepare ahead of time their responses, ideas, and suggestions.



## S1.3

### Attachment as a Psychoanalytic Paradigm and its Clinical Applications

Diamond N<sup>1</sup>, Cortina M<sup>3</sup>, Montuori E<sup>4</sup>, Marrone M<sup>6</sup>, Settle V<sup>5</sup>

<sup>1</sup>International Attachment Network, <sup>2</sup>University of East London, <sup>3</sup>Attachment and Human Development Center, Washington School of Psychiatry, <sup>4</sup>International Attachment Network, <sup>5</sup>Bowlby Centre, <sup>6</sup>International Attachment Network and British Psychoanalytic Society

Symposia 1.3, Clarke Hall, Level 3, June 29, 2017, 1:45 PM - 3:15 PM

#### General Abstract

The focus of this panel is on attachment psychoanalysis in its clinical application. This is to be addressed in the particular context of theoretical understanding and how this translates into clinical realities. Attachment is known as a theoretical development and as a research practice. Attachment as a therapeutic practice is growing but there is still paucity in terms of clarifying, cohering and developing clinical applications. Each member of the panel - proficient in theoretical expertise and psychoanalytic attachment studies -, as longstanding clinician, will give his/her version of theoretical understanding and the use of research for clinical psychoanalytic practice. As the result, each speaker will have something unique to contribute, but what will be most evident are the basic tenets they all have in common, the very foundations of an attachment psychoanalytic clinical practice. What will be clear are the distinguishing features of attachment psychoanalytic work - the fundamental theoretical basis and clinical technique. Key issues will be considered: What is attachment psychoanalysis? Why has attachment psychoanalysis been so poorly understood in the British Psychoanalytic context? Is attachment theory a psychoanalytic paradigm, as Bowlby suggested? Or are attachment theory and psychoanalysis different theoretical entities that can be articulated together? In what ways has attachment produced a paradigmatic shift in psychoanalysis? What is the relation between the secure base and becoming an attachment figure in the analytic relationship? Clarifications of shifts in contemporary attachment theory and practice are to be made: In ways we understand defensive processes and developmental pathways. The centrality of a persons' attachment history and patterns of attachment in the transference and countertransference dynamic and the role of internal working models, procedural memory and enactment in the consulting room. How do attachment psychoanalysts' understand and work with destructive behaviour and negative transferences?

#### Abstract – Paper 1

*Four ways attachment theory and contemporary models of developmental have produced a paradigm shift in the theory and practice of psychoanalysis*

Attachment Theory (AT) has never claimed to be a comprehensive theory covering the myriad clinical issues that are confronted in clinical practice of psychodynamic psychotherapy —for purposes of this talk I use this term as synonymous with psychoanalysis proper. Yet it has produced a paradigm shift that can be characterized by four central issues:

1) A systems approach to motivation that specifies the function, aims and conditions that activate and inactivate motivational systems. AT is consistent with a revised view of unconscious motivation emanating from neuroscience and modern developmental theory that sees basic motivational systems as having adaptive functions that operate at an implicit nonconscious levels.

2) A new approach to understanding defensive processes as being closely tied with emotional regulatory processes.

3) A new understanding of development based on a pathway model that sees adaptive and maladaptive processes as being deviations from attachment bonds that develop through childhood. These patterns are carried forward as implicit and explicit emotional and cognitive schemas, or to use Bowlby's terms, internal working models of self and of self-with-others.

4) An "enactivist" view of transference and countertransference based on implicit memory system that code relational patterns stemming from childhood. These sub-symbolic relational patterns become expressed automatically (enacted) as a set of ubiquitous expectations and attributions we make of self and of self-with-others. They can be made explicit and put into words through classic interpretative work.

### **Abstract – Paper 2**

As stated in the general abstract, attachment is a school of psychoanalysis. Yet in the British Kleinian context a divide has been created between attachment and psychoanalysis. I wish to raise this as a problem because it has implications for clinical psychoanalytic practice, which requires attachment based understanding as central to the work, rather than such thinking and clinical application being marginalised or poorly understood. I trace back the roots of the problem, to the Freud –Klein Controversies and Susan Isaacs's paper, 1949, where the formulation of the Kleinian concept of internal world and unconscious phantasy derives. I do this to make explicit the assumptions that are embedded therein, which are often assumed yet never examined. I highlight how Bowlby explicitly challenged such a position to highlight and reflect on the explicit differences for clinical practice, particularly the way of psychoanalytically working, which involves what shall be termed contextualisation and not de-contextualisation, the centrality of the person's attachment history, social trauma and cultural factors in the transference counter-transference relationship with the analyst. I likewise identify the developments of the internal working model as based in procedural memory and non-verbal modes of communication and how this manifests as enactments in the consulting room, as the way the living out of attachment history and styles gets repeated and reworked inside and outside the consulting room. I will address the limits of verbal interpretation and how in a psychoanalytic treatment embodied forms of communication can be understood and worked with. I will stress how primary re-enactment is for the process of psychic change to take place in the analytic encounter

### **Abstract – Paper 3**

Bowlby formulated attachment theory as a psychoanalytic paradigm. This position is clearly stated in his trilogy Attachment and Loss (1969, 1973, 1980). What attachment theory has done is to revise some basic principles of psychoanalytic theory, particularly Freud's instinct model. Together with that there has been a reaffirmation of the notion that real interpersonal experiences play a fundamental role in personality development (an idea that sharply contrasts with the Kleinian emphasis on the role of unconscious phantasy). Furthermore, according to Bowlby, the psychic apparatus is organised according a cybernetic model, in line with Twentieth century biology. Central to attachment theory is the concept of internal working models and its association with affect regulation. An optimal understanding of attachment theory can guide us in our clinical work. Attachment theory has given rise to different ways of applying it to therapeutic technique (Bowlby, 1979, 1988). The earliest and least known approach was formulated by Bowlby himself. His ideas about technique have remained largely unnoticed due to the fact that he wrote little about these and have more clearly been captured by those colleagues who supervised their clinical work with him. In the first part of this paper we will outline some key concepts in Bowlby's thinking about psychotherapeutic technique.

We will discuss the role of the attachment informed therapist and the difference between being a secure base for the patient or an attachment figure. Should the therapist favour attachment related transferences, or are these transferences a risky ground leading to impasses or ruptures of the therapeutic alliance? We argue that the role of providing a secure base should be differentiated from the role of becoming an attachment figure, and that the therapist goal should be to help the patient who lacks a secure attachment relationship to get it whenever possible outside the consulting room (Bowlby, 1988).

Hogarth Press

(This paper will be jointly presented by two colleagues)

### **Abstract – Paper 4**

This paper attempts to explore in more detail what attachment-based psychoanalysis is and how we practise as attachment based psychoanalysts. It will address the central question of whether or not attachment theory is truly psychoanalytic and challenges the perception, held by some, that it is either 'un-psychoanalytic' or at best, a poor relative.

Attachment theory has been criticised for failing to address the Kleinian 'nasties' of aggression and envy and for being too reductionist in its approach. I will explore how we can use different aspects of psychoanalytic and attachment theories to form a creative and exciting marriage that can be mutually enriching to both partners.

There are fundamental (and in my view irreconcilable) theoretical differences between Klein and Bowlby, but not all of psychoanalysis is defined by Melanie Klein, and not all of attachment theory is defined by Bowlby. It seems to me that, all too often, we fall into this particular binary and become entrenched in a spectrum with so called psychoanalysis occupying one end and attachment occupying the other. In my view the spectrum itself is flawed.

It continues to be a challenge to read the research based studies on attachment and to use these studies to describe how we might actually work with someone in our consulting room. Increasingly we have writers in the field who are narrowing this gap as they write about their clinical work from an attachment based approach. This paper aims to contribute to that particular process and to clarify further what attachment based psychoanalysis looks like – both in terms of how we might make formulations about the people with whom we work, and in terms of how it guides our own participation in the psychoanalytic encounter.

## S1.4

### **Mentalizing the Body: The Role Parental Embodied Mentalizing Plays in the Formation of Secure Attachments and Parent-Infant Psychotherapy Outcomes**

**Shai D<sup>1</sup>, Nolte T<sup>2</sup>, Spencer R<sup>3</sup>, Meins E<sup>4</sup>**, Fonagy P<sup>2</sup>, Belsky J<sup>5</sup>

<sup>1</sup>*Interdisciplinary Center Herzliya*, <sup>2</sup>*The Anna Freud National Centre for Children and Families/University College London (UCL)*, <sup>3</sup>*University of East London (UEL)*, <sup>4</sup>*University of York*, <sup>5</sup>*University of California, Davis*

Symposia 1.4, Drama Studio, Level 1, June 29, 2017, 1:45 PM - 3:15 PM

Parental mentalizing—the capacity to treat the child as a psychological agent motivated by mental states (e.g., thoughts, feelings)—is a significant factor shaping infant development (Slade, 2005). Despite infants' limited ability to process language, mentalizing is routinely measured through verbal expressions. The construct of Parental Embodied Mentalizing (PEM) focuses on implicit nonverbal interactive processes, and refers to parents' ability to understand the baby's mental states as conveyed through body movement and to demonstrate this understanding in parents' modification of their body movements (Shai & Belsky, 2011, 2016; Shai & Fonagy, 2014). The aims of this symposium are threefold: (1) Examining how PEM corresponds with verbal parental mentalizing, namely Maternal Mind-Mindedness (Meins, 1999) and Parental Reflective Function (Slade, 2002); (2) Testing whether PEM accounts for unique variance when predicting infant attachment security after controlling for verbal parental mentalizing and maternal sensitivity; and (3) Investigating quantitatively and qualitatively how PEM illuminates parent-infant psychotherapy outcomes. Addressing these aims, findings from three longitudinal studies are presented. Findings from Study 1 (N=200) show that when controlling for maternal sensitivity, higher PEM is associated with children's higher likelihood of being securely attached at 15 and 36-months than avoidant or disorganized, and at 54-months to show fewer behavior problems, enhanced social skills, and better academic performances. Study 2 (N=206) demonstrate that when controlling for SES, maternal sensitivity, and appropriate non-attuned mind-related comments, the higher the PEM, the lower the likelihood to be classified avoidant and disorganized compared with secure. Study 3 (N=76) introduces work-in-progress examining whether parent-infant psychotherapy enhances PEM and qualitatively explores processes of change in explicit and implicit mentalizing following clinical intervention. The symposium addresses ways through which parental mentalizing could be conceptualized—empirically and clinically—to include both verbal and nonverbal aspects, to further illuminate and enhance children's emotional, social, and cognitive wellbeing.

### **Mentalizing in Motion: Parental Embodied Mentalizing and Children's Socio-emotional and Cognitive Development**

Parental mentalizing—the capacity to consider and treat the child as a psychological agent motivated by mental states (e.g., thoughts, feelings)—is a significant factor shaping infant development (Slade, 2005). Despite infants' limited ability to process language, mentalizing is routinely measured through examining parental verbal expressions (Meins, 1999; Slade, 2002). The construct and measurement of Parental Embodied Mentalizing (PEM) expands parental mentalizing to include also implicit nonverbal interactive processes, and refers to parents' ability to understand the baby's mental states as conveyed through body movement and to demonstrate this understanding in parents' modification of their body movements (Shai & Belsky, 2011, 2016; Shai & Fonagy, 2014). Assessing PEM involves examining videotaped full-body movement during parent-infant interactions with sound turned off. The PEM coding process focuses on *how* a movement is performed (e.g., slow, extending) rather than *what* action is performed (e.g., poking, hugging), while monitoring the infant's response to the parent. In this study, videos of 10-minute mother and six-months-old infant free-play interactions (N=200) from the NICHD Study of Child Care were independently assessed on PEM and maternal sensitivity (HOME; Caldwell & Bradley, 1984). Security was assessed at 15 and 36 months (strange situation procedure; Ainsworth et al., 1978). Academic performance, social competency, and behavior problems were measured at 54 months using caregivers' reports. Findings showed that when controlling for maternal sensitivity, children whose mothers scored higher on PEM were more likely to be securely attached at 15 and 36 months than avoidant or disorganized, and at 54 months showed fewer internalizing and externalizing problems, enhanced social skills and competency, and better academic performances. Findings support the validity and reliability of this newly developed, body-based approach to parental mentalizing with concurrent and predictive power, and highlight the importance of assessing explicit verbal alongside implicit nonverbal parental mentalizing.

## **Parental Embodied Mentalizing and its Relation with Mind-Mindedness, Sensitivity, and Attachment Security**

Mind-mindedness (MM) refers to caregivers' accuracy in commenting on their infants' internal states (Meins, 1997) and is assessed in terms of caregivers' speech while interacting with the infant. It has been found to be a better predictor of attachment security than behavioral parenting measures (Lundy, 2003; Meins, 2013; Meins et al., 2001, 2012). However, previous research has not fully explored behavioral manifestations of maternal MM. Addressing this issue, the purpose of this study was to investigate whether (a) caregivers' kinaesthetic responses to the infant's kinaesthetically-manifested mental states—Parental Embodied Mentalizing (PEM; Shai & Belsky, 2011, 2016; Shai & Fonagy, 2014)—related to MM, and (b) whether MM and PEM independently predicted attachment security. 20-minute free-play infant–mother interactions ( $N=206$ ) at 8-months were used to code appropriate and non-attuned mind-related comments, PEM, which is coded with the sound muted throughout, and maternal sensitivity (Ainsworth et al., 1974). Security was assessed using the strange situation procedure (Ainsworth et al., 1978) at 15-months. PEM scores were positively correlated with concurrent appropriate mind-related comments and maternal sensitivity, but unrelated to non-attuned mind-related comments. Multinomial logistic regressions indicated that controlling for SES, maternal sensitivity, and appropriate non-attuned mind-related comments, the higher the PEM, the lower the likelihood to be classified as avoidant and disorganized as compared with secure, but not resistant. Additionally, the higher the appropriate mind-related comments, and the lower the non-attuned mind-related comments, the higher the likelihood to be classified as secure (as compared with avoidant, resistant, and disorganized). These results suggest that parents' capacity to think and respond to the infant as a mentalistic agent is conveyed both verbally (MM) and nonverbally (PEM). Like sensitivity and appropriate mind-related comments, PEM indexes caregivers' global responsiveness, and our findings suggest that PEM may prove useful in distinguishing between forms of attachment.

## **A New Shift? Explicit and Implicit Mentalizing in Parent-Infant Psychotherapy: A Mixed Methods Design**

Parental mentalizing refers to parents' capacity to think about themselves and their infant in terms of intentional mental states (Slade, 2005). Parental mentalizing is predominately measured through how the parent explicitly reflects to or about their infants, otherwise known as Parental Reflective Function (PRF; Slade, 2003; Rutherford, Goldberg, Luyten, Bridgett, & Mayes, (2013). In contrast, Parental Embodied Mentalizing (PEM; Shai & Belsky, 2011, 2016) is an operationalization of parental mentalizing in terms of implicit, nonverbal bodily-based behaviour between parent and infant. The purpose of this mixed-method study was to investigate implicit (PEM) and explicit (PRF) forms of parental mentalizing within a clinical psychotherapy context and the extent to which each of them can illuminate both psychotherapeutic processes and developmental outcomes. This work-in-progress research, a mixed-methods design is employed to investigate: (1) Whether parent-infant psychotherapy is more beneficial than treatment as usual (TAU) in enhancing PEM above and beyond PRF; (2) Explore the associations between PEM and secondary outcomes including parent–infant interaction, maternal psychopathology, maternal representations, maternal reflective functioning, and infant attachment; and (3) qualitatively explore the process of explicit and implicit mentalizing change following the clinical intervention. The project investigates outcomes from 76 infants (<12 months) and their mothers with mental health problems. Dyads were clinically referred and randomly allocated to psychoanalytic parent-infant psychotherapy (PIP) or TAU ( $N=38$  in each group) (Fonagy, Sled & Baradon, 2016). It is predicted there will be a positive effect on PEM over time and between groups and PEM will concurrently and predictively relate to secondary outcomes. Qualitative analysis will provide insights into the process of change in verbal and nonverbal mentalizing capacity. Findings will contribute to existing research and clinical interventions aimed at enhancing parental mentalizing and the wellbeing of infants and their families.

## S1.5

### Interview Approaches to Attachment Style and Disorder in Childhood, Adolescence and Early Adulthood.

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Symposia 1.5, Nunn Hall, Level 4, June 29, 2017, 1:45 PM – 3:15 PM

#### **Preliminary findings of a new interview for primary school age children – the child Attachment Style Interview.**

**Background:** There is a need for user-friendly assessments of child attachment style in primary school-age children, for clinical and research work. Recent NICE guidance (2015) identifies the importance of attachment in child and family services. The Attachment Style Interview for adults/adolescents has an established track record in research and practice, and this is adapted for use in primary school-age children.

**Method:** The Child Attachment Style Interview (Child-ASI) was developed and tested on a sample of children in primary school together with a subsample of those in care. A checklist of life events and MFQ for depression symptoms was also administered.

**Results:** Acceptable inter-rater reliability was obtained ( $\kappa=0.84$  for overall attachment style). A factor analysis of subscales produced factors corresponding to five style classifications. Rates were similar to those in other research studies when a simplified classification was used for comparison. Logistic regression showed insecure attachment style and life events provided the best model for depression. **Conclusion:** Preliminary findings suggest the Child-ASI provides an effective way of assessing attachment style in children in relation to depression with utility for research and clinical or educational practice.

#### **Assessing Adolescent Attachment Style in Residential Care**

Attachment frameworks are increasingly used to understand human development and used by social workers in care planning for children and young people in care. To date, there have been few assessment tools that social workers can use easily and therefore little sustained use of attachment assessment by practitioners in residential care.

**Method:** The Attachment Style Interview (ASI) for adolescents and the Vulnerable Attachment Style Questionnaire (VASQ) self-report in a pilot study of young people in residential care in the UK and Isle of Man. The aim was to test these relatively new measures in practice contexts administered by practitioners, and to determine rates of insecure and disorganised attachment style to compare with other studies.

**Results:** Half of the young people had disorganised (or mixed) attachment styles using either measure, with avoidant attachment styles more common than anxious ones. Secure style was rare. There was some difference in young person and carer ratings, with young people rating slightly less disorganised style and more anxious style, but simplified classifications were similar.

**Discussion:** The implications for assessing attachment style in residential care to improve identification of interpersonal risk and aid with care planning are discussed.

#### **Attachment Style and alexithymia as predictors of self-harm in young adults: A pilot study**

Self-harm (SH) is increasingly reported, and the UK currently has the highest rate in Europe. However, the conceptual and empirical relationships among the different functions of SH remain unclear. This pilot study examined attachment style and alexithymia as two affect-regulatory functions as predictors of SH.

**Method:** Twenty-six young adults [mean ( $\pm$  SD) age 21.08 ( $\pm$  3.95)], with experience of SH were compared to a matched control group. The Toronto Alexithymia Scale and the Attachment Style Interview (ASI) were used.

**Results:** Findings revealed significantly greater levels of alexithymia, particularly the 'difficulty identifying feelings factor', in those with SH compared to the control group, as well as higher rates of insecure attachment style, particularly fearful insecure style. Examination of specific dimensions revealed ASI scales of 'constraints on closeness' and 'fear of rejection' providing the best model of SH.

**Discussion:** These findings provide empirical support for the affect regulatory function of SH, but also highlight the importance of the interpersonal boundaries function, which may provide a useful focus for treatment or intervention.

### **Attachment style in two generations – stability, transmission and relationship to psychological disorder.**

Insecure Attachment Style is increasingly acknowledged as an important developmental risk factor for psychological disorder. However, in adolescence, its association with different types of disorder, whether transmitted from the mother and continuity of insecurity from infancy require further investigation. The study examined these three aspects.

**Method** An existing sample of non-clinical mother-offspring dyads studied 15 years earlier and newly followed up were utilised. New data from 43 mother-adolescent dyads were collected both by questionnaire and interview to determine clinical symptoms and Attachment Style in both generations. The Attachment Style Interview (ASI) was used for the adolescents while the Vulnerable Attachment Style Questionnaire (VASQ) was used for mothers to ascertain attachment style insecurity. Previously collected data using the Adult Attachment Interview and the Strange Situation Procedure (SSP) in infants were also utilised to assess continuity.

**Results:** Findings show that Anxious Attachment Style in the adolescents was associated with both Internalising and Externalising disorder. Avoidant Style (Withdrawn) was not associated with any disorder. In mothers VASQ insecurity was highly significantly associated with both their depression and trait anxiety. Mothers' internalising disorder was also associated with adolescent disorder, both Internalising and Externalising. However, there was no association between mothers' and adolescents' Attachment insecurity, and mother's insecure Attachment Style was unrelated to adolescent disorder. Finally, there was continuity of insecure Attachment in mothers over the intervening years, but not in adolescents.

**Discussion:** The results indicate that insecure Attachment Style is a risk factor for psychological disorder at different life stages and there are interesting patterns in relation to continuity and life stage, and maternal transmission of risk. These findings are important for identifying risk in adolescent for effective intervention.

## Can Brain Tell Us the Difference of Relationships? - Voice Processing in Intimate Others

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<sup>1</sup>Renmin University of China

Poster Session 1, Jeffery Hall, Level 1, June 29, 2017, 1:45 PM - 3:15 PM

Abstract: When people process the familiar versus unfamiliar voices, their electrophysiological responses are different. Yet, little is known about how the voice of attachment figure is processed differently from other familiar ones. The current study aims to investigate human's brain response when processing the voices from different people (partner, friend and stranger) by measuring EEG activity. We also want to explore the related factors whilst processing vocal stimuli, such as familiarity and attachment orientations. Using the auditory oddball paradigms as method, we found that 1) MMN (mismatch negativity) and P3a components elicited by the voices of partner and friend are greater than those elicited by strangers'; 2) compared to the friends' voice, participants produced a larger MMN when listening to partner's voice 3) attachment anxiety scores can predict the MMN waves when processing the partner's voice, controlled by age, gender and attachment avoidance.

My name is Shirong Zhang, a third year graduate student from Renmin University of China. My research on voice processing in intimate others concentrated on the brain response in passive condition, and considered the factors of familiarity and attachment orientations, since I have been interested in the distinguished role of voice from intimate other and underlying neural mechanism of attachment. The result of current research not only aligns with the result of previous study on electrophysiological markers of voice familiarity, but also supports the view of *hyper-activation* strategies used by the anxious individuals in attachment theory. We believe this is an important first step in the investigation of neural responses to voice of different subjects as a function of attachment orientations.



**Maternal Mental-State Talk and Psychological Symptoms among Mothers of Infants Born Preterm**

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Preterm birth has been considered a critical life event for the family. Mothers of preterm infants seem to be at higher risk of presenting psychopathological symptoms than mothers of full-term infants, due to the experience of intense psychological distress during the stay at the neonatal intensive care unit (NICU) (Davis et al., 2003). The environment of the NICU, the uncertainty about baby's health condition, and chances of survival are among the multiple sources of such distress. It has also been suggested that psychological distress compromises mother's ability to interact with her child (Murray et al. 1999; Forcada-Guex et al., 2006). The present study aims to describe mothers' interactive competence, regarding their verbal dimension, specifically, the use of mental state terms, with their 12 months old preterm infants. Further, we aim to explore whether mothers' verbal competence is negatively influenced by the presence of psychological symptoms. Participants are 144 preterm infants ( $M=33.10$  weeks of gestation,  $DP=2.81$ ), and their mothers ( $M=33.78$  years,  $DP=5.02$ ). To assess maternal psychological symptoms, mothers completed the Brief Symptom Inventory (Derogatis, 1982). According to previous studies (Meins, et al., 2001), maternal verbal competence in interaction with the child was assessed considering the use of mental state terms, during a videotaped free-play situation, according to three categories—desires (e.g., like), cognitions (e.g., think), and emotions (e.g., happy). The coding of maternal mental state talk is still underway. We will discuss the importance of early, family-centered intervention programs, aimed to promote positive parent-infant interaction, and therefore the optimal development of children born preterm.

## Adoption, Trauma and Reparation: Co-Constructing Attachment Bond Using the Video Intervention Therapy

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Along the adoption path there are different transition moments which are of utmost importance but not immediately understandable by the parents. Gaining mentalization ability is essential to understand the world of a baby who experienced such early and tragic relational fractures, in order to avoid adoption failures. The use of video is a technique that enables parenthood support through direct observation of the relationship, helping parents' ability to access fears and problems related to the baby's mental universe. The author will, through a case analysis, spotlight the concealed messages offered by the children, which can have a powerful effect on the growing relationship with the parents. Actually the parent finds him/herself dealing with the consequences of violations of childhood intimacy and deep relational fractures, that do not let neither the child trust nor the parent understand that the child's awkward and incongruous behavior is the result of traumatic relational experiences. This can make the encounter difficult, and the relationship unstable, providing the base for consequent emotional misunderstandings that can give rise to significant parental difficulties.

Using the video to observe interactions moment by moment, allows the parents to get the child's limited and concealed signals, allowing to build a facilitating atmosphere aimed at integration in the new reality.

Intervening with videos, using the "speak for the baby" technique, can promote the adult's ability to reflect and mentalize the several possible meanings of the child's behavior. Therefore it becomes possible to increase the ability to explore and think about the adopted child's subjective world, leaving room for the child's past, and giving sense and meaning especially to the hard relational moments. This allows the activation of repairing emotional exchanges, which become protective areas in the co-construction of the adoptive relationship.

### **BIBLIOGRAPHY:**

- Tronick, E. Z (2008), "Self-and mutual regulation, meaning making and the dyadic expansion of consciousness." In *The Neurobehavioral and Social-Emotional Development of Infant and Children*. W.W. Norton, New York, pp. 1-18.
- Stern, D. N. (2004), *The Present Moment in Psychotherapy and Everyday Life*. Oxford University Press. 2004
- Slade, A. (2006), "Reflective Parenting Programs: Theory and Development", *Psychoanalytic Inquiry*,1, pp. 638-55.
- Lambruschi, F., Lionetti, F.(a cura di) (2016), *La genitorialità. Strumenti di valutazione ed interventi di sostegno*. Carocci Editore. Roma 2016
- Verardo, A. R. (2016), *Attaccamento traumatico: il ritorno alla sicurezza*. Giovanni Fioriti Editore. Roma 2016

### Quality of Attachment Representations and Teachers' Ratings on Preschoolers' Social Adjustment

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Studying children behavioral and emotional characteristics helps to understand the predictors of childhood disorders, and identifying characteristics that could represent risk or protector factors. Attachment theory suggest that a secure relationship with parents supports the quality of social adaptation in peer groups. Children who are more securely attached are also more socially competent, they seem to be more positive in their interactions with peers in preschool, more behaviorally and emotionally empathic, more popular, more cooperative, and rated by teachers as having a higher level of social skills and less maladaptive behaviors. Our aim is to investigate links between attachment representations and teachers-rated social adjustment (specifically, anger, anxiety, and responsiveness to peers).

The sample included 99 preschool children's (49 boys and 50 girls) between 49 – 76 months-of-age. Mental representations of attachment were assessed using the Attachment Story Completion Task (ASCT). General intelligence tests were administered to control effects of developmental level on child narrative production. Social competence was assessed using SCBE-30, using both composite and subscales, that discriminates specific types of behavioral-emotional problems, distinguishing internalizing and externalizing behavior, and children's positive social adjustment.

Although the effects of attachment security on aspects of child functioning in the peer group tend to be modest, in our study we found that teachers rated higher secured children as more social adjusted ( $\beta=.26, p<.05$ ). When analyzing the subscales, a more secure attachment representation seems to act as a protect factor when considering anxiety-withdrawal behaviors ( $\beta=-.19, p<.05$ ) for girls, and for anger-aggression behaviors ( $\beta=-.17, p<.05$ ) for boys. In fact, these are fundamental areas once studies have been reporting that, when less adjusted, girls tend to display more internalizing behaviors (e.g., social withdrawal), and boys tend to exhibited more externalizing behaviors (e.g aggression, attention seeking and rough play).

Fig 1. Effect of attachment representation on social adjustment domains for girls



Fig 2. Effect of attachment representation on social adjustment domains for boys



## Romantic Attachment and Commitment: A Mediation Model

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As defined by Bowlby (1969, 1982), attachment system is directed to maintain closeness to a significant other who is able to give support and protection in dangerous situations. Moreover, Bowlby (1969) theorized that a couple relationship might lead to the “co-construction” of a new attachment representational model, based on the repeated interactions with the romantic partner. Starting from the *attachment styles* identified by Hazan and Shaver in 1987 (secure, anxious, avoidant); Brennan *et al.* (1998) showed that attachment insecurity could be related to attachment anxiety (partners who are uncertain of the availability of close others and seek support from their own partners); or attachment avoidance (partners who doubt the availability of close others and dismiss intimacy within the romantic relationship). In insecure attachment, partners report low levels of satisfaction, intimacy and trust within couple relationship (Collins & Read, 1990; Li & Chan, 2012).

Considering studies about couples, the *Investment Model* (Rusbult, 1983) underlines that the competence to maintain a romantic relationship is based on the degree to which partners are able to mutually satisfy their life goals through that relationship as a whole. This model identified commitment as a central factor, able to moderate the relation between different interdependency variables and the couple wellbeing.

Our study aims to verify the possible role of commitment in mediating the relation between avoidant attachment and couple satisfaction. To confirm this hypothesis we rated attachment styles using the ECR-R (Fraley, Waller & Brennan, 2000), couple satisfaction using the DAS (Spanier, 1976) and level of commitment (reported and perceived) using the IMS (Rusbult *et al.*, 1998) on a sample of 200 couples. We suppose that avoidant individuals who also report high levels on commitment, will be more satisfied within their relationship. Our findings will be useful for building possible interventions to promote couple wellbeing.

## **Teaching basic science in socio-emotional development to health and mental health professionals: The Interdisciplinary MA Program in Child Development**

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In this paper, we will share what we have learned from our unique Interdisciplinary MA Program in Child Development at the University of Haifa, Israel as a prism of teaching and sharing knowledge about socio-emotional development in general and attachment theory in particular, with interdisciplinary students. The program was designed for experienced health and mental health professionals, (i.e., speech therapists, physiotherapists, occupational therapists, social workers, and nurses) who work with children and their families. The main aim of the program is to expose students to up to date developmental science, with a special focus on attachment theory and its relevance to their day-to-day work.

The program consists of courses in basic science, including advanced courses in attachment and parenting. The program also offers courses and workshops in which students exercise the translation of theory and research into practice. Specifically, students practice their observational skills and the construction of assessment, intervention and prevention programs within their professional discipline but with a new focus on the emotional needs of children and their families. Equally important is the program's emphasis on creating a secure base for the students by providing a supportive environment as well as a space for reflection on inner processes, including those evoked by the academic material.

The paper will discuss how this program and in particular exposure to attachment theory and research changed the professional identity of the students as clinicians and the way it has influenced the field of professional work with children and families in Israel.

## Turkish Pregnant Women's Concerns and Coping Strategies in The Middle of Uncertainty: Semi-structured Interviews with Thematic Analysis

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Mothering experiences of women, and their self-beliefs about mothering, differ across cultures as well as on individual bases. In this study, researchers aimed to find out how women describe their problems, fears and anxieties and how they cope with these in the process of transition to motherhood, in other words pregnancy period.

The answers to semi-structured interviews were collected from participants via online questionnaire. These answers were analyzed by using thematic analysis method. Theme analysis was conducted with a data of 67 Turkish pregnant women who were aged between 24 and 37 ( $M= 29.39$ ,  $SD = 3.04$ ). All participants were naturally conceived. Data collection process coincided with a critical period for Turkey when possible traumas were socially frequently experienced (July 2015-September 2016, 16 terrorist bomb attack, 293 dead and hundreds of injured people in Turkey), in addition to economic and social uncertainties that were affecting daily life of people.

According to analyses, most participants (% 38.8) mentioned that during pregnancy, they were anxious about *childlessness* ( $f = 40$ ) and %28.4 of women stated that the most effective way for coping with these problems was *spousal support* ( $f = 26$ ). For the questions about post pregnancy period (*what will be the possible problem that you will face while raising your kid?*), the most frequently mentioned theme was *national pessimism* ( $f= 55$ ) by the participants (%49.2). When participants' coping strategy was inquired, they (%17.9) mostly mentioned there would be no solution, which is labelled as *hopelessness* ( $f= 14$ ). Participants' concerns about taking new responsibilities, being a mother and raising children were found to be mainly related with societal reasons that might not have created much anxiety in another cultural context or zeitgeist.

## Gender differences in relationship pattern: The role of avoidant attachment and conflict resolution

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Although the literature has widely examined the links between attachment and conflict resolution in the close relationships, perception of partner's resolution style has not received that much attention. Likewise, despite gender differences have been observed in attachment and conflict resolution, most research has considered that women and men display a similar relational pattern in their relationships. The aim of this study was to analyze the similarities and differences during conflict resolution between women and men. The sample was made of 158 participants (ranging from 20 to 60 years old, %52.5 women) involved in an exclusive relationship. Using multi-group structural equation modelling comparing men and women, a prediction model of marital satisfaction was tested taking into account avoidant attachment and both own and perceived partner's conflict resolution strategies. All fit indexes indicated that the same model did not apply for both genders. Therefore, a differential model was then concluded. While own withdrawal conflict resolution in men is associated positively with partner's hostile and negatively with problem-solving strategy and marital satisfaction, in women such links were not observed. Both men and women's marital dissatisfaction were highly dependent on avoidant attachment. Implications for intervention with couples are discussed.

**Key words:** gender, avoidant attachment, conflict resolution strategy, marital satisfaction.

## From 320g in Incubator to Adulthood: Association Between Parental Bonding, Psychopathology and Consequences of Prematurity in a High Risk Population

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**Introduction:** A “preterm behavioural phenotype” exists (Johnson, Marlow 2016) and long-term risk associated with adverse socio-emotional outcomes in young adults born very preterm (VP) are poorly understood, since longitudinal studies beyond puberty are scarce (Linsell, 2016).

**Objectives:** Study investigates psychological distress of young adults born VP and its association with parental bonding.

**Design:** Follow-up in an ongoing prospective longitudinal study (incubator to adulthood) about the long-term socio-emotional development of infants (<1500g) born VP.

**Participants:** N= 84 (54 singletons/30 multiples) teenagers born VP (weeks of gestation: 24-32) at the mean age of 18.77 participated with their mothers.

**Methods:** Psychological distress was measured by the Symptom Checklist 90-Revised (SCL-90-R) (Derogatis 1994) completed by the teenagers. Parental Bonding was assessed by the Parental Bonding Instrument (Parker et al. 1979): Teenagers evaluated “Care” and “Protection” within the first 16 years of life for mother/father separately.

**Preliminary results:** In our sample the mean of psychological distress did not significantly differ from SCL-90-R normative sample (T-score 50). However, N= 15 (21.7%) teenagers suffered clinical distress (General-Severity-Index (GSI)-T-score, or any two subscales T-scores  $\geq 63$ ) and had to be referred to psychotherapy.

Findings indicate an association between psychological distress and parental bonding: Parental care correlated with the GSI-Score (mother:  $r = .46$ ,  $p < .001$ ; father:  $r = .51$ ,  $p < .001$ ). Parental protection correlated with the GSI-Score (mother:  $r = .37$ ,  $p < .001$ ; father:  $r = .40$ ,  $p < .001$ ). Maternal protection was associated with “subscale anxiety” and paternal care significantly moderated that relationship. Results which strengthen/weaken associations (teenagers' and mothers' attachment representations (assessed at 18 months corrected for prematurity) or differences between non-/clinical cases) will be discussed at the conference.

**Conclusion:** Findings stress the protective role of parental bonding (sensitive caregiving) on psychological well-being after prematurity and beyond. Preventive caregiving programmes for parents which start immediately after delivery are an urgent need.



## Effectiveness of an Attachment-Based Video-Feedback Intervention among Turkish Mother-Child Dyads

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The current intervention study aimed to examine the effectiveness of an attachment-based short-term intervention, namely, VIPP: Video-Feedback Intervention to Promote Positive Parenting (Juffer, 1993; Juffer, Bakermans-Kranenburg, & Van Ijzendoorn, 2008) on both maternal sensitivity and child attachment security in Turkey. The sample consisted of 103 mothers coming from relatively low-SES backgrounds with infants between 9 and 33 months old. Using a randomized control trial design, mother-child dyads were randomly assigned to the intervention (n = 63) and control (n = 40) groups, and four thematic sessions were conducted with intervention mothers. A number of video recordings, observational assessments as well as self-report measures were employed in the periods of pretest, posttest, and follow-up. Maternal sensitivity and child attachment security were assessed via the Maternal Behavior Q-Set (MBQS), the Attachment Q-Sort (AQS), and the Ainsworth Sensitivity Scale. Maternal attitudes toward sensitivity and marital satisfaction were assessed with self-report measures.

GLM Repeated Measures analyses using 2 factor (intervention X control) X 3 time (pretest, posttest and follow-up) yielded significant differences on the Ainsworth Sensitivity Scale, maternal attitudes toward sensitivity, and marital satisfaction, indicating that mothers' sensitivity and related attitudes were positively changed and also their marital satisfaction was enhanced following the intervention as a secondary gain. Additional t-test analyses conducted within the control and the intervention groups separately, suggested that the levels of maternal sensitivity measured via the MBQS, and attachment security measured by the AQS have increased in the intervention group in the posttest and follow-up measurements. These findings provided support for the effectiveness of the VIPP intervention on promoting mother and child outcomes in Turkey. The study also extends previous research mostly conducted among middle-to-high SES mothers in individualistic cultures to low-SES Turkish mothers. Furthermore, effectiveness of the intervention was tested on a number of child outcomes and family functioning.

## Sexuality in Adolescents: The Role of Emotion Regulation

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Introduction. The ability to regulate emotions has been identified as a protective factor associated with a reduced risk behaviors (Schneider and Caffray, 2000). Sexual activity is associated with various risks (i.e. pregnancy). Studies show that adolescents experience more frequent and intense emotions than individuals younger or older, and that at this stage of the life cycle greatly increases the incidence of risks behaviors.

However, most research on emotion regulation has focused on children, while less attention was paid to early adolescence (Eisenberg & Morris, 2002).

Method. The sample consisted of 400 adolescents aged between 13 and 19 years (mean age = 16.70, SD = 0.91). For participants, attending secondary schools, are administered the following instruments: a) Difficulties in Emotion Regulation Scale (DERS: Giromini, Velotti, et al. 2012), a tool that examines the overall difficulty in regulating emotions through the evaluation of six factors; b) the Multidimensional Sexuality Questionnaire (MSQ; Snell, Fisher, & Walters, 1993) a self-report instrument designed to measure of 12 aspects of human sexuality: (1) sexual-esteem; (2) sexual-preoccupation; (3) internal-sexual-control; (4) sexual-consciousness; (5) sexual-motivation; (6) sexual-anxiety; (7) sexual-assertiveness; (8) sexual-depression; (9) external-sexual-control; (10) sexual-monitoring; (11) fear-of-sex; and (12) sexual-satisfaction.

Results. Preliminary results show the presence of correlations between specific difficulties in emotion regulation, and all the aspects of sexuality evaluated, allowing a discussion about the role of emotional regulation in this facets of adolescent life.

## **Attachment in Middle Childhood is Related to Mentalizing in Early Adolescence: Findings from Longitudinal Study**

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Poster Session 1, Jeffery Hall, Level 1, June 29, 2017, 1:45 PM - 3:15 PM

Important changes take place in the attachment system during middle childhood, including a move towards more integrated attachment representations. When children reach early adolescence, on one hand their mentalization changes under influence of pubertal socio-cognitive developmental changes. On the other hand, attachment security in previous developmental stage might still influence development of mentalization in later age. However, there is almost no longitudinal studies analyzing the relationship in these developmental stages. The goal of our study was to analyze the relationships between child attachment in middle childhood and mentalizing capacity in early adolescence. Eighty-two children (52,4 % boys) participated in two phases of the study. During first phase children, aged 8-11 years were interviewed using Child Attachment Interview (Shmueli-Goetz et al., 2008). After 3 years same children participated in the second phase of the study where their mentalization was assessed. To measure different aspects of mentalizing we used four measures: Levels of Emotional Awareness Scale for Children (Bajgar et al., 2005), Reading the Mind from the Eyes Test (Child version) (Baron-Cohen et al., 2001), Reflective Function Questionnaire for Youths (Sharp et al., 2009) and Situational Stories (Gervinskaite-Paulaitiene & Barkauskiene, 2016). Results revealed that attachment security assessed dimensionally using Coherence scale in middle childhood was related to higher emotional awareness and better understanding of mental states underlying behavior but not related to mental states recognition and self-reported reflective function in early adolescence. Other CAI scales were meaningfully related to different indicators of mentalizing. Categories of secure and insecure attachment did not differ in any aspects of mentalizing. Study results contribute to better understanding of developmental links between attachment security in middle childhood and mentalizing in early adolescence. Results will be discussed in the light of developmental models of attachment and mentalization.

## Psychosemantics mother's image for different types of attachment to her in adulthood

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The heritage of the early experience often affects a person even in adulthood. One of the fundamental mechanisms of this kind of influence is attachment of child to mother (Bowlby, Ainsworth). Studies show that the impact of the type of attachment is distributed to mother's image for different types of attachment to it in childhood. We are interested in whether there is an influence of the quality of the attachment to mother on mother's image in adulthood. The sample for the present investigation comprised 327 adults. Semantic differential was adapted and used to assess the peculiarities of mother's image. The type of attachment to mother was assessed by the modified Attachment Questionnaire (Yaremchuk, 2006). The highest (significant) differences in subjective semantic mother's profiles were obtained when comparing respondents with secure and any other type of attachment to mother. Certain characteristics of the mother image for respondents with ambivalent and avoidant attachment types were obtained.

**Parental sensitivity and infant gender factor: State-space dynamic analysis**

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The present study is part of a research program focused on detecting precursors of attachment in which the central character has been the mother. The present development of the research program addresses father-infant interaction compared with mother-infant dyads using the same observational methodology. This study aimed to investigate the influence of parental gender on their interaction with their infants, considering, as well, the role of the infant's gender. The state space grid (SSG) method, a graphical tool based on the non-linear dynamic system approach (NDS) was used to analyze the interaction in Free-Play setting of 52 infants, aged 6 to 10 months, half of them interacting with their fathers and half with their mothers, 50% boys in each group. Results showed no differential parenting of boys and girls in the Diversity of behavioral dyadic states nor in Predictability. Differences associated with parent's gender were found: the paternal dyads were faster in the rates per second of behavioral events and transitions or change of state. Maternal dyads tended to be involved in more events once they visited a certain dyadic state. Results showed significant discriminant function on fathers and mothers. For the fathers was more likely that the transitions involved 'in-out' of 'Child social Approach neutral - Sensitive approach neutral' state. For the mothers the dyadic state in which the repetitions of events distinguished them from fathers was 'Child Play-Sensitive approach neutral'. The classification of dyads (with fathers and mothers) based on this discriminant function identified 73.10% of the father-infant dyads and 88.5% of the mother-infant dyads. Our findings showed how observational methods applied to natural contexts offers new facets in father versus mother interactive behavior with their infants that can inform further developments in this field.

## Towards a multi-method and multi-informant assessment of preschooler's attachment

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Assessing children's attachment remains a big challenge due to methodological constraints and, consequently, their interpretations still need to be cautious. In order to overcome these limitations, in this exploratory study, our main objective is to study the agreement between parents and clinicians assessing children's attachment behaviors and children themselves assessing their attachment representations of normally developing preschoolers. This is in line with an innovative way of assessment as proposed by Kraemer et al. (2003) of combining multi-informant and multi-method data. Mothers' ratings were obtained by the French version of the Attachment Inventory Screening Insecurity (Winsink et al., 2015), clinicians assessed children's attachment behaviors using Preschool Attachment Rating Scale in the context of the Strange Situation (Moss et al, 1996) and children completed the Attachment Story Completion Task (Bretherton et al., 1990) coded with Q-sort procedure (Miljkovitch et al., 2003).

Exploratory data were collected from a sample of 30 children aged between 2,5 and 5 years old with mothers and clinicians. The validity of the combination of the sources of information was tested by relating it to a criterion variable, i. e. externalizing behaviors. The results confirmed low agreement between the sources of information. The appropriateness and the validity of the mathematical model of Kraemer et al. (2003) for combining mothers', clinicians' and children's ratings of preschoolers' attachment was also generally supported by the results. Recommendations for both research and clinical purposes are provided in the discussion section.

## Participants Unresolved for Loss on the AAI Exhibit Differential EEG Alpha and Delta Spectral Activity While Recalling Sorrowful Past Events

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Electroencephalogram (EEG) frontal and central responses while visualizing personally-relevant past events evoking joy, anger, fear and sorrow have associated remembering sorrowful/fearful events with *decreases* and joyful/angering events with *increases* in peak alpha frequency (Kostyunina & Kulikov, 1996). Since persons classified as Unresolved for loss on the Adult Attachment Interview (AAI, George et al., 1984) have been shown to exhibit differential EEG event-related potentials to cemetery scenes (Bahm et al., 2017), it was hypothesized that Unresolved participants would also exhibit decreased peak alpha (8-13 Hz) frequencies during recall of sorrowful past life events.

20 female undergraduates who had experienced important loss(es) and had completed the AAI ~1 year earlier (10 Unresolved; 10 *not* Unresolved, hereafter "Control") participated in a "Mood Recall Task" (imagining sorrowful and joyful episodes involving an important person, two minutes each). Participants' Unresolved/Control status was unknown at the time of the EEG session. As hypothesized, Unresolved participants recalling sorrowful events exhibited decreased frontal peak alpha frequency as compared to Controls (F3,  $t=2.760$ , significance=0.01; F4,  $t=2.539$ , significance=0.02). (Central peak alpha did not differ.)

Rasco (2004) noted the appearance of EEG delta waves while veterans with PTSD (listening to clicks through headphones) seemed to enter trance-like states. Since Unresolved AAI status has been linked to dissociative/trance-like states (Hesse et al. 2000, 2006), it was predicted that Unresolved participants would show greater delta (0-4 Hz) activity during sorrowful memory recalls. This was supported for both frontal (F3,  $t=-2.006$ , significance=0.06 [trend]; F4,  $t=-2.132$ , significance=0.05) and central (C3,  $t=-2.092$ , significance=0.05; C4,  $t=-2.257$ , significance=0.04) sites. These brain responses of Unresolved subjects during sorrowful recalls may provide insight into the conditions which may conceivably prompt entrance into altered mental states in Unresolved individuals, as disruptions in working memory and altered states of consciousness (e.g. absorption/dissociation) have been proposed to be responsible for Unresolved AAI lapses.

**Attachment dimensions and styles within the Circumplex of Personality Metatraits**

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Several models of attachment styles and dimensions have been proposed in the literature. Although most of them originate from the classic Bowlby-Ainsworth approach, they differ in attachment constructs they distinguish and use different measurement instruments. In the current presentation we are going to place various attachment constructs within the Circumplex of Personality Metatraits (CPM; Strus, Ciecuch, & Rowiński, 2014). CPM differentiates four bipolar metatraits, called Alpha (Stability vs Disinhibition), Beta (Plasticity vs Passiveness), Gamma (Integration vs Disharmony) and Delta (Self-Restraint vs Sensation seeking), which form a circumplex with four axes and eight octants. CPM serves as a basis for integration of many psychological constructs, including temperament, personality, emotion, motivation, wellbeing and personality disorders that has recently been verified empirically by Strus and Ciecuch (2017). However, to date CPM has not been used to analyze the attachment constructs and this is the first attempt to fulfill this gap. Attachment dimensions and styles differentiated in the literature can be placed within CPM by using dimensions Alpha and Beta. Such a placement can be useful for (1) a systematic description of similarities and differences between attachment models, (2) an attempt to integrate different models of attachment in childhood and adulthood and (3) a systematic description of relation between attachment constructs and other constructs including individual differences in biologically determined temperament (e.g. Groh et al., 2016), or internalizing and externalizing symptoms (Groh et al., 2014).



## Young Children's Developmental Risk: Contributions of Mothers' Representations of Attachment Trauma and Caregiving Helplessness

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Children's developmental risk is associated with the dysregulation of mothers' attachment and caregiving systems. Mothers' unresolved loss or abuse often underlies this dysregulation, and has been associated with children's disorganized attachment and internalizing and externalizing behavior. Children are influenced by their mothers' past and current experiences. This study examined risk in the context of maternal attachment trauma and dysregulated caregiving representations and proposed a model where dysregulated caregiving representations moderate the link between mothers' attachment trauma and child developmental risk.

Participants were 415 mothers (mean age=33 years), predominantly white (73%), middle-to-upper SES, with a child between 1.5 and 5 years (mean age=3 years). Participants completed questionnaires assessing subjective distress/failed protection from childhood and adult attachment trauma with parents and adult partners (Attachment Trauma Questionnaire), representations of caregiving helplessness (Caregiving Helplessness Questionnaire), and childhood behavior problems (Child Behavior Checklist).

Results of regression analyses indicated attachment with partner and mothers' caregiving system were associated with children's risk. Attachment trauma and caregiving helplessness significantly predicted child internalizing behaviors ( $R^2 = .181$ ,  $F(1,3)=20.35$ ,  $p < .001$ ). Attachment trauma, caregiving helplessness, and child caregiving significantly predicted externalizing behaviors ( $R^2 = .181$ ,  $F(1,3)=20.35$ ,  $p < .001$ ).

Moderation differed for internalizing and externalizing behavior. Mothers' caregiving helplessness moderated the effect between attachment trauma with current partner and child internalizing behavior; higher reported helplessness was associated with more internalizing behavior ( $b=.025$ ,  $t=2.75$ ,  $p<.01$ ). Mothers' caregiving role reversal (child viewed as caregiver) moderated the link between current partner trauma and child externalizing behavior; higher role reversal was associated with less externalizing behavior ( $b=-.157$ ,  $t=-3.28$ ,  $p<.001$ ).

These findings have important implications for understanding the relation between mothers and children's mental health and make significant contribution to research on the "transmission gap" as only attachment trauma with current partner was associated with child behavior problems, not reported attachment trauma with mothers' own parents.

**Executive functions: Mediating role in the relation between attachment security and socio-emotional competence and between maternal sensitivity and socio-emotional competence in low socioeconomic status school age children from Peru.**

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Theoretical and empirical evidence support that secure attachment and maternal sensitivity promotes socio-emotional competence (i.e. social competence and emotional regulation; Bretherton, 2005; Hamre & Hatfield, 2011; Mintz, Pallini, Baiocco, Schneider, Madigan & Atkinson, 2014; Parrigon, Kerns, Abtahi & Koehn, 2015; Sroufe, Egeland, Carlson & Collins, 2005). However, the mechanisms through which this relationships works have been little empirically addressed.

In that line, some authors argue that executive functions (working memory, inhibitory control and cognitive flexibility) could play a mediating role in the relationship between attachment security and socio-emotional competence, on one side; and between maternal sensitivity and socio-emotional competence, on the other.

Despite the implications of this issue for children's socioemotional development and school achievement, the study of this topic is still scarce in Latin America and even more so in low socioeconomic status children.

Thus, present study aimed to (1) Analyze the mediating role of executive functions in the relation between maternal sensitivity and socio-emotional competence and (2) analyze the mediating role of executive functions in the relation between attachment security and socio-emotional competence. For this, a longitudinal study was designed.

Participants were 35 children and their mothers of low socioeconomic status from Peru.

At first moment, maternal sensitivity and attachment security were measured when children were between 36 and 59 months old using the maternal Behavior for Preschooler Q-Set (Posada, Jacobs & Richmond, 1998) and Attachment Q-Set (Waters, 1995).

Then, at second moment, the Home and Community Social Behavior Scale (Merrell & Caldarella, 2001), the Emotion Regulation Checklist (Shields & Cicchetti, 1997) and several executive functions tasks (e.g. Day-night task, Go-no-Go task, memory spam task) will be used to evaluate socio-emotional competence and executive functions when the children will be 7 years old (between March and July 2017). In this paper, preliminary results will be presented.

## **Healthy Mothers, Healthy Babies: A Best Practice Preventative Approach to Pregnant Women and Child-Welfare-Involved Families**

**Hill M<sup>1</sup>**, Cremer S<sup>1</sup>, Madan M<sup>1</sup>

<sup>1</sup>*The Bronx Defenders*

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Due to current policies and practices in New York City, pregnant women with children in foster care are particularly vulnerable to having their newborns directly removed from the hospital upon birth and placed into foster care. The threat of child apprehension can drive pregnant women to attempt to hide their pregnancies, plan for the return of their older children, or seek essential services, such as prenatal care.

The workshop will present a unique program pioneered by The Bronx Defenders, *Healthy Mothers, Healthy Babies*, which is funded by the Child Welfare Fund. This interdisciplinary workshop will discuss best practices for planning with and advocating for pregnant women who are at-risk of child welfare involvement.

This presentation will discuss the unique way in which an alliance can occur through the privacy of a legal setting and the importance of providing pregnancy planning services for women in public defender offices in an attempt to avoid the devastating consequences of disrupted attachment. This presentation will focus on the importance of providing non-coercive, supportive planning during pregnancy, and advocacy that prevented such newborns from being removed. The workshop will also provide data to show how it has achieved measurable success and will include ideas of how to replicate the model in other spaces.

## B.A.S.E. BabyWatching Comes to the United States: Challenges, Rewards, and Lessons Learned

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**B.A.S.E.** stands for *Babywatching Against Aggression and Anxiety, for Sensitivity and Empathy*. It is a low-cost intervention that promotes healthy socio-emotional outcomes in classroom settings (Brisch, 2007). Up till December 2016, such programs had only existed in Europe, Israel, and New Zealand. The establishment of this program in New York City is the first of its kind in the United States (Kellie-Smith & Perry, 2016). It is referred to as an *attachment-based intervention* because it involves having an infant and one of his / her primary caretaker (usually the mother) visit the class on a weekly basis for approximately half an hour throughout the course of several months. Children observe the interaction between mother and baby and in so doing witness how a secure bond forms between that caretaker and infant over time.

BASE Babywatching in New York (**BBINY**) is a collaborative effort between the Education and Nursing Departments of an urban college, with an over 80% population of various types of students of color. The Educator on the BBINY team had been trained in the procedure and facilitates the weekly sessions with the mother and baby for a group of approximately 15 first-grade students; while the Nurse on the team keenly observes, documenting key observations of the mother-baby dyad, students, and the teacher. This participating 1st grade class has a 100% Black enrollment, with children whose origins stem from the Caribbean, recent immigration from Africa, and / or whose families have been living in the United States for many generations.

The poster will detail the challenges faced in forming this initial pilot project, including: difficulties in recruiting a mother/infant dyad, working through and with the "tough love" values of many Black groups (including the educators), and securing proper and ongoing mentorship from advanced B.A.S.E. BabyWatching trainers in Europe.

### References

Brisch, K. H.(2007). The prevention of emotional and attachment disorders. In von Sucholotetz, W. (Ed.), *The Prevention of Developmental Disorders*. Göttingen: Hogrefe/Germany.

Kellie-Smith, G. & Perry, A (Oct. 2016). Hello, baby! Nursery World, [www.nurseryworld.com](http://www.nurseryworld.com).

**As tears go by: Baby tears trigger more brain activity than adult tears in nulliparous women**

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Emotional tears function as an important signal of distress. However, the function of tears may change during development (Rottenberg & Vingerhoets, 2012). It has been suggested that in infancy, the effectiveness of crying in attracting adults' attention might be more dependent on acoustics of crying than on tears or other visual cues of distress (Soltis, 2004). However, little research on the role of infant tears in the communication of distress has been conducted. The current functional magnetic resonance imaging (fMRI) study is the first to examine brain activity during the perception of infant tears compared to adult tears.

Participants were 49 nulliparous women (Mean age 19.58). With fMRI, we measured neural reactivity to pictures of infants (see Figure 1) and adults with and without tears on their faces. The results showed that infant tears evoked stronger responses in the visual cortex than adult tears, indicating that infant tears are highly salient. In addition, infant tears elicited more activity in brain regions involved in mentalizing, including the precuneus, and uniquely activated somatosensory pain regions (see Figure 2). This indicates that shedding tears may be a strong means to elicit the caregiver's sharing of the infant's feelings. This may improve the infant's chance of survival because it ameliorates the aversive impact of the cry acoustics and facilitates a sensitive caregiving response to the distressed infant. In conclusion, our study indicates that infant crying is not only an acoustic signal, but that visual aspects are also important for the communication of infant distress.



Figure 1. Example infant photo with tears (A) and without tears (B).

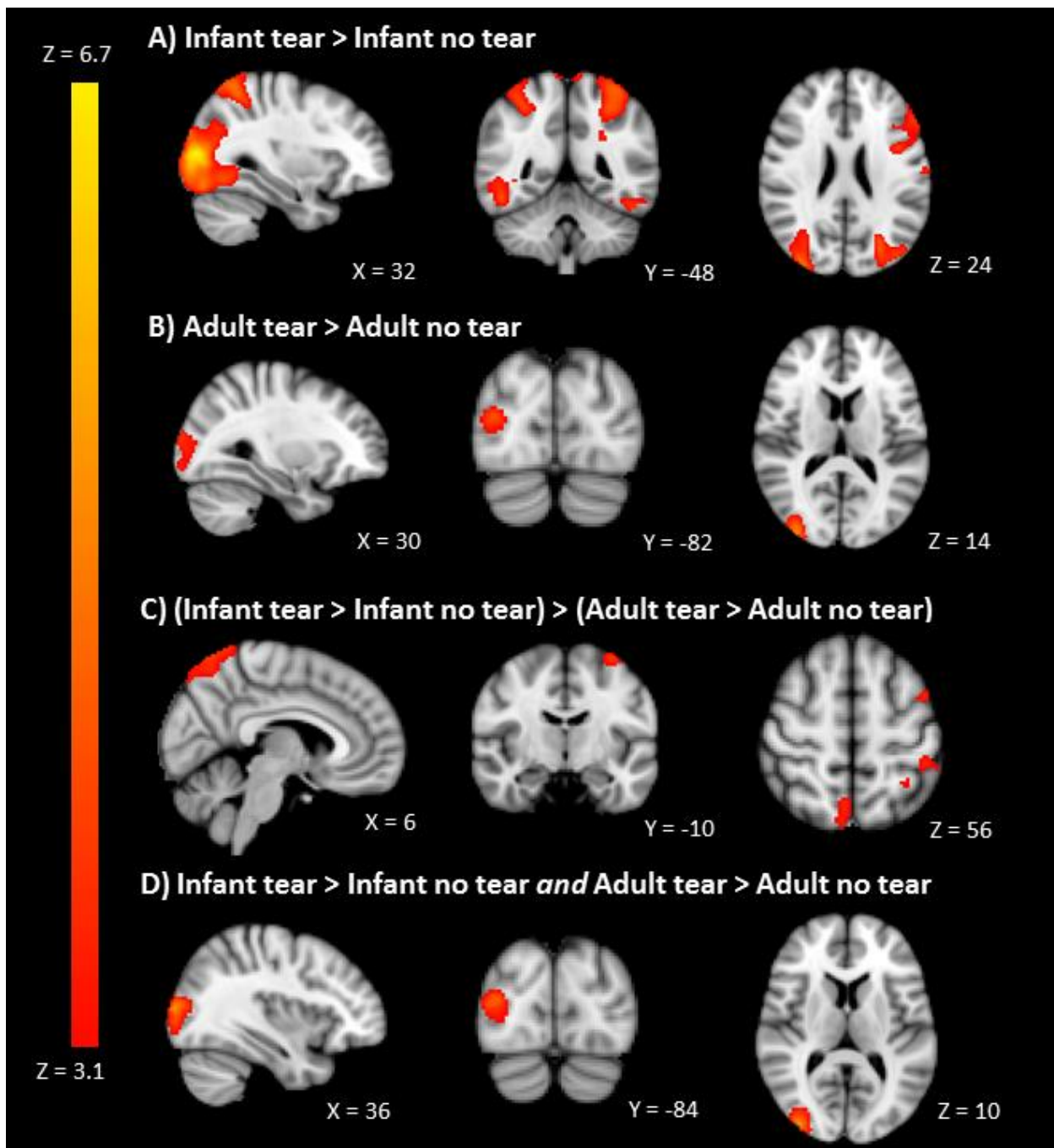


Figure 1. Significant brain activity. Thresholded with clusters determined by  $Z > 3.1$  and a cluster-corrected significance threshold of  $p < .05$ .

## The Relationship between Dispositional Mindfulness, Adult Attachment Orientations, and Emotion Regulation

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<sup>1</sup>*The University of Sheffield*

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Mindfulness has been conceptualized as a dispositional trait, which differs across individuals. Previous research has independently identified both adult attachment orientations and emotion regulation abilities as correlates of dispositional mindfulness. Research has also presented a two-factor model of the relationship between these three constructs. The present study aimed to further develop this model and investigated these relationships in a sample of 186 participants. Participants completed the Five Factor Mindfulness Questionnaire Short Form (FFMQ-SF), the Experiences in Close Relationships Scale for global attachment (ECR), the Emotion Regulation Questionnaire (ERC), and the Adult Disorganized Attachment scale (ADA). Exploratory factor analysis revealed a 3-factor solution accounting for 59% of the variance across scores on these measures. The first factor accounted for 32% of the variance and loaded highly on attachment and mindfulness subscales. The second factor accounted for 15% of the variance with strong loadings on emotion regulation subscales. The third factor accounted for 12% of the variance with strong loadings on disorganized attachment and the mindfulness observe subscale. The results of the present study further confirm the relationship between attachment, mindfulness, and emotion regulation along with the unique addition, and interaction, of adult disorganized attachment. The extracted factors will then be used to predict well-being outcomes for an undergraduate student population.

**Keywords**—Adult attachment, emotion regulation, mindfulness, well-being.

## Emotional and Personal Development at Adolescence: Attachment Studies

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Poster Session 1, Jeffery Hall, Level 1, June 29, 2017, 1:45 PM - 3:15 PM

Well-being is a general term for the condition of psychological state of an individual. An important aspect in studies of developmental problems of adolescents is analyzing who can be influential persons for them, whose opinion they are ready to respect. Here arises the problem of studying factors and determinants of the emotional development at adolescence. This article generalizes results of a few studies conducted from 2013 to 2016 in Moscow. The total sample is over 550 subjects aged from 13 to 23 from secondary and high schools.

The theoretical framework of the studies was Age-Approach theory (L.S. Vygotsky, D.B. Elkonin), Attachment theory (J. Bowlby, K. Bartholomew, M. Mikulincer), Model of Psychological Separation by J. Hoffman and Theoretical Model of Relation to Loneliness (D. Leontiev, E. Osin).

Theory of Attachment which focuses on the dynamics of a personality changes and his/her relationship with other people through an affective regulation plays a crucial role in explaining the transition from dyadic co-regulation to self-regulation.

In our researches we investigated: self-regulation - teenagers with the *secure* type of attachment to mother (AMT) have a higher level of modeling abilities, estimation of results and better developed flexibility, a high general level of self-control; loneliness - «positive» loneliness is concordant with secure AMT, and, respectively, «negative» loneliness/alienation is concordant with insecure AMT; the level of psychological well-being in relationships with peers - adolescents with secure AMT use more effective communication strategies with peers (cooperation, respect, tolerance, etc.), teenagers with insecure AMT have an inadequate attitude to peers (aggression, suspiciousness, discontent with others, self-abasement, dependence on opinion of others); parameters of parent-teenager relationship transformation - a «healthy» and «negative» separation from parents were revealed according to AMT. Distinctions for all studies are significant.

The research concludes that the AMT is important for developing psychological well-being of adolescents.

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This article generalizes results of a few studies of psychological well-being of adolescents in depending of attachment to mother conducted from 2013 to 2016 in Moscow. Subjects were aged from 13 to 23 (N > 550).

The theoretical framework of the studies was Age-Approach theory (L.S. Vygotsky, D.B. Elkonin), Attachment theory (J. Bowlby, K. Bartholomew, M. Mikulincer), Model of Psychological Separation by J. Hoffman and Theoretical Model of Relation to Loneliness (D. Leontiev, E. Osin).

We investigated: *self-regulation* of teenagers; adolescents' *loneliness* types; *relationships with peers*; *separation from parents* -- according to different types of teenagers' attachment to mother (AMT). Distinctions for all studies are significant.

Similarities and differences in communication with peers and loneliness of teenagers with different types of attachment to mother were found. The research showed peculiarities of adolescents' separation from parents.

The research concludes that the AMT is the important factor for developing psychological well-being of adolescents.



## S2.1

### **The affective quality of teacher-students interaction: Its role in students' development and underlying processes**

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*Symposia 2.1, June 29, 2017, 3:15 PM - 4:45 PM*

#### **Classroom Climate in Israeli kindergartens: Relations to children socio-emotional development**

The Classroom Assessment Scoring System (CLASS; Pianta et al., 2008) assesses three classroom relational domains: Emotional support, classroom organization and instructional support.

The present study used the CLASS to assess classroom quality in 50 Israeli kindergartens and examined the connections between classroom quality and children's cognitive and socio-emotional development in 231 children. Classrooms were observed at the beginning of the year and children's outcomes were assessed both at the beginning and the end of the school-year using a variety of well-validated assessments. We hypothesized that in classrooms coded as having higher quality, children will show more enhanced development during the school year. This hypothesis was partially confirmed.

The following significant associations were found: better classroom organization was associated with children reporting on higher-quality relationship with the teacher (measured with the FAS, Valeski & Stipek, 2001); better instructional support was associated with better cognitive development (measured with the Hebrew version of the WPPSI, 2012) and learning behaviors (measured with the PLBS, McDermott et al., 2002). A particularly interesting pattern of associations was found between classroom quality and children's self-concept. Whereas emotional support and classroom organization were not directly associated with the child's or the teacher's report on the child's self-concept (measured via the Harter measures, child and teacher), higher quality emotional support and classroom organization were positively associated with a better match between children's and teachers' reports on the child's self-concept. These findings suggest that teachers who provide better quality emotional support and classroom organization are also more accurate in their evaluation of the self-perceptions of children in their classrooms.

The results underscore the importance of classrooms' environment in children's evolving self-concept. They are also important because of the unique perspective they provide about the nature of self-concept in early childhood.

#### **Teacher-student interaction and students' interest in literacy and math**

The aim of the study was to examine the extent to which the quality of teacher-student interaction in lower secondary school was related to students' interest in literacy and math when gender, mother's education, prior interest and achievement level in literacy and math were controlled for. Participants were 775 students (45.7% girls, 13-14 years) and 50 teachers (27 literacy; 23 math) at Grade 7. Students rated their subject-specific interest for literacy and math at the end of Grade 7 (spring 2014) and Grade 6 (spring 2013). A total of 155 lessons (90 literacy; 65 math) were video-recorded (spring 2014) in order to assess the quality of teacher-student interaction by the CLASS-S (Pianta, Hamre, & Mintz, 2012) observation instrument. We tested associations between the quality of teacher-student interaction and students' interest using the COMPLEX option of the Mplus statistical package. Due to relatively high correlations between three CLASS-S domains (i.e., emotional support, instructional support, and classroom organization), each were modelled separately.

The results showed that the quality of teacher-student interaction was positively related to students' interest in literacy and math. In literacy statistically significant relation between the quality of teacher-student interaction and interest was found in model for emotional support (see Table 1). In math similar significant relations were found in models for emotional support and instructional support (see Table 2).

The results provided evidence on the importance of high-quality teacher-student interaction for students' interest in literacy and math. Furthermore, as prior literature have shown interest as highly relevant to students' academic

learning and even with their educational choices in future (e.g., Eccles et al., 1983; Eccles, 2005), these results confirm that educators should acknowledge the importance of providing warm climate and sensitive and caring relationship with students in lower secondary school.

Table 1. Predictors of self-reported subject-specific interest in literacy, Grade 7

	Self-reported interest in Grade 7		
	Model for	Model for	Model for
	Emotional support $\beta$	Organizational support $\beta$	Instructional support $\beta$
Gender	-.050 ns.	-.055 ns.	-.059 <sup>†</sup>
Prior interest for Finnish (from Grade 6)	.499 ***	.497 ***	.496 ***
Mother education	-.038 ns.	-.027 ns.	-.022 ns.
Achievement in literacy (Grade 7 report card)	.218 ***	.237 ***	.241 ***
Observed Emotional support	.098 ***	a	a
Observed Organizational support	a	.020 ns.	a
Observed Instructional support	a	a	-.031 ns.
R <sup>2</sup>	.422	.417	.414

\*\*\* p < .001, \*\* p < .01, \* p < .05, <sup>†</sup> p < .10.

<sup>a</sup> data concerning that predictor is not used in the particular model

Table 2. Predictors of self-reported subject-specific interest in math, Grade 7

	Self-reported interest in Grade 7		
	Model for Emotional support $\beta$	Model for Organizational support $\beta$	Model for Instructional support $\beta$
Gender	-.040 ns.	-.045 <sup>†</sup>	-.041 <sup>†</sup>
Prior interest for math (from Grade 6)	.461 ***	.457 ***	.465 ***
Mother education	-.002 <sup>†</sup>	-.013 ns.	-.011 ns.
Achievement in math (Grade 7 report card)	.273 ***	.395 ***	.274 ***
Observed Emotional support	.116 **	a	a
Observed Organizational support	a	.033 ns.	a
Observed Instructional support	a	a	.094 **
R <sup>2</sup>	.429	.417	.424

\*\*\* p < .001, \*\* p < .01, \* p < .05, <sup>†</sup> p < .10.

<sup>a</sup> data concerning that predictor is not used in the particular model

## **Teachers' attachment style and narratives regarding their classroom: Associations with the quality of teacher-students interactions**

Supportive teacher-students interactions promote children's wellbeing and school success. It is therefore imperative to identify their underlying processes. We extended prior research by (1) examining the associations of teachers' global representations about self and others in close relationships (i.e., attachment style) and specific representations of their classroom with teacher-students interactions; and (2) studying high-risk children. We hypothesized that teachers' avoidance (i.e., tendency for emotional distancing and holding negative representations of others), anxiety (i.e., tendency to hold negative self-appraisals and fear of rejection by others), as well as negative valence and unidimensionality of narratives about their classroom would each relate to less positive teacher-students interactions.

Participants were forty elementary school special education classrooms (study 1) and forty kindergartens serving low-income families (study 2). Classrooms' emotional support in study 1 and classrooms' emotional support, organization, and instructional support in study 2 were observed using the CLASS (Pianta et al., 2008). Teachers in study 1 completed an attachment style questionnaire (Experience in Close Relationships Scale; Brennan et al., 1998). In both studies teachers provided five-minute speech sample (FMSS; Gottschalk & Glesser, 1969) regarding their teaching experiences in their classroom. FMSS narratives were coded using negative affective valence scale and multidimensionality scale (i.e., addressing social, emotional, organizational and instructional aspects of the classroom). In both studies background variables (e.g., number of children, teachers' education level) and control variables (e.g., teachers' psychological distress) were assessed.

In study 1, higher avoidance and narratives' negative valence were both associated with lower emotional support. In study 2, narratives' multidimensionality was associated with higher emotional and instructional support. Narratives' negative valence was associated with poorer organization (see Tables 1 and 2). These results highlight the importance of assessing teachers' representations for understanding teacher-students interactions.

Table 1

Study 1: Regression Results of Teacher-Students Interactions on Teachers' Attachment Style, FMSS-Negative Valence, and FMSS-Multidimensionality (N = 40).

Variable in regression	Teacher-Students Interactions: Emotional Support	
	$\beta$	$\Delta R^2$
Block 1		.01
Teachers' years of experience <sup>a</sup>	-.09	
Block 2		.11*
Teachers' avoidance <sup>b</sup>	-.34*	
Block 3		.17**
FMSS- Negative affective valence	-.44**	
Block 4		.04
FMSS- Multidimensionality	-.23	
Total R <sup>2</sup>		.33
Final Model	$F(4, 35) = 4.36^{**}$	

Note:

<sup>a</sup> Preliminary analyses indicated that of background and control variables only teachers' years of experience was significantly associated with study variables.

<sup>b</sup> Correlation analysis suggested that teachers' anxiety was not significantly associated with emotional support. Thus, it was not included in the regression analysis.

\* $p < .05$ . \*\* $p < .01$ .

Table 2

Study 2: Regression Results of Teacher-Students Interactions on FMSS-Negative Valence, and FMSS-Multidimensionality (N = 40).

Variable in regression	Teacher-Students Interactions					
	Emotional Support		Classroom Organization		Instructional Support	
	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
Block 1		.06		.08		.05
Teachers' psychological distress <sup>a</sup>	-.24		-.27 <sup>†</sup>		-.22	
Block 2		.06		.28*		.03
FMSS- Negative affective valence	-.26		-.58***		-.18	
Block 3		.14*		.03		.14*
FMSS- Multidimensionality	.39*		.19		.38*	
Total R <sup>2</sup>		.25		.39		.21
Final Model		$F(3, 36) = 4.05^*$		$F(3, 36) = 7.68^{***}$		$F(3, 36) = 3.25^*$

Note:

<sup>a</sup> Preliminary analyses indicated that of background and control variables only teachers' psychological distress was associated with study variables.

<sup>†</sup>  $p < .10$ . \* $p < .05$ . \*\*\* $p < .001$ .

## S2.2

### A Modelling informed Developmental Approach to capture Attachment Phenomena

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Symposia 2.2, June 29, 2017, 3:15 PM - 4:45 PM

#### Presentation 1

In this talk we will introduce the notion of Free Energy and Generative Models with focusing on ontogeny and interpersonal aspects of early caregiving experiences. Particularly, we will introduce the concept of the Bayesian Infant and apply it concept to a developmental psychopathology framework, i.e., exploring how attachment and epistemic trust facilitate (or if compromised, impair) the development of generative models and mentalising in the context of attachment relationships. This will be supported by preliminary data from an on-going large-scale study on personality disorders and depression and outline new aspects of a developmental psychopathology framework integrating attachment research and computational modelling.

#### Presentation 2

We explore infant attachment formation within the context of the free energy principle: a unified theory of brain function proposing that action, perception and learning are driven by a desire to restrict oneself to a limited number of sensory and physiological states that are a-priori preferred, and that this is achieved by minimisation of a quantity called free energy. By means of computational simulations, we show how each of the organised (secure, avoidant and ambivalent) attachment types might arise in infants who minimise free energy over interoceptive states relating to relative stress levels, while interacting with caregivers with varying sensitivity. We then show how affective communication errors (in the form of misleading or ambiguous exteroceptive cues from the caregiver) might have an organising effect in infant agents who interact with caregivers who are inconsistent with regards to fulfilling infant attachment needs, but a disorganising effect in infants interacting with caregivers who consistently increase the infant's stress levels on approach. Our computational models are motivated by an empirically-driven hypothesis testing approach to understanding the particular and distinguishing dynamics underlying different developmental trajectories.

#### Presentation 3

Viewing the brain as an organ of approximate Bayesian inference can help us understand how it represents the self. We suggest that inferred representations of the self have a normative function: to predict and optimise the likely outcomes of social interactions. Technically, we cast this predict-and-optimise as maximising the chance of favourable outcomes through active inference. Here the utility of outcomes can be conceptualised as prior beliefs about final states. Actions based on interpersonal representations can therefore be understood as minimising surprise – under the prior belief that one will end up in states with high utility. Interpersonal representations thus serve to render interactions more predictable, while the affective valence of interpersonal inference renders self-perception evaluative. Distortions of self-representation contribute to major psychiatric disorders such as depression, personality disorder and paranoia. The approach we review may therefore operationalise the study of interpersonal representations in pathological states as well as of emerging interpersonal characteristics of the early caregiving relationship.



## S2.3

### Using attachment-related measures to explore family functioning in 'non-traditional' families

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Symposia 2.3, June 29, 2017, 3:15 PM - 4:45 PM

#### Relationships between fathers' reflective functioning and father-infant interaction quality in IVF families

**Introduction:** Parental reflective functioning (RF), a parent's ability to reflect on their own and their child's internal mental experience, is associated with parenting behaviours and infant attachment security in low-risk samples of mothers (Rosenblum et al., 2008; Grienenberger et al., 2005). Research into the relationship between fathers' RF and parenting behaviours is scarce, with the only study to use observational data carried out with a high-risk sample (Stover & Coates, 2015). This study explored the relationships between fathers' RF and father-infant interactive behaviours in a low-risk sample of fathers in families created through *in vitro* fertilisation (IVF).

**Sample:** The sample comprised 81 fathers (mean = 42 years) from two-parent heterosexual families with infants conceived through IVF. The average age of the infants was 11 months. Families were recruited from UK fertility clinics, and form part of a larger study examining family functioning in assisted reproduction families during infancy.

**Methods:** Fathers' reflective functioning was assessed using the Parent Development Interview, coded using a scheme devised by Henderson, Steele & Hillman (2007). Father-infant dyads completed a 10-minute free-play task. Fathers' and infants' interactive behaviours were coded using the Emotional Availability Scales (Biringen, 2008), a concept also founded in attachment theory.

**Results:** Fathers' reflective functioning was significantly correlated with all four dimensions of fathers' interactive behaviour (sensitivity  $r = .74$ , structuring  $r = .71$ , non-intrusiveness  $r = .56$ , non-hostility  $r = .60$ , all  $p < .001$ ). Fathers' RF was also associated with infant responsiveness ( $r = .55$ ,  $p < .001$ ) and infant involvement of the parent ( $r = .51$ ,  $p < .001$ ), with higher paternal RF associated with more optimal father and infant interactive behaviours.

**Conclusion:** Fathers' reflective functioning capacity was related to both fathers' and infants' interactive behaviours in a low-risk sample.

#### Social-emotional development of Chilean adopted children aged 4 to 9

**Background:** Although there have been many studies of the psychological development of adopted children in Western countries, to date little is known about the psychological well-being of adopted children in Chile. Findings are presented from the first study investigating the social-emotional development of adopted children raised in Chilean families in comparison with children living in Chilean institutions.

**Methods:** Data will be presented from two groups: 52 adopted and 50 institution-reared children, aged 4 to 9 years. The researcher visited families at home and also visited institution-reared children at 12 institutions. Adoptive parents or caregivers and teachers completed the Relationship Problems Questionnaire (RPQ; Minnis et al., 2007), to assess reactive attachment disorders, and the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1987), to assess adjustment problems.

**Results:** The total RPQ score revealed a significant difference between groups as reported by mothers/caregivers [ $F(1, 100) = 26.78$ ,  $p < .001$ ] and by teachers [ $F(1, 81) = 8.58$ ,  $p < .05$ ], with adopted children showing lower scores for reactive attachment disorder. A difference was also found between groups' SDQ scores completed by mothers/caregivers [ $F(1, 100) = 36.59$ ,  $p < .001$ ], and by teachers [ $F(1, 82) = 15.90$ ,  $p < .001$ ], with lower levels of emotional and behavioural problems among adopted children. In addition, among adopted children, differences were found according to age at

placement and the length of placement as reported by mothers and teachers. Children who were older at the time of placement showed more emotional and behavioural problems. Adopted children who had lived with their adoptive families longer showed higher levels of socio-emotional wellbeing.

**Conclusions:** The findings suggest that children in Chilean adoptive families appeared to be functioning well, and showed more positive psychological functioning than children who remained in institutions. Thus, it seems that adoption benefitted children in terms of their social-emotional development.

### **Children's attachment classifications in gay father families**

To date, no study has measured the attachment security of children in gay father families. The existing, yet limited, research investigating attachment in lesbian mother families has indicated that children raised by lesbian mothers are at least as likely to be securely attached as those raised in heterosexual parent families (Golombok & Badger, 2009). Whilst there is no empirical support for concerns that children will not form secure attachments to their lesbian mothers, the findings of this research cannot necessarily be extrapolated to gay father families, as the circumstances are somewhat different in that it is rare for fathers, regardless of sexual orientation, to be primary caregivers. Furthermore, the historical emphasis on mothers as primary attachment figures (Bowlby, 1969) raises questions about the attachment of children raised in gay father families. This study examined children's attachment classifications in gay, lesbian and heterosexual parent families. The influence of attachment security on satisfaction with birth family contact was also explored. Previous research indicates that security of attachment and open communication lead to satisfaction with birth family contact (Farr et al., 2014).

**Participants:** Data is presented from the second phase of a longitudinal study examining family functioning in adoptive gay father families. The sample comprises gay, lesbian and heterosexual two-parent families with an adopted child aged 10-14 years.

**Methods:** Attachment classifications were assessed using the Friends and Family Interview (FFI); a semi-structured interview which is increasingly being used with adoptive samples. Children were asked additional questions about their frequency of, and satisfaction with, birth family contact.

**Results:** Data collection is ongoing; currently 52 families have been visited and it is expected that around 75 families will be seen by June. Preliminary data will be analysed and presented for the first time in this proposed symposium.

### **Children's security of attachment and feelings about their donor in solo mother families**

**Background:** Recent research has explored families with donor-conceived children (children conceived using donor sperm and their mother's egg). Yet little is known about children's feelings toward being donor-conceived and even less about how attachment may influence their feelings on this topic. The present research studied donor-conceived children in solo mother families, families in which a mother actively chooses to parent alone. This paper highlights the importance of looking at wider familial influences, such as attachment, to understand how a child may feel about being donor-conceived.

**Methods:** The study explored the relationship between children's attachment with their solo mother and their thoughts and feelings about their donor. Nineteen children aged 7-13 years-old were interviewed. The Friends and Family Interview was used to assess attachment. Children were rated on four attachment dimensions; secure-autonomous, insecure-dismissing, insecure-preoccupied, and insecure-disorganised. The Donor Conception Interview was used to assess children's thoughts about their donor. A new scale evaluating the positive or negative nature of the children's feelings about their donor was created to analyse the Donor Conception Interview data.

**Results:** Children with higher levels of secure-autonomous attachment to their mothers were more likely to have positive thoughts and feelings about their donor ( $r = .55, p = .02$ ). Children with higher levels of insecure-disorganised

attachment to their mothers were more likely to have negative thoughts and feelings about their donor ( $r = -.63, p = .004$ ).

**Discussion:** The findings of the present study suggesting the importance of attachment relationships for an individual's feelings toward being donor-conceived corroborate previous research on donor-conceived adolescents in the US. Together, these findings suggest that future research on children in modern family forms should keep in mind the importance of attachment throughout the lifespan, not just during infancy.

## S2.4

### Disorganisation and Regulation: Bowlby, Biology, and the Emotional Beyond

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Symposia 2.4, Logan Hall, Level 1, June 29, 2017, 3:15 PM - 4:45 PM

#### Between biology and psychoanalysis: John Bowlby's unpublished reflections on attachment disorganisation

Main and Solomon (1986) were the first to make a “disorganised classification” for the Strange Situation. However, theorising about disorganisation and attachment has a longer history: in his seminal article on ‘Separation Anxiety’, Bowlby states that he took the concept of “disorganisation” from the neurologist Kurt Goldstein and promises that “this is a concept to which we shall be returning in a paper to follow” (1960: 110). However, rather than a published paper, Bowlby instead left thirty years of unpublished notes on the topic of disorganisation. These writings are today housed at the Wellcome Trust Library Archive. With the encouragement of the Bowlby family, this paper draws from archival research in this Archive to present Bowlby's remarks on disorganisation of attachment and on the behaviours captured by the disorganised classification. These include Bowlby's reflections on the behaviours seen in his work with evacuated children, and during his clinical work in the army with combat veterans. Bowlby's unpublished remarks on disorganisation reflect his characteristic synthesising of disciplines. Key concepts included homeostatic regulation (from biology), conflict behaviour, fleeing and freezing (from ethology), trauma (from psychiatry) and segregated systems (from cybernetics). In his early notes Bowlby theorised about three kinds of experiences a child might experience in which homeostatic regulation would become impossible or so costly as to result in ‘traumatic difficulty in cortical incompatibility of sense data’. Developing this account in a later unpublished book, Bowlby presents a detailed interrogation of the neurological, psychological and behavioural differences between avoidance and dissociation. In correspondence with Ainsworth, Bowlby also speculated about the different degree to which avoidance and dissociation are predisposed by genetic factors. After describing Bowlby's reflections, the paper will close by drawing out the implications of his work for thinking today in conceptualising disorganisation and its antecedents.

#### Infant Disorganization in relation to Maternal Sensitive Caregiving, Fear, and Infant Neuroanatomy

Moderately sized associations between infant disorganization and anomalous/FR parenting are well established. Still, parenting (in)sensitivity and early life temperament/genetic risk also sometimes predict disorganization. Here, using data from the southeast Asian GUSTO cohort study, we examined (1) the interplay between MBQS assessed sensitivity and disorganization (2) whether any such association may be due to commonalities between the MBQS and FR coding schemes; and (3) whether infant limbic structure, assessed within two weeks of birth, interacts with maternal sensitivity to predict disorganization scores. We found (1) sensitivity significantly predicted disorganization, assessed in either the strange situation or a modified strange situation ( $B = -0.861$ ,  $B = -0.202$ ,  $p = 0.005$ ,  $n = 190$ ), as well as when assessed only in the standard strange situation ( $B = -0.832$ ,  $B = -0.185$ ,  $p = 0.042$ ,  $n = 121$ ). Second (2), using data from 473 dyads, specific MBQS behavioral descriptors, which potentially also characterize elements of FR behavior, loaded onto a Principal Component Analysis factor that may reflect “Hostility, Incompetence, and Withdrawal.” However, this factor only marginally ( $p = .078$ ) predicted disorganization. Third (3), the majority of interactions between infant limbic structure (i.e., hippocampal/amygdala volume or fractional anisotropy) and maternal sensitivity did not significantly predict disorganization scores. Yet, the interaction between infant left hippocampal volume and maternal sensitivity significantly predicted disorganization ( $B = -0.012$ ,  $B = -0.347$ ,  $p = .005$ ,  $n = 63$ ). This result withstood Bonferroni correction for 8 comparisons, remained similar using robust regression ( $B = -0.012$ ,  $p = 0.017$ ), and was significant when only including data from those taking part in the standard strange situation. Though preliminary, this finding is intriguing given work in the field of PTSD, and internalizing disorders, suggesting smaller left hippocampi may lead to increased vulnerability to frightening and/or stressful events.

## Disorganization and emotional regulation in pre-school children

Disorganized attachment has been associated with emotional dysregulation in Western samples, increasing anger during non-interpersonal laboratory tasks in 2 year olds, and is reflected in poorer daily functioning through lower social competence and more externalizing and internalizing behavioral problems in early childhood. Here, in the GUSTO cohort of Southeast Asian children, we extend prior work to assess if disorganization similarly predicts situational anger at 3.5 years of age, and in turn, if situational anger predicts functioning in the form of task competence as well as internalizing and externalizing problems. Infant attachment was assessed at 18 months using both a standard and modified version of the Strange Situation Procedure, situational anger was measured at 3.5 years using a laboratory-based stress episode (LABTAB transparent box task), and functioning was operationalized using LABTAB completion data as well as parent-reported Child Behavior Checklist (CBCL) scores at 4 years. Two factors emerged from a principal component analysis of LABTAB 'anger' variables, and may reflect 'environmentally-directed' and 'experienced' anger. Infant disorganization was predictive of both anger factors ( $p = 0.036$  and  $p = 0.041$  respectively), a relationship not accounted for by avoidance scale scores in the attachment assessment. The relationship between the two 'anger' factors and functioning was also examined, with the majority of relations not achieving statistical significance. However, consistent with some cross-cultural work demonstrating links between more expressivity and less psychopathology, more 'experienced' anger predicted lower CBCL internalizing scores ( $B = -0.259$ ,  $p = 0.017$ ). We discuss the influence of emotion suppression on internalizing behavior, and despite the lack of formal mediation, the importance of anger susceptibility to functioning, and the potential importance of variation in anger regulation in early life on subsequent everyday emotional processing and interpersonal relationships.

## The Language of Disorganization: Experiential Connectedness Mediates the Relationship Between Disorganized Attachment and Borderline Symptoms in Inpatient Adolescents

The connection between disorganized attachment and Borderline Personality Disorder (BPD) has long been established. Disorganized attachment and BPD are conceptually linked in their shared associations with frightening experiences, such as child abuse, and particularly that perpetuated by family members, as well as the phenomenological experience of persistent fear regarding past events. This psychological connection to frightening experiences stands in contrast to what is known about healthy coping with trauma – evidence suggests that most adults psychologically distance themselves following such an experience. Perhaps one mechanism linking disorganized attachment and BPD is a lack of distancing, or *experiential connectedness* to frightening memories, thoughts, and feelings. The current study examines whether *verbal immediacy*, a linguistic indicator of experiential connectedness, explains the relationship between disorganized attachment and BPD symptoms. Prior evidence suggests that disorganized attachment in children, and BPD features in adults, are associated with verbal immediacy, but no study to date has integrated these literatures. Among a sample of adolescents in psychiatric inpatient treatment who are at higher risk for disorganized attachment and BPD pathology, we examine experiential connectedness in children's discussions of both ordinary and frightening attachment experiences – loss, extra-familial trauma, familial abuse – for its association with disorganized attachment on the Child Attachment Interview and BPD symptoms. The results of multivariate analyses of covariance suggested that as compared to children with organized attachment, disorganized children *only* show significantly higher immediacy when discussing familial abuse,  $F(1, 147)=5.129$ ,  $p=.002$ ,  $\eta_p^2=.034$ , and not when discussing traumatic experiences unrelated to family members, loss, or non-loss/non-trauma topics (see Fig.1). Further, immediacy regarding familial abuse is an indirect effect explaining the association between disorganized attachment representations and BPD symptoms,  $b=.281$ ,  $SE=.174$ ,  $95\% CI=[.022, .746]$  (see Fig.2). Results will be discussed in terms of their relevance to understanding mechanisms underlying the association between disorganized attachment and BPD in adolescents.

Figure 1. Disorganized children show significantly higher immediacy than organized children when discussing familial trauma.

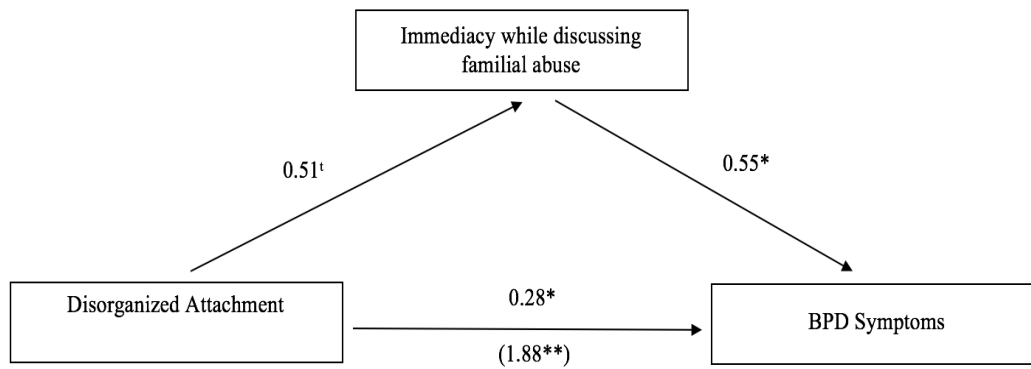


Figure 2. Verbal immediacy regarding familial abuse is an indirect effect explaining the association between disorganized attachment representations and BPD symptoms.

\* $p < .05$ , \*\* $p < .01$ .

## S2.5

### Tuning in: Measuring, understanding, and fine tuning communication in attachment relationships

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Symposia 2.5, Nunn Hall, Level 4, June 29, 2017, 3:15 PM - 4:45 PM

#### **Therapist's attachment states of mind predict the quality of therapist's attunement to their patients in-session: Introducing the Therapist Attunement Scales (TASC)**

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*Topic:* As recent research shows (Talia, et al. 2014; Talia, Miller-Bottome, Daniel, 2015), clients' attachment patterns strongly influence the way in which clients speak and engage in any session of psychotherapy. The same may be true, of course, of psychotherapists. Since the client-therapist relationship resembles the parent-child relationship in many respects, therapist's attachment classifications may be significant for their relationships with their clients (Dozier, & Bates, 2004; Dozier, Cue, & Barnett, 1994). *Aim:* In this study, we compared the in-session discourse of therapists who had been independently classified secure, dismissing, and preoccupied on the Adult Attachment Interview (AAI). Rather than focusing on content or form alone, we analyzed how therapist's interventions elicit and maintain emotional proximity with the client. *Method:* The AAI was administered to 50 therapists and two consecutive sessions for each therapist were transcribed verbatim and rated with the Therapist Attunement Scales (TASC) by one of three independent raters, blind to therapists' AAI classification. *Results:* Significant differences were found in the interventions of therapists of different AAI classifications. Namely, secure therapists made more conjectures about their patients' present experience, and validated patients' present experience more than dismissing and preoccupied therapists did. Preoccupied therapists, on the other hand, seemingly restrained with their interventions patients' autonomy in defining their present emotional experience more than secure and dismissing therapists. *Discussion:* These results suggest that the different therapist AAI classifications may have distinctive manifestations in the therapy process that can be tracked by external observers.

#### **The anorectic girl and her father: the interpersonal and intrapsychic meaning to the girl.**

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#### ABSTRACT 1

Research on women with anorexia nervosa has focused mainly on the relation between anorectic daughter and mother, on the family dynamics and on the biological component of anorexia nervosa. The aim of this study was to study the relation between the anorectic girl and her father, how it influences the relation the anorectic girl has to herself (intrapsychic) and her relation to other people (interpersonal).

Three groups were included in the study. Anorectic women from an institution for eating disorder (Group 1), women with dependency problems from an institution for dependency problem (Group 2), and normal women studying at a high school for adults (Group 3) and the parents of all three groups. The diagnoses were made according to DSM-IV. The daughters were between 18-30 years of age.

The methods used are in the following order: the Adult Attachment Interview (AAI; George et al., 1985); the Karolinska Psychodynamic Profile (KAPP; Rössel & Weinryb, 1991); and the Karolinska Scale of Personality (KSP; Schalling et al., 1987). Results from the Adult Attachment Interview with Group 1 (AN) and Group 2 (Dependent) and Group 3 (Students) will be the focus of this presentation.

Results: The analyses for the Group 1 and 2 showed that the Anorectic women (AG) had more of a dismissing attachment state of mind, than those who were categorized as enmeshed or secure/autonomous. The attachment of the fathers showed more of a dismissing state of mind than of those categorized as secure attachment. The subcategories showed that both among the anorectic girls and the fathers the dismissing attachment state of mind with restriction of feelings was most represented.

The dependent young women (DG) had more of an unresolved / enmeshed attachment state of mind than those who were categorized as dismissing or secure/ autonomous. The attachment of the fathers showed more of an unresolved /secure attachment state of mind than of those categorized as dismissing or enmeshed. The subcategories showed that enmeshed attachment state of mind of the dependent girls differed from fathers with the unresolved / secure attachment state of mind.

The results will be presented at the conference. The number of participants is low. AN: 19 daughters, 16 fathers and 17 mothers; Dependency: 17 daughters, 13 fathers and 12 mothers; Students:18 daughters, 13 fathers and 13 mothers).

This study illustrates differences of attachment styles of the anorectic women and their fathers in comparison to the dependent women and their fathers. The number of participants is low and larger studies are needed to clarify the interpersonal and intra-psycho meaning to the anorectic woman.

#### Category 07 Psychiatric comorbidity

Understanding and helping the needs of mothers with borderline personality disorder and their infants, using an attachment framework

Understanding and helping the needs of mothers with borderline personality disorder (or substantial emotional dysregulation) and their infants, using an attachment framework

The entry of an infant into the life of a woman whose emotional regulation is already compromised can be a threatening life event for both mother and infant, with the functioning of both members of the dyad becoming increasingly compromised. The mother's parenting competence is quickly threatened and her mood can deteriorate rapidly. Work in a mother-baby unit has shown that a significant percentage of women presenting for treatment have fundamental difficulties in this area and that addressing the emotional dysregulation and mother-infant dyad are necessary interventions.

In this presentation, following a summary of work addressing the impact of borderline personality disorder (BPD) on offspring, there will be a focus on the approach offered perinatal women with emotional dysregulation. Pathways have been developed to help women both as inpatients in an MBU and after discharge, which initially involve psychoeducation about BPD, and significant mother-infant therapeutic interventions focused on the attachment relationship, as well as early steps in helping the mother learn how to tolerate her own and her infant's distress and ways of calming herself and her infant. After discharge, a therapeutic group has been developed which has three foci:

1. A specially prepared dialectical behavior therapy program for the mother over 24 weeks in which the focus is always on the mother-infant relationship
  - providing a simultaneous play-space for their infants with caregivers who provide attachment-based care
  - dyadic work focusing on the attachment relationship

Results of the first 30 dyads attending pilot groups will be presented, along with brief videos of women interviewed at completion with their infants. The presentation will conclude with a brief discussion of the relevance of this work to many women presenting with postnatal depression and their offspring.

The role of the container-contained relationship between mother and baby in the prediction of infant attachment security and intergenerational transmission of attachment

The intergenerational transmission of attachment is partly accounted for by maternal sensitivity. Bion's concept of the container-contained relationship, which refers to mother's processing of the infant's unbearable feelings and returning these contents to the baby in a modified form, extends attachment-based observation methodology by



including the infant's "grip relations", making, maintaining and relinquishing contacts with his/her social and material environment in terms of material and/or social objects (Briggs, 1997).

Our aim was to explore the role of maternal, infant and relationship-specific aspects of the container-contained relationship in the intergenerational transmission of attachment.

76 pregnant women were administered the AAI, 6 months postpartum, the Containment and Object Relations Scales (CORS; Briggs & Behringer, 2012) were used on videographed mother-infant interactions. Mother's response to the infant's emotional signals was rated as concave (accepting), convex (intrusive) or flat (rejecting), and the infant's mode of communicating his/her emotions was analysed. At 13 months the SSP was conducted ( $n = 54$ ).

A factor analysis using the CORS scales yielded 5 factors ( $KMO = .743$ ;  $p \leq .001$ ). E.g. (1) of describing babies (who had low scores in the 'grip relations' scale) with weak capacity to establish and maintain a grip on his/her social and material environment through focussed attention and effective emotional contact and communication, and (2) and (3) describing emotionally containing, and non-responsive maternal behaviours.

AAI coherence predicted maternal non-responsive behaviour in the CORS ( $r = -.21$ ;  $p \leq .05$ ) and secure infant attachment ( $r = -.21$ ;  $p \leq .05$ ). The regression analysis revealed a significant main effect for the baby's (lacking) capacity to establish and maintain contact and communication ("grip") on infant attachment security and moderated the association between AAI coherence and infant attachment security in the SSP ( $b = -3.16$ ,  $p \leq .05$ ). An AAI x baby's competence/grip interaction ( $b = .50$ ,  $p \leq .05$ ) was found to the effect that in the low AAI-coherence group, babies with high competence / grip scores were still classified as secure in the SSP. The relevance of factors resulting in early infant competence, originating in the baby's temperament, the family environment, and early containment will be discussed.

**Paternal bonding in childhood and attachment anxiety and avoidance in adulthood are associated with the prevalence of depression in chronic diseases population. Pilot study.**

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Poster Session 2, June 29, 2017, 3:15 PM - 4:45 PM

**1. Objective.** Attachment insecurity and quality of parental styles have been hypothesized to be a risk factor for the development of disease and chronic illness. This cross-sectional study investigated associations between parental bonding, adult attachment and depression in a wide range of health conditions and in healthy controls.

**2. Participants and methods.** We included group of 434 participants: 313 consecutive chronic illness patients (183 man, 130 women): 63 epilepsy patients, 58 low back pain patients, 74 head and neck cancer patients, 52 rosacea patients and 66 patients after liver transplantation, with a mean age 58, mean years of education 13, mean time of chronic disease 10 years. We compared this clinical group of patients with 121 healthy community dwelling matched by age and education (58 man, 63 women). All subjects were examined with ECR, PBI and BDI-II.

**3. Results.** We found significant correlation in clinical group: lower levels of mothers' ( $p=0,002$ ) and fathers' care ( $p=0,002$ ) were associated with an increased attachment avoidance, lower levels of mothers' ( $p=0,001$ ) and fathers' ( $p=0,001$ ) care and higher levels of mothers' ( $p=0,005$ ) and fathers' ( $p=0,011$ ) overprotection were associated with an increased attachment anxiety. Lower levels of mothers' ( $p=0,001$ ) and fathers' care ( $p<0,001$ ) and higher levels of mothers' and fathers' overprotection ( $p=0,006$ ,  $p=0,006$ ) were associated with an increased depression. Higher level of attachment anxiety and avoidance ( $p=0,001$ ,  $p<0,001$ ) were associated with higher level of depression in chronic diseases population. Specific correlations of insecure attachment, inadequate parental bonding style and prediction of depression was found in each clinical group. We will continue to compare attachment and bonding styles with depression. We did not find any significant associations between ECR, PBI and BDI-II in healthy group.

**4. Conclusions.** Nonoptimal parental bonding styles and insecure attachment would be a risk factors for development depression in chronic diseases population.



## **Emotion regulation difficulties as mediators of the relationship between romantic attachment and forgiveness to the ex partner in the context of divorce and separation in a Chilean sample**

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The breakup of a romantic relationship -in a marriage or a cohabitation bond- has been described as a stressful life transition and forgiveness to the ex partner is one of the factors associated to a more positive post separation dynamic, such a better coparental alliance (e.g. Bonach, 2009). Attachment theory (Bowlby 1982, 1980) has proven to be a fruitful avenue to understand how individuals deal with divorce and the dissolution of an attachment bond.

Despite there is evidence that romantic attachment is associated to forgiveness, the mechanisms explaining this link need further exploration, particularly in the context of divorce. This study examined the mediating role of emotion regulation difficulties (ERD) in the association between both variables. Previous literature suggests theoretical and empirical links separately. However, to our knowledge, no other study has investigated these variables in an integrated model.

The sample included 1008 Chilean divorced and separated adults, who completed the Experiences in Close Relationships (Brennan, Clark, & Shaver, 1998), the Difficulties Emotion Regulation Scale (Gratz & Roemer, 2004) and the Forgiveness in Divorce and Separation Questionnaire (Yárnoz-Yaben & Comino, 2012).

Results showed that attachment anxiety and attachment avoidance were significantly and inversely associated to ERD. Emotion regulation difficulties were also related to lower levels of forgiveness to the former partner.

Additionally, both attachment dimensions had direct effect and indirect effects on forgiveness to the ex partner, through ERD, controlling by age, gender and time since separation. Specifically, attachment anxiety and attachment avoidance were associated to lower forgiveness to the ex partner and this effect was partially mediated by ERD.

These results are congruent with previous antecedents about the role of attachment and ERD in explaining the forgiveness to the ex partner. Implications for clinical practice are discussed.

**Early intervention in feeding and eating disorders. Further developments and applications of experimental methods in psychoanalytic and psychodynamic clinical practice with the under threes group. An evaluation of triadic relational development as a measure of infant's receptivity to feeding and eating interactions.**

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Parent infant feeding treatment model is a PPIMHS provision aimed to address the lack of early identification and treatment provision for emerging and early moderate to severe eating and feeding difficulties in infants and toddlers. This model fills a gap in public health provision for the under threes. We evaluate the parent and infant nursing relationship's capacity to overcome the complexities of both parental serious mental illness and infant's temperament and constitution. These factors become crucial in determining if a nursing relationship would unfold within ordinary developmental parameters. PIFC is currently interested in finding how and if at all the process of change occurs in the treatment of cases offered this model. We seek answers to the questions as to how does the infant conceive, understands and communicates their emotional experience and perception of the intimacy played in controlled triadic feeding situations.

We are interested in showing that the application of Parental Embodiment Metallization measures also allows us to gain information about the relational value of the infant relationship to the relational space between the parties in all combinations. We develop the Infant Receptivity scale to offer us an indication of progression of treatment and of developmental gains and change of infant's receptivity to feeding and eating during the treatment process. Video clips of observation based coding will be shown to illustrate a treatment developmental trajectory.

## Links among Attachment, Adverse Childhood Experiences, and Romantic Relationships

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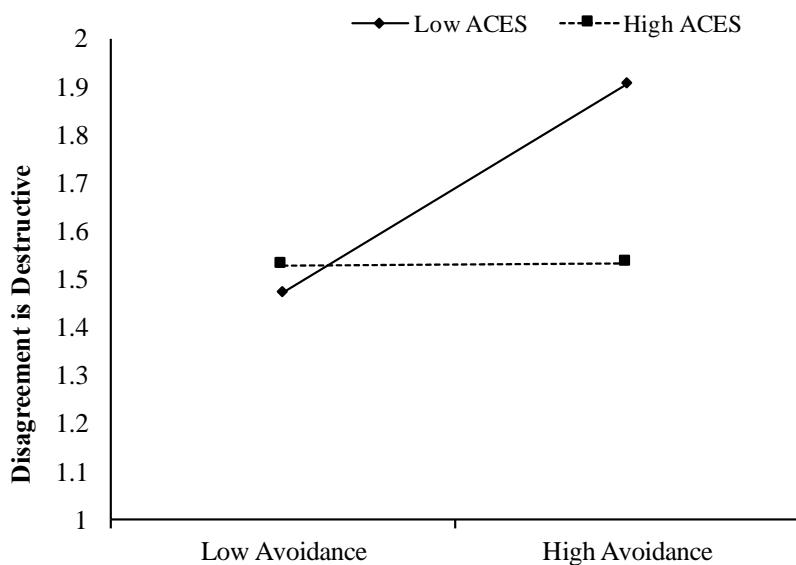
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Adverse childhood experiences (ACES; e.g., parental harsh discipline, abuse, trauma, and neglect) and attachment insecurity have separately been linked to poor romantic relationship outcomes (respectively, see Magdol et al., 1998, and Cassidy & Shaver, 2016). Lacking, however, is research on how both of these factors, including their interaction, predict romantic relationship outcomes. These studies examine how ACES and attachment influence romantic relationship outcomes.

*Study 1.* Participants ( $N = 150$ , 77.5% women, *Mean* age = 19.11) completed measures on ACES (Felitti et al., 1998), attachment avoidance and anxiety (Brennan et al., 1998), relationship satisfaction (Hendrick, 1988), and relationship beliefs (Eidelson & Epstein, 1982), which included five subscales: (a) disagreement is destructive, (b) mindreading is expected, (c) partners cannot change, (d) sexual perfectionism, and (e) sexes are different.

Multiple regression analyses with ACES, attachment avoidance, attachment anxiety, and the two-way interactions between (a) attachment avoidance and ACES and (b) attachment anxiety and ACES were entered as predictors for each of the aforementioned outcomes (See Table). No effects emerged for “mindreading is expected,” “sexual perfectionism,” and “sexes are different.” Greater attachment anxiety predicted greater agreement with “partners cannot change” ( $B = 0.10$ ,  $SE = .05$ ,  $p = .043$ ). An interaction between attachment avoidance and ACES revealed that highly avoidant people who experienced few ACES had the highest level of agreement with “disagreement is destructive” (see Figure).



*Study 2 (Results forthcoming).* Alumni of a small liberal arts college (anticipated  $N = 500$ ) will complete measures on ACES (Felitti et al., 1998; Straus et al., 1997), attachment (Brennan et al., 1998; Fraley et al., 2000), caregiving (Kunze & Shaver, 1994), conflict resolution (Rahim, 1983), and relationship satisfaction (Funk & Rogge, 2007). Data will be analyzed following Study 1.

## The neural basis of trait attachment insecurity in adults, adolescents, and children

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Since the emergence of attachment theory half a century ago, many interesting findings pertaining to attachment insecurity have materialized in the fields of developmental psychology, psychiatry, and behavioral sciences. However, what remains poorly understood is the possible underlying neural basis of attachment insecurity.

This individual paper aims at providing an overview of the state of the art of attachment neuroimaging research in humans across the lifespan, particularly pertaining to the neuroscience of trait attachment insecurity. Using functional magnetic resonance imaging (fMRI) and functional near infrared spectroscopy (fNIRS) in single-person as well as dyadic setups in adults, adolescents, and children, we could show specific neural patterns characterizing trait attachment insecurity at the neural level. Importantly, these neural patterns are dissociable at the level of the two attachment insecurity dimensions, suggesting the presence of specific neural system modifications as a function of attachment avoidance versus anxiety. Additionally, brain activity is modulated differentially by attachment insecurity dependent on task context, for example emotion perception versus regulation, social feedback processing versus internal self- and other-representation, social versus nonsocial emotion processing, or collaboration versus competition. Furthermore, the neural patterns reflect different developmental adaptation processes, for example social reorientation or conflict resolution during adolescence. Finally, first neuroimaging data is becoming available on potential effects of contemplative mental training on attachment-related processes such as compassion and loving-kindness, and how the latter could be affected by trait attachment insecurity.

Altogether, the summarized data from the neuroscience of trait attachment insecurity is starting to reveal neural patterns characteristic for attachment avoidance and anxiety, thereby providing useful clues for future intervention and prevention strategies. Consequently, the data from this individual paper appears relevant for researchers from other fields and practitioners likewise, and will hopefully stimulate a fruitful dialogue during the conference and beyond.

**Adult attachment, anger regulation and aggression following an insult-based anger induction procedure****Brodie Z**<sup>1</sup>, Goodall K<sup>2</sup>, Darling S<sup>3</sup>, McVittie C<sup>3</sup><sup>1</sup>University Of The West Of Scotland, <sup>2</sup>University of Edinburgh, <sup>3</sup>Queen Margaret University

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Previous research indicates an association between insecure attachment and the development of ineffective approaches to emotion regulation in adulthood. This is thought to be down to a lack of opportunity to build an adaptive repertoire of regulation techniques within the inconsistent or neglectful confines of an insecure infant-caregiver relationship. However, at present there is a distinct lack of research considering attachment-related differences in anger regulation, specifically. The present study utilised an anger induction procedure to investigate the relationship between attachment insecurity, self-reported and physiological responses to an anger episode, and subsequent aggressive behaviour in 60 participants aged 18-60 (81.7% female). An interpersonal insult-based anger induction procedure was used, in which participants received negative feedback on their likability and performance on a discursive writing task. Blood pressure, finger temperature and self-reported anger were measured at baseline and post-induction. Following the anger induction, aggression was measured using the Taylor Aggression Paradigm, in which participants believed they were competing in a reaction time task, and had the opportunity to administer noise blasts of varying volume to their competitor when they lost a trial. Results indicated that neither attachment dimension was significantly associated with physiological reactivity; however attachment avoidance was negatively associated with self-reported anger change. Attachment avoidance was also a significant predictor of anger suppression (increased ratio between self-report and physiological scores), while attachment anxiety significantly predicted variance in aggressive behaviour. Taken together, the findings suggest that there are distinct attachment-related differences in responses to an anger induction procedure, in that those high in avoidance respond by suppressing their anger, while those high in anxiety respond aggressively. These findings highlight the long term maladaptive regulatory processes associated with insecure attachment, and support the importance of taking attachment insecurity into account in anger management interventions throughout the lifespan.



## Attachment Behaviours in Infants Brought Up in Residential Group Care

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Attachment in infancy has been widely examined using the Stranger Situation paradigm (Ainsworth et al., 1978), an experimental method that lately is under discussion whether it should be adapted when the participants of the study come from non typical settings, i.e. environments where there is little stimuli and no stable attachment figure (Mc Call et al., 2011). Studies have shown that the majority of the infants brought up in residential group care settings develop disorganized type of attachment (Vorria et al., 2003; Zeanah et al., 2005). However, researchers noticed that in many cases there is either a total absence or low appearance of attachment behaviours leading to the hypothesis that in institution settings infants do not develop attachment the same way family reared infants do. As a result, a new instrument, the Attachment Formation Rating (Carlson, 2002/2011), has been used to measure the degree of attachment formation and whether the infant has a preferred adult. The results of the first studies, showed that only 24-34% of infants raised in residential care had a fully formed attachment to their caregiver (Dobrova – Krol et al., 2009; Zeanah et al., 2005). The aim of the present study is to examine whether the same applies to infants brought up in a residential group care setting, but in better conditions, i.e. they have a primary caregiver and the infants/caregiver ratio was better than in the institutions where the previous studies were carried out. At this phase we are blindly recoding the Strange Situation data of the infants in Metera's Babies Centre using the Attachment Formation Rating (Vorria et al., 2003). Theoretically, comparison to previous results is important for improving our knowledge about the conditions under which the development of attachment is compromised or at least delayed (Carlson et al., 2014).

**The peculiarities of mothers' attitude to their adopted children and the security of children's' attachment to their adoptive parents**

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The aim of the study was to investigate the characteristics of the parental attitude towards adopted children and adolescents and its connection with the quality of the attachment relationships in the family. The objectives were: 1) to explore the features of attachment of adopted children and teenagers to their adoptive parents; 2) to study the characteristics of the mother's attitude to her adopted children; 3) to identify the interconnections of attachment security of adopted children and teenagers with adoptive mothers' image of the family and with her attitude to them. The sample consisted of 38 adolescents and 27 children adopted at least 1,5 - 2 years before the study, 43 adoptive mothers, 40 teenagers who are brought up in blood families, and 18 teenagers from the orphanages. Incomplete Sentences by O. Yaparova, The Questionnaire of Parental Relationships by A. Varga and V. Stolin, The Family of Animals Drawing by A.L. Venger were employed for parents, K. Kerns Attachment Scale, WHOTO Scale by W. Friedlmayer and The Family of Animals Drawing by A.L. Venger were used for children and Inventory of Peer and Parent Attachment by M. Greenberg and G. Armsden, WHOTO Scale by W. Friedlmayer and The Family of Animals Drawing by A.L. Venger - for adolescents. The study revealed the peculiarities of parental images of the family and of the adopted children. It appeared that mothers' authoritarianism and attitude to adopted children as to a "little loser" connected with attachment insecurity of adopted children and adolescents. The implications of the study were discussed.

**Key words**

Attachment security, adoptive families, children, adolescents,



## Pre-adoptive adversity and adoptees' distress: the protective role of attachment security

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Adoptees' secure attachment has been considered as a positive change index in adoption contexts, as it impacts later adjustment (Whitten & Weaver, 2010; Steele et al., 2010). Nevertheless, little is known about its role in case of open adoption, characterized by the maintaining of contacts with the biological family as well as a stable experience with new caregivers. The present study explored the possible moderating role of adoptees' attachment in the relation between pre-adoptive stressors and adoptees' current psychological distress.

The sample included 59 adoptees experiencing open adoption: 37 adolescents and 22 emerging adults (age ranges: 11-18 and 18-34 years old, respectively), who were adopted when they were at least 5 years old. Pre-adoption stressors were derived from the official adoption files; AAI (Main et al., 1985) and its modified version for adolescents (Ammaniti et al., 1990) were used to assess the state of mind with respect to attachment. The CBCL Youth self-report (Achenbach & Rescorla, 2001) and SCL90-R (Derogatis, 1983) were administered within each age group to measure distress. To treat the sample as a whole, the scores were standardized within each group. Results of a set of conditional process analyses with PROCESS (Hayes, 2013) followed by single slope analyses to explore significant moderations, showed that attachment moderated the effects of the age of the first placement (AFP), type of foster care and presence of biological children in the adoptive family in predicting adoptees' distress: the negative impact of AFP, judiciary foster care and absence of biological children in the adoptive family were significant predictors of the outcome only among insecure adoptees ( $-1.40 < b < .014$ ,  $p < .01$ ), but not for secure ones ( $-.005 < b < .491$ , ns). Such findings show that security can mitigate the negative impact of pre-adoptive stressors on current psychological functioning, therefore acting as a protective factor in at-risk developmental pathways.

## **Stress and attachment experiences in the early childhood: Does the quality of the mother-infant relationship influence the cortisol response during the Strange Situation Procedure?**

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### Introduction:

Research in animal models implicates that early childhood experiences of mammals show an important effect on the individual differences of the biological stress response system by epigenetic processes. This study analyses whether this correlation between the offspring's HPA-Axis and maternal care is transferrable to humans.

### Methods:

Within the framework of a longitudinal study ( $N=58$  mothers and their infants) the quality of the mother-child relationship was analysed during a feeding interaction using the Emotional Availability Scales (EAS<sup>®</sup>, Biringen 2008). The child's stress reaction was measured by the cortisol level before and after the Strange Situation Procedure (SSP, Ainsworth 1978) ca. 5 months after the feeding interaction. To detect the stress regulation of the infant after the stressor the cortisol level was additionally determined 30 minutes after the SSP.

### Results:

Infants classified "Highly Emotionally Available" showed an advanced stress regulation and an enhanced decrease of the cortisol secretion after the stressor compared to children classified into a lower zone ( $r=.38$ ,  $p=.03$ ). As a general tendency, the dimension Sensitivity correlated negatively with the decrease of the cortisol level after the SSP ( $r=-.25$ ,  $p=.10$ ).

### Conclusion:

There is a significant association between the quality of the mother-child interaction in the early childhood and the child's stress regulation during its first year of life. The results suggest that children with positive attachment experiences have an enhanced stress response system. In long term it might be possible to de-escalate the development of a dysregulated HPA-Axis during an early stage by offering preventative programs that promote the quality of the relationship between the parent and the child.

## Convergent and criterion validity of the Maternal Behaviour Q-Sort 3.1 in a sample of Peruvian mothers

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Ainsworth (1969) defined maternal sensitivity as a mother's capacity to perceive, interpret, and adequately respond to the child's signals. Furthermore, she pointed out that this maternal ability contributes to the development of attachment security in the child (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969).

The Maternal Behaviour Q-Sort (MBQS; Pederson et al., 1990) measures maternal sensitivity in mothers of infants between 0 and 3 years of age as well as the central aspects of maternal behavior in natural contexts. In Peru, the MBQS 2.1 (Pederson & Moran, 1995) shows adequate characteristics of reliability and validity. The most recent version is 3.1 (Pederson et al., 1999), which has not been validated for the country. This study evaluates the convergent validity of the MBQS 3.1 with MBQS 2.1, and of its criterion validity with the Attachment Q-set (AQS; Waters, 1995), which measures attachment security in the child.

The participants were 27 mothers and their 8 to 10-month-old children from a low socioeconomic sector in Lima. The mean age for the mothers is 27.96 years ( $SD = 6.02$ ) and a majority (63%) had attended high school. The results reveal a strong association ( $r = .76, p < .01$ ) between versions 2.1 y 3.1. Also, sensitive, connected, and synchronic mother-child interaction profiles, measured in the latter, correlated with each other with values higher than .90 ( $p < .01$ ). A correlation of .44 ( $p < .05$ ) was obtained with AQS.

Our analysis of the data shows that the results of version 3.1 are similar to those of 2.1, and that is related to the child's secure base behavior, as expected. Thus, the use of MBQS 3.1 would be appropriate for the assessment of maternal sensibility, due to the improved phrasing of items and the identification of specific maternal-child interaction profiles.

*Keywords:* Psychometric properties, maternal sensitivity, MBQS, toddlerhood

## **The Features of Perception of the World and the Image of Myself in Different Types of Attachment to Mother in Adulthood**

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The legacy of the early experience of the relationship with mother often affects a person even in adulthood. Studies show the main directions of the study of remote effects of attachment to mother outside of children's periods of ontogenesis (Mikulincer, Shaver, 2007, Bartholomew, 1998, Fraley, 1997, Cassidy, 2011). We are interested in whether there is an influence of the quality of the attachment to mother on perception of the world as well as the image of myself (in example of basic world assumptions of the individual, Janoff-Bulman, 1985). The sample for the present investigation comprised 327 adults. The type of attachment to mother was assessed by the modified Attachment Questionnaire (Yaremchuk, 2006). Basic World Assumptions Scale (Kalmikova, Padun, 2002) was used to assess different aspects of perception of the world and the image of myself. The secure type of attachment to mother was defined with 49% of our sample. We obtained significant differences in the estimates of goodwill and justice of the world and feeling of control over their lives among respondents with secure and insecure type of attachment to mother. At the same time as the most unfriendly world to assess respondents with ambivalent type of attachment to mother, and as the most unfair and uncontrollable - respondents with avoid type. Thus, these data support the fact that secure attachment to mother allows you to save an adult basic trust to the world, despite the differences in life experience of individuals.

## Identifying Changes in Reflective Functioning in Group Supervision Sessions with Trainees in the Group Attachment-Based Intervention

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The Group Attachment-Based Intervention (GABI) is a trauma-informed parent-child intervention which aims to promote secure attachment relationships in young children whose parents' histories and current situations put them at risk for disorganized attachment classifications, or incoherent patterns or styles for coping. Reflective functioning, the ability to reflect on the thoughts, feelings, and intentions of the self and other people, is the key therapeutic objective of GABI. Accordingly, reflective functioning is at the heart of GABI's training model and is encouraged during reflective supervision sessions that focus on the clinical trainee's paying attention to one's inner experience, the experience of the infant/child, and the parent's experience.

Although past research has looked at reflective functioning and similar constructs in patients during therapy sessions, there is need to better understand how trainees in a therapeutic modality may become more skilled in reflective functioning as they advance through their training, and in response specifically to clinical supervision.

The current study aims to investigate whether reflective functioning in trainees increases from the beginning of the trainee's clinical training year in GABI to the end of the training year. Using video footage of reflective supervision sessions, trainees (N = 21) from three 1-year long training cycles will be coded for reflective functioning within two months of the beginning and end of their training at GABI using the *Reflective-Functioning Manual* (Fonagy et al., 1998). This presentation will highlight the extent to which reflective functioning was observed to change in trainees from the beginning to the end of their training. The poster will also provide verbatim illustrations of low versus high reflective functioning in trainee comments, spontaneously generated or prompted by queries from the supervisor.



## Couple relationships in the light of early attachment

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According to Bowlby, relationships with primary attachment figures in childhood serve as prototypes for future relationships. Since Bowlby's early work, several studies comparing states of mind regarding the romantic partner to those regarding parents have corroborated this claim. However, the way in which each parent contributes to the development of romantic relationship is less clear.

The aim of this presentation is to gather research findings from various studies that use the Attachment Multiple Model Interview (AMMI), to document the link between early- and romantic attachment and to provide case examples to illustrate how attachment strategies used with parents can be expressed in the context of a romantic relationship. Factors involved in shifts from insecure to secure attachment will also be addressed.

Findings from a longitudinal study in which attachment was assessed from ages 4 to 23 will be presented. The AMMI was administered at age 23, providing unique attachment scores (security, deactivation, hyperactivation, disorganization) for each significant relationship, that is, with the mother, the father, and the partner. In another study, the AMMI was administered to a sample of 100 adults aged 18 to 78 ( $M=35.6$ ;  $SD=10.7$ ). The results from these two studies were combined so as to examine similarities between representations of early and adult attachment relationships.

The longitudinal data supports the link between cumulative attachment in childhood and adolescence, and Partner AMMI scores (for security, deactivation, and hyperactivation). Furthermore, analyses of AMMI scores for each relationship reveal significant associations between partner-AMMI and mother-AMMI but not father-AMMI. Data from the adult study suggests that secondary attachment strategies (deactivation and hyperactivation) are associated with more rigid representations, as AMMI scores for all three relationships are closely related. Conversely, the capacity to develop a more secure representation of the partner (compared to parents) seems linked to developmental and contextual factors.

## Separate caregiving environments and diversity of attachment internal working models

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There is evidence that children and adults can develop distinct models of their relationships with each attachment figure (Kochanska & Kim, 2013; Treboux et al., 2004). The Attachment Multiple Model Interview (AMMI) assesses the co-existence of several specific models.

However, the developmental reasons for which individuals develop distinct IWMs remain unclear. Several studies suggest that infants may tend to develop the same attachment pattern with both their parents when their mothers influence their fathers as attachment figures (Steele & Steele, 2005), or when both parents interact in somewhat similar ways with the infant for other reasons. Conversely, it can be expected that children are more likely to develop distinct models of attachment when their parents interact with them in more differentiated and specific ways.

In the present study, we examine whether children raised separately by both parents as a consequence of parental divorce or separation, are more likely to develop differentiated models for each of their attachment figures than children from intact families.

The AMMI was administered to 53 23-year-olds for which sociodemographic information was collected (eg., parental separation) since age 4. Participants were interviewed about each of their attachment figures (mother, father, partner). Attachment security scores for each relationship were used to generate a variation score, reflecting variation in security scores from one relationship to the other.

Results showed that the sooner participants were exposed to separate caregiving environments, the more likely they were to develop differentiated models for each attachment figure (i.e., higher variation scores). Results also suggest that variation seemed to increase as a function of the number of days spent with the non-custodial parent and the presence of a step-parent before age 6. These findings are in keeping with theories on schema abstraction.

Kochanska, G., & Kim, S. (2013). Early attachment organization with both parents and future behavior problems: From infancy to middle childhood. *Child Development*, 84(1), 283-296. doi:10.1111/j.1467-8624.2012.01852.x

Steele, H., & Steele, M. (2005). Understanding and resolving emotional conflict: The London Parent-Child Project. In K. E. Grossmann, K. Grossmann, E. Waters (Eds.), *Attachment from infancy to adulthood: The major longitudinal studies* (pp. 137-164). New York: Guilford Press.

Treboux, D., Crowell, J. A., & Waters, E. (2004). When 'New' Meets 'Old': Configurations of adult attachment representations and their implications for marital functioning. *Developmental Psychology*, 40(2), 295-314. doi:10.1037/0012-1649.40.2.295

**Insecure attachment and pervasiveness of internal working models****Danet M<sup>1</sup>**<sup>1</sup>*University of Lille, Laboratory PSITEC*

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Defensive exclusion has been described by Bowlby as a process resulting from experiences of insecurity through which information that contradicts attachment models in line with parental rules is kept outside of awareness. Consequently, internal working models become outdated and corresponding behavior is no longer adapted to current life circumstances. Hence, insecurity can be expected to prevent one from evolving across relationships.

Also the scope of internal working models is traditionnally restricted to close relationships, but cognitive theory brings new light on their range of influence. Analogy can bring one to base his/her interpretation of a situation on any similar situation from the past, whether in the context of close relationships or not. Thus, adaptation to new situations from everyday life, which are similar to attachment-related situations, may be compromised when attachment-related functioning is rigid.

We expected insecure attachment to be associated with more limited variation in attachment representations from one relationship to the other. We also expected to find more rigid functioning in everyday situations that are analogous to attachment-related situations, but outside of close relationships.

Eighty-nine adult participants (aged 20 to 64) passed the Attachment Multiple Model Interview (AMMI) as well as an interview on everyday behavior in situations analogous to attachment-related situations (Miljkovitch & Sander, 2013). This interview yields scores of clinginess, control, neediness, self-reliance, and sparing. Whereas the AMMI provides scores of security, both instruments yield scores of variation, respectively, across relationships and across everyday situations.

Results confirm our hypotheses and show a significant association between security toward the mother and variation in attachment representations of different relationships. Mother security is also linked to variation in reported everyday behavior. These findings open new research avenues on internal working models: how their influence may vary from one person to another, and their scope of influence beyond attachment relationships.

## Maternal Sensitivity, Mother's MAOA-uVNTR polymorphism and their association with ASD Severity

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Autism Spectrum Disorder's severity is complex, heterogeneous and its contributing factors remain unclear. Our approach to its elucidation was through investigating interactions between genes, environment and behavior.

Background: Genes encoding the neurotransmitter-metabolizing enzyme Monoamine Oxidase A (MAOA) of patients and their mothers have been associated with ASD severity, specifically poorer language and affect regulation, less social skills and more repetitive behaviors. In contrast, Maternal Sensitivity has played a crucial role as an environmental factor in optimal socio-emotional typical development; however, its role in patients with ASD is unknown.

Purpose: To study whether the uVNTR polymorphism alleles in the gene encoding MAOA along with Maternal Sensitivity were associated with ASD severity.

Method: Participants: 21 dyads consisting of children (2 female, age-range: 3-7 years) diagnosed with ASD and their mothers.

Procedure: Two visits were required. During the first visit, mothers were interviewed with the Autism Diagnostic Interview (ADI-R) for the diagnosis of their children. For the second visit, 2 hour videos of mother/child daily interaction were recorded in the participant's home for the Maternal Sensitivity Assessment. During this visit saliva samples were obtained for the analysis of their MAOA uVNTR repeats. After videos were recorded, they were watched again for scoring Maternal Sensitivity with the Maternal Behavior for Preschoolers Qsort (MBPQs) and ASD Severity with The Childhood Autism Rating Scale (CARS).

Results: A Spearman correlation indicated a  $-.51$  association between Maternal Sensitivity and General Autism Severity. Genetic analysis is still in progress.

Discussion: Information about a possible gene-environment interaction where autism severity will be modulated by at least maternal sensitivity will be provided.

Key words: ASD severity, Genes, Environment, MAOA, Maternal Sensitivity, ADI-R, MBPQs, CARS.



## Contacts with biological parents following placement in foster care: associations with sleep disturbances

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Young foster children face a variety of risks linked to deficits in functioning across multiple developmental domains. Among others, sleep disturbances are more likely to occur in a foster context (Paayonen *et al.*, 2007). Considering its prevalence in foster children and the importance of sleep in overall development (Sadeh *et al.*, 2002), it is pertinent to address the factors with which it is linked in this high-risk context.

Maternal anxiety (Scher & Blumberg, 1999), parenting stress (Goodlin-Jones *et al.*, 2008) and mother-infant attachment (Scher, 2001), especially level of dependency to caregiver (Scher & Asher, 2004), have been linked to various indicators of child sleep in the general population. To our knowledge, no study has examined factors associated to foster children sleep disturbances.

This Canadian study is conducted in collaboration with three Quebec youth protection services and aims to describe sleep disturbances experienced by preschool children in foster families as well as factors related to them, notably contact visits with biological parents. Considering the challenges elicited by these contacts and the ongoing developmental processes, the interrelations between these factors may be revealing regarding sleep disturbances (Poitras *et al.*, 2014).

Forty-seven children (12-to-42 months old) placed in foster families (mean placement duration= 28.6mo; SD= 9.8mo) were evaluated. Their foster parents were questioned regarding child sleep disturbances (CBCL; Achenbach & Rescorla, 2000), and their own anxiety symptoms (Symptom Checklist; Derogatis, 1994). Dependency was assessed with the Attachment Q-sort (Waters, 1995) during home visits. All observational data was coded independently.

Hierarchical regressions revealed that contact with biological parents remains positively related to sleep disturbances even after controlling for dependency with foster parents and foster parent's anxiety ( $p < .05$ ). Specifically, more contacts with biological parents lead to higher frequency of reported sleep disturbances. Discussion focuses on the developmental and clinical implications of these findings.

Keywords: Sleep, dependency, foster care

**Table 1.**

*Correlations Between Contacts With Biological Parents, Child's Sleep Disturbances, Foster Parents Symptoms Of Anxiety And Dependency*

	Sleep	Dependency	Anxiety	Contacts
Sleep	1.000	-.100	.407**	.403**
Dependency	-.100	1.000	.091	-.206
Anxiety	.407**	.091	1.000	.125
Contacts	.403**	-.206	.125	1.000

Note. \*\* $p \leq 0.01$

**Table 2.**

*Hierarchical Multiple Regression Predicting Sleep Disturbances*

Steps	Variables	B	Beta	T	p
1	(Constant)	1.239		1.670	.102
	Dependency	-1.916	-.138	-1.011	.318
	Foster parent's anxiety	.431	.420	3.071	.004
2	(Constant)	1.031		1.468	.149
	Dependency	-.870	-.063	-.476	.636

Foster parent's anxiety	.380	.370	2.848	.007
Contacts (hours/mo)	.010	.344	2.605	.013

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Note.  $F(3,43) = 6.024$ ,  $p = .002$   $R^2 = 29,6\%$  for Step 2

## Results of the Attachment & Child Health (ATTACH) Pilot Trials of a Parental Reflective Function Intervention

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**Background.** Parental violence, depression and addictions interfere with secure parent-child attachments necessary for healthy child development.<sup>1-2</sup> Parental Reflective Function (RF)-the parents' capacity to understand and thus regulate their own feelings/behaviour toward their child-predicts attachment security.<sup>3</sup> Few RF interventions exist and they typically do not promote learning RF skills via practice<sup>4-5</sup> and ignore co-parents. Thus, we developed the ATTACH intervention focused on improving RF and attachment security for at-risk mothers and their co-parent.

**Objectives.** We tested the effectiveness of the ATTACH intervention on mothers' RF and children's attachment strategies in 3 funded pilot studies.

**Methods.** The pilots were conducted at an inner-city agency serving low-income women with mental health or housing challenges and a shelter agency for women affected by violence. The 3 pilots employed randomized controlled trial (RCT; n=20, n=10) and quasi-experimental (n=10) methods with 30 families. Maternal, Child, and Overall RF were assessed via Fonagy and colleagues'<sup>6</sup> method for coding the Parent Development Interview<sup>7</sup> and children's attachment was assessed with the Strange Situation Procedure.<sup>8</sup> As trends are important to identify in pilot studies, one-tailed testing ( $\alpha=.05$ ) was set *a priori* and clinical significance was also a consideration.

**Results.** Pilot 1, showed differences in attachment security with 33% of treatment infants secure versus only 14% of controls (19% difference), and ANCOVA results indicating a trend toward significance in Child ( $p=.06$ ) and Overall RF ( $p=.09$ ). Pilot 2 showed significant differences in Maternal ( $p=.01$ ) and Overall ( $p=.02$ ) RF and attachment security improved by 14% from pre to post-test. Pilot 3 showed that more children were securely attached after the intervention: 20% improvement was noted in treatment children versus no change in controls. RF data are currently being analyzed.

**Conclusion.** Understanding the effectiveness of programs like ATTACH, contributes to improved programs and services to promote healthy development of children affected by toxic stress.<sup>9</sup>

### References.

1. Ainsworth, et al., 1982
2. Bowlby, J., 1980
3. Fonagy, P., 2014
4. Cassidy et al., 2011
5. Suchman et al., 2014
6. Fonagy P, Target M, Steele H, Steele M., 1998
7. Aber et al. 1985; Slade et al., 2003
8. Ainsworth et al, 1978
9. Center on the Developing Child at Harvard University (2010)



## Emotion regulation and its linkage to the relationship between attachment and problem behaviour in adolescence

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Emotion regulation is the key element in attachment theory. According to Cassidy (1994), individual differences in emotion regulation are influenced by attachment experiences. Several approaches have been developed to examine the association in more detail. The Emotion Regulation Model of Attachment proposed by Brenning and Braet (2013) claims that people tend to regulate their emotions differently depending on their particular attachment representations. Anxiously attached individuals are more likely to heighten the expression of their emotions, whereas avoidantly attached individuals tend to suppress their emotional reactions. This, in turn, will increase the probability of problem behaviour occurrence. The association is particularly worth examining during adolescence when different relational bonds are shaped, but also the risk of experiencing emotional and behavioural difficulties increases.

The purpose of this presentation is to investigate the role of emotion regulation in explaining the association between attachment and problem behaviour in adolescence. Data was collected from a community sample of 638 Polish adolescents aged 13-19 ( $M = 16.52$ ;  $SD = 1.63$ ). Participants were asked to fill out a set of self-report measures: *Emotion Regulation Inventory* (ERI) by Roth et al. (2009) to assess emotion regulation strategies, i.e. hyperactivation and suppression, *Experiences in Close Relationships Scale-Revised Child Version* (ECR-RC) by Brenning et al. (2011) to measure attachment anxiety and attachment avoidance and *Youth Self-Report* (YSR) by Achenbach and Rescorla (2001) to assess problem behaviour. Analyses were carried out using Mplus version 7.2 (Muthén & Muthén, 2012). Results have shown strong support for the associations between attachment anxiety, dysregulation of emotions and problem behaviour. Mixed results were found for the links with attachment avoidance that could be further discussed.

**Associations between adult attachment and: maternal sensory patterns, maternal-foetal attachment, and maternal-infant attachment.**

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**Research purpose and aims:** While adult attachment may be a useful theoretical framework for understanding a range of relational and maternal variables, there are some parameters that are currently understudied. The aim of the present study is to examine the potential associations between adult attachment and: maternal sensory patterns, maternal-foetal attachment and maternal-infant attachment.

**Methodology:** Using a longitudinal cohort design, 88 women were assessed during pregnancy and again within eleven months postnatally. Women were recruited from antenatal clinics at the Mater Mothers' Public Hospital in Australia. Self-reported questionnaires were used to measure maternal attachment pattern, mother-foetus attachment, and maternal sensory patterns ante-natally, and mother-infant attachment postnatally. Multivariate regression models, controlling for maternal age, were completed.

**Results:** Maternal attachment security was linked with a range of maternal sensory patterns: more Sensory seeking, as well as lower levels of Sensory low registration, Sensory avoidance, and Sensory sensitivity. Converse links were revealed for attachment insecurity (i.e., more Low registration, Sensory avoidance and Sensory sensitivity, and lower levels of Sensory seeking). When examining relational variables, secure attachment was linked with favourable feelings and thoughts towards the unborn baby (i.e., quality of maternal-foetal attachment), while the opposite was highlighted for insecure attachment. Postnatally, secure maternal attachment was associated with a more favourable mother-infant relationship (e.g., absence of hostility towards infant), and insecure attachment linked with less desirable mother-infant attachment (e.g., more mother-infant hostility, and poorer quality of maternal-infant attachment).

**Conclusions:** This study provides the first evidence of links between adult attachment and maternal sensory patterns in pregnant women. The findings highlight the potential value of considering sensory patterns when using an attachment framework to support early caregiving relationships. Awareness of a mother's attachment and sensory patterns may assist in the identification of women developing unfavourable attachment to their unborn or newly born baby.

## **Associations between Maternal and Child Attachment Representations and ADHD: Preliminary Findings and Clinical implications**

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**Background:** It is widely held that ADHD is associated with poor prognosis in adulthood and an increased mortality rate. Whilst a growing body of evidence suggests associations between ADHD and problematic family functioning, the developmental trajectories of individuals with ADHD and the factors determining their long-term prognosis are poorly understood. However, current research findings suggest substantial overlaps in symptomatology between ADHD and insecure attachment highlighting the potential importance of relational factors for long-term prognosis in ADHD.

**Objective:** The aims of the current study were twofold; to assess child and maternal attachment representations in a sample of children diagnosed with ADHD and to evaluate the impact of maternal and child attachment representations on treatment outcome.

**Method:** The sample consisted of 60 mother-child dyads with ADHD. Maternal and child attachment representations were assessed using interview based measures (the Adult Attachment Interview and the Child Attachment Interview) alongside an assessment of ADHD symptoms evaluated on the ADHD-RS for a period of one year following the base line assessment.

**Results:** Of the 60 children, 18% were found to be securely attached compared to 62% in the general population. Among mothers, 26% were securely attached (Autonomous) compared to 55% in reported in the normal population. Furthermore, preliminary results in the follow-up period show a more moderate reduction in reported symptoms in insecurely attached children as well as in children of insecurely attached mothers.

**Conclusion:** These findings, albeit preliminary, highlight the importance of future studies evaluating the role of relational factors such as attachment in treatment response and outcome. By viewing ADHD symptoms as developing in the context of family relationships and moving away from focusing solely on the core symptoms in the child, we may be able to improve long-term prognosis in ADHD and insecure attachment alike.

**Note:**

Data collection in the follow-up sequence has not yet finished, but will be in March 2017. The paper is well under preparation and the analysis will be completed as well as the paper for the conference in June.

## **The validity and relevance of utilizing insights from the attachment paradigm with material from the Jewish and Christian Scriptures**

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The evolving attachment paradigm has provided insights into a wide range of social/emotional relationships but has rarely been used to directly engage with historical material from the Jewish and Christian scriptures. Immediate methodological challenges are faced in such a quest, in terms of the validity of seeking to apply a late twentieth century, Western shaped paradigm, with material from totally different cultures extant over two millennia ago. This challenge is engaged with through utilizing insights from evolutionary psychology.

This paper advocates that the disciplines of psychology and theology can be brought together, in order to bring fresh insights to core Jewish and Christian beliefs and practices. The methodology used in this process is drawn from the Psychological-Biblical-Critical (Psychological Critical) approach, developed at the end of the twentieth century. It is argued that the use of elements from the attachment paradigm, particularly the twin pillars of safe-haven and secure base, can provide a complementary meta-narrative to inform the ongoing debate concerning sexuality and also provide insights into personnel selection and pastoral support to faith members.

The psychological/theological model developed by Martin Buber in his I and Thou book is utilized to provide the underpinning framework through which the Biblical material can be developed via the insights from the attachment paradigm.

The relationship laden book of Ruth is scrutinized through an attachment lens as is the 'adoption' of Moses. The 'love' based relationship between Jonathon and David is examined from an attachment perspective as is the IWM of Jesus.

Further areas of research are identified, particularly in the areas of leadership functioning and group dynamics.

## Life satisfaction, as a measure of subjective well-being, and attachment in outpatients adolescents

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Background: Life satisfaction (LS) is a measure of subjective well-being and health (Diener et al, 1999) and has been shown to be predictive of psychopathology (Huebner, Funk, Gilman, 2000). The relational dimension has been shown to be highly relevant in LS. However, specific studies of adolescent attachment and LS are still preliminary (Xu, Huebner, Hills, 2013). Especially if one considers the character of adolescent attachment as a relational transformation, which implies a second process of separation-individuation (Blos, 1967), the diversification of attachment figures, the importance of friends and the establishment of love relationships (Wilson & Wilkinson, 2012).

Objective: Evaluate life satisfaction (LS) of adolescents outpatients and its associate with attachment styles. Method: Cross-sectional design. Sample: adolescents between 13 to 16 years, in the Chilean Teaching-Care Center of Psychiatry for Children and Adolescents. Youth with moderate to severe mental disability, and with an acute psychotic episode are excluded. Adolescents completed the Satisfaction with Life Scale-Child (SWLS-C), the Adolescent Attachment Questionnaire (AAQ), Clinical Inventory for Adolescents (MACI) and survey related to personal beliefs, preferences, friendships, family and others. Applicants and clinical complete a survey variables associated with psychopathological and therapeutic variables. Descriptive, bivariate and regression analysis is performed. Result: Research in process. Adolescents corresponding to middle class, mostly female. The reason for initial consultation in the psychiatric unit was diverse, mainly mood symptoms and suicidal spectrum. Conclusions: The variables of attachment styles (cooperation, availability and signs of anger and distress) related to LS in the adolescent clinical population are discussed.

## **Group Attachment Based Intervention (GABI) for at-risk families: Factors associated with attendance and treatment implications**

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Dropout rates in parent-child and family psychotherapies are universally high. The current study assesses factors that identify families more or less likely to engage in treatment.

The current report analyzed attendance rates for 78 families referred to the Group Attachment Based Intervention (GABI).

GABI was offered to families three times each week over the course of a 26-week treatment period. 78 parents (45% Hispanic, 22% African American, 9% Multiracial, 5% white) and their children (0-3 years of age) attended 8 sessions on average (0-45 sessions).

While participating in baseline assessments parents complete the Adverse Child Experiences Questionnaire (ACEs), a measure evaluating 10 categories of childhood trauma (Felitti et. al., 1998). At both baseline and follow-up assessments parent and child partake in a 10-minute free play session, which is assessed using the Coding Interactive Behavior (CIB; Feldman, 1998).

Families who attended more GABI sessions were characterized at baseline by lower CIB scores in parental consistency of style,  $r(47)=-.32$ ,  $p=.03$ , child vocalization,  $r(47)=-.30$ ,  $p=.04$  and child competent use of the environment,  $r(46)=-.31$ ,  $p=.04$ . This data suggests that problematic aspects within the parent-child relationship may motivate parents to attend GABI more. Higher number of sessions attended also positively and significantly correlated with parental emotional abuse (ACEs),  $r(64)=.26$ ,  $p=.04$ . Trauma experienced in the parent's childhood is an important variable to consider when evaluating attendance in parent-child psychotherapies.

Gaining a better understanding of attendance in parent-child psychotherapy is essential to improving treatment outcomes. By identifying potential risk factors at intake, clinicians may be better informed of barriers to treatment, allowing them to identify patients who are at greater risk for not attending before treatment begins.

## **The Implementation of Primary Prevention Program in Another Culture: SAFE® - Safe Attachment Formation for Educators as a pilot project in Russia.**

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This presentation will describe the implementation process of the SAFE® program in several Russian cities. The SAFE program created by Prof. Dr. Karl Heinz Brisch in 2003 aims to promote a secure emotional bond between parents and children, and to prevent attachment disorders and cross-generation transmission of traumatic experiences.

What is the difference between professionals working with families in Russia as compared to Germany? How prospective Russian parents differ from those in Germany? What do they have in common? Psychological culture of parenting and professional education in modern Russia has its own special characteristics: parents prefer to stress early intellectual development in their children and tend to pay less attention to the emotional aspects of parent-child relationships. Also, the availability of educational literature and accurate knowledge about the original attachment theory and emotional intelligence is limited. Psychologists, educators, therapists, etc. are less aware of contemporary research in the field of attachment theory and trauma therapy.

Our SAFE® - project started in Moscow in 2013. We have come to the conclusion that the following 5 steps are needed to integrate the program into another culture: 1/ Identifying target groups of professionals and parents and establishing contacts with them 2/ Selecting, translating and publishing books, and creating a social network in order to provide information on the subject to the target groups 3/ SAFE® Mentor training and organizing groups for parents 4/ Receiving and studying feedback 5/ Providing supervision and special Education for SAFE® - mentors.

We will present a few examples from the practice of SAFE® - groups from different Russian cities.

### S3.1

#### **Supporting parents with evidence based interventions: a study on the effectiveness of several attachment based interventions.**

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Symposia 3.1, Nunn Hall, Level 4, June 29, 2017, 4:45 PM - 6:15 PM

#### **Enhancing sensitivity in mothers of international adoptees: Are adoption-related risk factors affecting treatment efficacy?**

**Introduction.** Meta-analytic evidence eloquently shows the extent with which international adoption is an effective intervention (van IJzendoorn & Juffer, 2006). In the past years, domestic adoption has been privileged in countries of origin, thus increasing international adoption of older children and of children with medical needs (e.g., cleft palate; SAI, 2016). Given that parents adopting children with medical needs are at greater risk of parent-child relationship difficulties and parental distress, post-adoption services with a focus on the parent-child relationship are needed for these families (Schweiger & O'Brien, 2005). To date, parent-child interventions primarily included early adoptees (in average < 12 months) with no special medical needs (e.g., Juffer et al., 1997).

**Methods.** This study tested the Attachment Video-feedback Intervention (AVI: Moss et al., 2011) on parental sensitivity of 61 mothers and their internationally adopted child ( $M=31.26$ ;  $SD=26.63$ ). Child medical needs ( $n=15$ ), late adoption (>12 months:  $n=26$ ), and clinical parental stress ( $n=16$ ) were considered as moderators. Dyads were randomly assigned to the AVI ( $n=32$ ) or control group ( $n=26$ ). Sensitivity was assessed at pre-/post-tests using the well-validated observational system of Moss et al. (2004). Mothers completed medical and socio-demographic questionnaires and the Parenting Stress Index (Abidin, 1992).

**Results.** Statistics show similarity of groups at pre-test. Given most children with medical needs were late-adoptees, only age at adoption and parental stress were tested as moderators. An ANCOVA, controlling for sensitivity at pre-test, showed 1) an increase in sensitivity at post-test for AVI parents compared to controls; 2) clinically stressed parents of both groups had lower sensitivity scores at post-test; 3) parents with late adopted children benefited less from the intervention; and 4) even more so when clinically stressed ( $F$ s between 4.04 and 5.68). The need to consider special-needs children and parental stress related-issues in future post- (even pre-) adoption services will be discussed.

#### **Testing an Attachment Based Intervention Effectiveness with Adoptive Mothers by Assessing the Role of Dopamine and Serotonin Polymorphisms: A Multisite RCT Study**

**Introduction.** Parents' ability to be sensitive and emotionally available when interacting with their children, referred to as positive parenting, is to be considered the core feature of any attachment based intervention programs (Juffer, Bakermans-Kranenburg & van IJzendoorn, 2008). Main aim of the present study was to test the effectiveness of an attachment based intervention for promoting positive parenting - i.e. Foster Care and Adoptive Families adaptation-VIPP-FC/A by assessing the possible moderating role of two candidate genes - i.e. DRD4 and SLC6A4 - on the intervention outcomes.

**Method.** Eighty adoptive mothers ( $M_{age} = 42.73$ ,  $SD = 3.79$ ) with children aged 12 to 71 months, in their family for no more than one year before the first research contact, took part to the study and were randomly assigned either to a group that would attend the VIPP-FC/A or to a control group which received a dummy intervention. Buccal swabs were stored at  $-20^{\circ}$  until DNA was extracted. DNA was extracted using the kit IQ form Promega following manufacturer's instructions during the first home visiting. The Emotional Availability scales 4<sup>th</sup> Edition (EAS - Biringen, 2008) were used to code parental emotional availability to adoptive child's emotional cues at pre and post-intervention and it was used as measure of positive parenting.



Results. Mixed effects regression models showed a significant improvement in positive parenting in mothers attending the VIPP intervention, with a moderate effect size ( $r = .39$ ). No significant moderating effect was found for the two genetic polymorphisms inquired.

Results are discussed within the frame of the mixed findings obtained in identifying specific genotypes moderating the efficacy of parenting interventions

### **An attachment based intervention program for adolescent mothers and their infants: the role of maternal childhood adversity and attachment**

Introduction. Adolescent mothers have frequently a history of maltreatment and their relationship with the infants are often at risk (Madigan et al., 2012). Aim of the study was to evaluate the effectiveness of PRERAYMI (Promoting responsiveness, emotion regulation and attachment in young mothers and infants) (Riva Crugnola et al., 2016), an attachment intervention program based on video technique, psychological support and developmental guidance.

Method. The participants were 43 adolescent mother-infant dyads of the intervention group and 20 adolescent mother-infant dyads of the control group. At infant 3, 6, and 9 months, mother-infant interaction was coded with Care-Index (Crittenden, 1998) and a modified version of ICEP (Riva Crugnola et al., 2013). At 3 months AAI (George et al., 1985) was administered to evaluate maternal attachment and childhood experiences of care and abuse (Bifulco et al., 1994). The changes from 3 to 9 months were analyzed in both groups and the moderation effects of maternal attachment and adverse experiences were also investigated.

Results. 82% of adolescent mothers reported one or more adversity in childhood and 22% reported three or more; 65% of the adolescent mothers had an insecure attachment. LMM showed that adolescent mothers who participated in the intervention (vs control group) increased their sensitivity and reduced their controlling style after 3 and 6 months of treatment. Infants of the intervention group (vs control group) increased their cooperative style. From 3 to 9 months the intervention group dyads (vs control group) spent more time in affective matches and less time in mismatches. The quality of maternal attachment and adversity in childhood did not affect the intervention effect.

Early motherhood is associated to high frequency of insecure attachment and adversity in mothers' history. The results show the effectiveness of the PRERAYMI intervention to improve adolescent mother-infant styles of interaction and emotion regulation.

### **An attachment based program for parents of teens: Parent and youth outcomes and trajectories of change**

Introduction. While effective attachment based interventions have been developed for parents of infants and young children, few exist for adolescents. The current study evaluated treatment outcomes and trajectories of change among teens and their parents who completed Connect, a 10-session manualized attachment based parenting program. Connect focuses on the building blocks of attachment security, namely parental sensitivity, reflective capacity, dyadic affect regulation and shared partnership. Through a sequence of dyadic and experiential exercises, parents acquire skills that promote their understanding of and responsiveness to the attachment meanings associated with challenging behaviour.

Methods: Participants were 510 parents (66% mothers) enrolled in the Connect program and 340 teens (51% female; mean age 15 years). Parents assessed their teens on measures of behavioral, emotional and family functioning prior to the program; at mid-treatment; and upon completion. Teens completed parallel measures.

Results: Parents reported significant reductions in youth oppositional and conduct problems; anxiety and depression. Reductions were also evident in youth affect dysregulation and suppression and attachment avoidance and anxiety. In addition, parents reported a significant reduction in their own level of depression and increased family satisfaction. Similar results emerged based on teen self-reports, including significant reductions in oppositional and conduct problems; depression and anxiety. Teens also reported significant reductions in affect dyscontrol and attachment anxiety. When plotted, trajectories revealed that many treatment changes were evident by mid-treatment.

Results replicate prior studies demonstrating the effectiveness of Connect. Our results show similar, but not identical outcomes and trajectories for parents and teens. A three-phase clinical model of change that may underlie attachment based parenting programs is discussed.

## S3.2

### **Reflective functioning and family relationships in clinical context: Studies developed in Chile in infants, children and adolescents.**

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Symposia 3.2, Clarke Hall, Level 3, June 29, 2017, 4:45 PM - 6:15 PM

Mentalization, operationalized as reflective functioning (RF), is a complex psychological function, developmentally critical during childhood and adolescence (Fonagy et al., 2004; Rossouw & Fonagy, 2012; Slade, 2005). The relationships with the primary caregivers plays a fundamental role in infant development and mental health (Hedenbro & Rydelius, 2014). In this context, parental reflective functioning (RF), has been considered an important variable for diagnosis and clinical intervention (Fivaz-Depeursinge & Favez, 2006; Flykt, Kanninen, Sinkkonen, & Punamäki, 2010; Gere et al., 2013). On the other hand, parental RF can be a protective factor for parenting (Stacks et al, 2014) highly relevant for attachment development (Ensink et al., 2016; Grienberger et al., 2005). Video-feedback interventions have demonstrated to be a powerful tool in promoting change in parent-child relationships, in the bond quality and in parental RF (Fukking 2008; Rusconi-Serpa, Rossignol & McDonough, 2009).

We present four studies, currently implemented in Chile, related to the assessment and improvement of RF during clinical interventions in childhood, adolescents and their families in clinical contexts. The first study shows the results of a brief video-feedback intervention in mother-father-infant triads. The second study analyses the parental RF, the quality of triadic interaction and its influence on early childhood development. The third research presents preliminary results of a video-feedback intervention to enhance the RF in primary caregivers of inpatient psychiatric children. The last study describes the regulatory role of RF during adolescents psychotherapy.

## Study 1:

### A video-feedback intervention for mother-father-infant triads with infants with socio-emotional problems

**Introduction:** initial studies of early bonding have focused their attention on the mother-infant dyad. This point of view was later amplified by including the triad, which includes the father and considers that children develop attachment bonds towards both parents (Keller, 2007; Lamb, 1982). This change has permitted an enrichment of the comprehensive models and design of intervention in early childhood. Thus, their inclusion constitutes a relevant element for diagnosis and intervention in the early family (Fivaz-Depeursinge & Corboz-Warnery, 1999; Allen & Daly, 2007; Verschueren & Marcoen, 1999; Fivaz-Depeursinge & Favez, 2006; Dietz, Jennings, Kelley & Marshal, 2009; Gere et al., 2013). On the other hand, research shows consistently favourable results in enhancing the bond quality and parental reflective functioning when using video-feedback in early interventions (Fukink, 2008).

**Objective:** to implement and to evaluate a video-feedback intervention to enhance parental sensitivity, triadic interaction quality and socioemotional infant development.

**Method:** a longitudinal, quasi-experimental study was designed, in which a video-feedback intervention was implemented for mother-father-infant triads under 3 years old with socio-emotional development difficulties. The study considered 80 triads participants, 40 in the experimental group which receive the intervention, and 40 in the control group which receive the regular treatment offered by health centres in Chile. Pre and post intervention assessments were carried out, measuring infant socio-emotional development, depressive symptomatology, parental attachment, parental sensitivity and triadic interaction quality. **Results:** preliminary results show that parental sensitivity, triadic interaction quality, depressive symptoms and socioemotional infant development was only improved in experimental group.

**Keywords:** triadic interaction, video-feedback intervention, socio-emotional development, infants.

## Study 2:

### An analysis of the Parental Reflective Function, the quality of Triadic Interaction and its influence on Early Childhood Development

**Introduction:** During early childhood, the immediate family is the basic relationship system and the most influential one in which the child develops (Bronfenbrenner, 1987), where the mother-father-child triad plays a fundamental role in childhood development (Fivaz-Depeursinge, & Corboz-Warnery, 1999). On the other hand, a good enough parental reflective function (RF) is considered as a protective factor in early parenting (Stacks et al, 2014), assuming a relevant role for attachment development during early childhood (Fonagy, et al., 1991; Ensink et al., 2016).

**Objective:** to describe and analyze the relationship between the father and mother's reflective function and triadic interaction in mother-father-child triads, evaluating its influence on general and social-emotional development in early childhood.

**Method:** a non-experimental, transversal and correlational study was developed. 50 families were evaluated, comprising the mother and father, in a current relationship with at least one child between 11 to 36 months of age. The variables included are: sociodemographic background, triadic interaction (LTP, Fivaz-Depeursingue & Corboz-Warnery, 1999), parental reflective function (PDI-S, Aber et al., 2004, assessed by the RF Scales, Fonagy et al, 1998) and general and social-emotional childhood development (ASQ 3, Bricker & Squires, 1999; ASQ SE, Squires, Bricker, & Twombly, 2011). Relationship satisfaction (RAS, Hendrick, 1988) and depressive symptoms in parents (BDI-I, Beck et al., 1961) are included as control variables.

**Results:** preliminary results of an ongoing study shows that the mean of the RF is 3.8 (SD=1.24) on mothers and 3.7 (SD = 1.24) on fathers. Regarding the family interactions observed, 35% of the families present cooperative interactions, 40% show conflicting interactions and 25% have disordered interactions. 37.5% of the children shows clinically significant difficulties in their social-emotional development in the ASQ-SE.

**Keywords:** Parental reflective functioning, triadic interaction, social-emotional development.

### **Study 3:**

#### **Video Feedback Intervention to enhance Parental Reflective Function in Primary Caregivers of Child with Severe Psychiatric Disorders.**

**Introduction:** One of the challenges when a child is hospitalized is working with the family. Parental reflective function (PRF), defined as the metacognitive ability to think about one's own thoughts and feelings and those of others, as one attempts to understand and predict behaviour (Fonagy et al., 2004), might facilitate dialogue and understanding at a deeper level and could be especially important in coping with conflict and negative emotions in older children (Benbassat & Priel 2012). In terms of inpatient childcare, enhancing PRF, would improve outcomes and prevent future hospitalizations. Video-feedback interventions have demonstrated to be a powerful tool in promoting change in parent-child relationships with few sessions (Fukking 2008; Rusconi-Serpa, Rossignol & McDonough, 2009).

**Objective:** To implement a Video Feedback (VF) intervention to enhance PRF in primary caregivers of inpatient psychiatric children. Because there is no published research using VF with parents of children with severe psychopathology and in hospitalized context, this study is a pilot study, in order to provide evidence to perform a larger randomized control trial in the future.

**Method:** A pilot randomized control trial has been designed with a sample size of 30 primary caregivers of children hospitalized at a public hospital in Valparaíso, Chile. The intervention consisted of four sessions of VF of the play interaction between caregivers and children. This interaction was video-recorded during hospital visits; sessions were carried out twice a week in a group setting. A standardized interview to assess PRF was applied at the beginning, before every VF session and at the end of the full intervention.

**Results:** preliminary results are presented including the first five people enrolled in the clinical trial. This is the preliminary work of an ongoing PhD research.

**Keywords:** video-feedback intervention, parental reflective function, psychiatric disorders, children.

### **Study 4:**

#### **Regulatory role of reflective functioning during rupture-resolution episodes of an adolescent psychotherapy**

**Introduction:** Mentalization, operationalized as reflective functioning (RF), can be conceptualized as a complex psychological function, developmentally critical during adolescence due to brain changes that affect social cognition area, that "supports" the therapist-patient exchanges, rather than a global capacity that "improves" through psychotherapy.

Rupture and resolution episodes of the therapeutic alliance (Safran & Muran, 2000) has been identified as relevant interactional scenarios both to observe and assess the reflective functioning during psychotherapy, because of its challenging relational nature which requires the usage of reflective functioning. During those episodes it is possible to observe how patients and therapists draw on complex strategies to overcome the impasses and regulate the interaction

**Objective:** to describe the therapist-patient reflective functioning during moments of rupture-resolution of the therapeutic alliance. Thus, it seeks to account for the way mentalizing manifests itself and the regulatory role that it could fulfill this function during this type of episodes.

**Method:** The sample is compound of episodes of rupture and resolution extracted from 54 videotaped sessions of a complete individual psychotherapy with an adolescent. The analysis of the ruptures and resolutions of the therapeutic alliance was carried out through the 3RS system (Safran, Muran, & Eubanks-Carter, 2014). The analysis of the RF was made through the Reflective Functioning Scale (RFS; Fonagy, Target, Steele & Steele, 1998) adapted for psychotherapy (de la Cerda, et al, 2016) to asses RF both on therapist and patient.

**Results:** differences in the expression of therapist-patient RF during rupture v/s resolution episodes are shown. These are preliminary results of an ongoing PhD research that leads to reflect about the regulatory nature of RF during adolescent psychotherapy.

### S3.3

#### **Providing developmental support for children placed in alternate care: Challenges and opportunities for foster- and adoptive parents**

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Symposia 3.3, Elvin Hall, Level 1, June 29, 2017, 4:45 PM - 6:15 PM

##### **Paper 1**

#### **This is My Baby: Association between commitment in a sample of foster parents and their early placed foster children's socio-emotional functioning**

Commitment may be defined as willingness to forever be a parent for the child. Becoming committed to a foster child is an important goal for foster parents. Research has shown that high commitment was associated with better social-emotional functioning in the foster children. The present prospective and longitudinal study on 60 foster parents and their early placed foster children investigated the association between foster parents' commitment, and the foster children's social-emotional functioning. The foster parents were interviewed with This is My Baby interview (TIMB) when the children were two years and they completed the Infant-Toddler Social and Emotional Assessment (ITSEA) when the children were two (n=57) and three years (n=55). The TIMB interview yields scores on the foster parents' Acceptance, Commitment, and Awareness of Influence towards the foster child, however this paper focuses on Commitment only. Preliminary results showed that the foster parents scored at the higher end of the five-point scale on Commitment. The foster children's mean social-emotional competence (ITSEA; Externalizing, Internalizing, Dysregulation, and Competence) were within age related norms. Regressions including commitment as predictor and the ITSEA variables as outcomes, controlling for caregiver education and the foster child's age at placement, revealed that high commitment at the age of two was associated with low externalizing behavior as well as high social-emotional competence at both age stages. Further, also controlling for Acceptance and Awareness of Influence, we found that foster children with highly committed foster parents had less externalizing behavior at the age of two. The results indicate the importance of helping foster parents to become committed to their foster child in order to help the child towards a healthy social-emotional functioning.

##### **Paper 2**

#### **Foster parents' use of parenting strategies: Associations with symptoms of attachment disorders in foster children.**

Symptoms of attachment disorders in foster children based in early detrimental care-experiences may challenge foster parents capacity to provide emotional and developmental support for their foster children. Aim: To examine the associations between symptoms of Reactive Attachment Disorder (RAD) and Disinhibited Social Engagement Disorder (DSED) in foster children, and foster parents' parenting strategies, controlling for family stressors, foster parents' mental health and help-seeking behaviour.

Method: Foster parents of 110 foster children aged 6 to 12 years completed the following DAWBA interview scales: Child symptoms: the RAD/DSED scale; Parenting strategies: Affirmation and Rules subscales from the Family Life Questionnaire; Foster parents mental health: the Everyday Feelings Questionnaire; Family stresses scale; and Help-seeking scale. Multiple regression analyses were conducted with continuous variables. Affirmation and Rules respectively were dependent variables; RAD and DSED were independent variables, with Foster parents' mental health, Family stresses and Help-seeking behaviour as covariates.

Preliminary Results: Symptoms of RAD and DSED were associated with lower scores on Affirmation, and higher scores on Rule-focused parenting. Controlling for Family stresses and Help seeking, higher scores on Everyday Feelings Questionnaire were associated with lower scores on Affirmation, but not on Rules.

These results indicate difficulties in providing an affirmation and support for foster parents of children with relational difficulties. Also, for these children, foster parents own mental health problems were related to lower level of affirmation. Findings also indicate that foster parents use of Rule-focused care increase with child relational difficulties. Rule-focused care is not influenced by the carers own mental health. This underscores the importance of targeted

support to address challenges in child-carer relationship when counselling foster parents of children with attachment-related problems.

### **Paper 3**

#### **A Systematic Review of Courses, Training, and Interventions for Adoptive Parents**

Adopting a child requires support to adoptive parents both prior to and after adoption in order to promote a positive parent-child relationship and healthy family functioning. The knowledge of empirically supported interventions may be of great value to clinical practice. Thus, the purpose of our study was to systematically review the literature on pre- and post-adoption interventions for caregivers, and determine the possibility for conducting a meta-analysis. We searched 12 electronic databases and identified 7 566 references that were considered for inclusion by two independent raters. Articles meeting the following criteria were retrieved in full-text; studies that examined the effects of (a) a pre- and/or post-adoption intervention, (b) against a comparator (including quasi-experimental studies), and (c) report on parent outcomes related to physical and/or mental health, stress, coping, and/or family life. Finally, we included 10 studies that met our inclusion criteria and which were assessed in terms of reported intervention effects and study quality using Cochrane's Risk of Bias tool. A majority of the studies tested attachment-based interventions, assessed some form of attachment-related outcome, or focused on caregivers who had adopted children with attachment issues. All studies were associated with a high risk of bias in at least one out of seven domains. Additionally, interventions and study designs were characterized by substantial heterogeneity, making a meta-analysis unfeasible. Some interventions were found to have an effect on outcomes related to family life and stress. However, these findings should be interpreted with caution. In conclusion, one major finding of this review was the prevalence of poor design and unclear reporting. In order to be of help for the clinical field, future studies should utilize more rigorous design, transparent and comprehensible reporting, as well as more homogenous interventions and methods.

### **Paper 4**

#### **Group guidance for new foster parents**

Foster care is a frequent option when a child is in need of new caregivers. Taking care of a foster child may be challenging for foster parents, and in Norway, new foster parents are invited to participate in first-year group guidance. The present study aimed to gain knowledge on: 1) What kind of guidance models were used in these groups 2) The foster parents' appraisal of the groups, and 3) The foster parents' experience of parenting, and interaction with the foster child before and after the group attendance. Aim one and two were investigated using adapted questionnaires completed by group-leaders and foster parents. Aim three was investigated by the Parental Stress Index (PSI), completed at first (N = 463) and last (N = 250) group session. Results showed that almost all groups were based on one or two attachment-based models, of which "The Secure Base Model" was the most frequently used. The great majority of foster parents reported that sessions were of relevance, that they had been heard, understood and respected, and that the session as a whole had been good for them. Most foster parents reported increased understanding of their child's needs, and of how the needs might be met. Although as a group the foster parents did not report overall stress in the clinical area, half of the foster parents reported high degree of child related difficulties, while significantly fewer reported high degree of difficulties in being foster-parents. No pre- and post-change was identified for the foster children with the greatest reported challenges, and significant associations were identified between child difficulties and mental health service use. The findings indicate a need for further development and evaluation of high quality methods in order to change a troublesome developmental pathway for foster children.

### S3.4

#### New Developments in the Prediction, Assessment, and Mapping of Attachment across the Lifespan

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Symposia 3.4, Drama Studio, Level 1, June 29, 2017, 4:45 PM - 6:15 PM

This symposium will feature four research talks (15 minutes each) centered on new developments in the assessment of attachment across the lifespan. Regarding infancy, Professor Susan Woodhouse will present a new approach to examining links between maternal caregiving and infant attachment, and Ms. Emily Prince will discuss the utility of infant movement and vocalization as metrics of attachment behavior. Professor Amanda Venta will introduce a computerized linguistic coding scheme for the Child Attachment Interview in older children and adolescents. Finally, Professor Jennifer McIntosh will review psychosocial and epigenetic markers of attachment across three generations. The session will close with time for questions and discussion.

#### Secure Base Provision: A New Approach to Examining Links between Maternal Caregiving and Infant Attachment

Although sensitivity significantly predicts attachment (De Wolff & van IJzendoorn, 1997), sensitivity accounts for a surprisingly low percentage of the variance in attachment ( $r = .24$ , approximately 6%), with an even smaller percentage of variance explained among families in low-SES families ( $r = .15$ , or approximately 2%; De Wolff & van IJzendoorn, 1997).

We sought to examine a new conceptualization of caregiving behavior, *secure base provision*, as an alternative to sensitivity. We define secure base provision as the degree to which a caregiver is able to meet a child's needs on both sides of the attachment-exploration balance, *even in the presence of high levels of insensitive behavior* (citation masked). In the present study, we examined whether secure base provision explained variance in infant attachment above and beyond the variance explained by sensitivity in a low-SES sample of mother-infant dyads.

**Method:** Participants included 83 low-SES, infants and their mothers. Infant-mother dyads completed lab tasks at 4.5 months and three 30-minute home visits between 7-9 months, then completed the Strange Situation (Ainsworth et al., 1978) at 12 months (both continuous security and categorical scores were examined). Mother-infant interactions in the 4.5-month lab and home visits were coded by reliable coders for secure base provision, and sensitivity was coded by separate coders from free play interactions following NICHD guidelines (1999).

**Results:** Hierarchical regression analyses showed maternal sensitivity did not significantly predict infant attachment security, but secure base provision significantly predicted infant attachment, over and above sensitivity, with an effect size eight times larger than that of sensitivity in meta-analytic findings for low-SES families (Table 1). Hierarchical logistic regression analyses examining prediction of secure vs. insecure categorical scores showed parallel results.

**Conclusions:** Findings suggest secure base provision allows for a novel and promising approach to understanding precursors of infant attachment.



Table 1

*Summary of Hierarchical Regression Analysis Predicting Infant Strange Situation Continuous Security Scores at 12 months from Infant Gender, Maternal Sensitivity, and Secure Base Provision (N = 83)*

Variable	$R^2$	$\Delta R^2$	$B$	$\beta$	$t$	$sr^2$
Step 1	.05*					
Infant's Gender		-.62	-.23*		-2.15	.05
Step 2	.07	.01				
Maternal Global Sensitivity			.00	.00	-0.02	.00
Step 3	.22***	.16				
Secure base provision			.63	.41***	4.00	.16

*Note: All  $p$ -values are for 2-tailed tests. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$*

## Using infant movement and vocalization measures to predict expert ratings of attachment behaviour

Infant attachment security is typically measured with the Strange Situation Procedure (SSP), a gold-standard protocol where infants are briefly separated from and reunited with their parent. Experts rate attachment-related behaviors in the two reunion episodes of the SSP to inform categorizations of attachment security. Automated measurement, of movement and infant vocalization, is a promising approach to quantifying key attachment behaviors that may provide standardized objective descriptions beyond expert ratings.

34 one-year-olds and their parent participated in the SSP. Sessions were recorded with four synchronized Kinect video/depth cameras, and infant and parent head positions were tracked in 3D (XYZ) space. Infants were outfitted with a Language ENvironment Analysis (LENA) recorder and audio information was classified by LENA software, yielding measures of infant non-speech-related vocalizations (e.g. crying). A reliable expert rated four infant attachment behaviors in the reunion episodes: proximity-seeking (approaching parent), contact-maintenance (staying close to parent), resistance (to contact with parent), and avoidance (ignoring or moving away from parent).

Using movement and audio data, we calculated a set of theoretically-informed objective measures of attachment-related behavior patterns: contact initiation, contact duration, time held, initial approach, infant crying, and average distance. These features were used as predictors of expert attachment ratings in multiple regression equations and showed strong associations between objective and expert ratings (Table 1). The difference between the expert ratings and the predicted values from these regression equations was, on average, less than a point (Table 1), suggesting that these objective measures came close to replicating the expert ratings.

This is the first application of automated measurement to attachment behaviors. The results demonstrate that objective measures can reveal behavioral patterns previously captured exclusively via expert rating scales. By using theoretically-informed measures, we can provide objective validation for of attachment ratings, an essential component of infant attachment security classification.

Table 1.

Table 1. Association of objective ratings and expert ratings				
Expert Rating	Reunion	R	R <sup>2</sup>	Mean difference between expert and predicted ratings (sd)
Proximity Seeking	1	.79	.59	1.04 (.87)
	2	.64	.40	.82 (.77)
Contact Maintenance	1	.78	.61	.84 (.70)
	2	.85	.72	.87 (.58)
Resistance	1	.71	.51	.36 (.50)
	2	.78	.60	.80 (.55)
Avoidance	1	.67	.45	.73 (.64)
	2	.80	.64	.48 (.37)

*Note.* Predicted ratings were generated using a linear regression of the objective measures (infant contact initiation, contact duration, time infant was held, infant initial approach, infant crying duration, and average distance between the infant and parent) on each expert rating scale. The difference was then taken between the predicted rating and the actual expert rating for each reunion.

## **Artificial Neural Network Coding of the Child Attachment Interview Using Linguistic Data**

Assessing attachment is important among adolescents in clinical settings, in which insecurity is associated with varied psychopathology. The Child Attachment Interview (CAI; Target et al., 2007) holds promise in this regard, but is time-consuming to code. CAI coders must attend a four-day training and complete 30 test cases (AFC, 2016). These requirements preserve the integrity of the CAI, but may render it inaccessible.

Linguistic analysis software scans text and generates grammatical and syntactical data. A small literature suggests that linguistic metrics are related to adult attachment classifications, though no predictive models have been examined with the CAI or with adolescent samples. The aim of this study was to develop artificial neural network models to predict attachment classifications on the CAI and determine whether the predictive models could achieve the CAI's benchmark qualification of 80% on reliability training cases. Neural networks provide a nonlinear data modeling approach in which predictive models can be built from many variables with a complex underlying relationship (IBM, 2011).

492 interviews from inpatient adolescents were coded by certified coders. 300 served as the training sample, in which predictive models were developed. The remaining 192 served as the testing sample. The 30 reliability cases were treated as the holdout sample, in which the performance of the final models was evaluated against the 80% benchmark.

Models using the Multilayer Perceptron method were trained to predict the insecure v. secure classification, separately for mother and father. The maternal attachment model demonstrated correct classification, as follows: 78.3% training, 75.8% testing, and 70.0% holdout. Receiver Operating Characteristics analyses indicated an area under the curve of .801 (moderate accuracy). Results for the father model and three-way classification models were comparably successful. Findings suggest that automated coding of the CAI holds promise for future development, though model performance is impaired in dissimilar samples.

## **Offspring attachment in a three generation cohort: Emerging psycho-social and epigenetic signals.**

The *Australian Temperament Project Generation 3 Study (ATP-G3)* commenced in 1983 with a representative sample of 2443 infants (aged 4-8 months) and their parents across Victoria, Australia. The study followed parents (*Generation 1*) and their offspring (*Generation 2*) from birth through their first three decades, across 15 waves of data. Attrition has been less than 1% per year. A Generation 3 (G3) study of 1,000 offspring of G2 is underway, with data collection at 32 weeks gestation, 8 weeks post partum, 12 months, and four years. For 100 children, fetal neurosonography data are also collected. Research foci are the intergenerational determinants of parental caregiving and offspring attachment, neuro-cognitive underpinnings of emotional development, and epigenetic programming of the offspring stress response.

This paper describes the G3 nested cohort attachment studies. *Strange Situation Procedure* and *Maternal Behaviour Q-Sort* profiles are given for the samples to date (200 infant, and 60 pre-schooler dyads). Emerging preconception signals of G3 attachment status are presented, including temperament of parents across infancy and early childhood; quality of grandparent relationship, parent's substance use across adolescence; pre-conception maternal anxiety, depression and stress and parent's romantic relationship history and attachment styles in young adulthood. Finally, we describe new ATP-G3 work on biological embedding of social experiences, focusing on the quality of early social relationships and associated changes in gene promoter methylation across the epigenome. The prospectus of a pilot EWAS study is outlined, contrasting a sub-sample of thirty-two infants classified secure or disorganised, with comment on emergent associations within metabolic, immune, stress response, and other gene systems. We conclude with future directions for the ATP Generation 3 study of pre-conception predictive pathways in offspring attachment.

### S3.5

#### **Disorganised attachment and fear: new findings, approaches and theory**

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Symposia 3.5, Logan Hall, Level 1, June 29, 2017, 4:45 PM - 6:15 PM

**Chairs:** Robbie Duschinsky (Cambridge University); Sarah Foster (Northumbria University)

#### **Paper 3: A Reply to the Papers**

Author: Judith Solomon

#### **General Abstract**

It has been theorised that infants may show disorganised attachment in the Strange Situation because they have had experiences of their caregiver as a regular source of alarm. Alarming behaviour can take several forms, including maltreatment, subtly frightening or frightened parental behaviours (e.g., Hesse & Main, 2006), states of mind that leave the caregiver psychologically unavailable to the child, and major and extended absences (Solomon & George, 2011). Experiences of the caregiver as a source of alarm can lead to a disposition to move away, withdraw or flee from the caregiver when experiences of alarm occur, as in the Strange Situation. However, the attachment response directs a child to seek safety from their caregiver. This is why most forms of disorganised attachment appear as *conflicted*, *confused*, and/or *apprehensive* behavior towards the caregiver, since these qualities can variously characterise a young child's paradoxical situation. This symposium will present two papers delving deeper into the nature of this paradox, and its different forms. A first angle is by looking at caregiver alarming behaviour. Does alarming behaviour at different ages have varying implications for child mental health? A second angle is by looking at the behaviours shown in the Strange Situation. Do different forms of behaviour shown by infants classified as disorganised have varying antecedents and implications? A reply to papers will be delivered by Professor Judith Solomon, who, together with Mary Main, was one of the authors of the system for classifying infant disorganised attachment.

#### **Paper 1 Title: Prediction of Behavior Problems in Middle Childhood: The role of mothers' Frightening/Anomalous behavior over the first two years**

Authors: Deborah Jacobvitz, Samantha Reisz, Helen Poulsen, Jennifer Barton & Nancy Hazen

This study examined stability and change in frightening/anomalous maternal behavior over the first two years and its consequences for infants. Attachment theorists have suggested that adults who are unresolved with respect to loss or abuse may continue to experience fear and behave in ways that frighten their own infants (Main, Hesse, Bowlby). These infants can neither approach nor flee their caregiver, who is both a source of fright and comfort, and form disorganized attachments, increasing later psychopathology risk. We examined whether frightening (FR) maternal behaviors with 8-month-olds will continue, decline, or take new forms at 24 months, corresponding with children's developmental changes. We also examined effects of FR/anomalous maternal behavior at 8 and 24 months and infant disorganization emotional and behavior problems in middle childhood.

Families (N=125) were followed over 7 years beginning when couples were expecting their first child. Mothers (mean age=29 years old) were mostly white, and their SES' ranged from poverty to upper-middle class. Mothers completed Adult Attachment Interviews (George, Kaplan & Main, 1985) and the Center for Epidemiology Studies on Depression Scale during their last trimester of pregnancy. At 8 months, mothers were videotaped at home for 25 minutes interacting with infants in play and caregiving tasks. Two coders rated maternal behavior on a 9-point Frightening/Frightened scale (Main & Hesse). At 24 months, mothers were videotaped in a laboratory for 30 minutes in a play/clean-up task. Different coders rated mothers on four 9-point scales, which were summed to create an FR/Anomalous score: Anomalous/frightening (catastrophic comments, witchlike laughter), Frightened (cowering), Disoriented/dissociated (freezing), and Boundary Diffusion (deferential, sexualized; Jacobvitz & Zaccanigno). Infant disorganization was assessed at 12-15 months using Ainsworth's Strange Situation Procedure. At 7 years, teachers completed Child Behavior Checklists (Achenbach) assessing symptoms of internalizing (e.g., anxiety) and externalizing disorders (e.g., ADHD).

Results support the new FR/anomalous scale at 24 months whereby FR behavior took new forms. Frightening/Anomalous behavior at 24 months was predicted by mothers' prenatal unresolved attachment status ( $F=4.338, p<.001$ ), mothers' FR behavior at 8 months ( $F=4.251, p<.001$ ) and infant disorganization ( $F=6.54, p<.001$ ). Stepwise regression analyses revealed that maternal FR at 8 months predicted Affective Disorder, Anxiety Disorder and Internalizing symptoms at 7 years, even after controlling for maternal depression, infant disorganization, and 24-month FR/Anomalous behavior. FR/Anomalous behavior at 24 months forecast Affective Disorders and marginally predicted Anxiety after controlling for the other predictors. Finally, infant disorganization independently predicted Affective Disorders and Internalizing symptoms after controlling for maternal depression and FR at 8 months but not after controlling for 24-month FR/Anomalous. Boys and girls show differential susceptibility to internalizing and externalizing problems, so analyses for each gender will be reported. In sum, mothers' frightening behavior showed stability over 16 months, took new forms at 24 months, and had enduring negative effects on children. FR behavior at 8 or 24 months increased the risk of Affective Disorders in middle childhood and FR behavior at 8 months elevated the risk for Anxiety Disorders. Implications of these findings for developing successful early intervention programs will be discussed.

## **Paper 2: The Generation R Study: Developmental Pathways to Disorganized Attachment and Its Variants**

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*Ralph Rippe, Centre for Child and Family Studies, Leiden University*

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*Henning Tiemeier, Department of Child and Adolescent Psychiatry, Erasmus University Medical Centre*

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Disorganized attachment has been found to be detrimental to development (e.g. Fearon et al., 2010), yet little is known about the mechanisms by which it forms. An unresolved state of mind in parents and anomalous parenting behavior play a role (Verhage et al., 2016), but a transmission gap exists (Madigan et al., 2006). The current study explores potentially new risk factors of disorganized attachment.

It is embedded in a larger prospective, population-based cohort study on development and health from fetal life into young adulthood in The Netherlands, Generation R. An ethnically homogeneous subgroup of  $N = 900$  infants and their parents was selected for in-depth measurements, including cortisol samples, parental psychopathology, parent-child interactions, and attachment. These detailed measurements were completed at several time points between 0-4 years, at 5 years, and at 9 years. Attachment was assessed when infants were 14 months using the Strange Situation Procedure (Ainsworth, Blehar, Waters, & Wall, 1978). Data for infant-mother attachment is available for more than 700 dyads and little over 20% of children were classified as disorganized (varying somewhat according to the examined correlate).

A Data Mining approach is applied to all available measurements in order to further identify variables predictive of disorganized attachment. The principle of Data Mining is to search for associations without a priori hypotheses, to "let the data speak" trying to evaluate whether associations or patterns exist (Yarkoni & Westfall, 2016) through an approach called machine learning, a key objective of which is to find a model that predicts well (rather than one that explains well). The machine learning approach has the potential to identify mechanisms in the development and outcomes of disorganized attachment in a large sample, beyond those predictors that may be hypothesized based on existent literature, and thereby generate new hypotheses for future research.

In addition, it is not at all clear that all markers of disorganization (e.g. contradictory behaviours; stereotypies, mistimed movements, anomalous postures; freezing/stilling; and overt apprehension of the caregiver) have the same precursors. Hesse and Main (2006, p. 335) argue that it would be "a worthwhile endeavor for developmental psychopathology" to study different caregiving contexts and "compare these to the forms of D behavior exhibited by their infants". A first exploratory study has suggested differential pathways to fearful versus not overtly fearful markers of disorganized attachment (Padrón et al., 2014).

It should be noted that in most studies no information is available on the intercoder reliability of the 7 markers of disorganized attachment, so any such analysis should be considered preliminary if not premature. Another issue is the principally open system of behavioural markers for disorganization as the list of potentially indicative behaviors is by no means exhaustive (Main & Solomon, 1990). Nevertheless, we decided to explore different pathways of the various markers of disorganized attachment through secondary analysis of data collected within the Generation R study in order to generate some grounded hypotheses. This work will contribute to understanding the causes and implications of different pathways of infant disorganized attachment.



## Does Agreeing or Not on Adoption Influence Infertile Couple's Dyadic Adjustment? The Protective Role of Adult Attachment

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The infertility diagnosis represent trauma and crisis for the couple. The couple's dyadic adjustment is cracked by these condition such as, changing the communication dynamics, sexual activity, future plans and the level of conflict. In this case personal attachment styles of the partners can be a protective factor for the dyadic adjustment.

The present study analyze the dyadic adjustment confronting infertile participants with fertile ones. Also, analyses if agreement or disagreement on adoption as a solution of infertility in infertile couples, influence their dyadic adjustment. Finally, the role of the adult attachment as a protector of the dyadic adjustment is valued too.

The study had 363 partners of effective couples (130 infertile and 233 fertile participants), age between 22 and 60 years. The battery was composed by: Dyadic Adjustment Scale (DAS) to measure the couple's adjustment, Experiences in Close Relationship Questionnaire-Revised (ECR-R) to measure the adult attachment.

The analyses showed that infertile females have higher points in the scales of Cohesion ( $M[I]=17,68$ ;  $M[F]=16,38$ ;  $t=2.372$ ;  $p=.019$ ), Affective expression ( $M[I]=10,08$ ;  $M[F]=8,98$ ;  $t= 3,502$ ;  $p=.001$ ), Satisfaction of DAS than fertile females. Infertile males have higher points than fertile ones only in the scale of Affective expression ( $M[I]=10,16$ ;  $M[F]=9,21$ ;  $t=3.145$ ;  $p=.002$ ).

The analyses of couple's opinion on adoption showed that females belonging to couples with discordant opinions have lower points in the scale of Satisfaction ( $F=6,414$ ;  $p=.004$ ) confronting with females belonging to couples with concordant opinions.

Only the scale of Avoidance (ECR-R) were statically significant with Affective expression ( $B=.061$ ;  $p=.014$ ) for males.

## Child's oxytocin response to mother-child interaction: the contributions of child's emotional and behavioural problems and family psychosocial risk

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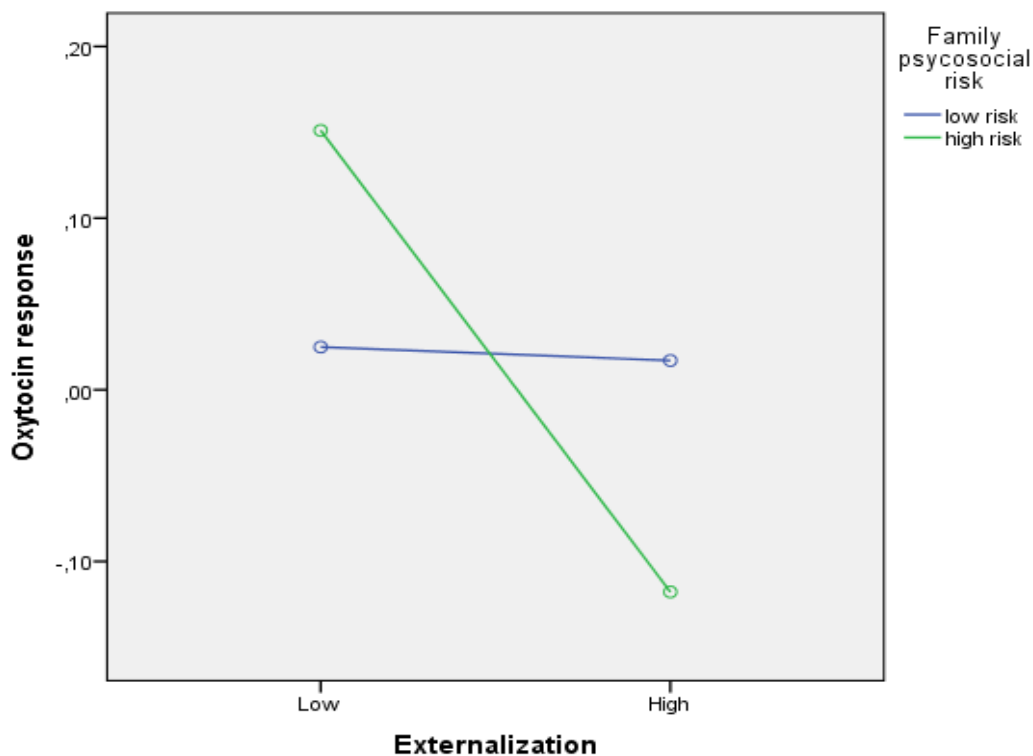
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The oxytocinergic system is regarded as a main biological system regulating child's needs for bonding and protection from threats (Insel, 2010). It develops in the context of the mother–infant relationship, and has been shown to respond to close interactions (e.g., Feldman et al., 2010), though evidence across studies is not entirely consistent (e.g., Lebowitz et al., 2016). This raises the possibility of individual and environmental factors affecting oxytocin response during a mother-child interaction. Prior research suggesting a link between oxytocin (OXT) and trust, cooperation, aggression (cf. Bakermans-Kranenburg & van IJzendoorn, 2013), disruptive behaviour and conflict (Tauber et al., 2011) led us to focus on the potential influence of the child's emotional and behaviour problems as individual factors (Carson et al., 2015; Lebowitz et al., 2016). Regarding the environment, we tested the impact of psychosocial/family stress, because OXT system seems to be particularly susceptible to environmental changes (Brunton, et al., 2008).

Therefore OXT levels of 88 Portuguese pre-schoolers were analysed prior to and following mother-child interaction. Mothers provided information on family psychosocial risk and children's emotional and behaviour problems.

As predicted, children with higher levels of externalizing problems showed lower OXT levels following the interaction task ( $F_{(1,83)}=12.197, p=.001$ ). Furthermore, this main effect was qualified by a significant interaction involving externalizing problems and psychosocial risk ( $F_{(1,83)}=10.855, p=.001$ ). Follow-up analysis revealed that children with more externalizing problems had lower OT response to the interactive task only when growing up in high-risk families ( $t_{(22)}=-4.119, p<.001$ ). Findings provide support for the notion that increased understanding of OXT and social experience requires consideration of both child and family characteristics.



**Attachment and ADHD: is there a relationship? Use of the Friends and Family Interview to explore for possible connections**

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The interest in the ADHD keeps growing and it has led to different authors to look for relationships between the difficulties these children experience and their (and their parents') attachment styles. Following this lead, our research group has interviewed 20 children diagnosed with ADHD using the FFI (Friends and Family Interview). This interview is designed for children in their middle childhood and aims to collect information from the child's environment and to assess their representations of attachment. This poster presents the results of ten of these interviews, focusing on and analyzing the scores in the scales of Coherence, Theory of Mind, Mixed Emotions and Developmental Perspective. These capacities are correlated with secure attachment styles in both children and their parents and, therefore, the analysis of this data provides us with information about the attachment styles within the family.

**Attachment security and socioemotional adjustment in middle childhood**

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Attachment theory holds that children who form a secure attachment relationship to parents and caregivers are able to use them as secure bases from which to explore the environment. In middle childhood the attachment system develops as children's social world expands. They are confronted with school adjustment. Increases in children's autonomy, coping capacities and self-regulation, sets the attachment system to change from proximity to availability due to more complex attachment representations. Indeed, early security of attachment influences social and emotional development throughout life.

The association between attachment security and adaptive functioning has been mostly studied in children aged three to six years. In our study we aimed to examine the association between attachment security to both mother and father and socioemotional adjustment in middle childhood. A sample of 86 children (43 girls and boys) from 4<sup>th</sup> grade (mean age = 9.5 years), filled out the *Attachment Security Scale* and their teachers rated the *Teacher-Child Rating Scale*.

Pearson correlations were computed between attachment security to parents and all the socioemotional adjustment variables. Both attachment to mother and father were significantly correlated with behavior problems ( $r_{\text{mother}} = -.28$ ,  $p = .01$ ;  $r_{\text{father}} = -.24$ ,  $p = .05$ ) and competencies ( $r_{\text{mother}} = .25$ ,  $p = .05$ ;  $r_{\text{father}} = .24$ ;  $p = .05$ ) domains. To better address our aim we performed a forward regression model. Results show that, for both behavior problems and competencies domains, only mother's security of attachment is included in the models (behavior problems:  $\beta = -0.44$ ,  $p = 0.03$ ,  $R^2 = 0.1$ ; competencies:  $\beta = -0.46$ ,  $p = 0.01$ ,  $R^2 = 0.07$ ). Findings highlight the importance of attachment security in socioemotional adjustment in middle childhood. Secure attached children were more likely to be described as being more competent and displaying less behavioral problems, by their teachers.

**P-18**

**Children's Social Emotional Development: Contribution of Mothers' Knowledge of Child Development, Social Support, Caregiving Representations, and Attachment Trauma**

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The purpose of this study is to examine the relationship between children's social-emotional development, and mothers' internal (knowledge of child development, caregiving representation, attachment trauma) and external dimensions (social support) of self. The research model is illustrated below (see Figure 1).

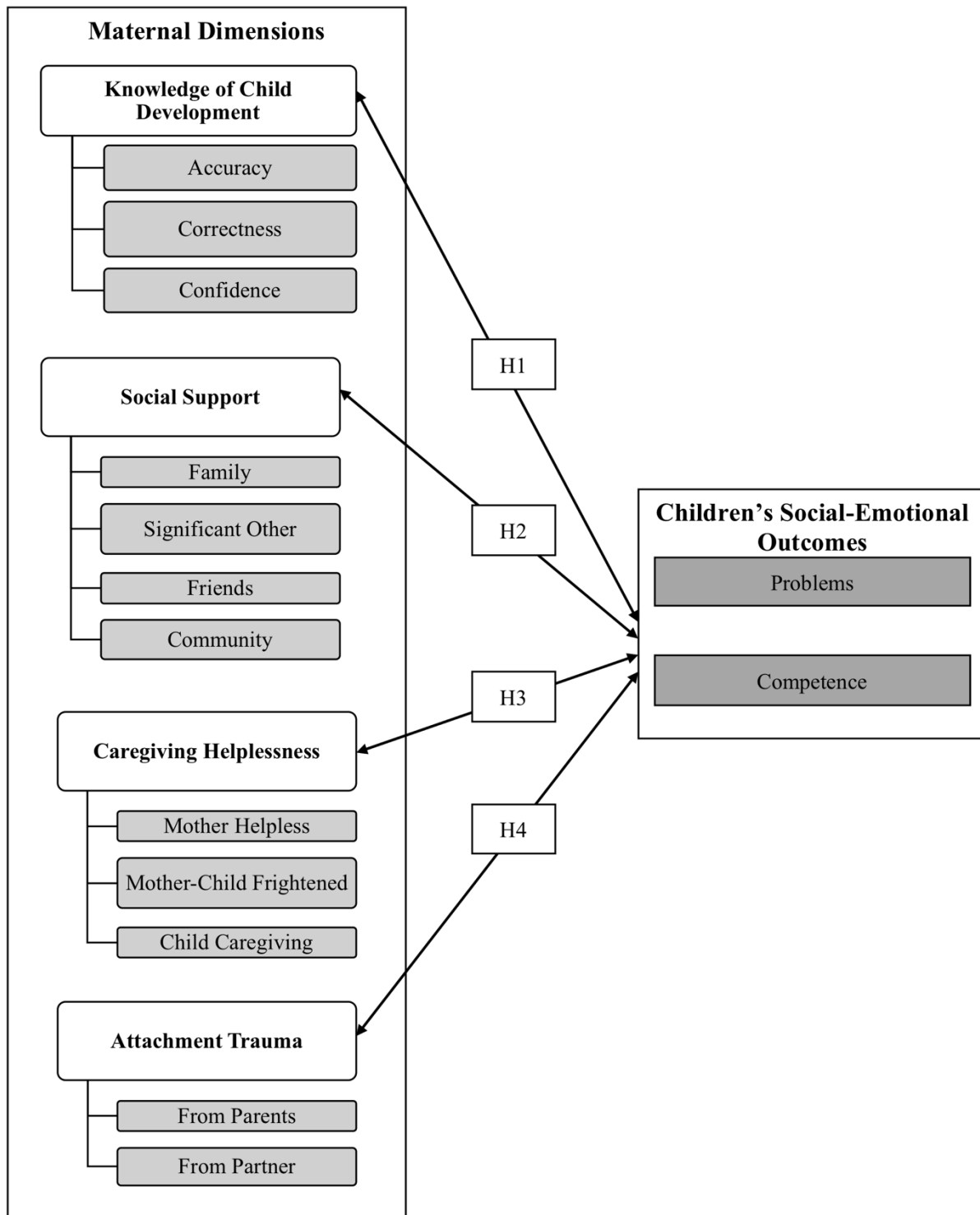


Figure 1. Research model including factors under each maternal dimension

Children's social-emotional behaviors deserve more attention because if they were not identified or intervened, problems in this area tend to remain consistent (Briggs-Gowan, Carter, Bosson-Heenan, Guyer, & Horwitz, 2006). Previous research on maternal knowledge of child development and social support tends to focus on high-risk preschool children (Benasich & Brooks-Gunn, 1996; Morawska, Winter, & Sanders, 2009). The current study aimed to bridge the gap by examining low-risk infants and toddlers' (12-36months) social-emotional competence and problems. Moreover, very few studies have examined the roles of attachment-derived caregiving dimensions – maternal helplessness and attachment trauma – in association to children's social emotional outcomes. This study adopted Keeling's (2013) measures for caregiving helplessness, attachment trauma, child development, while expanding her design to include both adult (over 18 years) and adolescent mothers (less than18).

The final sample included 35 mothers between 16 to 43 years with children between 12 to 36 months. Using self-reported questionnaires, the study revealed that mothers' accuracy and correctness in knowledge of child development and the mother-child frightened aspect in the caregiving system were negatively associated with

children's social-emotional problems, while mother's social support from friends was positively associated with children's social-emotional competence. However, maternal attachment trauma was not associated with children's social-emotional outcomes. The significant associations demonstrated the role of maternal child development knowledge and social support in minimizing developmental risks and promoting optimal growth. Nevertheless, the non-significant results underlined the needs to further explore the role of attachment trauma in the caregiving system and its relation to children's developmental outcomes.

## Adolescent Attachment and Behaviour Problems: The Role of Paternal and Maternal Adult Attachment

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Teens who are insecurely attached to their parents are consistently found to be at high risk of developing behaviour problems. There is also evidence to suggest that teens of parents with insecure attachment may be at heightened risk of experiencing behaviour problems as well. Yet the role that parents' adult attachment may play in moderating the relationship between adolescents' attachment and behavioural functioning has not been investigated. This study examined the interaction effect of parental and adolescent attachment in relation to teens' internalizing and externalizing behaviour problems within the context of father-teen and mother-teen dyads. Families (769) participating in an evaluation of a parenting intervention program for teens with behavioural and mental health challenges completed self-report measures of attachment (anxiety and avoidance) and adolescent behaviour problems upon recruitment. Baseline data from this study was analyzed using structural equation modeling. Results showed that, among father-teen dyads, teens whose fathers exhibited low attachment anxiety were less likely to experience internalizing and externalizing problems. These relationships remained significant after controlling for the teens' own attachment anxiety levels. Moreover, fathers' attachment anxiety was found to moderate the relationship between adolescent attachment anxiety and internalizing problems. When the fathers' attachment anxiety was high, teens' attachment anxiety was positively associated with their internalizing problems; when the fathers' attachment anxiety was low, teens experienced low levels of internalizing problems regardless of their own attachment anxiety levels. These results did not emerge when examining attachment avoidance or among mother-teen dyads. The findings suggest that low attachment anxiety in fathers may be a protective factor for teens' behavioural functioning, especially with respect to internalizing problems, highlighting the important role that fathers may play in adolescent development. Future research is needed to examine whether fathers' attachment anxiety moderates the effectiveness of attachment-based intervention programs in improving adolescents' behavioural functioning.



**Attachment Stability in Children Aged 9 to 11 Years of Age in Nuclear and Extended Families**

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The aim of this study was to illustrate whether or not the stability of attachment security remains from 9 to 11 years of age with regard to gender and family type in nuclear and extended families of Turkish children. Participants of the study are 56 children including 29 male and 27 female living in Muş Province, Turkey. Kerns Security Scale (KSS) was used in order to define children's attachment categories at age 9. After a 3-year interval, KSS was replicated with the same sample at the age of 11 as a follow up study in order to measure stability of the attachment security from 9 to 11 years old. The first data were collected in May 2009. The second data were collected in May 2011. In conclusion, the attachment security of each child to his/her mother at 9 years of age was predictor of attachment security of the relationship at age 11 ( $F(1,56) = 25.262, P < .05$ ). Similarly, attachment security at age 9 was a significant predictor of attachment security at age 11 in both nuclear ( $F(1,26) = 17.374, p < .05$ ) and extended families ( $F(1,26) = 8.247, p < .05$ ) as well as in boys ( $F(1,27) = 10.283, p < .05$ ) and girls ( $F(1,25) = 14.207, p < .05$ ). One-way repeated measures of ANOVA with Greenhouse-Geisser correction determined the main effects for interaction between attachment stability and gender for girls ( $F(1,26) = .391, p > .05$ ) and boys ( $F(1,28) = .415, p > .05$ ) as well as family type as extended ( $F(1,27) = .415, p > .05$ ) and nuclear ( $F(1,27) = .537, p > .05$ ) supported attachment stability from 9 to 11 years of age. According to results, there were no significant difference in attachment type from 9 to 11 years old in different genders and family types.

## The Relationships among the Attachment Dimensions and the Separation Individuation Aspect in terms of Intimate Relationships in Turkish University Students

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Intimate relationships are very important throughout life. Infants have a relationship with their attachment figure, and when people get older, they continue to be attached to others, such as a romantic partner, peers, and teachers. The type of previous and very early attachment patterns repeat when interacting with other people. During emerging adulthood a second separation-individuation process, which plays an important role (Blos, 1967) during adolescence, is affected by attachment patterns, which have previously been established with attachment figures (generally the mother). This study investigates the relationships among the early attachment dimensions of university students and separation individuation aspects in terms of romantic relationships during their university years. There were 86 participants in the study consisting of 45 females (52.3%) and 41 males (47.7%). The participant cohort were 41 freshman (47.7%) and 45 senior students (52.3%) from the schools of Pharmacy and Law. The age range was between 18 and 35 ( $M= 22.0$ ,  $SD= 3.2$ ). Compared to the senior students the freshmen had significantly more avoidant attachment to their attachment figures. The senior students had significantly less satisfaction with their romantic relationships. On the other hand, anxiously attached people have significantly higher anxiety in separating from their attachment figure; they had a significantly stronger dependency on attachment figure, and a low level of need to deny their dependency. In terms of gender difference, there was only one significant result, which was female university students were significantly more anxious to separate from their attachment figures such as their mother and/or partner. These results should be taken into consideration during the psychotherapy process when working through the important transitional stage of leaving adolescence and becoming an individualized adult.

**Keywords:** adult attachment, attachment dimensions, separation-individuation process, university students, romantic relationships.

## Parent-Child Interaction Therapy for Toddlers (PCIT-T): Changing experience as well as behavior

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Parent-Child Interaction Therapy (PCIT) is a popular parent-training program shown to effectively treat behavioral disorders in children aged between 2 and 7 years (Eyberg, 1988; Thomas & Zimmer-Gembeck, 2007). Direct parental coaching of parent-child interactions, usually through a one-way mirror and “bug-in-the-ear” technology, is a unique feature of the program. PCIT has a stated aim of improving the quality of the parent-child relationship and has theoretical underpinnings in attachment theory (pcit.org), but in the PCIT literature to date, the model of change and focus of outcome measures for PCIT have predominantly been behavioral.

Recent studies have highlighted the efficacy of Parent Child Interaction Therapy for Toddlers (PCIT-T), an adapted version of PCIT designed to meet the specific developmental needs of children aged 12-24 months with disruptive behaviors (e.g., Kohlhoff & Morgan, 2014, Dombrowski et al, 2005). Given that the toddler period is characterized by such significant neural plasticity and the consolidation of the child’s internal working models of relationships, we propose that a complete explanation for the effectiveness of PCIT in this age group requires an emphasis on relational and developmental factors.

This presentation will have two major aims. The first aim will be to articulate an attachment-focused model of change for PCIT-T, illustrated with case study material including clinical observations and details obtained from the Adult Attachment Interview and Strange Situation Procedure (Ainsworth, 1978). The second aim will be to report preliminary results from a wait-list controlled study examining attachment-related outcomes associated with PCIT-T in a sample of 35 families using the Emotional Availability scales (Biringen, 2008), the Mutually Responsive Orientation scale (Aksan et al, 2006) and the Strange Situation Procedure. Preliminary study results show PCIT-T to be associated with positive outcomes across attachment and behavioral domains, supporting an attachment-focused model of change.

## Can the Quality of Attachment Improve With Time Spent Between Parents and Their Infant in Caregiving Routines?

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**Introduction:** Parents-infant attachment is associated with children social-affective development and resilience. Literature indicates differences in infant attachment with fathers and mothers. We wonder if time spent and parental tasks affected attachment and parents behavior.

**Aims:** In the present study, we investigated attachment quality in mother-infant and in father-infant dyads, and whether such quality is related with parent's sensitivity and with parents sharing responsibilities in infant welfare and care (e.g., feeding, bathing, walking in the park, napping, providing health care).

**Sample:** For that purpose, a sample of 82 healthy full term infants (30 girls, 53 boys, 48 first born), their mothers and their fathers from Portuguese middle class households was gathered.

**Methods:** At 9 and 15 months, in order to assess parent's sensitivity, mothers and fathers were independently observed playing with their infants and the videos were scored with Crittenden Care-Index. After the free play observation, parents described their family routines with McBride & Mills Parent Responsibility Scale. At 12 and 18 months, mother-infant dyads and father-infant dyads were observed in an adaptation of Ainsworth Strange Situation. **Results:** Our results indicate that mothers were more sensitive than fathers in free play both at 9 and 15 months. Moreover, secure attachment was more likely in mother-infant dyads than in father-infant dyads (at 12 and 18 months). The amount of time parents that spent with their infants was not associated with attachment. However, how parents spent time with infants predicted attachment security. Indeed, secure attachment was more likely when mothers that spend more time playing or promenade their infant in the park/playground rather than spend time uniquely in caregiving activities. In turn, fathers' involvement in child care was associated with secure attachment. Hence, father-infant secure attachment was predicted by infant health related factors and mother-infant secure attachment was predicted by dyadic interactive factors and maternal involvement in play and care activities.

**Conclusion:** This study adds new elements for attachment field and for the debate of mothers versus fathers role in infant welfare and care. The results can be use in preventing insecure attachment and to enable parenting in early intervention practices.

## The role of parental experiences in the relation between homophobia and attitudes toward homosexuality in adolescence: an Italian study

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**Introduction:** Since negative attitudes about gay and lesbian people are quite common in our society (Horn & Heinze, 2011; Overby, 2014) and seeing as how negative attitudes can lead to stigmatization directed to this population (Fasoli, Paladino & Carnaghi, 2013) the relation between homophobia and attitudes toward homosexuality has been investigated extensively (Herek, 1994; Hooghe & Meeusen, 2012; Marsiglio, 1993). Especially, some research (Gormley & Lopez, 2010; Mikulincer & Shaver, 2001) focused the attention on the relation between attitudes toward homosexuality – seen as a measure of authoritarian attitudes – and different styles of attachment. Particularly, adolescence is a stage of the life cycle during which individuals' beliefs and attitudes toward (Horn & Heinze, 2011) gay and lesbian people may be formed. For this reason knowing the factors that modify and create this attitudes and beliefs is important because it helps us predict which groups will be characterized by high levels of homophobia later in life.

**Hypotheses:** At the present time few studies had focused on the relation between attachment styles and attitudes toward gay and lesbian people in Italy. For this reason we decided to investigate the attitudes of Italian high school students toward gay men and lesbians and same-sex marriage, and their beliefs about the origins of homosexuality.

**Sample:** The sample survey consisted of 449 subjects, 226 males and 223 females, aged between 14 and 21 years, belonging to 4 Italian high-schools in Lombardia.

**Instruments:** The instruments used are the Italian version of the Parental Bonding Instrument (PBI), the Attitudes Toward Lesbian and Gay men (ATLG), the Modern Homonegativity Scale (MHS) and the Attitudes Toward Same-Sex Marriage (ATSM).

**Conclusion:** Our results will be discussed in the light of the social psychological framework that Herek et al. (2015) define as heterosexism and in the light of the early caregiving experiences.

## Early attachment development under risk exposure: A German longitudinal study

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**Theory:** Child attachment security has been widely shown to be a protective factor for a healthy later development, e.g. psychosocial adjustment. According to previous research, parents exposed to (multiple) risk factors tend to have children with less attachment security. Especially the negative impact of cumulative risk on attachment development is discussed. Evidence shows that parenting behavior, e. g. sensitivity, is a reliable but moderate predictor of attachment security. The association between risk factors and attachment seems to be mediated by parenting behavior: Parents of high risk samples seem to behave less adequately in interactions with their children in comparison with low risk samples.

**Method:** In this longitudinal study with a cohort sequential design correlates of early distal and proximal risk factors in a German sample of 197 primary caregivers and their toddlers were examined. In a 7-month interval, two home observations of the families were performed and video-taped (12 and 19 months in cohort I, 19 and 26 months in cohort II). Family risk exposure was assessed using self-report questionnaires and interview. Trained observers coded the security of the attachment relationship between child and primary caregiver using the attachment Q-sort. The primary caregiver's parental behavior was analyzed from videotaped free play and structured play situations to assess parental responsiveness.

**Results:** Early distal and proximal risk factors were negatively associated with attachment security. In terms of risk status a dose-response relation was found: Only in the presence of 4 or more risk factors children's attachment security was strongly impaired. However, regardless of risk status attachment security was found to be stable over time. Furthermore, regression analyses revealed that the impact of early distal, but not proximal, risk factors on attachment security was substantially mediated by parental responsiveness.

## Attachment and the regulation of positive emotion

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Early interpersonal relationships are proposed to play a key role in the development of the capacity for effective emotion regulation (Mikulincer & Shaver, 2007). In particular, a body of research attests to the relationship between attachment and the ways in which individuals consciously or subconsciously regulate negative emotion. Less is known, however, about how attachment relates to the regulation of positive emotions such as happiness or joy. While insecure attachment has been associated with lower levels of overall happiness, the emotion regulation strategies that potentially mediate this relationship are under-researched. This study examined the relationship between attachment and two broad strategies for regulating positive emotion: dampening and savouring. 174 participants completed measures of attachment, self-esteem and the Emotion Regulation Profile-revised (ERP-R). The ERP-R measures 8 strategies for regulation of positive emotion, forming two superordinate scales of dampening and savouring. Regression analyses indicated that the attachment anxiety dimension did not independently predict either savouring or dampening, however the interaction of low self-esteem and high attachment anxiety was a significant predictor of dampening of positive affect. Attachment avoidance was positively associated with dampening, and negatively associated with savouring of positive emotion, suggesting a global aversion to positive affect. Inspection of correlations between avoidance and individual strategies suggest that individuals with high attachment avoidance use a wide range of emotion regulation strategies that effectively reduce the magnitude or duration of positive affect, such as suppression or fault finding. Given the growing evidence base for the salutary benefits of positive emotion (e.g. Tugade, Frederickson & Barrett, 2004), the results here are of significance for therapeutic interventions with insecurely attached individuals by providing insight into attachment-related emotion regulation styles that limit the benefits of positive affect.

**Maternal reflective functioning and child attachment: exploring the link in the middle childhood**

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Mother's reflective functioning (RF) is considered to be an important contributor of child's attachment security. Though this link was well empirically established with samples of young children studies are virtually nonexistent for the middle childhood period. During this period mother's RF may become even more important factor because of the growing cognitive capacities of the child: mothers who can better understand child's behavior may be affecting their ability to understand and regulate their own behavior. On the other hand, middle childhood is a key transitional stage in the development of attachment processes marked by the changing functions of attachment in the light of social integration and the emergence of sex differences in attachment (Del Giudice, 2015). The present study explores the relationship between mother's RF and child's attachment in a community sample of 8-10 years old Lithuanian children and their mothers (n = 65). RF was assessed by the Parent Development Interview and child's attachment was evaluated by Child Attachment Interview. The results showed that mother's RF fell into range from 2 to 8 (M= 4.48; SD = 1.28). Analysis of RF in mothers of boys and girls revealed no differences. No gender differences were found between boys and girls in attachment classification. Binary logistic regression revealed moderating effect of gender on relationship between RF and attachment. In linear regression analysis with attachment coherence as dependent variable interaction effect approached significance. The subsequent analysis involved dividing the sample by gender and conducting correlations between RF and CAI subscales. Results suggested that for girls but not for boys mother's RF was positively linked with Emotional Openness, Use of Examples, Balance, Conflict Resolution, Coherence, and negatively – with Dismissal scales. Findings will be discussed in the context of developmental models of attachment and literature on changes in attachment processes in the middle childhood.



## Adult romantic attachment and psychopathological symptoms in Peruvian undergraduates: The role of emotional regulation.

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<sup>1</sup>*Pontificia Universidad Católica del Perú*

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Currently some level of concern has been developed for the high prevalence of different psychopathological symptoms within undergraduate students. Although in many cases this phenomenon is attributed to factors linked to new academic requirement at this context, it is also important to consider an adaptive process respect to significant interpersonal relationships. Specifically, due to the developmental stage in which this transition occurs, it is possible to consider that romantic couple will be one of the most relevant figures within this transition.

Considering the relationship between different psychopathological symptoms and attachment quality at many developmental stages, the present study explore relationship between the dimensions of anxiety and avoidance of attachment with romantic partner and externalizing and internalizing psychopathological symptomatology. It was studied in a group of 597 university students aged 18 to 26 ( $M = 20.21$ ,  $SD = 1.928$ ) from 5 cities from Peru.

Results show medium correlations between attachment anxiety, externalizing ( $r=.362$   $p<.001$ ) and internalizing ( $r=.375$   $p<.001$ ) symptoms; additionally small correlations between attachment avoidance, externalizing ( $r=.172$   $p<.001$ ) and internalizing ( $r=.190$   $p<.001$ ) symptoms were also found.

In addition, it has been found that this relationship could be mediated by emotional regulation, so this study also explored the relationship of emotional regulation with respect to these two variables and their correlation. Results show a small correlation between difficulties in emotional regulation with attachment anxiety ( $r=.115$   $p=.005$ ), attachment avoidance ( $r=.154$   $p<.001$ ) and externalizing ( $r=.102$   $p=.013$ ) and internalizing symptoms ( $r=.184$   $p<.001$ ). These results are discuss in the poster.

## Sensitivity and attachment security with multiple attachment figures and social competence in preschool children in Lima – Peru

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<sup>1</sup>Pontificia Universidad Católica Del Perú

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Mother-child relationship is not enough to explain child development (Lamb, 2005), which is why attachment network -several primary caregivers- must be taken into account; particularly during preschool years (Howes & Spieker, 2008) and in Latin American countries where attachment networks are facilitated due to economic, social and cultural factors.

This paper aims to describe (a) child attachment representations, child attachment security with three attachment figures as well as sensitivity of each of these figures (b) relation between sensitivity and attachment security of each dyad and (c) association between these attachment relationships and children's social competence.

Participants were 26 families, each one composed by mother (M=36.31), father (M=38.08), a third attachment figure (M=52.54) and a child between 36 and 70 months.

The Maternal Behavior for Preschool Q-Sort (Posada et al., 2002), the Attachment Q-Sort (Waters, 1995), the Attachment Story Completion Task (Bretherton, Ridgeway & Cassidy, 1990), the Child Behavior Checklist (Achenbach & Rescorla, 2000) and the Social Competence Scale (Bermúdez, 2010) were used to measure constructs.

Results reveal that mother-child attachment security, father-child attachment security and third figure-child attachment security is .36 on average ( $SD=.19$ ), .37 ( $SD=.20$ ) and .27 ( $SD=.22$ ) respectively. Secure-base scriptedness is 2.16 on average ( $SD=.40$ ). Mother sensitivity is .67 ( $SD=.13$ ), father sensitivity is .65 ( $SD=.15$ ) and third figure sensitivity is .60 ( $SD=.22$ ). Relation between sensitivity and attachment security was significant for child-father and child-third figure relations (.41 and .46 respectively).

Regression analyses to predict social competence and behavior problems showed:

- Child-mother attachment predicts aggressive ( $R^2= .49$ ,  $F= 7.61$ ,  $p = .011$ ) and externalizing behavior ( $R^2 = .41$ ,  $F= 4.75$ ,  $p = .039$ )
- Child-father attachment predicts withdrawn behavior ( $R^2= .39$ ,  $F= 4.32$ ,  $p = .049$ )
- Child-third figure attachment predicts assertive skills ( $R^2= .40$ ,  $F= 4.7$ ,  $p = .042$ )

**Keywords:** Attachment network, caregiver sensitivity, attachment security, social competence

## The relationship between mentalization, attachment and personality disorders

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<sup>1</sup>*Ruppin Academic Center*

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Background: Failures in attachment and mentalization may contribute to the emergence of traits associated with personality disorders. Aim: The purpose of this study was to empirically combine aspects of attachment and mentalization (as assessed through empathy, rumination and positive self-reflection) to better understand specific personality disorders. Method: 153 participants from a community sample self-reported on attachment, mentalization and personality disorder characteristics. We hypothesized that different attachment styles and difficulties in mentalization would predict specific personality disorders. Results: Anxious and avoidant attachment styles positively predict borderline personality disorder (BPD) characteristics, as did a lower capacity of mentalization towards the self and towards others. Disorganized and avoidant attachment styles both positively predicted schizoid characteristics, as did a lower capacity of mentalization towards others. All attachment styles positively predicted obsessive compulsive personality disorder (OCPD) characteristics, as did a lower capacity of mentalization towards others. Conclusion: Therapeutic practices aimed at heightening mentalization capability may help cope with personality disorders characteristics.

## Unsatisfied with your romantic life? Blame the other guy

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Poster Session 3, June 29, 2017, 4:45 PM - 6:15 PM

The relationships between parents and their young daughters have a significant impact on the daughter's future romantic relationships. Attachment studies have found that attachment styles, forged in infancy, influence satisfaction in future romantic relationships. To date, most of the research in this field has focused on the mother-daughter relationship while the father-daughter relationship has been neglected. This study examines the mediating effect of the father-daughter relationship on the association between women's attachment style and their satisfaction with their romantic partner in adulthood. A community sample of 193 adult women self-reported on attachment, the father-daughter relationship during childhood and satisfaction with their adult romantic partner. As expected, both avoidant and anxious attachment styles predicted dissatisfaction with the romantic partner. Paternal over-protection significantly mediated the association between both anxious and avoidant attachment styles and satisfaction with romantic partner. Paternal warmth mediated the relationship between avoidant, but not anxious, attachment style and satisfaction with romantic partner. Overprotection experienced from fathers during childhood can reinforce the negative effects of insecure attachment on women's romantic relationships in adulthood, whereas warmth received from them can temper the negative affect of avoidant attachment. Women's perception of their relationships with their fathers as children plays a role in determining the quality of their romantic relationships in adulthood. Perceived overprotection and lack of warmth from fathers can negatively impact women's attachment to their romantic partners later in life, and should therefore be addressed in individual or couples therapy when working to improve attachment problems in romantic relationships.

## **Transforming Connections: An Attachment-Based Group for Caregivers of Trans and Gender Nonconforming Youth**

**Dangaltcheva A<sup>1</sup>**, Moretti M<sup>1</sup>, Booth C<sup>2</sup>, O'Donnell K<sup>1</sup>

<sup>1</sup>*Simon Fraser University*, <sup>2</sup>*University of British Columbia*

Poster Session 3, June 29, 2017, 4:45 PM - 6:15 PM

Gender nonconforming and trans youth experience higher rates of bullying and victimization resulting in greater mental health concerns (Grossman & D'Augelli, 2006; Veale, Saewyc, Frohard-Dourlent, Dobson, Clark & the Canadian Trans Youth Health Survey Research Group, 2015). Parent support is one of the most significant determinants of risk for mental health problems and suicidality in this population (Ryan, Russell, Huebner, Diaz, & Sanchez, 2010; Simons, Shrager, Clark, Belzer, & Olson, 2013). Interventions that support parents in understanding the challenges that their teens face and increase parental sensitivity are needed to support the well-being of teens and their families (Gray, Carter, & Levitt, 2012).

The study examines the acceptance, uptake and caregiver satisfaction of an adapted version of a manualized attachment-based group, Connect (Moretti & Braber, 2013), which addresses the unique attachment related challenges and concerns of caregivers of trans and gender nonconforming youth. An overview of the attachment principles will be provided and specific adaptations will be described.

Participants in the first two pilot groups were 11 caregivers (9 mothers, 2 fathers) of 10 gender nonconforming youth (ages 14 - 18). All parents attended at least 80% of sessions and reported feeling respected, safe, and welcomed in the group. They indicated that learning about attachment was helpful in enhancing their understanding of their teen and their understanding of themselves as parents. Parents also rated the group as helpful in increasing their understanding of their teen's gender identity and transition. Qualitative themes from clinical interviews completed post intervention included feeling more confident in parenting and being able to empathize with their teen more easily.

Pre and post treatment, participants completed measures assessing their teen's attachment security and these will be examined. It is expected that both caregivers and youth will experience improvements in their relationship. Clinical implications will be discussed.

## **A web-based parenting simulation: Avoidance in adult attachment style is related to negative aspects of caregiving even when the child is raised in cyberspace**

**Symons D<sup>1</sup>**

<sup>1</sup>*Acadia University*

Poster Session 3, June 29, 2017, 4:45 PM - 6:15 PM

Attachment theory (Ainsworth, 1989; Bowlby, 1969/1982) describes how the attachment system is related to the caregiver system. For example, parents relatively more secure in their own relationships may be more responsive when their children are distressed, but those too worried about their own relationship needs may be less effective caring for others, and those dismissive of relationship needs may be discomforted being needed by others. There is evidence that avoidance in particular has a negative impact on different aspects of caregiving. This presentation will report on two studies that examine these relations using a simulated parenting task in which a virtual child is raised from birth to 19 years using the website MyVirtualChild<sup>®</sup>. In both, the Experiences in Close Relationships – Relationship Structures questionnaire was completed to assess anxiety and avoidance in adult attachment relationship style, and caregiver attitude measures were completed after the experience to address positive feelings towards the child, perceptions of the child's security, and willingness to serve as an attachment figure. The first study of 147 participants showed anxiety was negatively related to positive feelings and avoidance was negatively related to all three caregiver measures, with modest but significant  $r$ 's  $-.21$  to  $-.27$ . Regression analyses showed adult attachment style accounted for 5 to 8% of caregiver variance with avoidance the significant predictor. A second study of 56 young adults used the same methodology, and in addition, anticipated parental attitudes were assessed before raising the child and then actual attitudes afterwards. Study 2 replicated the findings of study 1, and also showed that avoidance in adult attachment style was related to negative parental attitudes even before raising a virtual child. Although just a parenting simulation, these findings therefore replicate the negative impact of avoidance on caregiving, even when the child is raised in cyberspace.

## Early Dysfunctional Parental Influence in Leadership Development: An Adult Attachment Perspective

**Zhang Y<sup>1</sup>**

<sup>1</sup>*University of Hong Kong*

Poster Session 3, June 29, 2017, 4:45 PM - 6:15 PM

Drawing from the attachment theory (Bowlby, 1969), we propose to develop and test a theoretical model that explains how and why leaders' early experience of dysfunctional parenting (e.g., abuse or neglect) may affect their subsequent leadership behaviors in organizations. Leaders' insecure adult attachment styles are hypothesized to play a key intervening role in this developmental process. Specifically, leaders who experienced parental abuse in their early years of life tend to develop an avoidant attachment style in adulthood, and as a result, tend to engage in abusive supervision against their subordinates. In contrast, leaders who experienced parental neglect in their childhood tend to develop an anxious attachment style in adulthood and exhibit laissez-faire leadership behaviors. In addition, we propose that higher-level supervisory behavior, as a key environmental factor in organizations, plays a moderating role in activating and expressing the effects of insecure attachment styles on leadership behaviors. In specific, exposure to higher-level abusive supervision may increase the likelihood that an avoidantly attached leader engages in abusive supervision against subordinates. In contrast, exposure to higher-level laissez-faire leadership may increase the likelihood that an anxiously attached leader engages in laissez-faire leadership.

The hypothesized model will be examined using a multi-level, multi-wave, and multi-source research design. We recruited 214 leaders and 436 followers from multiple business organizations to fill out a survey that includes measures of perceived parental abuse and neglect in early life, attachment anxiety and avoidance, direct supervisors' abusive supervision and laissez-faire leadership, as well as several other related concepts for potential control and validation purposes. The subordinate survey was distributed and collected three weeks after the leader survey, both onsite. Our hypotheses have been largely confirmed with results from Structural Equation Modeling analyses.

**O-4**

## **The cradle of human sociality**

**Grossmann T<sup>1</sup>**

<sup>1</sup>*University of Virginia*

Keynote Session 4, Logan Hall, Level 1, June 30, 2017, 9:00 AM - 10:00 AM

Sensitive responding to others' emotional expressions is a hallmark feature of human social functioning. How this essential social ability develops during infancy will be the main question addressed in my talk. In particular, I will present recent neuroscience work to argue that emotion perception: (1) undergoes critical development during the first year of life, (2) is multifaceted as it applies to faces, voices, and bodies alike, (3) can also be seen without conscious awareness, and (4) greatly depends on genetics, context, and experience. Moreover, I will present work showing that, beyond the period of infancy, emotion perception impacts learning and prosocial behavior in children. Taken together, the research summarized in this talk will paint a rich picture of how emotion perception emerges in the developing brain and thereby offers a fresh look at the developmental origins of human sociality.



O-5

**Sex differences in adaptation and pathways to psychopathology: recent findings from the Wirral Child Health and Development Study**

**Hill J<sup>1</sup>**

<sup>1</sup>*University of Reading, UK*

Keynote Session 5, Logan Hall, Level 1, June 30, 2017, 10:00 AM - 11:00 AM

Explaining sex differences in type and age of onset of child and adolescent psychopathology remains a major challenge. Finding answers could provide an important context for understanding the contribution of attachment processes. The prevailing view is that sex differences arise from differential exposure to risks, rather than different mechanisms in males and females. For prenatal risks this may not be the only story. Many animal and human studies find sex differences in the effects of pre- and perinatal risks, especially those associated with glucocorticoid mechanisms. Drawing on evidence from our Wirral Child Health and Development Study (WCHADS) I will describe findings of increased emotional and physiological reactivity associated with prenatal risks in females and decreased reactivity in males, and mediation of the effect by glucocorticoid mechanisms in females. With recent follow up of this cohort to age 7 years we also find that increased reactivity in females, but decreased reactivity in males, are associated with emotional and behavioural problems. This may reflect different mechanisms for the same phenotypes, with treatment implications. Equally the outcomes may look similar using current broad brush characterisations of phenotypes. The study of sex differences mechanisms may then provide pointers to how they should be refined, also with treatment implications.

**“What Makes Attachment Great...Again?”**

**Steele M<sup>1</sup>**

<sup>1</sup>*New School for Social Research, New York*

Keynote Session 6, Logan Hall, Level 1, June 30, 2017, 11:30 AM - 12:30 PM

This talk will provide a timeline focusing on the main developments in attachment theory and research that account for the theory's predominance in developmental, social and clinical psychology. Beginning with the birth of attachment theory as outlined by John Bowlby in the late 1950s and 1960s, the theory developed and flourished with the addition of the empirical assessments, and theoretical advances, heralded by Mary Ainsworth and her students. After decades of developmental research, there was a brief period of latency that ended when Mary Main introduced the move to the level of representation and introduced the system for identifying disorganized/disoriented behavior in infancy, revitalizing Bowlby's theory. More recently, the synthesis of attachment theory, research and clinical intervention has ushered in what we can consider as a next stage in the theory's development. The main focus of this talk will be to report on one such example, our Group-Attachment Based Intervention.

The profusion of attachment-based interventions over the past 15 years, accompanied by a growing evidence base, is nothing less than remarkable and would be immensely gratifying to John Bowlby. There is a wide range of interventions focused on parent-child relationships in the first few years of life, but also interventions focused on the pre-school and school years, with a healthy number focused on adolescence and adult couple relationships (21 of these interventions are described in the forthcoming *Handbook of Attachment-Based Interventions*). All of these approaches give attention to the mechanisms of change the therapeutic work targets, with a global shared focus on improving parental sensitivity to children's distress, synchrony with the child's initiatives, and caution not to frighten the child or adult other. Concepts such as reflective functioning, with its origins in attachment theory and intergenerational longitudinal research have helped focus clinical efforts. The clinical relevance of the concept, will be highlighted especially with respect to patients with traumatic backgrounds. Translating the concept from parent-child relationships to therapeutic contexts has provided a unique framework for measuring therapeutic action and clinical outcome. Viewed as a powerful antidote to the pernicious effect that trauma has on mental health, attachment based interventions have been shown to have an ameliorating effect on insecure and disorganized attachment as well as wider mental health outcomes.

The main component of this talk will describe GABI, how it is centrally informed by reflective functioning, and provide an overview of a recently completed randomly controlled trial that has provided empirical support for how GABI (a) prevents child maltreatment; (b) increases parental well-being and social support; and (c) improves the quality of the parent-child relationship.

## S4.1

### **Attachment security in adolescence: Origins in childhood parenting quality, relation to offending, and contribution to psychopathy**

**Scott S, Humayun S, O'Connor T**

<sup>1</sup>King's College London, <sup>2</sup>Greenwich University, <sup>3</sup>University of Rochester

Symposia 4.1, Elvin Hall, Level 1, June 30, 2017, 1:45 PM - 3:15 PM

#### **Paper 1: Early Caregiving Origins of Attachment Security in Adolescence**

Despite a substantial increase in research on adolescent-parent attachment, questions remain about its caregiving origins. We examine adolescent attachment narratives in two parallel longitudinal samples of antisocial adolescents, including a severe clinical and a moderate, at-risk community sample (total n=209). Quality of early parent-child interaction was assessed at age 4-7 years of age from observational methods; parent-adolescent interaction quality was also obtained using observational methods; adolescent attachment was assessed from the Child Attachment Interview, a validated narrative measure of attachment quality.

In the combined sample, we found considerable stability of individual differences in parenting behavior: caregiver sensitivity in early childhood was moderately associated with parental positive behavior nearly a decade later, despite differences in raters and interaction tasks (e.g., early caregiver sensitivity correlated .2 - .5 with parent behavior toward adolescents). Furthermore, early caregiver sensitivity predicted adolescent attachment security from the narrative assessment ( $r = .26^{**}$ ); the mean difference in early caregiver Sensitivity between adolescents whose narratives were subsequently rated as Secure versus Insecure was moderate-large (4.19 [1.34] vs 3.43 [1.30],  $F(1,138) = 10.92$ ,  $p < .001$ ; effect size = .55). Importantly, the effects remained significant after adjusting for socio-demographic covariates and current caregiving behavior. Further analyses indicated that early caregiver sensitivity was a significantly weaker predictor of attachment quality in the clinic sample compared to the community high-risk sample. Specifically, the association between early sensitive caregiving and a Secure attachment classification in adolescence was significant and moderate in the community sample ( $r = .42$ ,  $p < .001$ ) but non-significant in the clinic sample ( $r = .13$ ). Additional analyses identified contextual and individual characteristics associated with adolescent attachment security, but these factors did not moderate its early prediction from caregiver sensitivity.

The findings provide important new evidence on the persisting influence of the quality of caregiving in early childhood on adolescent attachment security.

#### **Paper 2 111 juvenile thieves: revisiting Bowlby's (1944) observations on the quality of home relationships and offending**

Bowlby's insightful observation about the backgrounds of 44 juvenile thieves (1944) has been subject to a number of studies, and meta-analyses by Fearon et al (2010) and Hovee et al (2012) confirm a modest association between insecure attachment ( $r = 0.18$ ) and antisocial behaviour. However, the majority of studies relied on parent questionnaires to measure antisocial behaviour, thus confounding the informant of youth antisocial behaviour with the attachment object. None used self-reported delinquency or police records, and most of the samples were young and had not offended.

111 adolescent offenders (mean age 15.1 years, 71% male) referred to the courts or justice agencies were compared to 50 normal controls. Measures included the Edinburgh self-report delinquency scale and police records; direct observation of parent-youth interaction using a 'hot topics' paradigm; and the Child Attachment Interview, conducted concerning both mother and father.

Self-reported delinquency was far greater in the offending sample (12.9 vs 2.4,  $p < .0001$ ). Attachment security to mother and father was 39% and 23% in offenders vs 60% and 43% in controls ( $p = .02$ ,  $.01$ ). Directly observed principal caregiver warmth and positive relating style (92% mother) to youth was lower in offenders (3.46 versus 3.88,  $p < .0001$ ), whereas criticism and negative relating style was higher (2.52 versus 1.33,  $p < .0001$ ). In contrast to many previous studies, there was no gender moderation of attachment security to offending.

This is the first study we are aware of in the world that uses high-quality, multi-informant multi-method measures to examine the relationship between offending and the home environment in terms of attachment and quality of parenting. It found a rather stronger relationship between attachment and offending than many previous studies, probably due to the high quality measures, a finding in keeping with the meta-analysis by Fearon et al (2010).

### **Paper 3: Attachment Security in Callous-Unemotional Variants of Antisocial Youth**

Psychopathy is characterised by affective deficits and the inability to form lasting interpersonal relationships. Whilst some models of psychopathy posit that failure to form attachment relationships in childhood and adolescence is causal, psychopathic traits are highly heritable, therefore it is not clear whether affective deficits are due to inherited individual characteristics or caregiving experiences. Recent studies have found support for 2 distinct subtypes of psychopathy: 'primary' genetically inherited psychopathy, and 'secondary' acquired psychopathy following maltreatment and hence accompanied by elevated anxiety. Callous-Unemotional (CU) personality traits in children and adolescents precede adult psychopathy, and both primary (inherent, genetic) and secondary (following maltreatment) variants of CU traits have been identified in community and forensic adolescent samples. However, differences in attachment security amongst these groups have not been investigated.

This study examined attachment security in 3 samples of adolescents with elevated rates of conduct problems (total n=295): a moderately elevated-risk community sample; a clinically referred sample; and a forensic offending sample. Attachment was assessed with the Child Attachment Interview; CU traits and anxiety with parent-report questionnaires (APSD and SDQ). Three groups were formed, taking scores of the top 5% of the general population on anxiety and CU traits: 1) a low CU traits group (n=203); 2) a 'primary' group (high CU traits and low anxiety; n=41), 3) a 'secondary' group (high CU traits and high anxiety; n=34).

The low CU group had higher rates of secure attachment (60.1%) than the 'primary' CU traits group (43.9%), who in turn had higher rates of secure attachment than the secondary CU traits group (32.4%);  $\chi^2(3, N = 295) = 11.15, p = .01$ .

These findings provide evidence for distinct subtypes of CU traits in antisocial youth and support the role of attachment security in the development of psychopathy.

## S4.2

### The Social Relational World and Development of Children Born Preterm: Infancy through Adulthood

**Baptista J<sup>1</sup>**, Soares I<sup>1</sup>, **Mateus V<sup>1</sup>**, Pinheiro P<sup>1</sup>, Martins C<sup>1</sup>, Osório A<sup>2</sup>, Guimarães H<sup>3</sup>, Almeida S<sup>3</sup>, Clemente F<sup>3</sup>, Belsky J<sup>4</sup>, Moutinho V<sup>1</sup>, Toscano C<sup>1</sup>, **Poehlmann-Tynan J<sup>5</sup>**, Shah P<sup>6</sup>, Gerstein E<sup>7</sup>, Schwichtenberg A<sup>8</sup>, Wolke D<sup>9</sup>, **Baumann N<sup>9</sup>**, Bartmann P<sup>10</sup>

<sup>1</sup>School of Psychology, University of Minho, <sup>2</sup>Social and Cognitive Neuroscience Lab, Mackenzie Presbyterian University, <sup>3</sup>Hospital de São João, <sup>4</sup>University of California, Davis, <sup>5</sup>University of Wisconsin-Madison, <sup>6</sup>University of Michigan, <sup>7</sup>University of Missouri-St. Louis, <sup>8</sup>Purdue University, <sup>9</sup>University of Warwick, <sup>10</sup>University of Bonn

Symposia 4.2, Nunn Hall, Level 4, June 30, 2017, 1:45 PM - 3:15 PM

#### Presentation 1

**Title.** Contribution of Maternal Mental State Talk to Joint Attention Abilities in Late Preterm Infants

Maternal use of mind-related terms in infancy has been linked children's understanding of the others' mind during preschool years (Adrián et al., 2007; Meins et al., 2003). However, how early can mothers' mental-state talk promote infants' understanding of intentionality? Joint attention involves coordinating visual attention towards an object/event with a social partner (Bakeman & Adamson, 1984; Tomasello, 1995). Emerging around 9-months (Bakeman & Adamson, 1984), this capacity is considered a precursor of Theory of Mind (Charman et al., 2000; Nelson et al., 2008). Previous studies with typically developing infants suggest that mothers' references to internal states may influence infants' engagement in triadic interactions (Roberts et al., 2013; Slaughter et al., 2008). This study aimed to explore the contribution of mother's attuned comments on her child's mental states to preterm infant's joint attention abilities. Forty-two late preterm infants were assessed at 12-months (T1) and 15-months (T2). Maternal mental state talk, coded as appropriate/non-attuned to the child's internal states (Meins & Fernyhough, 2015), was measured at T1 in a free toy-play mother-infant interaction. At T2, the Early Social Communication Scales (Mundy et al., 2003) were used to assess infant's responding and initiating joint attention behaviours. Coding is still underway. Preliminary results with 10 infants showed no association between mother's appropriate mind-related terms and infant's initiating joint attention,  $r_{pb} = -.383$ ,  $p = .274$ . Contrastingly, infants whose mothers made more appropriate comments to their inner mental states tended to exhibit lower levels of responding to joint attention,  $r_{pb} = -.620$ ,  $p = .056$ . If this finding is retained with data from all infants, we speculate that at younger ages, when understanding of intentionality is mostly behavior-based, a maternal interactive style characterized by more overt behaviours rather than verbal comments about infants' current activity would create more opportunities for infant's joint engagement.

#### Presentation 2

**Title.** Negative Affect in the Mother-Child Relationship in Preterm Infants: Predictors and Later Correlates

**Background.** Premature infants have been found to be more difficult social partners, showing high levels of negative affect (NA) (Beckwith & Rodning, 1996; Poehlmann et al., 2011), which, in turn, may be linked to greater risk for future emotional/behavior difficulties. Therefore, identify the early predictors and later correlates of infant NA seems crucial. **Objectives and Method.** This study is part of a longitudinal research about the child and family predictors of self-regulation in preterm children. The purpose of this study was to examine the antecedents (i.e., neonatal, family and maternal risks), and explore the later emotional and behavioral correlates of NA, in a sample of 144 infants born preterm. Mothers and fathers also participated in this study (Table 1). At the first assessment moment (12 months of corrected age), during a mother-child interaction (free play, play without toys, play with a challenging toy), infant NA was coded using a 4-point scale (NICHD Early Child Care Research Network, 1999). Mothers reported on several family and maternal risk variables (e.g., low family income, maternal psychopathology). Additionally, a neonatal risk index (e.g., days in NICU, respiratory distress) was created based on the review of infants' medical records. At the second assessment moment (24 months of corrected age), mothers and fathers completed the Strength and Difficulties Questionnaire (Goodman, 2005), to assess child emotional/behavior problems. **Results.** The coding of NA is in progress. Preliminary analyses with 30 children revealed significant associations between higher levels of NA and neonatal risks and family and maternal adversities. Significant links were also found between NA and later emotional/behavioral difficulties. Regression analyses will be performed. **Discussion.** The caregiver-child interaction constitutes an important

context for the identification of early emotion regulation difficulties in preterm children. Implications of this study for clinical practice will be discussed.

Table 1  
*Sample Demographic Characteristics (N = 144)*

	<i>M</i>	<i>SD</i>	<b>Range</b>
<b>Child</b>			
Birthweight (grams)	1902.03	601.97	700 – 3190
Gestational weeks	33.10	2.81	25 – 36
Days in NICU	23.49	24.58	0 – 92
Sex (% of boys)	55.6%		
<b>Mother</b>			
Age	33.78	5.02	19 – 48
Education (% below 9 years of education)	26.4%		
Unemployed (%)	18.8%		
<b>Father</b>			
Age	35.62	6.02	20 – 53
Education (% below 9 years of education)	31.3%		
Unemployed (%)	8.3%		
Family income (month) (euros)	1581.80	863.43	212 – 5000

### **Presentation 3**

#### **Title.** Early Interactions, Attachment, and Resilience at Age 6 in Children Born Preterm

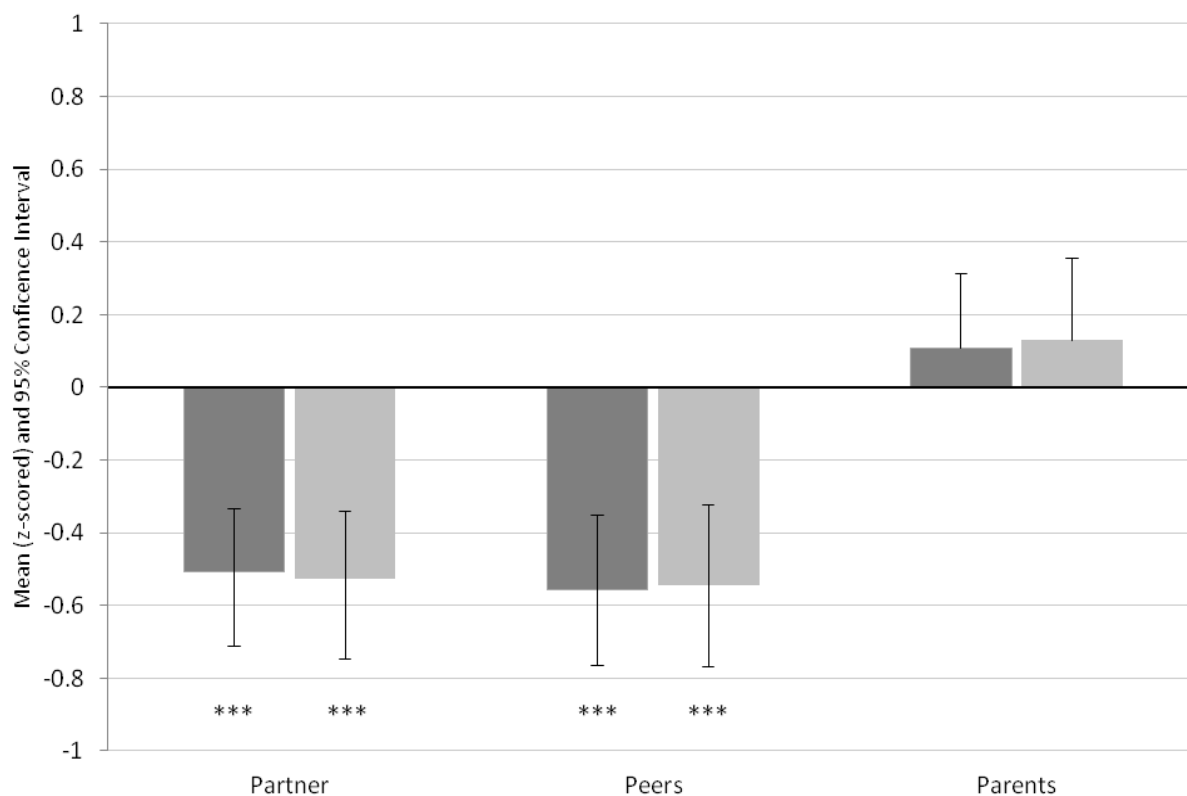
Infants born preterm experience elevated risk for developmental and behavioral problems, and their parents often experience challenges because of elevated stress and depressive symptoms. Through assessment of 173 preterm infants and their mothers (enrolled from hospitals in the Midwestern region of the United States) from their stay in the Neonatal Intensive Care Unit through their first 3 years of life, the study examined early infant-mother interaction quality, attachment security, and maternal depressive symptoms. In addition, multiple areas of child social emotional, behavioral, and academic competence were assessed at the transition to school (6 years of age). Infant-mother interaction quality was assessed using the Parent-Child Early Relational Assessment observational coding system at multiple timepoints and attachment security was observed and coded in the Strange Situation at 16 months corrected age. The Child Behavior Checklist was used to assess internalizing and externalizing behavior problems over time. Maternal report was used to determine children’s functioning at age 6, with supplemental data collected from children’s teachers. Latent class analysis was used to identify resilient and non-resilient groups and path analysis was used to predict group membership. Findings indicated that quality of early maternal interactions predicted attachment security as well as more competence at age 6 in children born preterm, suggesting pathways to resilience in preterm infants. We also examined trajectories of behavior problems in the children over time using a semiparametric group-based approach. Three trajectory groups were identified for internalizing and externalizing behavior problems. Maternal depression, gestational age, and socioeconomic challenges were identified as risk factors that predicted the most problematic trajectories, although early infant-mother interaction quality was not a significant predictor.

## Presentation 4

### Title. Social Relationships of Very Preterm Children in Adulthood: The Bavarian Longitudinal Study

**Background.** Follow-up or national registry studies of VP (<32 weeks gestation) or VLBW (<1500g birth weight) have reported on neuro-developmental, disability, behavioral or health outcomes and partner relationships and risk activities of preterm children into adulthood. None have addressed broad aspects of social relationship. **Objective.** To investigate the impact of being born VP/VLBW on social relationships into adulthood in a geographically defined whole population sample in the South of Germany. **Design/Methods.** Of 411 VP/VLBW born in 1985/6, 260 (63.3%) had follow-up data at 26 years of age. They were compared to a term control group (229/308 assessed, 74.4%). Participants were interviewed with a life course interview and completed a questionnaire. We combined the information into a global measure of social relationships (quality of relationship with parents, partners and peers). Scores were z-standardised according to the term control group. **Results.** Compared to the term born controls, VP/VLBW adults had poorer social relationships. VP/VLBW adults had as good or even slightly better relationships with their parents but were less likely to have had romantic partners and had much poorer peer relationships (see Figure). Main contributing problems were less romantic or sexual relationships, no best friend, making or keeping friends, contact with or support by friends, being bullied, and less social activities. **Conclusions.** Making the transition to adulthood is more difficult for VP/VLBW young adults than their term born peers. VP/VLBW are much less likely to have a partner, friends and cliques. Future research and interventions for VP/VLBW children should focus more on support to build and maintain social relationships with peers as those relationships are considered highly important for life satisfaction and health in adulthood.

**Figure.** Scores on social relationships for VP/VLBW adults relative to term controls.



**Note.** The zero line marks the reference (control group). In dark grey unadjusted differences, in light grey differences adjusted for SES, sex, multiple birth, marital status at birth and participant's age; \*\*\*  $p < .001$ .

## S4.3

### New Directions in Attachment Transmission Research: Individual Participant Data Synthesis

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Symposia 4.3, Logan Hall, Level 1, June 30, 2017, 1:45 PM - 3:15 PM

#### **Integrative statement**

Intergenerational transmission of caregivers' mental representations of attachment has become a cornerstone in attachment theoretical understanding of the origins of variation in quality of attachment relationships between caregivers and children. Despite the many single studies failing to show significant associations between classifications of caregivers' responses on the Adult Attachment Interview and attachment relationship quality, meta-analyses have overall supported non-trivial effect sizes. It is clear, however, that in many cases the organization of the attachment representation does not correspond to the organization of the attachment relationship. Studying moderators of intergenerational transmission may indicate where the transmission model needs refining, and it may even be a tool for pointing researchers to mediators of transmission to further close the elusive transmission gap. Such in-depth understanding and fine-grained analyses may be achieved by adopting Individual Participant Data (IPD) synthesis (Riley et al., 2010). IPD involves the collation, harmonization, and multilevel analysis of raw data from multiple studies.

This symposium is based on the sharing of data and resources from research teams from around the world, resulting in a combined data set that covers 30 years, and includes a wide range of settings and populations.

The Collaboration on Attachment Transmission Synthesis (CATS) in this symposium addresses questions regarding individual characteristics of caregivers and children that may amplify or weaken transmission, the phenomenon of association between non-corresponding categories, variation in the size of the transmission gap according to methodological differences, and the potential buffering of the linkage between unresolved loss or trauma and disorganized attachment by underlying autonomous state of mind or attachment security.

#### **Paper 1:**

##### **For whom attachment transmits across generations: Refining moderator effects using Individual Participant Data synthesis**

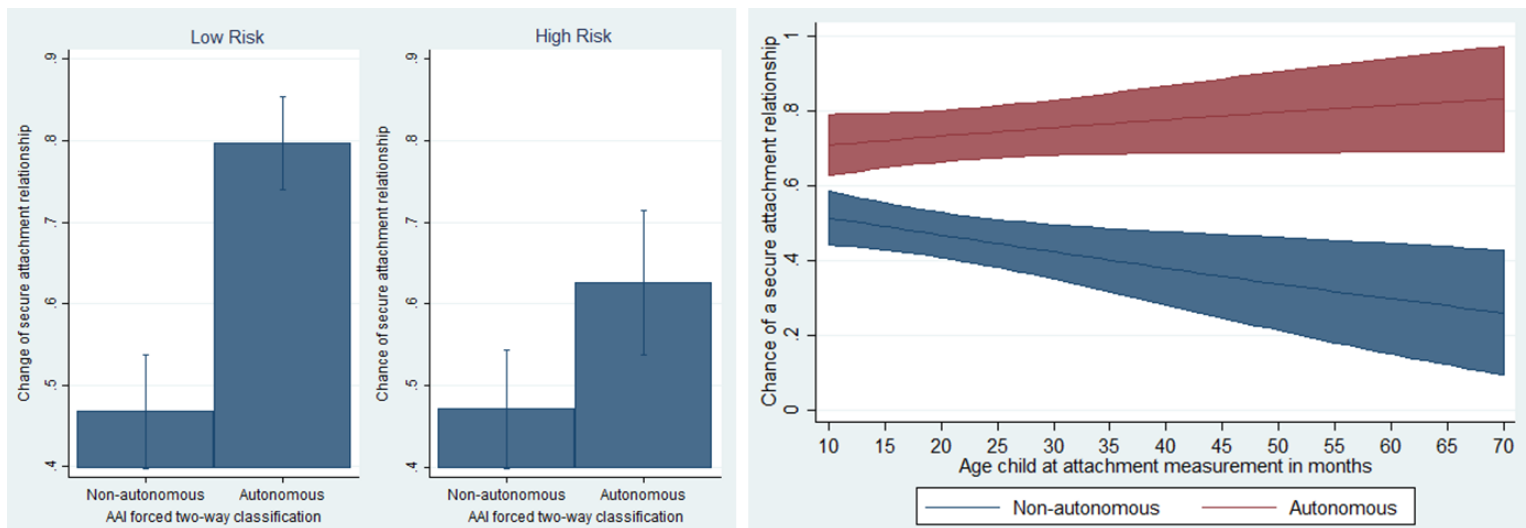
A recent meta-analysis of 78 studies confirmed that individual differences in the quality of parent-child attachment relationships can be partly explained by parents' attachment representation (Verhage et al., 2016), consistent with the theory of intergenerational transmission of attachment (Main et al., 1985). However, the magnitude of this association varied by population characteristics: transmission was weaker in risk samples and samples with younger children. The current study takes the novel approach of employing Individual Participant Data (IPD) synthesis, to test moderators with greater precision by taking into account these characteristics on a participant-level rather than treating all participants in a sample the same. In particular, we investigated how risk factors influence attachment transmission, and how age of the child covaried with the strength of transmission.

Eligible studies for the IPD synthesis reported on caregiver attachment representations and observed caregiver-child attachment. Authors contributed raw data of 58 studies, including over 3,700 caregiver-child dyads.

Random effects logistic regressions revealed that overall autonomous parents were 3.13 times more likely to have secure attachment relationships with their children than non-autonomous parents ( $p < .001$ ). Preliminary results for two moderators showed that for risk dyads, transmission of secure attachment was lower than for non-risk dyads, whereas transmission of insecure attachment was similar (OR=0.42,  $p < .001$ ; Figure 1a). Also, the effect size of attachment transmission increased with age (controlled for attachment measure; OR=1.03,  $p = .002$ ; Figure 1b).

The higher resolution afforded by the IPD synthesis increases the importance of moderator effects for further theory development, as moderators may also help in identifying additional determinants of attachment.





(a) Figure 1. The chance of having a secure attachment relationship for caregiver with non-autonomous and autonomous representations in high and low-risk dyads (a) and as a function of child age (b)

## Paper 2:

### An Examination of Cross-Over Transmission of Attachment using Individual Participant Data synthesis

Theoretically, the primary adult attachment categories, autonomous, dismissing, and preoccupied, represent patterns of organizing discourse that are linked to parenting behaviors that shape the organization of child-parent relationships into secure, avoidant, and resistant categories. Verhage et al. (2016) meta-analyzed data from 78 studies and results corroborated this hypothesis, while calling for further investigation into unexpected cross-transmission from preoccupied representations to avoidant attachment and dismissing representations to resistant attachment.

In the current study, we leverage the strengths of an Individual Participant Data (IPD) synthesis to test the specific correspondence of the three primary attachment categories, but also importantly, the cross-over transmission of insecure attachment. Eligible studies had the Adult Attachment Interview and behavioral measures of parent-child attachment. Fifty-eight eligible studies contributed their raw data, leading to a sample size of 3,207 participants.

Adjusted standardized residuals are presented in the cross-tabulations in Table 1. We conducted multilevel, multinomial regression to account for clustering in studies, which revealed: (1) the odds of having a resistant versus avoidant attachment relationship with the child are 1.66 times larger for preoccupied than dismissing parents ( $p < .001$ ); (2) the odds of having avoidant versus resistant parent-infant attachment are 1.93 times larger for dismissing than preoccupied parents ( $p < .001$ ); (3) the odds of having resistant versus secure attachment are 2.7 times larger for dismissing than autonomous parents ( $p < .001$ ), and (4) the odds of having an avoidant versus secure attachment relationship with the child are 1.68 times larger for preoccupied than autonomous parents ( $p < .001$ ). These results demonstrate that the expected patterns of transmission for insecure attachment are most common, but also that cross-over between insecure categories occurred significantly more often than cross-over to secure. The theoretical implications of these findings will be discussed, and directions for future research will be provided.

Table 1

*Correspondence between Adult Representations and Child-Parent Attachment in the Individual Participant Data Synthesis*

Adult Attachment		Child Attachment Classification			
Classification		Avoidant	Secure	Resistant	Total
Dismissing	<i>N</i>	380	459	160	999
	Expected	237.4	608.0	153.6	
	Residual <sup>a</sup>	12.8	-11.6	0.68	
Autonomous	<i>N</i>	261	1,242	192	1,695
	Expected	402.7	1031.7	260.6	
	Residual <sup>a</sup>	-11.8	15.2	-6.7	
Preoccupied	<i>N</i>	121	251	141	513
	Expected	121.9	312.2	78.9	
	Residual <sup>a</sup>	-0.10	-6.0	8.3	
Total		762	1,952	493	3,207 <sup>b</sup>

<sup>a</sup> Adjusted standardized residuals. If >2, significantly more often than chance, if <-2, significantly less often than chance.

<sup>b</sup> ( $\chi^2(4)=294.29, p<.001$ ).

### **Paper 3:**

#### **Mediation Analysis of the Intergenerational Transmission of Attachment Gap in a Large Individual Participant Dataset**

The intergenerational transmission gap was discovered in a meta-analysis on adult attachment, infant attachment, and parental sensitivity (Van IJzendoorn, 1995), and confirmed in an update including three decades of research (Verhage et al., 2016). In this paper, we compute the attachment transmission gap with formal mediation tests of primary data collected in a large-scale Individual Participant Data (IPD) synthesis. This way, the size of the transmission gap is estimated more precisely than could be done in either meta-analysis or in the relatively small primary studies.

Preliminary analyses with a multilevel mediation model including 1,292 caregiver-child dyads from 18 studies on the total path between adult attachment measured with the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1984) and observed infant attachment security assessed with the Strange Situation Procedure (SSP, Ainsworth et al., 1979) or the Attachment Q Sort (AQS, Waters, 1995) confirmed a strong relation between adult attachment and parent-infant attachment,  $z = 5.58$  ( $p < .001$ ). The first part of the indirect path, from adult attachment to parental sensitivity, measured with the Ainsworth scale (Ainsworth et al., 2016, new edition) or the Maternal Behavior Q-Sort (MBQS, Pederson & Moran, 1995) in 18 studies ( $N = 1,366$ ) also amounted to a strong effect,  $z = 8.09$ ,  $p < .001$ . And a similar effect was found for the path between parental sensitivity and infant attachment in 18 studies ( $N = 1,221$ ),  $z = 7.24$ ,  $p < .001$ . The proportion of the association between adult attachment and parent-infant attachment that was mediated by sensitivity was .26, thus leaving a considerable transmission gap (see Figure 1).

We are in the process of testing similar models for the more classical sensitivity and attachment measures, leaving out the Q sort approaches, and for clinical versus non-clinical samples.

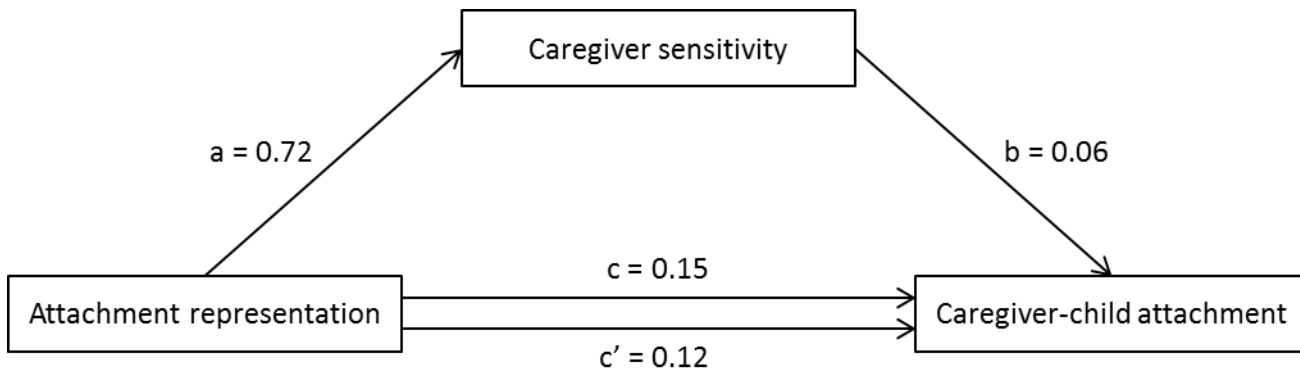


Figure 1.  
Mediation Model of the Attachment Transmission Gap  
Note. Values in the figure are unstandardized coefficients on a logit scale.

#### **Paper 4:**

#### **Differential intergenerational transmission of unresolved loss or trauma on disorganized attachment for secure and insecure relationships**

Main and Hesse (1990) theorized that unresolved/disorganized states of mind regarding loss and/or trauma (U) in caregivers leads to disorganized attachment (D) with their children. However, given the distinct mediators of U-D and autonomous state of mind (F) - secure attachment (B), more complex patterns of transmission are logically possible. Early studies indeed suggested a buffering role for autonomous representation and secure attachment. We hypothesized that the correspondence between U and D would be weaker when caregivers have an autonomous versus non-autonomous state of mind and/or when attachment relationships are secure, as judged by their primary or secondary classification.

Random effects logistic regressions revealed that caregivers with U classifications were 2.24 (95% CI 1.54-3.24) times more likely to have disorganized attachment relationships with their children than non-U caregivers ( $N = 3,128$ ,  $k = 44$ ,  $p < .001$ ). Preliminary analyses with a multilevel model disconfirmed the hypothesized moderator effects. The moderator terms for (primary or secondary-forced) autonomous classifications or (primary or secondary-forced) secure attachment classifications were not significant ( $p > .5$ ). Limiting analyses to caregivers who were classified as unresolved or cannot classify, the association between autonomous classification and disorganized failed to reach significance (OR = 0.74; 95% CI 0.49 – 1.12;  $n = 574$ ,  $k = 42$ ). However, secure attachment as compared to insecure attachment were associated with lower rates of disorganized attachment (OR = 0.31; 95% CI 0.21 – 0.46;  $n = 605$ ,  $k = 43$ ).

Findings suggest that pathways to attachment security and attachment disorganization are partly dependent and that theoretical models explaining transmission need to be refined.

## S4.4

### Training Clinicians to Take an Attachment Oriented Approach to Clinical Work

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Symposia 4.4, Drama Studio, Level 1, June 30, 2017, 1:45 PM - 3:15 PM

### Longitudinal Examination of Parent Coach Fidelity in Community-based Implementation Efforts of Attachment and Biobehavioral Catch-up

Attachment and Biobehavioral Catch-up (ABC) is a 10-session parent-coaching program for infants who have experienced early adversity, such as maltreatment or disruptions in care. Given evidence that ABC enhances attachment security (Bernard et al., 2012), cortisol regulation (Bernard et al., 2015), and executive functioning (Lind et al., 2016), efforts to disseminate and scale ABC have expanded.

Unfortunately, when interventions are disseminated, their effectiveness in the community is often much lower than their efficacy in the lab (Durlak & DuPre, 2008), likely in part due to reduced fidelity. In order to address this issue when disseminating ABC, we have developed training, supervision, and fidelity-monitoring procedures that focus on the essential approach of ABC: in the moment (ITM) commenting. ITM commenting is a form of feedback provided to parents during their interactions with their child during sessions. The parent coach comments on parent behaviors that are nurturing to the child's distress or follow the child's lead, with a target commenting rate of once per minute.

In the current study, we examined longitudinal patterns of ITM fidelity among ABC parent coaches across their first year of implementation. Hierarchical linear modeling (HLM; Raudenbush & Bryk, 2002) was used to estimate change in ITM commenting, accounting for the non-independent structure of the data. 457 sessions from 19 parent coaches were coded using the ITM fidelity tool, which involves a behavior-by-behavior, comment-by-comment analysis of randomly selected 5-minute session video clips. Results demonstrated an average starting level of 1.14 on-target comments per minute and significant increase over time,  $\theta_{10} = 0.01$ ,  $p = 0.02$ , with an average rate of 1.74 comments per minute at the end of the supervision year.

In addition to describing training and supervision approaches used to promote ABC fidelity, discussion will focus on broader implications of fidelity monitoring for attachment-based interventions.

### Utilizing Video Observation to Evaluate the Effectiveness of Clinical Training in an Attachment-Based Intervention for Parents and Children at Risk for Child Maltreatment

There are a number of evidence-based psychotherapy treatments for children and families, yet lack of attention to training presents a barrier to the implementation of these interventions. After a literature overview, we will describe the development of a new research measure, the Applications of Clinical Training Assessment (ACTA), designed to evaluate the effectiveness of training in an attachment-based intervention. Because observation holds a special place in applications of attachment theory to clinical work, ACTA was designed as a video observation exercise that would be efficient to use on a large scale, while also maintaining clinical relevance.

We will present results from an empirical study where ACTA was used to evaluate the effectiveness of training in Group Attachment Based Intervention (GABI), a promising treatment for parents and children considered at risk for child maltreatment. Participants were 99 clinicians who completed a one-day GABI training workshop and 21 who completed an apprenticeship with supervision for 6 months following the workshop. They completed the ACTA task before and after the workshop, and at the end of their apprenticeship. Responses were coded to measure trainees' abilities to apply the GABI model in their evaluations of clinical situations. Results showed that the one-day workshop produced increases in application of core GABI principles, which include *Reflective Functioning*, *Emotional Attunement*, *Affect Regulation*, *Reticence*, *Nurturance*, and *Group Context*, as well as improvement in *Overall Quality of Observations*. The participants who completed the apprenticeship showed evidence of improvement in *Overall Quality of Response* but improvements on specific GABI principles was more limited.

Discussion will focus on broader issues surrounding how to operationalize and measure the principles that comprise an attachment-based treatment approach, and the value of empirically measuring the impact of training to gain insights about how to improve training.

### **Validation of a competence coding system for the Group Attachment Based Intervention (GABI®)**

Clinician competence in children's mental health is an often neglected, vital aspect of the dissemination of evidence-based practices (EBPs). The rapid dissemination of EBPs has focused attention on monitoring implementation quality and is often assessed through adherence measures. However, the findings on adherence to manual based treatments are inconsistent, with some studies finding that greater adherence is related to poorer outcomes. Clinician competence, however, better predicts positive outcomes than adherence alone, and reflects the sense of appropriateness in utilizing therapeutic action.

This presentation discusses a clinician competency-based coding system from an attachment perspective, developed for the Group Attachment Based Intervention (GABI®), a treatment aimed at improving the parent-child attachment relationship in high-risk families. Based on review of over 100 clinical videos, a competency coding system was developed to measure clinician effectiveness above and beyond the existing adherence measure. Using defined anchors and examples, fifteen-minute video clips of clinicians were rated on a scale of 1-5, where higher scores indicated greater clinician competency on each core feature of therapeutic action, including reflective functioning, emotional attunement, affect regulation, reticence, intergenerational patterns of attachment, nurturance, and group context.

Pilot results of this study provide support for the usefulness of the GABI® Competency coding system in determining the efficacy of clinicians disseminating an attachment-based intervention. Adherence scores and competence scores were positively correlated, validating the competence coding system. The internal consistency and the inter-rater reliability between independent coders was also significantly high, indicating the validity of this observational measure of clinician competence.

This presentation will discuss future directions, including the use of this coding system as a fidelity measure for dissemination, the utility of the measure for supervision, the use of the measure as an educational tool for training, and the adaptability of such a measure to other attachment based interventions.

## S4.5

### Is attachment shaping language or language shaping attachment? A closer look into the reciprocal influences between the two domains

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Symposia 4.5, Clarke Hall, Level 3, June 30, 2017, 1:45 PM - 3:15 PM

#### **Integrative abstract:**

Attachment security and its correlates have been thoroughly explored showing associations with many children and adult competences such as socio-emotional and cognitive competences and the quality of close relationships (De Wolff et al. 1997; Grossmann et al. 2006). While the quality of attachment relationship is related to the ability to communicate wants, needs and emotions, language may be considered a fundamental behavior that serves as a bonding agent between the person and the attachment figures. Similarly, within a secure relationship, the development of language competences may be enhanced (van Ijzendoorn et al. 1995). However, research on the attachment-language association is lacking.

The current symposium takes a closer look at the relation between attachment affective aspects and linguistic communication both in parents than in children and in high and low-risk samples. The first two studies explore how attachment can shape the use of language. Specifically, the first study shows that insecurity and risk factors interact in affecting the words used by children and adolescents while narrating their relationship experiences. In a similar vein, the second study shows how the quality of mothers' attachment reflected in linguistic and prosodic features of maternal speech during the interaction with infants. The other two studies support reciprocal influences between attachment related variables and linguistic abilities. The third paper shows how the generalization of security from parents to teachers is facilitated in the presence of high linguistic abilities. The fourth paper shows how the affective correlates of mothers' linguistic input to the infant, in terms of mind related comments, support longitudinally the development of preterm infants' linguistic abilities.

By bringing together research from various samples belonging to different countries and by using different measurement approaches, the symposium attempts to contribute to disentangle the complex interplay between attachment and language. Implications on attachment research will be discussed.

#### **Presentation 1: An Investigation of Youth's Pronoun and Emotion Word Use on the Child Attachment Interview: Associations with Attachment Security and Psychosocial Risk**

While coding of attachment representations entails intensive narrative analysis, few studies have examined linguistic patterns of word use on attachment interviews, despite word use revealing important information regarding underlying psychological states. Using three samples of youth of varying risk levels (151 psychiatric inpatients 7-12 years old; 125 low income non-clinical ages 8-12 years old; 93 middle income non-clinical ages 8-12 years old), we examine youth's frequency of word use on Child Attachment Interview (CAI). We assess two word categories with theoretical relevance for attachment: 1) Pronouns: First person plural pronouns (*we*-talk) and second person pronouns (*you*-talk); 2) Emotion words: positive and negative emotion words. In the context of attachment interviews, *we*-talk may indicate communal coping (feeling supported in dealing with problems), whereas *you*-talk may suggest attempts to distance or de-personalize. Emotion words ought to reflect the affective tone of the interview in terms of content and felt emotion while describing attachment experiences.

Factor analysis of CAI scale scores yielded one dismissing and one preoccupied factor, later used in analyses; we used Linguistic Inquiry Word Count System to linguistically analyze all CAI transcripts. In terms of main effects, we predicted that greater sample risk and attachment insecurity would be associated with less frequent *we*-talk and positive emotion word use, and with more frequent *you*-talk and negative emotion word use. Further, we expected interaction effects in the form of stronger associations between attachment insecurity and word use as sample risk increases. Higher preoccupation was associated with less *we*-talk and more *you*-talk, effects that were strongest in the

community samples (Fig.1); further, higher dismissal was associated with more frequent *you*-talk in the clinical sample only. Higher preoccupation was associated with greater use in the clinical and low income samples (Fig.2),  $p$ 's < .05. Our findings are consistent with theory regarding cumulative risk.

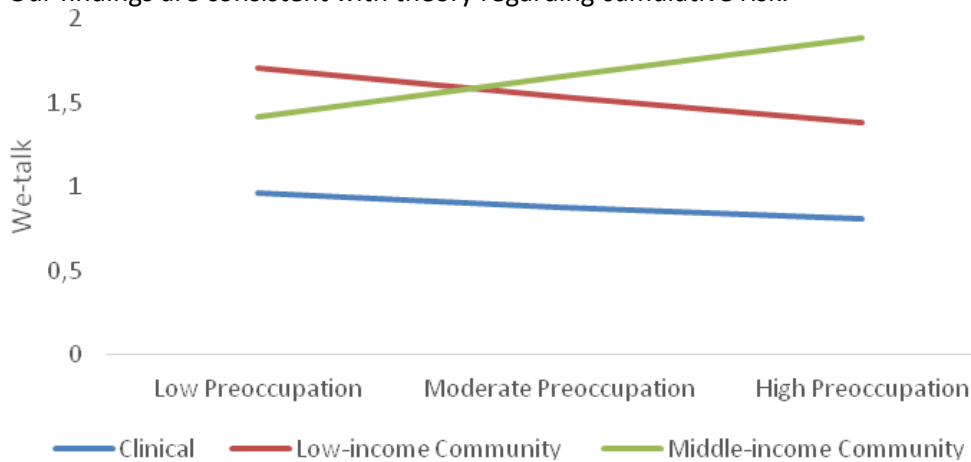


Figure 1. Interaction between attachment preoccupation and sample risk in predicting frequency of we-talk on the Child Attachment Interview.

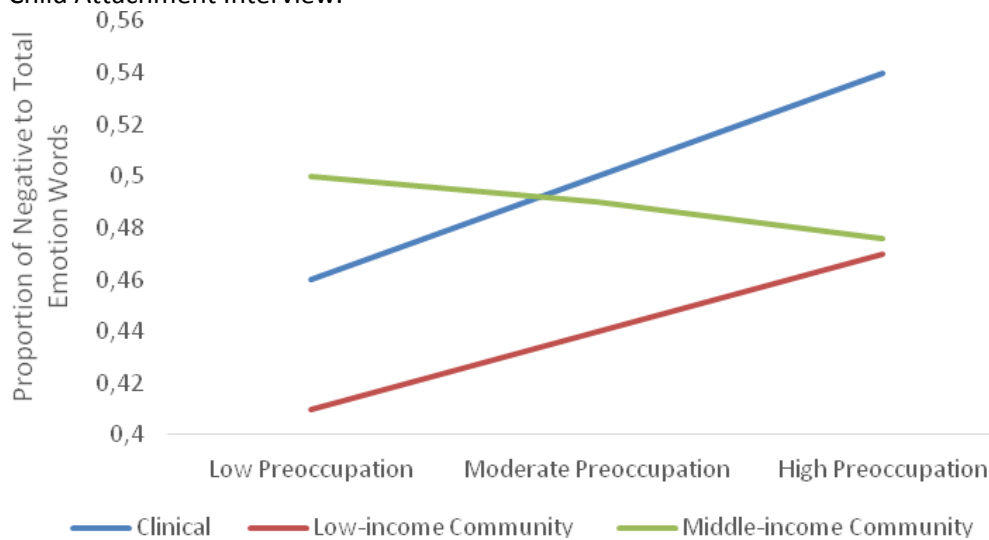


Figure 2. Interaction between attachment preoccupation and sample risk in predicting frequency of negative emotion word use relative to total emotion word use on the Child Attachment Interview.

### Presentation 2: The influence of attachment style on infant-directed speech: a longitudinal study

Attachment style influences the ability of mothers to attune their behaviors to infants' developmental level and needs, and this process is evident especially during early episodes of dyadic interaction where the partners are involved in reciprocal exchanges of vocal and expressive signals (Pederson et al. 1998; Sroufe, 2005). It could be therefore plausible that maternal attachment style influences the ability of the mother to talk with their infants, allowing them to modify the prosodic and linguistic features of speech according to the infant responses. We evaluated the prosody and content of secure and dismissing mothers' speech during interactions with the infant at 3, 6, 9, 12 and 24 months. At 24 months, we assessed infant's spontaneous lexical and syntactic competence.

We found significant differences between the mothers. Secure mothers show a richer input all over the first year of life and their way to speak to infants is generally more affective and more coherent with the communicative function of the sentence with respect to the dismissing group ( $ps < .05$ ). Secure mothers further showed a greater ability to modify their speech according to infant's interactive development ( $F(1,230) = 5.682, p = .018$ ) by showing a less complex input with younger infants, a reduce of speaking quantity and complexity at 6-9 months to scaffold the exploration, and a richer input at 12 months when infants become more competent linguistic partners. This seems to have a positive effect on infant language development ( $\chi^2 = 4.79, p = .028$ ).

These findings suggest that maternal attachment security can work as a moderating factor of maternal speech's quality and influence on infant language development. Research on attachment and mother–infant relationship should take into consideration the linguistic aspects of maternal speech directed to infants.

### **Presentation 3: The role of child verbal development on Children's Representations of Attachment and Positive Teacher-Child Relationships**

This study was designed to explore whether children's representations of attachment contribute to the co-construction of positive teacher-child relationships. An assessment of verbal intelligence was included as a predictor on the assumption that teachers might perceive themselves as having better relationships with more verbally competent children. Participants were 52 children from two pre-schools, in the district of Lisbon. Of these, 25 were boys. The age of entry into daycare ranged from 6 to 30 months ( $M = 8.67$ ,  $SD = 6.59$ ) and children spent between 4 - 10 hours ( $M = 7.59$ ;  $SD = 1.62$ ) in non-parental care each weekday. All children were from two-parent families, mothers were between 26 and 48 years ( $M = 34.95$ ,  $SD = 4:33$ ) and fathers between 28 and 63 years ( $M = 37.48$ ,  $SD = 6.08$ ). The Attachment Story Completion Task (ASCT) was used to assess children's attachment security. The Teachers' ratings of child secure base behavior and emotion regulation (PCV-P). The PCV-P was used to describe teacher-child relationships and the Wechsler Preschool and Primary Scale of Intelligence (WPPSI-R) was used to assess verbal skills. Bivariate correlations showed that the teachers' rating of child secure base behavior was significantly associated with both child attachment security and verbal IQ. In a multiple regression analysis, the overall model  $R^2$  was significant, as was the interaction term showing a moderating effect of attachment security on the relation between verbal IQ and teachers' ratings of secure base. Hence two domains of child competence, security of attachment representations and verbal intelligence are associated with teachers' characterizations of children's treating them as a secure base. The results suggest that co-construction of a close attachment-relevant relationship with teachers in early childhood is, in part, a function of the security in the context of parent-child attachment, but also of child verbal development.

### **Presentation 4: The severity of preterm birth moderates the relation between mothers' mind-mindedness and infants' linguistic outcomes: a longitudinal investigation**

Linguistic development among preterm infants is characterized by delayed and/or atypical trajectories (Sansavini & Guarini, 2014). Socio-affective antecedents seem to play a crucial role (e.g., Cusson, 2003), although the affective correlates of mothers' linguistic input have not been fully explored. One good candidate is mothers' Mind-Mindedness (MM) which is the caregiver's tendency to treat the infant as an individual with mental states and to tune in to them during interactions (Meins, 2013). MM has been shown to promote infants' development in low and high risk conditions (e.g., Bernier et al., 2016; Hughes et al., 2016; Meins, 2013; Meins et al., 2013), but it is thus far unexplored among mothers of preterm infants. Therefore, the aim is to test if mothers' MM predicted infants' linguistic outcomes and whether the severity of the preterm birth (indexed with birth weight –BW- and gestational age –GE-) moderated such relations. Videotaped interactions belonging to 20 dyads with preterm infants ( $M BW=1.297$  gr.,  $SD= 237.06$ ;  $M GE=29.80$  weeks,  $SD=2.56$ ), and 20 with full-term ones ( $M BW=3.243$  gr,  $SD=462.10$ ;  $M GE=39.75$  weeks,  $SD =1.65$ ), collected at 13 and 24 months of infants' age, were coded for mothers' appropriate mind-related comments (AMRC; Meins & Fernyhough, 2010) and infants' expressive language (number of utterances, types, tokens, roots, MLU – mean length of utterance-) respectively. Moderation analyses showed that the AMRC predicted all but one (MLU) of the infants' linguistic measures, only among the preterm group ( $.57 < \beta < .71$ ,  $p < .05$ ), and not among the full-term one ( $-.05 < \beta < .11$ , *n.s.*). The ranges of the moderators' values defining Johnson-Neyman significant regions were 1615- 2722 gr for BW and 32-35 weeks for GE. These findings show that MM promotes preterm infants' linguistic development and support the idea that the susceptibility to environmental influences increases in the presence of biological vulnerability (Gueron-Sela et al., 2015; Siegel, 1982).



## Fostering Secure Attachment: Experiences of Animal Companions in the Foster Home

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Poster Session 4, June 30, 2017, 1:45 PM - 3:15 PM

One of the cornerstones of the foster care system is the assumption that the provision of a warm, nurturing, stable and secure relationship with a foster caregiver has the capacity to change the developmental course of children who have experienced inadequate early care (Joseph et al., 2014). It is therefore important to build a better understanding of how foster families might facilitate the development of secure attachment relationships, especially in the face of the challenging expectations, resistance, and working models of attachment that children often bring with them (Nowacki, & Schoelmerich, 2010). This paper responded to recent calls (e.g., Rockett & Carr, 2014) for further exploration of the ways in which animals in foster family homes can facilitate this process. The study employed attachment theory as a lens through which to explore children's relationships with animal companions in the context of long-term foster care. Inductive and deductive thematic analyses of longitudinal case study data from eight children and their foster families revealed (a) that children's relationships with animal companions often satisfied attachment-related functions (e.g., safe haven, secure base, separation distress), suggesting that animals were experienced as attachment figures in their own right, and (b) that animal companions also helped to soften perceptions of foster caregivers, facilitating opportunities for the development of closeness in the child-foster caregiver dyad. Animals in the foster home may play an important role in helping children to find and develop secure, warm, and loving relationships in foster family homes.

## Perceived Parent Career Behaviour of Adolescents with Different Types of Attachment to Mother

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### **Objectives**

Attachment to mother, as a characteristic of child-parental relationship, has a profound influence on the personality formation in adolescence. The interface between family and career among young adolescents is considered at several studies (Keller & Whiston, 2008; Pizzorno, 2014; Roach, 2010) and seems important in nowadays Russia. The theoretical basis of the study is attachment theory, formulated by Bowlby and expanded by others (Bartholomew, Mikulincer, etc). The study of perceived parent career behaviour is based on theory of family impact on career exploration (Kracke, 1997; Rainey & Borders, 1997)

### **Methods**

The study was aimed to explore the specificity of perceived parent career behaviour of the teenagers with different types of attachment to mother. 214 pupils from 14 to 17 years from Moscow schools (9<sup>th</sup> – 11<sup>th</sup> grades) participated in the research. Method of revealing the features of attachment to mother among adolescents (Yaremchuk, 2005) in the adaptation of Burmenskaya, Almazova (2015), Parent Career Behaviour Checklist (Keller, Whiston, 2008) in author's adaptation were used in the research.

### **Findings**

The results of our research show strong correlation between perceived parental career behavior and type of attachment to mother in adolescence. Teenagers with secure type of attachment to mother tend to percept both parents (mother and father) as more involved at the area of their career development (express support and help in their career area). Adolescents with "unsecure" types of attachment to mother (ambivalent, avoiding, mixed) mostly agree that they can disappoint their parents with wrong career choice.

### **Conclusions**

Relations between child and mother, particularly attachment to mother, impacts the child-parental interaction in different live areas in adolescence. The family appears to play a critical role in a child's professional development (Guerra and Braungart-Rieker,1999; Otto, 2000; Taylor and Hurriss,2004) – the career decision-making seems to become a joint resolution in family.

## Pathways Linking Prenatal Maternal Stress from a Natural Disaster to Infant behaviour: The QF2011 Queensland Flood Study

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Prenatal maternal stress (PNMS) is associated with adverse child behavioural outcomes, but much remains unclear about the effects of specific types and timing of stress, and the moderating influence of infant sex. The present study utilised a natural disaster to investigate the effects of objective hardship and subjective PNMS on infant behavioural and socio-emotional outcomes at 16 months. Moderation by infant sex and gestational timing of exposure was investigated. Mothers pregnant (n = 123) during the Queensland floods in January 2011 completed measures of objective hardship, subjective stress (peritraumatic distress, peritraumatic dissociation and posttraumatic stress (PTS)) and cognitive appraisal associated with the floods. At 6- and 16-months postpartum, mothers completed measures assessing depressive symptoms, and at 16-months reported on their infant's socio-emotional and behavioural Competence and Problems on the BITSEA. Greater peritraumatic dissociation was associated with higher infant social-emotional Competence, whereas greater maternal PTS symptoms were associated with reduced Competence. There was a trend for PTS symptoms to be associated with higher Problems scores in boys, with a sex difference in Problems emerging at moderate levels of maternal PTS and objective hardship. Post hoc serial mediation suggested that flood-related PNMS may have affected infant Problems indirectly, through increased postnatal maternal depression. No main effects or interactions with gestational timing were found. These results suggest that prenatal exposure to a natural disaster may have affected infant socio-emotional and behavioural outcomes through an effect on both the prenatal and postnatal environment. Mothers exposed to a traumatic event or a high level of stress during pregnancy may benefit from psychosocial support over both the prenatal and postnatal periods, in order to minimise the impact on infant socio-emotional and behavioural development.

## Foster children's behavioral and emotional adjustment : Links to attachment narratives

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### **OBJECTIVE:**

Early adversity (e.g., maltreatment history, placement history) put foster children at risk for developing a variety of behavioral problem. Moreover, most foster children will exhibit internal working models of attachment that reflect insecure attachment history.

Given the recent meta-analyses provide an overview of the links between attachment and externalizing/internalizing problems, the study examine the correlates from attachment narratives and behavior problem in a sample of foster children. Research focus on domains relevant to internalizing symptoms (e.g., Social Withdrawal, Somatic Complaints, anxiety/depression), externalizing symptoms (e.g., delinquent behavior, aggressive behavior) as well as social, thought and attention disorders. Moreover, specific aspects of narratives attachment are included (collaboration, representations of supportive caregiving, positive resolution, appropriate expression of affect, reaction to separation, symbolic distance and low narrative competence)

### **METHOD:**

A total of 40 children were assessed using the French version of the Attachment Story Completion Task (Fr-ASCT). The narratives were coded using the French version of the Q-set procedure (CCH: Miljkovitch et al., 2003). Social workers provided data using the CBCL (Achenbach 1991).

### **RESULTS:**

Significant associations were obtained between attachment narrative scales representations (supportive caregiving, positive resolution, appropriate expression of affect and low narrative competence) with multiple symptoms of children's behavioral and emotional adjustment (delinquent behavior, aggressive behavior, social problems, thought problems and attention problems), whereas social withdrawal, somatic complaints, anxiety/depression did not. Results were interpreted with reference to Bowlby's hypotheses regarding the etiology of child disorders.

### **CONCLUSIONS:**

The findings build on and extend support for the use of attachment narrative assessments in the clinical context In order to better understand the specific conditions under which attachment representations attachment lead to adaptive versus maladaptive outcomes and underlying resilience-based processes in a sample of foster children.

## Attachment and Theory of Mind in Early Adolescence

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**Introduction:** Studies on children have shown an important relation between the security of attachment and understanding emotions (i.e. the affective theory of mind/aToM), but not between security of attachment and understanding cognitive mental states (i.e. cognitive theory of mind/cToM)(for review: Hughes, 2011). Unfortunately, little is known about the attachment-ToM relation during adolescence (for exceptions see: Humfress, O'Connor, Slaughter, Target, & Fonagy, 2002). Taking this gap in the literature as a starting point, this study aimed to assess the attachment-aToM/cToM relation in early adolescence.

**Method:** 100 13-year-olds were tested for security of attachment in relationships with their parents and peers (IPPA; Armsden & Greenberg, 1987), affective ToM (Unexpected Outcome Test, Dyck, Fergusson, & Shochet, 2001) and cognitive ToM (Hinting Task, Corcoran, Mercer, & Frith, 1995). Gender and language skills were controlled.

**Results:** There was no correlation between performance in the aToM and cToM tasks ( $r = .03, p = .388$ ). As regards aToM, hierarchical multiple regression revealed that, after partialling out the variance associated with gender and language (which were important predictors,  $R^2 = .28, F_{(2,97)} = 18.86, p < .001$ ), security of attachment was an important predictor of aToM ( $\Delta R^2 = .05, F_{(2,95)} = 3.58, p = .035$ ). Security in a relationship with parents was positively correlated with aToM ( $\beta = .18, p = .057$ ), but security in a peer relationship correlated negatively with aToM ( $\beta = -.22, p = .017$ ). The cToM was not predicted by any of the included predictors.

**Conclusions:** Much like in childhood, attachment in early adolescence is related to aToM, but not cToM. From a developmental perspective, this would suggest that attachment relationships, which are emotionally charged, may influence the development of thinking about affective states, but not cognitive ones. Thus, the collected data underlined the importance of the aToM/cToM distinction in studies on attachment-ToM relations.

## Assessment of preschool teachers' mentalizing capacities

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The project aims at developing an interview for preschool teachers based on an adaptation of the revised Parent-Development-Interview (PDI; Slade et al., 2004). The interview questions focus on the balancing of closeness and distance to assess the teachers' capacity to understand their students' behavior taking into account underlying relational needs, thoughts and feelings. The interviews are coded using the Reflective-Functioning-Scale (RF; Fonagy et al., 1998; Slade et al., 2005). Furthermore, based on an adaptation of the Assessment-of-Representational-Risk (ARR; Sled & Wain, 2013) additional coding scales capturing key aspects of caregiver representations (e.g., hostility, helplessness, emotional distress, idealisation, enmeshment, supportive presence, mutual enjoyment, incoherence) were developed. The pilot study encompassed qualitative analyses of  $N=12$  extensive interviews in order to develop the final version of the interview and to further elaborate the coding manual. Preliminary results suggest that the interview is suitable to assess a broad variance of teachers' mentalizing capacities. Moreover, correlation analyses indicate significant positive links of teachers' reflective functioning with their supportive presence and enjoyment, and negative relations with their hostility, helplessness, emotional distress, and the global dimension incoherence. In the main study the interview will be administered to  $N=66$  teachers and validated assessing the teachers' attachment representations with the Adult-Attachment-Interview (AAI; George, Kaplan, & Main, 2001). Furthermore, the teachers report on a questionnaire assessing relevant reference variables, such as teacher characteristics (e.g., age, educational background), child-care characteristics (e.g., group size, child-teacher ratio), and potential stress factors (e.g., depressiveness, working conditions, workload). This study shall give insights on a) the distribution of preschool teachers' attachment representations, and b) relations between teachers' attachment representations, their mentalizing capacities, and stress factors. These findings will be used to develop and evaluate an intervention program in order to foster teacher-child interactions and relationships.

**Attachment as a resource for healthy aging and psychological need satisfaction in older adults' daily life**

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*Keywords:* Adult attachment; old age; healthy aging; need satisfaction; relatedness

Secure attachment seems to function as a resource for health and well-being. However, little is known about the form and function of attachment in older adults and how it may serve well-being and satisfaction with life in old age. Recent research has shown that attachment and need satisfaction are associated in young and middle-aged adults. This effect might be even more pronounced in older adults for several reasons. For example, low levels of attachment anxiety and attachment avoidance may enable older individuals to not only remain satisfied with their social ties (respective high need satisfaction in the domain of relatedness), but also with regard to competence and autonomy. In order to examine how attachment orientations relate to need satisfaction in the domains of relatedness, autonomy and competence, we used data from an ongoing, intensive longitudinal study, which aims to sample 120 older adults across ten days. At baseline, attachment and need satisfaction were assessed as trait-like characteristics, and then sampled twice a day in order to capture fluctuation at a within-person level. Preliminary findings indicate that at baseline higher levels of attachment anxiety are significantly associated with lower levels of need satisfaction in all three domains while attachment avoidance only predicts lower levels of autonomy and relatedness, competence. With regard to longitudinal associations, baseline attachment anxiety predicted a lower intraindividual mean in relatedness and autonomy across the ten days. Baseline attachment avoidance was not related with need satisfaction in any of the three domains across the ten days. Overall, attachment anxiety seemed to be stronger associated with need satisfaction in old age than attachment avoidance is. Results are discussed with regard to how attachment orientations relate to short-term and long-term processes of health maintenance and how secure attachment orientations may serve as resources for well-being in late life.

## So-called attachment parenting - single case study

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So-called attachment parenting has become a growing trend among parents in Europe and USA in the last years. The leading principles of attachment parenting are co-sleeping, infant carrying on the parent's body and an extended breastfeeding on demand. It is presented as a natural parenting approach that provides the optimal environment for infant's growth, well-being and secure attachment development. However, the real-life impact on child's attachment quality and development has not been sufficiently proved by research and little is also known about the characteristics of parents who raise their child following the attachment parenting principles.

The poster presents a single case study of a mother-infant dyad from a project focusing on the links between infant attachment, parenting practices, maternal characteristics and maternal sensitivity in mother-infant interaction during home visits. Since extended breastfeeding on demand is one of the core principles of the attachment parenting, the mother who repeatedly breastfed her infant during home visit observation and during the SSP and who likewise describes herself as a mother who raises her child in compliance with the attachment parenting was chosen for the detailed description. Infant attachment was assessed using the Strange Situation Procedure (Ainsworth, Blehar, Waters & Wall, 1978). Maternal characteristics were assessed by self-report questionnaires (e.g. Emotional Labor by Liu & Zhang, 2014; The Ambivalence Over Emotional Expressiveness Questionnaire by King & Emmons, 1999; The Rigidity of Maternal Beliefs Scale by Thomason, Flynn, Himle & Volling, 2015) and the mother-infant interaction and maternal sensitivity were assessed based on video recording of home visit structured and unstructured sessions.

The causes of the differences between so called attachment parenting, the infant attachment type and the discrepancies and congruencies between the self-reports and observation are discussed.



## Subjective loneliness, well-being and marital satisfaction in couples with different attachment styles

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The research into different factors affecting the sense of satisfaction in relationships led to the conclusion that there is a broader context of adult attachment which shows associations with it and marital satisfaction (Mikulincer, Shaver, 2007; Meyers, Landsberger, 2002). In the presented, cross-sectional study, the direct association between three attachment styles (secure, avoidant, ambivalent) and marital satisfaction is explored empirically in the first stage. At the second stage, the indirect associations between two mentioned factors are investigated. It was examined whether psychological characteristics such as loneliness and well-being mediate the relation between adult attachment and marital satisfaction.

Four hypotheses were derived, it was hypothesised in the first and second hypotheses the direct associations between attachment styles of each spouse and the feeling of loneliness, satisfaction with life and marital happiness. Secondly, it was hypothesised in the third and fourth hypotheses that the feeling of loneliness and well-being are mediators between the attachment style and the level of marital happiness. In order to verify these hypotheses 250 married couples were surveyed, where the average length of marriage was 13 years. Four measures were used in the study. Individual attachment patterns were measured using the Plopa's Attachment Styles Questionnaire. Partners' life satisfaction was assessed by the Satisfaction with Life Scale. The quality of couples' relationships was measured by the Loneliness Scale and the Marital Happiness Questionnaire.

The study proved the existence of statistical relationships between attachment styles, well-being, loneliness and marital satisfaction. The research confirmed the mediating impact of loneliness and psychological well-being on the marital satisfaction of adults with different attachment styles.

As it turned out, the marital satisfaction can be seriously lessened by loneliness in safely attached adults and well-being can enhance this satisfaction in insecurely attached adults.

## Attachment parenting: The characteristics of mothers

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Attachment parenting (or so-called empathic parenting or natural parenting) is an approach to parenting that is chiefly characterized by intensive contact between the child and the mother (Washington & Dunham, 2011).

Attachment parenting is child-centred rather than parent-centred and most research based on this topic is about the impact of attachment parenting on the child (for example Washington & Dunham, 2011). Interest has recently been expressed in what the parents who follow attachment parenting principles are like. A description of such parental characteristics appears, for example, in a study by Green and Groves (2008), who published the characteristics of a total of 275 mothers who identified themselves as attachment parents. Most of the mothers came from the USA and Canada, whereas questions focused mostly on childcare and demographic characteristics.

The demographic characteristics of mothers of nine-month old children from the Czech Republic, who identified themselves as following the attachment parenting trend – extended breastfeeding and breastfeeding on demand, co-sleeping, extensive carrying and holding of infants, and rapid response to infant crying (Miller & Commons, 2010), will be presented on this poster. Information about feelings and attitudes of these mothers will be included along with the demographic characteristics.

The mothers whose characteristics will be presented, are involved in the longitudinal survey DOMOV, which is taking place in the Czech Republic and which investigates mothers from their third trimester of pregnancy until their children are three years of age.

The demographic traits, the attitude to the expected child rated during pregnancy, the mother's attitude to child rearing (IRA), the mother's anxiety (GAD-7), the mother's depression (PHQ-9), the mother-infant relationship (MABISC, PPBQ) and selected characteristics of child care (e.g. the frequency of carrying a child in a sling or carrier), will all be presented.

**Brief repeated maternal separation in mice: does it matter?**

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In altricial mammals, survival of infants depends on the strength of mother-infant attachment. For this reason, disturbances in the mother-infant relationship have profound influences on the physiological and behavioural development of both humans and rodents. The maternal separation is one of the most commonly used rodent models of early-life adverse experiences. Usually, maternal separation takes a relatively long time (3 to 24 hours). The studies with separation of less than 3 hours are rather scarce. However, carrying out any relatively brief manipulations with pups (such as assessment with a standard batteries of tests in the course of neonatal phenotyping, various pharmacological injections, surgical procedure, etc.) always requires separation of pups from the mother for the period starting from 30-60 minutes. So, the studies of the effects of maternal separation of such duration on the physiological and behavioural development are of importance.

Using our model of brief repeated maternal separation (45 min daily on postnatal days 3-6), we demonstrated both short- and long-term effects of this procedure on attachment behaviour in 129Sv mice. Firstly, odor preference learning, which is essential for the development of the mother-infant attachment, was impaired in neonates. Secondly, changes in maternal behaviour were found in the offspring females when tested later in adulthood. As a triggers that could cause these alterations we revealed the early-life stress responses in pups during separation: increase in corticosterone levels and ultrasonic vocalization rates, and also the changes in behaviour of their mothers.

Taken together, our findings suggest that even brief periods of maternal separation such as 45 min/day on the first week of life are sufficient to produce a deficit in attachment behaviour of mice.

## Transition of attachment hierarchy from early to late adolescence: Latent class and latent transition analyses

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The primary attachment figure shifts from parents to romantic partners in the course of development. The present study examined how this developmental shift occurs during adolescence and how its shift influences adolescents' developmental outcomes.

### Methods

Participants are 210 Czech adolescents (mean age=14.02, SD=2.05; females=54%) in four different cohorts: 6th graders ( $n=43$ ), 8th graders ( $n=71$ ), 10th graders ( $n=57$ ), and 12th graders ( $n=39$ ). They respond to our questionnaires every month since October 2016 until September 2018. Using the Important People Interview (IPI) developed in the United States by Rosenthal and Kobak (2010), we ask adolescents to rank order their attachment figures in 3 circumstances (1=general closeness, 2=separation distress, and 3=emergency situation). We also ask adolescents to complete the Positive Affect and Negative Affect Schedule (PANAS; Laurent et al., 1999).

### Results/Discussion

Latent class analyses demonstrated 4 patterns of adolescents' attachment hierarchy preferences (see Figure 1). Specifically, primary attachment figures were parents in Class1, parents but also friends as subsidiary attachment figures in Class2, friends in Class3, and romantic partners in Class4.

A Chi-square analysis ( $\chi^2(9)=74.74$ ,  $p<.001$ ; see Table 1) found that the percentage of the parents-only group (Class1) decreased from early to late adolescence. The two groups who nominated friends as primary or subsidiary attachment figures (Class2 and Class3) were the largest in middle adolescence. Finally, the romantic-partner group (Class4) increased from early to late adolescence.

We also found that in the romantic-partner group (Class4), high negative affects were reported when adolescents were younger than older. In the parents-only group (Class1), high negative affects were reported when adolescents were older than younger.

Finally, for the conference, we will also use longitudinal data to conduct a latent transition analysis to examine developmental changes in adolescents' attachment hierarchy preferences.

*Figure 1.* A latent class analysis demonstrated that four latent classes of attachment preferences in adolescents: Primary attachment figures were parents (Class1), parents subsidiarily with friends (class2), friends (class3), and romantic partners (class4). Numerical numbers indicate attachment circumstances: 1=general closeness, 2=separation anxiety, and 3=emergency situation.

Table 1.  
*Latent Classes with Respect to 4 School-Grade Cohorts*

	6th graders (Age of 11 & 12) (Cohort1)	8th graders (Age of 13 & 14) (Cohort2)	10th graders (Age of 15 & 16) (Cohort3)	12th graders (Age of 17 & 18) (Cohort4)
Parents (Class1)	72.1% (n = 31)	50.7% (n = 36)	33.9% (n = 19)	25.6% (n = 19)
Parents subsidiarily with friends (Class2)	23.3% (n = 10)	25.4% (n = 18)	32.1% (n = 18)	10.3% (n = 4)
Friends (Class3)	4.7% (n = 2)	22.5% (n = 16)	30.4% (n = 17)	25.6% (n = 10)
Partners (Class4)	0% (n = 0)	1.4% (n = 1)	3.6% (n = 2)	38.5% (n = 15)
Total	100% (n = 43)	100% (n = 71)	100% (n = 56)	100% (n = 39)

## The role of maternal antenatal depression and cortisol on infants' stress regulation

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Accumulating evidence indicates that maternal antenatal depression increases risk for adverse infant outcomes. Distress-linked alterations in the functioning of maternal Hypothalamic-Pituitary-Adrenal (HPA) axis are hypothesized to affect the development of infants' stress response system. However, few human studies have considered both maternal prenatal cortisol and depressive symptoms and evaluated whether they have independent or interacting effects on infant stress regulation.

The study aimed to explore the effects of maternal antenatal depressive symptoms and cortisol on infant stress response at birth and 3 months, taking into account maternal symptomatology after delivery and at 3 months.

110 women provided six saliva samples on two days between 34-36 gestational weeks and completed the Edinburgh Postnatal Depression Scale on the same occasion, after delivery and 3 months later. Infants' cortisol responses to heel-stick, at birth, and to inoculation, at 3 months, were evaluated.

We evaluated diurnal cortisol levels and depressive symptoms in 110 pregnant women as well as their infants stress reactivity soon after birth and at 3 months. We also monitored maternal depressive symptoms at delivery and 3 months later.

There were no significant main effects of maternal variables on infants' stress response. However, at birth, there was a significant interaction between maternal cortisol, depressive symptoms and the slope of newborns' response, with higher symptomatology associated with greater cortisol reactivity only in infants exposed antenatally to higher levels of maternal cortisol (Figure 1). Moreover, at 3 months, we found a significant interaction between maternal prenatal cortisol and the slope of infants' response, with higher levels of maternal cortisol associated with a steeper increase of infants' cortisol, and between depressive symptoms at 3 months and the slopes of infant response, with higher symptomatology associated with a flatter pattern of cortisol reactivity.

Maternal HPA axis functioning during pregnancy seems to exert an influence on infants' stress regulation, both in interaction with antenatal depression, at birth, and independently, at 3 months. However, the association between maternal postnatal depression and infants' cortisol response suggests that in utero effects on HPA-axis reactivity are open to postnatal shaping.

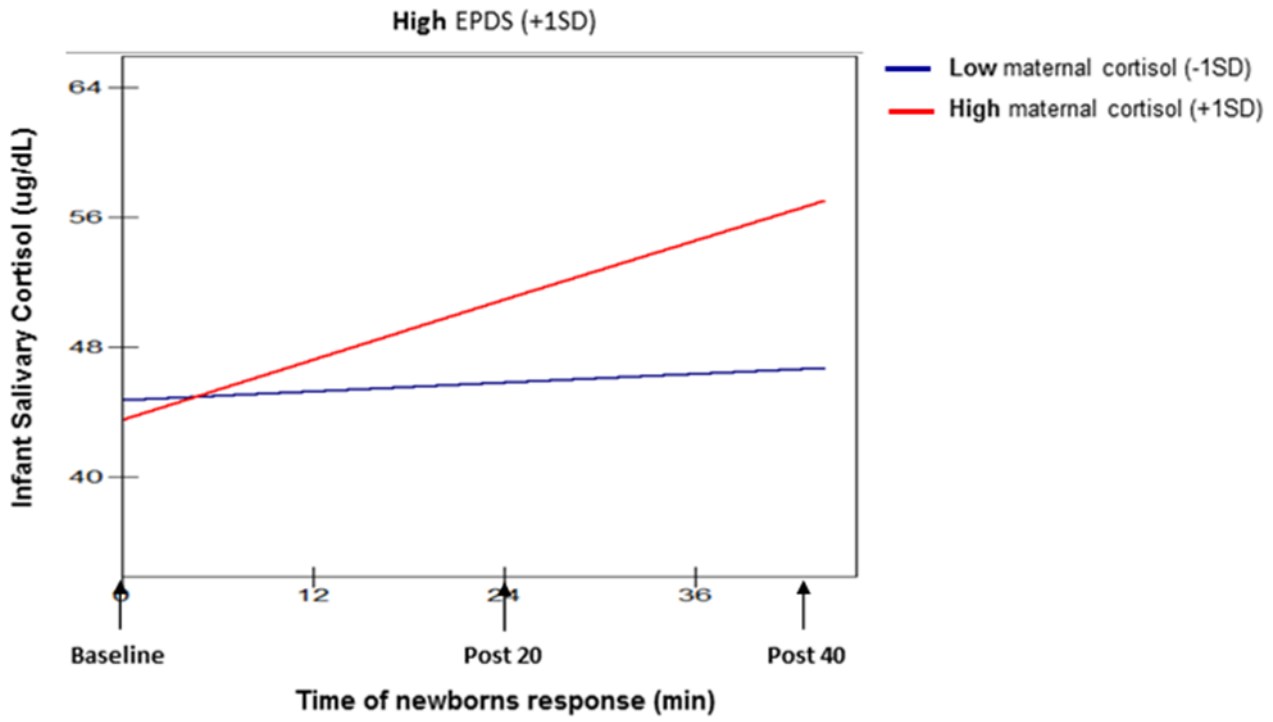


Figure 1 – Interaction between maternal cortisol, depressive symptoms and the slope of newborns' response on infant cortisol response at birth in women with higher depressive symptoms.

## The Role of Fathers' Parenting Expectations and Experiences in the Longitudinal Link between Attachment Avoidance and Postnatal Depressive Symptomatology

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**Background:** Despite increased focus on fathers' role, potential difficulties and protective factors in their transition to parenthood are still not well understood. Given evidence of links between paternal caregiving in specific and various child outcomes (Ramchandani et al., 2013), it is important to understand how features of men's transition to fatherhood may be related to their own and other family members' mental health and wellbeing. The present study explores longitudinal paths between fathers' attachment related anxiety and avoidance, marital satisfaction and parenting expectations prenatally and their actual parenting experiences, parenting stress, and burdening depressive symptoms three months postnatally.

**Methods:** Fathers (N = 182) completed an elaborate self-report survey twice, during the third trimester of pregnancy (T1) and about 3 months after the birth of the child (T2). Most participants were between 30 and 39 years old, married and employed. At T1, fathers' attachment related avoidance and anxiety, as well as parenting expectations and parenting representations were assessed. Assessment at T2 included actual parenting experiences, self-image as father, parental stress and burdening depressive symptoms. Marital satisfaction was assessed both at T1 and T2.

**Results:** Marital satisfaction and anticipated parenting satisfaction were moderately associated with one another prenatally (T1). This association was strengthened postnatally (T2), particularly in first-time fathers. Furthermore, fathers anticipated satisfaction with parenting was significantly higher than their experienced satisfaction, and relationship quality significantly declined after the birth of the child, but only when fathers were expecting their first child. Attachment avoidance predicted formation of less positive expectations, while negatively violated expectations were strongly linked to depressive symptomatology postnatally (Figure 1).

**Conclusion:** Despite difficulties in determining the causal direction in some of these relationships, results highlight the importance of specific psychological features of the transition to parenthood for first-time fathers' wellbeing and for preventive work concerning perinatal paternal depression.

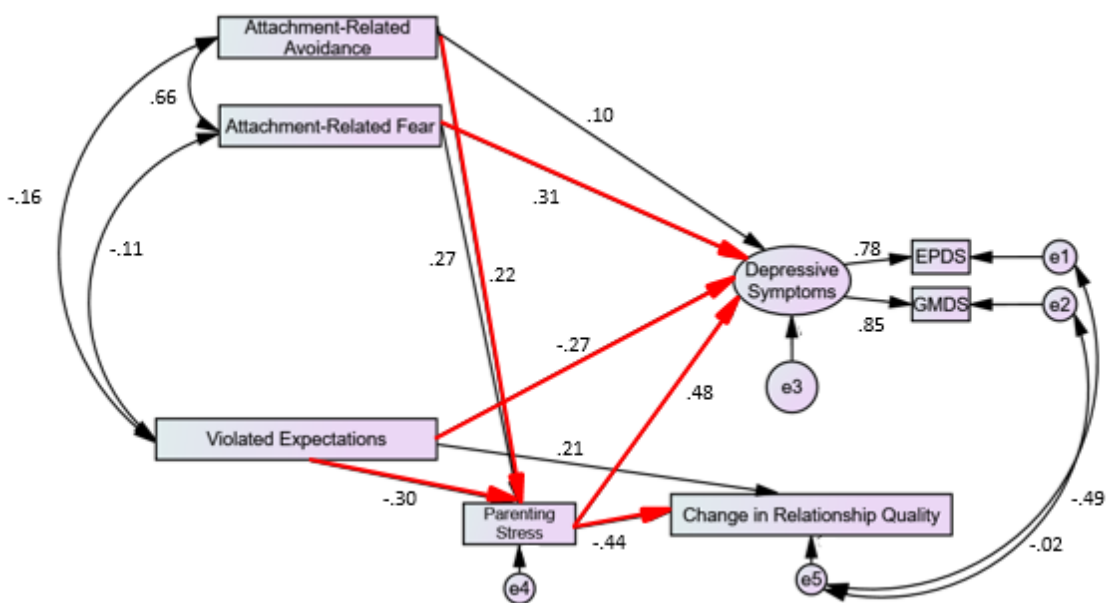


Figure 1. The final model predicting postnatal depressive symptoms and change in relationship quality after modification. Displayed are standardized estimates. Significant paths are displayed in red. e = error.



## Attachment Security at 24 months and Curiosity at Kindergarten in a Nationally Representative US Sample

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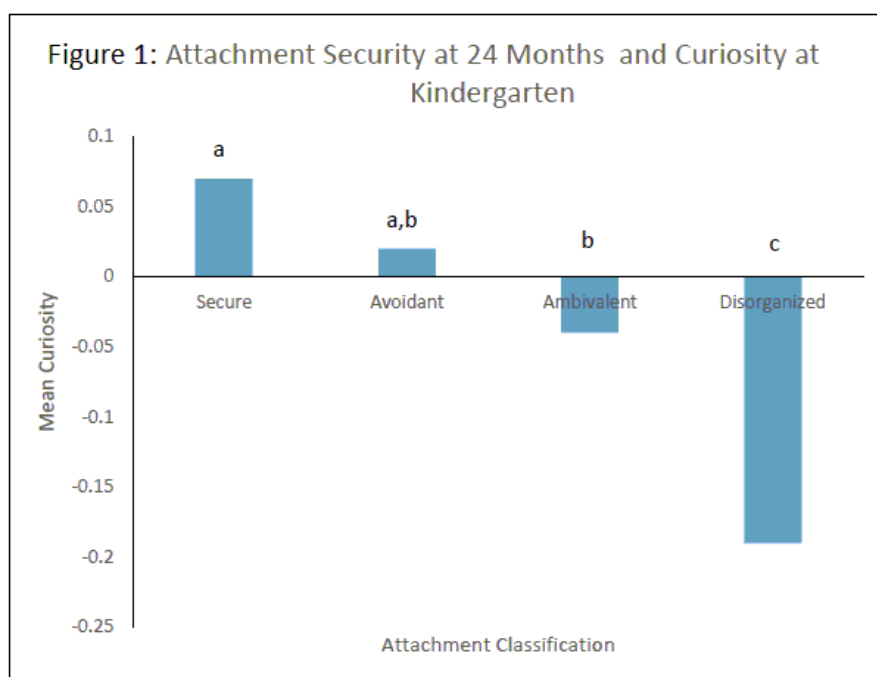
**Background:** Curiosity is the desire for new information that motivates knowledge acquisition and exploratory behavior. Young children often manifest their “desire to know” by asking questions of their parent. It is believed that higher parental contingent responsiveness is associated with higher curiosity. Contingent parental responsiveness is also associated with infant attachment security. It is unclear whether infant attachment security is also associated with higher curiosity in early childhood.

**Objective:** To examine the association between infant attachment security at 24 months of age and curiosity at kindergarten in a nationally representative sample. We hypothesize that children with more optimal attachment classifications in infancy will exhibit higher curiosity in kindergarten.

**Methods:** Sample included 5050 children in the ECLS-B. Attachment security (secure, avoidant, ambivalent, disorganized) was assessed at 24 months using the Toddler Attachment Q-Sort, and a 6-item measure of curiosity at kindergarten was generated from a parent-report questionnaire of behavior using confirmatory factor analysis ( $\alpha = 0.74$ ). Mean curiosity scores in each attachment group were examined with univariate t-tests with pairwise comparisons testing for group differences. Multivariate linear regression further examined the association between ordinal attachment categories and curiosity after controlling for potential confounders.

**Results:** Standardized curiosity scores ranged from -4.87 to 1.43 ( $M=0.01$ ,  $SD=0.87$ ) Mean curiosity scores varied by attachment classification: Secure:  $M=0.07$   $SD=0.80$ ; Avoidant:  $M=0.02$ ,  $SD=0.90$ ; Ambivalent:  $M=-0.04$ ,  $SD=0.90$ , Disorganized  $M= -0.19$   $SD =0.90$  (Figure 1). After controlling for child’s age, birthweight, maternal age, maternal sensitivity, race, infant sex and school placement, attachment classification continued to be significantly associated with curiosity, with more disordered attachment being associated with lower curiosity ( $\beta = -0.04$   $p = .04$ ).

**Conclusion:** More optimal attachment security at 24 months, was associated with higher curiosity at kindergarten in adjusted analyses. Fostering infant attachment security may be one potential way to optimize curiosity in early childhood.



Superscripts that differ from each other (a,b,c) indicate significant group differences at a level of  $p < .05$

**Internal working models of attachment in dreams****Bédard M<sup>1</sup>**, Simard V<sup>1</sup>, Laverdière O<sup>1</sup><sup>1</sup>*University of Sherbrooke*

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Internal working models (IWMs) are a narrative measure of attachment, more precisely thoughts composed of emotionally charged expectations towards oneself and others (Bowlby, 1969). Those structures are supposed to develop through contact with primary figures, but only a few studies have assessed IWMs early in life. Furthermore, to get a better understanding of IWMs, it might be necessary to assess them in other states of consciousness (ex. dreams) to see continuity or discontinuity with waking life. The objectives of this study was to develop a scoring system of IWMs in dreams, to assess its reliability, as well as the wake-dream continuity of IWMs in children and adolescents. A total of 19 French-Canadian from Montreal, Canada (63.2 % boys, 36.8 % girls; M = 11.56 y-old, SD =2.27 years) completed the Children Attachment Interview (CAI; Target, & al., 1999). Participants were asked to record (with a recorder) their daily dreams upon awakening during 14 straight days (M = 6.74 dreams; SD =3.4). A total of 128 dreams were recorded. An analytical grid of dream representation (GARO) will be used to assess IWMs (presence vs. absence) and their intensity (1=vague to 10=omnipresent) in dreams. Two random coders (fully crossed design) will independently code IWMs on half of the dreams. We expect an IRR ranging from moderate (0.41-0.60) to excellent (0.81-1). Partial correlation will determine if the IWMs assessed in the interviews are linked to the IWMs detected in dreams (continuous scores taking the intensity into account), controlling for confounders (ex. gender, age, number of dreams). A wake-dream continuity of IWMs is also expected for most of the sample. Studying IWMs in another state of consciousness could enable researchers to access those structures without the usual defense mechanisms (ex. Sheffield & Waller, 2012) through more unconscious material like dreams.

## Attachment Stability and Childcare Transition in Chile.

**Cárcamo R<sup>1</sup>**

<sup>1</sup>*Department of Psychology, University of Magallanes*

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This is an ongoing project that will finish in March 2017. Sixty six dyads were recorded at home in natural settings to evaluate attachment behaviors measured with the Attachment During Stress Scale (ADS; Massie & Campbell, 1983), when children were 9.26 ( $SD = 2.66$ ) months old on average. All of them exclusively experienced maternal care at that time. The ADS was coded by blinded coders and showed a pattern of distribution similar to that of non-clinical samples. Seventy percent of the sample showed mainly securely attachment behavior. Others variables, such as quality of the home environment (HOME), maternal depression (BSI), parental self-efficacy (EEP), and socio-demographics were also measured at this time point. One month after the first time point, all children started attending daycare centers and during the first weeks children were recorded twice to measure negative emotions during the separation phase at daycare. During the first year of attending non-maternal care, type of attachment was measured in 34 children from the original sample, using the Strange Situation Procedure (SSP) to inspect the stability of the attachment pattern, taking into account maternal sensitivity and variables of the daycare centers, such as their quality (ITERS-R) and structural variables. Results will be presented in terms of the association between type of attachment as measured by the ADS and the expression of emotions during the separation phase at daycare, and in terms of the stability of the behaviors that children display related to the type of attachment as measured by the ads and the type of attachment shown during the SSP. The discussion will focus on the role that attachment plays in the adaptation of children during the transition to daycare centers and on the relations with the variables mentioned.

**Attachment behavior, attachment representations and attachment disorder symptoms in Georgian foster children.**

**Jorjadze N<sup>1,2</sup>**, Bovenschen I<sup>2</sup>, Spangler G<sup>2</sup>

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Foster children have been found to be a highly vulnerable group for a variety of social, psychological, and behavioral problems. However, recent studies have shown that positive changes in caregiving quality may buffer against negative effects of early adversity on children's development.

The main objective of our study was to investigate attachment security, on the behavioral as well as on the representational level, and attachment disorder symptoms in Georgian foster children with various degree and different kind of early adverse experiences.

The study sample consisted of two groups of foster children. One group had experience of institutional care before moving to foster care (N=30), the other group was placed in foster care directly after being removed from their biological families (N=31). Additionally, a control group of children being raised in their biological families was included (N=30).

Data assessment included measurements of attachment security (AQS, Story Stem) and attachment disorder symptoms (DAI). In addition, pre-placement experiences of children were assessed from foster care agency reports. We found lower attachment security, higher disorganization and a higher prevalence of attachment disorder symptoms in both groups of foster care, compared to the control group. Attachment security was lower in children with symptoms of inhibited attachment disorder. We could not find associations between child's pre-placement experiences, and attachment security with current foster parent.

**Brain responses to children's emotional expressions in mothers of school-aged children. Associations with mothers' trait anxiety.**

**Kungl M<sup>1</sup>**, Heinisch C<sup>1</sup>, Kahler J<sup>1</sup>, Spangler G<sup>1</sup>

<sup>1</sup>*Friedrich - Alexander University*

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The neural processing of emotion expressions in faces is complex. One basic feature that is crucial to the quality of mother-child relationships is the mother's perception of the child's signals of distress. A number of studies has investigated mother's brain responses to infant faces (e.g., Malek et al., 2014), however, less is known about mothers' brain functions during middle childhood, when the attachment relationship represents a goal-directed partnership.

In this study 38 mothers (M= 43.83 yrs, SD=4.93) of school-aged children viewed emotional faces of children (Radbound Faces Database; Langner et al., 2010), embedded in a Go-NoGo task. Neutral expressions were Go-Trials (button press) and angry, fearful, happy and sad facial expressions represented the NoGo (see Hare et al., 2005). EEG data was recorded from 64 channels. Anxiety symptomatology was assessed using the STAI (Spielberger, 1985).

Subliminary analyses showed P300 and N2 amplitudes to be increased in NoGo trials as compared to Go trials. In No-Go conditions there was a significant main effect for emotion with amplitude responses being increased for children's angry expressions (P300) and sad/fearful expressions (N2).

We interpret our findings with regard to the different meaning of certain valences of children's negative emotions within the mother-child relationship. More precisely, we assume that enhanced P300 amplitudes to angry faces reflect attentional resource allocation needed for evaluation as children often „make“ an angry faces to express their disagreement with mother's demands. The N2, however, as a marker for cognitive response inhibition may be more enhanced to emotions with a stimulative nature (sad/fearful) which is in contradiction with task requirements (NoGo). This makes sense regarding the protective function of the mother-child attachment relationship. Thus, our results may represent evolutionary anchored brain mechanisms specific to motherhood.

Furthermore, we found mothers' trait anxiety to moderate these brain responses. Analyses are still in progress.

## A long-term follow-up with late-adopted children: stability and change of attachment models during adolescence.

Pace C, **Muzi S**

<sup>1</sup>*Department of Educational Sciences, University of Genoa*

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**Introduction.** The adoption of older children would be considered a powerful factor of change enabling them to revise their insecure and/or disorganized Internal Working Models (IWMs), which were built on the negative experiences in their pre-adoption lives. The research design was a long-term longitudinal study including three data collections: 1) T1: at the beginning of adoption, 2) T2: after 7/8 months from placement, 3) T3: during adoptees' adolescence (at least 5.5 years from placement). The main goal was to examine the continuity and change of the adoptees' IWMs in this long-term follow-up.

**Methods.** *Participants:* Late-adopted adolescents (aged 11-15 years,  $M=13.1$ ), placed for adoption between 4–8 years (without any special needs), were assessed at T1 ( $N=29$ ), T2 ( $N=29$ ) and T3 ( $N=22$ ). *Measures:* 1) Separation-Reunion Procedure (SRP) to assess the attachment behavioural patterns in childhood (T1 and T2), 2) the Manchester Child Attachment Story Task (MCAST) to evaluate the attachment representations in childhood (T2); 3) The Friends and Family Interview (FFI) to assess attachment representations in adolescence (T3).

**Results.** Our findings revealed: 1) a significant change from insecure towards secure behavioural attachments (62% from T1 to T2 (SRP, McNemar test,  $p=.001$ ), 2) a global change from insecure behavioural attachment at T1 (SRP) towards secure attachment representations (50%) at T3 (FFI, McNemar test,  $p=.001$ ); 3) a significant concordance (82%) between secure behavioural attachments at T2 (SRP) and secure attachment representations at T3 (FFI,  $r_{phi}=.647$ ,  $p=.002$ ), while no significant concordance (52.4%) was found between secure attachment representations assessed at T2 (MCAST) and at T3 (FFI,  $r_{phi}=.055$ ,  $p=.801$  n.s.)

**Discussion.** In conclusion, late-adopted children seem to be able to revise their IWMs from insecurity towards security since the first period after placement (T1-T2) and then they keep over time this earned security until adolescence (T1-T2-T3).

## The Mediating Role of Emotion Socialization Between Maternal Mentalization and Toddlers' Socio-Emotional Adjustment

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<sup>1</sup>*bogazici University*, <sup>2</sup>*Ozyegin University*

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Emotion socialization refers to caregivers' emotion expression and modeling, their conversations about feeling states as well as their immediate reactions during emotionally-charged situations (Eisenberg, Cumberland, & Spinrad, 1998). Eisenberg et al.'s heuristic model of emotion socialization postulates that caregiver characteristics such as personality and emotion-related beliefs would influence emotion socialization. Yet, we know relatively little how caregivers' mentalization skills, i.e., their awareness of their own and their children's emotions and their ability to make connections between the two (Sharp & Fonagy, 2008), would relate to their specific responses to child distress. Therefore, the first goal of the study was to explore the relations among mothers' mentalization, their emotion socialization responses, and toddlers' socioemotional adjustment in terms of externalization and internalization symptoms. The second goal was to investigate the mediating role of mothers' emotion socialization responses between their mentalization skills and child adjustment. Mothers ( $N= 185$ ) with toddlers (*Age Range= 18-36*) from low SES in Turkey completed the Parental Reflective Functioning (Rutherford et al., 2013), the CBCL (Achenbach & Rescorla, 2001), and the Coping with Toddler's Negative Emotions (Spinrad, et al., 2004) scales. Results showed that, after child age was controlled, mothers' mentalization was significantly and negatively correlated with their own emotional distress and punitive reactions to toddlers' negative emotions, as well as with child's externalization and internalization symptoms. Maternal distress and punitive reactions were also both significantly and positively associated with internalization and externalization symptoms. Hierarchical regression analyses revealed that the relationship between mothers' mentalization and externalization symptoms was mediated by maternal punitive reactions (*Sobel Test Statistics: -3.05,  $p < .01$* ). However, in the case of internalization symptoms, there was no support for a mediational model. Findings will be discussed with respect to the role that mothers' mentalization capacity can play a role in emotion socialization.

**Being a mother of preterm multiples in the context of socioeconomic adversity: Psychological symptoms, daily stress, and sensitivity**

**Baptista J**<sup>1</sup>, Moutinho V<sup>1</sup>, Mateus V<sup>1</sup>, Guimarães H<sup>2</sup>, Clemente F<sup>2</sup>, Almeida S<sup>2</sup>, Andrade M<sup>3</sup>, Dias C<sup>3</sup>, Freitas A<sup>3</sup>, Martins C<sup>1</sup>, Soares I<sup>1</sup>

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**Abstract**

This study aimed to examine the differences between mothers of preterm multiples and mothers of singletons in maternal psychological symptoms, stress and sensitivity, and to explore the adverse amplified effect of socioeconomic disadvantage. Ninety-five mothers of preterm children participated in the present study. Mothers were 34.01 years ( $SD=5.20$ ). Infants had one year of corrected age. To assess maternal psychological symptoms and daily stress, mothers completed the Brief Symptom Inventory (Derogatis, 1982) and the Daily Hassles Questionnaire (Kanner, Coyne, Schaefer, & Lazarus, 1981). Sensitivity was assessed during a mother-child play-situation using Ainsworth's Maternal Sensitivity Scales (Ainsworth, 1978). Mothers reported on three socioeconomic risks, each scored as absent (0) or present (1): family living in poverty (monthly income, adjusted for family size, below national income levels), parent unemployment and low education. Two groups of socioeconomic disadvantage were created: mothers exposed ( $\geq 1$  risk;  $n=54$ ) and not exposed to socioeconomic adversity ( $n=41$ ). A child medical risk index was calculated, to serve as covariate, consisting on the mean of standardized scores of child gestational weeks, birth weight, and days in NICU. There was a significant effect of multiple births on higher levels maternal stress,  $F(1,90)=10.70$ ,  $p=.002$ . Regarding maternal psychological symptoms, there was a significant multiple births X socioeconomic disadvantage interaction,  $F(1,90)=5.25$ ,  $p=.024$ . This effect revealed that mothers of twins exposed to socioeconomic adversity reported more psychological problems, than mothers of twins not exposed to such disadvantage. No significant differences were observed between the groups of socioeconomic adversity among mothers of singletons. The coding of maternal sensitivity is underway.

Mothers of preterm multiples are at higher risk to present mental health symptoms than mothers of singletons, especially when exposed to socioeconomic adversities. The development of psychosocial intervention programs (and public policies) are of decisive importance in helping mothers of twins adjusting to parenthood.

**Brief statement**

This study aimed to examine the differences between mothers of preterm multiples and mothers of singletons in psychological symptoms, stress and sensitivity, and to explore the amplified (putatively adverse) effect of socioeconomic disadvantage. Ninety-five mothers of one-year-olds born preterm participated in this study. Maternal sensitivity was assessed during a mother-child play-situation. Mothers reported on psychological symptoms and stress. Two groups of socioeconomic disadvantage were created (exposed vs. not exposed), based on maternal reports on family risks. Results revealed that mothers of preterm multiples showed higher levels of daily stress. An interaction effect between multiple births and socioeconomic adversity was also found. Follow-up analyses revealed that mothers of twins exposed to socioeconomic adversity reported more psychological problems, than mothers of twins not exposed to such disadvantage. No significant differences were observed between the two groups of socioeconomic adversity among mothers of singletons. The coding of sensitivity is underway.



## Mothers' Attachment Style Predicts Insensitive Parenting Behavior: The Mediating Role of Maternal Emotions and Attributions about Child Distress

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A central hypothesis within attachment theory is that parents' own attachment influences parenting in ways that contribute to their children's attachment; little is known, however, about mechanisms through which self-reported adult attachment style (as opposed to the AAI's state of mind) affects parenting behavior (Jones et al., 2015).

Growing evidence indicates that parents' insecure attachment fosters negative emotions/cognitions about their children in attachment-relevant situations (e.g., when the child is distressed). For example, an insecure mother may perceive her child's crying as manipulative, given insecure individuals' negative attribution biases (Dykas & Cassidy, 2011). These emotions and cognitions may then lead to insensitive responding to child distress, a key antecedent to children's insecure attachment (Leerkes, 2011).

The study goal was to examine a prospective link between maternal attachment style and insensitive responding to child distress, with emotions and attributions about child distress as mediators. We hypothesized maternal insecure attachment would predict more insensitivity, mediated by more negative and fewer positive emotions/attributions.

Low-income mothers of preschoolers ( $N = 166$ ; 80% African-American) reported their attachment style and typical responses to their children's distress at Time 1 (T1). Months later (T2), mothers completed a measure assessing positive and negative emotions/attributions in response to videotapes of crying infants (Leerkes & Seipak, 2006), and again reported their responses to child distress. Because the sample participated in an RCT of intervention effectiveness, number of intervention sessions attended and baseline levels of insensitive responding to distress were controlled.

Structural equation modeling revealed total mediation to provide the most parsimonious account (Table 1): Specifically, attachment anxiety at T1 predicted more insensitive parenting at T2 (controlling for initial levels), a link which was fully mediated by heightened negative emotions/attributions about child distress. No paths from attachment avoidance or positive emotions/attributions emerged (Figure 1). Results provide evidence for a mechanism through which maternal insecure attachment style may influence important parenting behavior.

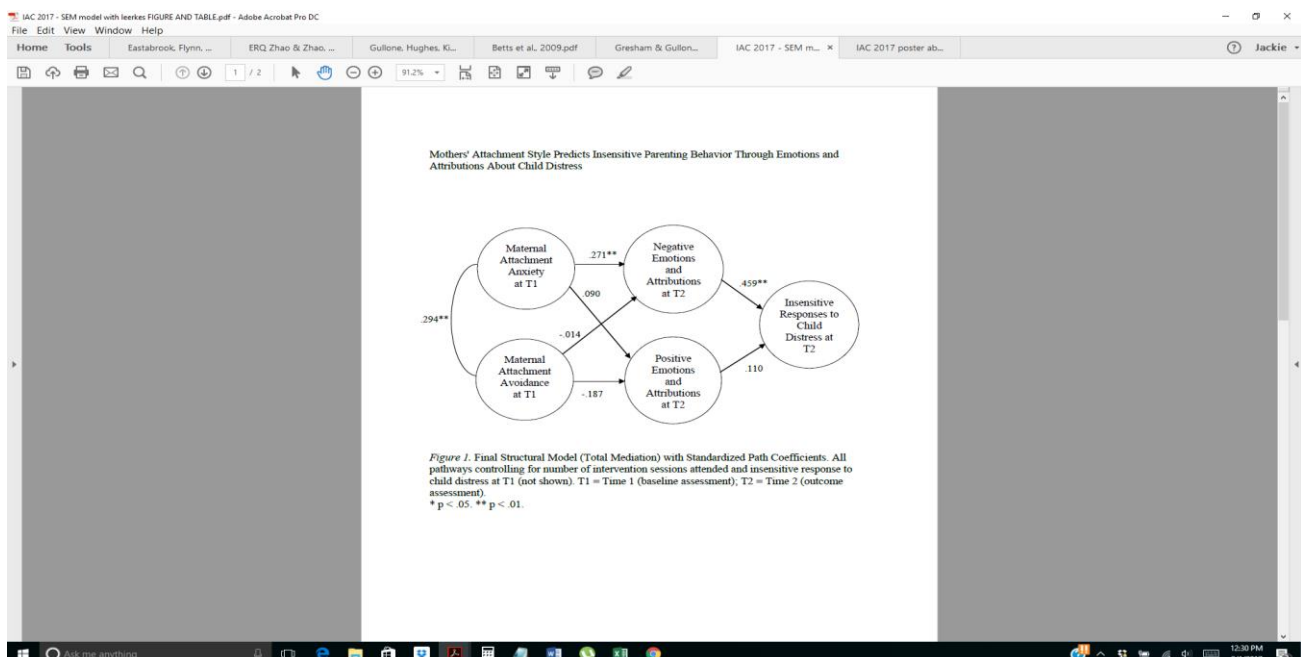


Figure 1. Final Structural Model (Total Mediation) with Standardized Path Coefficients. All pathways controlling for number of intervention sessions attended and insensitive response to child distress at T1 (not shown). T1 = Time 1 (baseline assessment); T2 = Time 2 (outcome assessment).

\*  $p < .05$ . \*\*  $p < .01$ .

The screenshot shows a PDF document with a table titled 'Table 1: Summary of Data-Model Fit Statistics for all Tested Models'. The table compares four models: Initial CFA, Final CFA, First structural model (total mediation), and Second structural model (partial mediation). The columns include Model,  $\chi^2$ , *df*, CFI, SRMR, RMSEA, 95% CI for RMSEA, and  $\chi^2$  difference test. The Final CFA model shows the best fit with a  $\chi^2$  of 97.07 and a CFI of .95. The First structural model (total mediation) has a  $\chi^2$  of 102.06 and a CFI of .94. The Second structural model (partial mediation) has a  $\chi^2$  of 97.07 and a CFI of .95. The  $\chi^2$  difference test shows that the First structural model is significantly worse than the Final CFA model ( $\Delta\chi^2(3) = 24.11, p < .001$ ), while the Second structural model is not significantly different from the Final CFA model ( $\Delta\chi^2(2) = 4.99, p > .05$ ).

Model	$\chi^2$	<i>df</i>	CFI	SRMR	RMSEA	95% CI for RMSEA	$\chi^2$ difference test
Initial CFA model	121.18	69	.91	.061	.067	(.047, .087)	
Final CFA model (with 3 covarying residual pairs)	97.07	66	.95	.057	.053	(.028, .075)	$\Delta\chi^2(3) = 24.11, p < .001$
First structural model (total mediation)	102.06	68	.94	.057	.055	(.031, .076)	$\Delta\chi^2(2) = 4.99, p > .05$
Second structural model (partial mediation)	97.07	66	.95	.057	.053	(.028, .075)	

Note. CFI = comparative fit index; SRMR = standardized root-mean-square residual; RMSEA = root-mean-square error of approximation; CI = confidence interval; CFA = confirmatory factor analysis.

Note. CFI = comparative fit index; SRMR = standardized root-mean-square residual; RMSEA = root-mean-square error of approximation; CI = confidence interval; CFA = confirmatory factor analysis.

## The Building Early Attachment and Resilience (BEAR) Study– Supporting Mums and Bubs

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**Background:** Infancy is a crucial developmental period during which early experiences including the quality of care-giving influences brain architecture and neuronal functioning and helps to shape capacities central to later psychological and emotional health. Attachment Theory stresses the significance of the infant's relationship with the primary care-giver and the role of parental capacity to read and process infant affective communication. However parental mental illness, anxiety and history of early adversity and trauma can have a negative impact on this relationship. Pregnancy offers a window of opportunity to provide early interventions for parents at risk. The main aim of this study is to evaluate the efficacy of two attachment focussed interventions aimed at decreasing maternal stress and anxiety and improving emotional interaction and the attachment relationship with their infants, in a quasi-randomised control trial.

**Method:** Women attending for antenatal services at a tertiary referral women's hospital and referred to mental health services are recruited into the study and randomised to one of 3 treatment groups and a control group: mindfulness-based antenatal program, attachment-based postnatal program, mindfulness-based antenatal program followed by attachment-based postnatal program.

**Results:** Data is collected by self-report and assessment. The primary outcomes are: maternal parenting ability, the infant-parent attachment relationship, maternal mental health and functioning, and infant development.

**Conclusion:** Data collection commenced in late 2015 and is ongoing. This poster presents the study design and protocol and initial data on the first 100 participants.

## **The influence of prenatal risks on attachment, emotion regulation and emotional and behavioral problems in middle childhood: A prospective longitudinal study**

**Ziegler C<sup>1</sup>**, Zalan V<sup>1</sup>, Eichler A<sup>2</sup>, Heinrich H<sup>2</sup>, Moll G<sup>2</sup>, Fasching P<sup>3</sup>, Beckmann M<sup>3</sup>, Kornhuber J<sup>4</sup>, Spangler G<sup>1</sup>

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Deficits in emotion regulation are closely linked to psychopathology. Their development is shaped dominantly by children's early attachment experiences. There is growing evidence that vulnerability for deficits in emotion regulation and consequently psychopathology may be caused even earlier during pregnancy. Maternal depression and fetal alcohol exposure are among the most common prenatal risks thought to influence the development of systems central to emotion regulation processes via fetal programming. The major objectives of this study were to assess long-term effects of these early risk factors on the child's emotional competences, attachment security and behavioral and emotional problems and to investigate the mediating or moderating role of emotional regulation and attachment security for the development of problems.

The Franconian Cognition and Emotion Studies have been following a sample of 96 mother-child-dyads (n=28 with fetal alcohol exposure, n= 32 with prenatal maternal depression, n = 36 control group) since the last trimester of pregnancy until the children's age of 8 to 10 years. Maternal depression was assessed during pregnancy, and shortly and six months after birth via maternal self-report, fetal alcohol exposure was assessed during the last trimester via an objective biomarker ethyl glucuronide extracted from infant's meconium and via maternal self-report. At age 8 to 10 attachment was assessed using the Attachment story completion task, child emotional competences were assessed using a subset of questions from the Late Childhood Attachment Interview and by maternal report. Child emotion and behavior problems were assessed using the Strength and Difficulties Questionnaire.

Analyses are still running, first results reveal deficits in emotion regulation only for the prenatal depression group, while emotional and behavioral problems were heightened in both risk groups. Further analyses will include the child's attachment security and maternal postnatal depression. In addition regression analyses will be conducted to investigate mediating and moderating processes.

## Associations between attachment security and hippocampal and amygdalar volumes in early childhood

**Stern J**<sup>1</sup>, Botdorf M<sup>1</sup>, Cassidy J<sup>1</sup>, Riggins T<sup>1</sup>

<sup>1</sup>University of Maryland

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Childhood experiences of sensitive caregiving are critical for healthy development, and predict a range of social and neurobiological outcomes (Thompson, 2016). Despite emerging evidence that severe negative parenting impacts the developing brain (Belsky & de Haan, 2011; Nelson et al., 2011), researchers are just beginning to examine how normative variation in caregiving shapes brain development (Bernier, Calkins, & Bell, 2016). We present exploratory data investigating the relationship between attachment security and hippocampal and amygdalar volumes in early childhood.

Twenty-one 4-8-year-old children ( $M=6.46$  years,  $SD=1.20$ ) responded verbally to a modified version of the Security Scale (Kerns et al., 1996). One week later, children completed an MRI scan. T1-weighted high-resolution ( $1\text{mm}^3$ ) anatomical images were acquired using a standard structural MRI scan sequence (MPRAGE). Scans were processed and hippocampal and amygdalar volumes for left and right hemisphere were acquired via Freesurfer v5.1.

Preliminary findings indicate a marginal negative correlation between Security Scores and right hippocampal volume,  $r(20)=-.40$ ,  $p=.09$ . This relation was specific to right hippocampal volume; Security Scores were not significantly related to left hippocampal or amygdalar volumes,  $ps>.20$ . In addition, age was negatively related to Security Scores,  $r(20)=-.49$ ,  $p<.03$ , but not hippocampal or amygdalar volumes,  $ps>.16$ . Future analyses will examine potential influences of age on associations between attachment and brain structure.

Results contribute to emerging evidence for a link between attachment and brain structure in childhood, providing initial evidence that normative variations in attachment security are related to hippocampal volume. In contrast to findings in adults (Moutsiana et al., 2015), amygdalar volume was unrelated to attachment, suggesting that attachment-related differences in the amygdala may emerge later in development. These preliminary findings represent a promising trend that we will explore further when we have acquired a larger sample size. We anticipate having a sample of 80 participants by June 2017.

## S5.1

### **Attachment in digital worlds: good games, bad games and life events**

**Coulson M<sup>1</sup>**, Oskis A<sup>1</sup>, Gould R<sup>2</sup>, **DeMarco J<sup>1</sup>**, **Bifulco A<sup>1</sup>**

<sup>1</sup>Middlesex University, <sup>2</sup>University College London

Symposia 5.1, Clarke Hall, Level 3, June 30, 2017, 3:15 PM - 4:45 PM

#### **Avoidance of the real and anxiety about the unreal: Attachment style and video gaming**

The digital game world offers the opportunity for an individual to engage in a range of relationships, from asocial to parasocial to fully social, all of which can foster relational processes of play, exploration and attachment. In addition to being a prime reason why we play, attachment lies at the heart of *how* we play. This study explored attachment-related dimensions of Massively Multiplayer Online (MMO) game players' online and offline relationships, and the ways in which attachment style relates to the motivation to play. The empirically derived model of player motivation within MMOs by Yee et al. (2012) was used as a framework for the current study. A total of 1,659 MMO players were recruited online through various websites and forums, where they completed a large online survey measuring their general attachment and attachment behaviour towards at least two specific relationships in the lives, as well as their motivation to play MMO games. We also considered attraction (operationalised as physical, social and task attraction) in order to gauge the strengths of relationships formed in the absence of any physical presence. Results revealed relationships between avoidant attachment and social motivation, and anxious attachment and immersion motivation, suggesting an individual's playstyle is at least partly determined by their attachment style. Evidence also suggested that relationships formed within digital playscapes were more secure in terms of lower anxiety and lower avoidance. Low levels of general attachment avoidance (for relationships in general), and high levels of attachment anxiety, both independently predicted social motivation, suggesting that people with a desire for affiliation are drawn to the social elements of playscapes. Studying the manifestations of attachment-related dimensions and their effects in digital playscapes may contribute to our understanding of the effects of life online, and how insecure attachments may become secure.

#### **Attachment style and online risk: Proposing a framework for understanding online sexual solicitation**

Traditionally attachment styles have been investigated with reference to the real or offline world where specific elements of ones behaviours and interpersonal relationships are gauged as a consequence of their childhood experience with significant caregivers. European research exploring online offending and victimisation in 2012 supported a conceptual link between attachment and external factors when considering risk and vulnerability online. Behaviours associated with exploration/learning—essentially that individuals with secure attachment styles learn to navigate and understand risks in a superior manner because they are more confident about exploring their environment whereas those presenting with insecure attachment styles are either increasingly inhibited or not inhibited enough in interacting with the outside world and consequentially being subjected to increased risks of solicitation and sexual content.

This presentation seeks to link research conducted by Webster, Davidson and Bifulco (2014) on grooming behaviour and that by DeMarco and colleagues (2017) exploring typologies of youth risk to online solicitation by underpinning the newer profiles with attachment styles. In particular, two distinct groups identified as Risk Taking Aggressors and Inquisitive Sexual young people were found to manifest behaviours very similar to the 'risk taking' and 'vulnerable' groups identified by Webster and colleagues. How different attachment styles may influence the outward manifestations of risk taking online and lead to susceptibility of being contact by sexual predators is discussed. Implications for both public health approaches to engaging young people about the risks as well as improving internet safety awareness for those with insecure attachments styles are discussed.

#### **Using technology for assessing attachment vulnerability and stress – preliminary findings**

Attachment behaviour is evoked under stress, and insecure attachment styles relate to poorer coping with stress, less effective access to social support and to depression. This is related to a range of factors including emotion-regulation, incapacity to identify personal need and mistrust of others. Intensive interview approaches have shown those with insecure attachment styles also have increased numbers of severe life events and related long term problems. This is

the result of problematic close relationships, for example with partner, children and close family and friends. But also those with insecure styles and adverse childhoods move into more deprived or chaotic social environments. Both incur risk.

However, interview assessments are not always possible in research and practice settings where time and funding is short. An alternative is to mimic an interview online. The CLEAR (Computerised Life Events Assessment record) has been designed with ESRC funding as an interactive online measure of collecting detailed sequences of life events and long term problems in ten different life domains. This information is collected on a cohort of first year undergraduate students and on a midlife sample of recurrent depressed and case controls. Reliability and validity against an in-person interview is established.

Preliminary results examine attachment style determined by the VASQ self-report in relation to the range and intensity of life events and long term problems. Outcomes in relation to self-report depression are examined to established both vulnerable attachment style and severe life events best model depression. Implications for measurement of stress online in research and practice settings are discussed. In addition the issue of willingness to disclose personal information online is discussed and the advantages and disadvantages over in-person approaches.

## S5.2

### Children's family drawings as reflection of attachment representations and the cultural context: Multi-context exploration

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Symposia 5.2, Nunn Hall, Level 4, June 30, 2017, 3:15 PM - 4:45 PM

#### Presentation 1

Children's behavioral measures of attachment, such as, the Strange Situation Procedure (SSP), and adults' representational measures of attachment, such as, the Adult Attachment Interview (AAI), have been well-validated cross-culturally through numerous studies conducted around the globe. However, older children's representational measures of attachment may face challenges in being validated cross-culturally partly because older children's attachment system will not be easily activated, thus not easily identifiable. In addition, utilizing a measure developed in one culture to assess children's attachment in another culture would demand the recognition of subtle behaviors or narratives to accurately capture the nuances which play an important role in assessing the quality of attachment relationships. However, children regardless of cultures seem to learn and are often eager to draw either for their entertainment or to express their inner feelings. Thus, examining children's family drawing may shed a light on understanding how they perceive and represent their families without involving languages.

This presentation focuses on Japanese children's family drawings and introduces one study that applied the family drawing measure to estimate attachment security of Japanese children. Forty-seven Japanese 6-year-old's family drawings were examined, applying both Kaplan and Main's (1986) Family Drawing system and Fury et al.'s (1997) global rating scales. When compared with the original family drawings produced by American 6-year-olds in the mid '80s, remarkable similarities were found in the drawings produced by Japanese 6-year-olds two and a half decades later, especially for the drawings judged *secure*, indicative of cross-cultural applicability of the system. However, features or drawing characteristics that were never seen in the U.S. drawings were also found in Japanese drawings. For example, a number of Japanese drawings included only faces, sometimes a series of line-up faces. Because of a lack of previous studies of family drawings in Japan, such faces-alone drawings without arms were interpreted as a non-welcoming stance (without open arms), one of the features of insecure-avoidant. Although the overall match between the children's attachment security judged by their drawing and their mothers' attachment security judged by their AAI appears to indicate that the Kaplan-Main system is overall applicable to the Japanese sample, it is premature to assume this system is validated without replications. Recommended cultural adjustments in applying the family drawing measure and interpreting the children's family drawings in diverse cultures will be discussed.

#### Presentation 2

##### Family drawing attachment-based coding system and narrative and behavioral attachment measures in late-adopted and non-adopted children

**Introduction.** This study compared children attachment patterns, assessed through narratives and observational measures, with an attachment-based coding system for Family Drawings (Fury et al., 1997) and examined the differences between adoptees and non-adoptees within the Italian context.

**Methods. Sample:** 29 late-adopted children (51.7% girls) and their 12 non-adopted peers (50% girls) were recruited. **Measures.** Attachment patterns were assessed with Separation-Reunion Procedure (SRP) within the first month of children placement, when they were aged 4–8 years, and with Manchester Child Attachment Story Task (MCAST) and Family Drawings (FD) after six months from the first assessment.

**Results.** Our data revealed a significant association between SRP and FD secure/insecure attachment classifications ( $r_{phi} = .34, p = .034$ ) and a tendency between MCAST and FD secure/insecure attachment patterns ( $r_{phi} = .30, p = .083$ ). Negative correlations between MCAST Mentalizing and Coherence scales and FD Bizarreness/Dissociation global rating



scale (respectively: spearman  $\rho = -.55, p = .001$  and spearman  $\rho = -.52, p = .002$ ) and a positive correlation between MCAST Disorganization general score and FD Bizarreness/Dissociation Global rating scale (spearman  $\rho = .39, p = .021$ ) were found. Lastly, data analysis showed that late-adopted children were significantly more insecure (88.9%) than their non-adopted peers (54.5%) assessed by the FD (Fisher's Exact Test,  $p = .031$ ).

**Discussion.** Data on the relationship between FD and other attachment measures showed significant correlations and appeared to support FD as a useful tool for classifying attachment representations and therefore to approach to children inner world. FD may capture specific children features that could be difficult to express verbally for them, and it is a valuable measure to assess disorganized attachment representations of children from both clinical and at-risk groups, representing a useful screening for planning early support interventions.

### **Presentation 3**

#### **Representations of attachment patterns in the family drawings of maltreated and non-maltreated children**

The study was conducted to investigate and compare the attachment styles of maltreated and non-maltreated children through the use of the family drawing technique. The sample consisted of ten maltreated and ten non-maltreated children between the ages of five and 11 living in Cyprus. The findings revealed that the maltreated children depicted significantly more items in their drawings linked to an insecure attachment pattern than non-maltreated children, while the non-maltreated children made use of significantly more drawing features linked to a secure attachment pattern. These results corresponded to scores on the Child Behaviour Checklist (Achenbach, 1991). All maltreated children scored in the clinical range. The family drawings of maltreated children significantly evidenced a greater distress – represented by an insecure attachment pattern – than the drawings of non-maltreated children represented by a secure attachment style.

### **Presentation 4**

#### **Family drawings of Israeli children: A looking glass into their internal world and their social-cultural environment**

We will discuss universal and unique cultural features in the family drawings of Israeli children. First, we will present the associations between drawing indicators and children's socio-emotional adjustment in three samples of elementary school age children. Associations between children's drawings and body image, internal distress, pro-social behaviors, conduct problems, hope, personality traits, and sense of security within the family will be presented, as well as associations with parents' characteristics such as hope and attributional style. These associations demonstrate the validity and usefulness of Main and Kaplan's coding system in examining children's attachment security also in the Israeli context.

With regard to the unique cultural features, we will present the distributions of attachment security as derived from children's family drawings in two samples of low SES elementary school age children from two minority groups in Israel: the Ethiopian and the Ultra-Orthodox communities. The collectivistic values, family size, and attitudes regarding emotional expressiveness, as well the influence of family SES, will be discussed in trying to explain the relatively high frequency of insecure attachment, and the specific graphical features of the drawings. Suggestions for future studies and clinical implications will be discussed.

## S5.3

### **Attachment disordered behaviors: Observational assessments, correlates, and stability.**

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Symposia 5.3, Drama Studio, Level 1, June 30, 2017, 3:15 PM - 4:45 PM

#### **Observation of Inhibited Reactive Attachment Disorder Behaviors in School-Age Children**

Although clearly defined, the criteria for the inhibited form of reactive attachment disorder are not always easily observable, compared to the disinhibited form of RAD. Therefore, the aim of the present study was the development of observational situations and reliable observational criteria for inhibited attachment disordered behavior comparing children at risk with non-clinical controls. The sample included 64 children aged 5-10 (mean age 7.86 years; 40% male) including 32 subjects who were at risk of developing or having attachment disorders (e.g. living in children's homes, having a history of social neglect, RAD diagnosis).

Children's attachment disorder behaviors were observed during emotion-eliciting social play tasks with the primary caregiver and an unknown adult. In both situations, the adult was asked to lose the first game and win the second, so positive and negative emotions were elicited in the child. The observational coding system adapted and extended the ICD 10 and DSM-V criteria of inhibited and disinhibited attachment disordered symptoms to the specific situation. RAD symptoms were assessed with the Relationship Problem Questionnaire (Minnis et al., 2002) and the Disturbances of Attachment Interview (Smyke & Zeanah, 1999).

Children at risk had higher scores on the disinhibited ( $t(60)=5.12, p<.001$ ) and inhibited ( $t(60)=4.04, p<.001$ ) subscales of the RPQ compared to healthy controls. First results of the observational assessments showed that children at risk displayed more inhibited and disinhibited attachment disordered behaviors compared to healthy controls. The specific behaviors depended on the emotional context of the situation. Results regarding correlations between the DAI ratings, RPQ scores and behavior observations will be presented. The study suggests that specific emotion-eliciting situations that activate the attachment system are suitable to elicit inhibited attachment disordered behaviors and make the symptoms observable.

#### **Inhibited attachment disorder symptoms in early childhood in children raised in foster and institutional care: Associations with preceding experiences and cultural context**

The main objective of the paper is the development of attachment in children raised in adverse caregiving environments. Specifically, we are interested in the prevalence of attachment disorder symptoms depending on the type and quality of the caregiving environment and pre-care experiences. The present paper will focus in inhibited attachment disorder symptoms.

Findings from three studies will be reported (1) a German sample of foster children with pre-experiences of abuse and neglect (N=59) repeatedly observed during the first year after placement in the foster family, (2) a Georgian sample of children (N=90) consisting of two groups of foster children (with and without preceding institutional care) and a control group of children raised in their biological families, and (3) a sample of children (N=16) being raised in an Georgian institution in which organization of care for the children was not guided by an attachment needs perspective. Data assessment included measures of attachment quality and attachment disorder symptoms and behavior problems in children and quality of caregiving behavior in family and institutional caregivers, as well as additional risk factors. For the assessment of inhibited attachment disorder symptoms the Disturbances of Attachment Interview and the Rating of Inhibited Attachment Behavior was used.

Data analyses are still running. We expect that inhibited attachment disorder symptoms (1) will be infrequent in children from biological families, (2) will be observed in a substantial proportion of children with pre-ceding adverse environments, and (3) will be most frequent in children having experienced institutionalized care. In addition, we

hypothesize that the frequency or intensity of inhibited symptoms in children with adverse caregiving experiences will be moderated by quality of caregiving provided by current caregivers. Finally, characteristics of the culture-typical child care system might explain differences between the foster children of the two different countries.

### **Inhibited attachment disorder symptoms in maltreated pre-school children: Stability over the first year in foster care**

Reactive attachment disorder (RAD) has been described as one of the least researched and most poorly understood psychiatric disorders. Despite this, given what is known about maltreatment and attachment, it is likely that RAD has profound consequences for child development. Very little is known about the prevalence and stability of RAD symptoms over time. Until recently it has been difficult to investigate the presence of RAD due to limited measures for informing a diagnosis.

A longitudinal design examined RAD symptoms in maltreated infants as they entered foster care in Scotland ( $n=100$ , age range= 12-62 months) and again one year later, along with associated mental health and cognitive functioning. The study utilized the Rating of Inhibited Attachment Behavior Scale, specifically designed to objectively rate DSM V RAD behaviors alongside The Disturbances of Attachment Interview.

Prevalence of RAD was found to be 5.0% ( $n=5$ , 95% CI [0.7 – 9.3]) when children were first placed in to foster care. After one year in improved care conditions, 2.6% ( $n=2$ , 95% CI [below 0 – 5.2]) met DSM 5 criteria for a clinical diagnosis of RAD. Levels of both observed and caregiver reported RAD symptoms decreased significantly over the year. Children whose RAD symptoms did not improve were found to have significantly lower Full-scale and Verbal IQs. Although RAD was associated with mental health and cognitive difficulties, these did not predict RAD symptoms when potential confounders were taken into account.

These preliminary findings have added to the developing understanding of RAD symptoms and shown that RAD can persist despite adequate care conditions, however further exploration of RAD in larger samples would be invaluable.

### **Is indiscriminate behaviour of currently institutionalised children associated with attentional and behavioural regulation?**

Indiscriminate behaviour (IB) is found at increased rates among (post-) institutionalised children, as are other problems that have been linked with IB—such as deficits in attention regulation, overactivity and lack of inhibitory control. Despite the comorbidity between these deficits and IB, they appear to be relatively independent. Not incompatible with that is the hypothesis that their relationship is indirect, for example, inhibitory control might mediate the link between adverse early care and IB. Also, given that the relationship between regulatory difficulties and IB might be bi-directional (and influenced by developmental changes), it will be important to test it in currently institutionalised children, before children are adopted into good-quality family environments. Finally, it remains unclear whether IB represents a broad pattern of deficits in regulation or is specific to social and caregiving contexts; and whether the link between IB and behaviour regulation deficits subsides if the instruments of IB do not tap inhibitory control and place more emphasis on attachment behaviours.

The current study aims to elucidate these questions. Participants are 83 institutionalised pre-schoolers (3-6 years old). Children's IB was assessed using a caregiver report, the Disturbances of Attachment Interview, and via observations, using the Rating of Infant and Stranger Engagement. Scores on these two measures were moderately correlated. Regulatory abilities were assessed with the Child Behaviour Checklist, the Children's Behaviour Questionnaire, and performance in a Go/No-Go task.

Preliminary analyses showed that IB was positively associated with attention problems, ADHD, level of activity, impulsivity, and attention focusing. However, regression models including these variables (and controlling for mental development and institutionalisation length) showed that only level of activity predicted IB—both based on interview and observation ratings. Scoring and analysis of performance in the Go/No-go task is still underway. Further analyses will include testing mediation hypotheses.

## S5.4

### The impact of depressive symptoms on father's relationships as a parent, partner and coparent.

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Symposia 5.4, Elvin Hall, Level 1, June 30, 2017, 3:15 PM - 4:45 PM

#### Burdening Depressive Symptoms Postnatally Affect Parental Caregiving Representations and Behaviors in Mothers and Fathers Differently

**Background:** Post-partum depression (PPD) is construed mainly as a problem in mothers, yet evidence suggests its profound presence among fathers, with negative links to child outcomes. Hypothesizing that these links may also be through affected parents' caregiving representations, we identified, and compared, specific features in depressed mothers' and fathers' parental caregiving representations.

**Methods:** Mothers and fathers (N=25/36) with screening scores (EPDS/BDI-II) indicating major depression, corroborated through interview, who had not sought/received professional help, were assessed for attachment scripts (ASA) and with the *Parental Caregiving Attachment Interview* (P-CAI). P-CAI evaluates representations of caregiving, including reports of own and partner's caregiving behaviors, perceptions of the child and of oneself as parent, and states of mind regarding relationship to the child.

**Results:** Caregiving representations of 9 mothers and 17 fathers were characterized by strong idealization and derogation, suggesting dismissive caregiving (Figure 1). Child rejection and neglect were more common among fathers; mothers expressed stronger preoccupation with being rejected by the child. Mothers' symptom severity was associated with involving caregiving, preoccupation with guilt and rejection by the child, and derogation of the father-child relationship; fathers' symptom severity co-varied with anger, contempt, self-idealization and guilt. Surprisingly, securely attached mothers expressed most devaluation of their partners' relationship with the child. Similarly, over 70% of fathers expressed strong experiences of maternal gatekeeping.

**Conclusion:** Independently of whether experiences of maternal gatekeeping and disappointment with the partners' caregiving comprise scapegoat explanations or contribute to feelings of hopelessness associated with depression, it appears that they are central in their caregiving representations. Thus, our findings suggest that the depression may impact on specific features of the caregiving representation beyond the influence of the parents' attachment/caregiving system and highlight the link between relationship difficulties and parental depression, emphasizing the importance of addressing the couple as entity in the context of PPD.

Depressed mothers (n = 25)	Depressed fathers (n = 36)
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**Figure 1.** Distribution of depressed mothers' (n = 25) and fathers' (n = 36) P-CAI transcript classification of caregiving representation quality. *Secure-Autonomous*, where relationship to the child is cherished and narrative is balanced, plausible and coherent; *Dismissing*, where parent's caregiving is dismissing and narrative characterized by cognitive deactivation (repression of specific memories, idealization or normalization); *Preoccupied*, where caregiving is involving, narrative is characterized by enmeshed preoccupation with negative autobiographic memories and/or deficient control of thoughts and feelings (anger, guilt, remorse, passivity); *Disorganized*, where parent exhibits significant disorganization in thinking or discourse when discussing experiences of loss or trauma.

## **The development of the coparenting relationship: relative contributions of child and parental psychopathology**

**Background:** The relationship between parents with regard to their child (coparenting) is a risk factor for later psychopathology in children and poor outcomes in parents. Research has suggested this relationship is multi-directional, yet less is known about the relative contributions of parental and child psychopathology to the development of the coparenting relationship.

**Aim:** To examine the relative contributions of child temperament and parental depression to the quality of the coparenting relationship during the first two years of life.

**Participants and method:** 192 families were assessed when their child was 3 and 24 months old. Child temperament and parental mental health were assessed at 3 months by self-report. The coparenting relationship was assessed at 24 months using an observational measure of coparenting behaviour.

**Results:** Complete data were available for 117 families. Hierarchical logistic regression analyses showed that higher maternal depressive symptoms at three months was associated with higher maternal cooperation at two years ( $\beta = .194, p = .032$ ). More difficult infant temperament at three months was associated with increased paternal cooperation at two years ( $\beta = .191, p = .050$ ).

**Conclusions:** These findings offer an interesting insight into the development of the coparenting relationship over time. Contrary to our hypotheses, these findings suggest that parents who face early difficulties when their child is very young, may adapt their coparenting over time to compensate for this. This could lead to increased cooperation when they interact with their child at a family level. That effects differ between parents emphasises both the importance of involving both mothers and fathers in parenting research, as well as the unique role each parent plays within the family system.

## **Father-child interactions at 3-months and 2 years: contributions to children's cognitive development at 2 years**

The quality of father-child interactions has become a focus of increasing research in the field of child development. We examined the potential contribution of father-child interactions at 3-months and 24-months to children's cognitive development at 24-months. Observational measures of father-child-interactions at 3-months and at 24-months were used to assess the quality of fathers' parenting ( $n=192$ ). At 24 months, the Mental Developmental Index (MDI) of the Bayley's Scales of Infant Development measured cognitive functioning. The association between interactions and cognitive development was examined using multiple linear regression analyses, adjusting for paternal age, education and depression, infant age, and maternal sensitivity. Children whose fathers displayed more withdrawn and depressive behaviours in father-infant interactions at 3-months, scored lower on the MDI at 24 months. At 24-months, children whose fathers were more engaged and sensitive, and those whose fathers were less controlling in their interactions, scored higher on the MDI. These findings were independent of the effects of maternal sensitivity. Results indicate that father-child interactions, even from a very young age (i.e. 3-months) may influence children's cognitive development. They highlight the potential significance of interventions to promote positive parenting by fathers, and policies that encourage fathers to spend more time with their young children.

## Adult Attachment Style: Implications for Parenting Behavior and Child Outcomes

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Symposia 5.5, Logan Hall, Level 1, June 30, 2017, 3:15 PM - 4:45 PM

### INTEGRATIVE STATEMENT

For decades, researchers have noted the influence of parents' attachment histories on caregiving behavior and child functioning. Typically, this research has employed the narrative-based Adult Attachment Interview (George, Kaplan, & Main, 1984), following developmental and clinical traditions investigating parents' state of mind in regard to attachment. An emerging body of literature has begun to integrate social psychology methods of assessing adult *attachment styles* to understand parenting behavior using easy-to-administer self-report measures (see Jones, Cassidy, & Shaver, 2015). These methods yield dimensions of attachment *avoidance*—involving discomfort with closeness and deactivating strategies of regulating distress—and attachment *anxiety*—involving preoccupation with attachment-related worries and hyperactivating responses to distress (Shaver & Mikulincer, 1999).

This symposium explores how dimensions of adult attachment style shape parenting behavior and child development. Paper 1 describes how maternal anxiety and avoidance are linked to observed caregiving sensitivity in distress and non-distress contexts with their infants. These associations continue as children enter preschool: Paper 2 reports longitudinal associations between Head Start mothers' attachment anxiety and spanking of preschool-aged children. The downstream implications of these behaviors on child functioning are evident in Paper 3 findings demonstrating links of parents' attachment anxiety and school-aged children's emotional and physiological dysregulation; further, as Paper 4 describes, attachment avoidance predicted parenting behavior in a unique context—when preparing children for medical inoculations; this parenting behavior, in turn, predicted children's memory for the event. Findings will be discussed in terms of implications for the caregiving system and for child functioning.

### **Paper 1: Links between maternal attachment styles and components of maternal sensitivity in distress and low-distress contexts**

Meta-analysis indicates a link between *attachment state of mind* and sensitivity, (van IJzendoorn, 1995). Much less is known about links between self-reported *attachment style* and caregiving (Jones et al., 2015). Jones et al. (2015) proposed parental caregiving differs based on parents' attachment-related perceptions of contextual threat.

Previous research has suggested the importance of considering sensitivity to infant distress and non-distress as distinct processes with distinct antecedents (e.g., Leerkes, Weaver, & O'Brien, 2012). Attachment-related differences in parents' physiological responses toward their infant have been found in the context of infant distress, but not non-distress (Groh & Roisman, 2009), suggesting attachment-related differences in threat appraisal specifically in distress contexts. Thus, we examined links between mothers' attachment anxiety and avoidance and components of maternal sensitivity in both distress and low-distress contexts.

**Method:** Participants included 124 low-income, diverse mothers of 6-month-olds. Mothers' attachment anxiety and avoidance were assessed using the Experiences in Close Relationships questionnaire (ECR; Brennan et al., 1998). Components of maternal sensitivity (NICHD Early Child Care Research Network, 1999) were reliably coded from videotaped interactions following an arm restraint task (distress) and during a 10-min free play (low-distress).

**Results:** Results of hierarchical regression analyses showed attachment anxiety was negatively associated with intrusiveness in the distress context (Table 1.1), but not in the low-distress context ( $p = .086$ ). Attachment avoidance was positively associated with maternal negative regard/affect in both contexts (Table 1.1 and Table 1.2), and negatively associated with global sensitivity during low-distress (Table 1.2).

**Conclusions:** Results suggest that when infants are distressed, highly anxious mothers may feel *less* threatened/more needed, thus showing little intrusion during distress. It may be that for mothers high in avoidance, any relational context—regardless of infant distress—may be enough to signal attachment-related threat.

Table 1.1

*Summary of Two Hierarchical Regression Analyses Predicting Maternal Observed Caregiving in the Distress Context (post-Arm Restraint) from Attachment Style.*

Criterion Variable	Predictors	<i>B</i>	<i>SE<sub>B</sub></i>	$\beta$	<i>t</i>	<i>sr</i> <sup>2</sup>	
1. Maternal Intrusiveness	Anxiety		-.27	.08	-.31**	-3.35	.09
	Avoidance	.15	.08	.17	1.87	.03	
<hr/>							
a. Maternal Negative Anxiety Regard/Affect							
	Avoidance	-.06	.05	-.11	-1.21	.01	
	Avoidance	.13	.05	.26**	2.79	.06	

*Note.* All *p*-values are for 2-tailed tests. For analysis predicting maternal intrusiveness: *N* = 121; *R*<sup>2</sup> = .09 for Step 1 (*p* = .003). Step 2 is not shown because  $\Delta R^2 = .001$  (*p* = .781) for this step (with attachment anxiety X attachment avoidance interaction effect). For analysis predicting maternal negative regard/negative affect: *N* = 120; *R*<sup>2</sup> = .06 for Step 1 (*p* = .022). Step 2 is not shown because  $\Delta R^2 = .002$  (*p* = .654) for this step (with attachment anxiety X attachment avoidance interaction effect).

\*\* *p* < .01.

Table 1.2

*Summary of Two Hierarchical Regression Analyses Predicting Maternal Observed Caregiving in the Non-Distress Context (Free Play) from Attachment Style.*

Criterion Variable	Predictors	<i>B</i>	<i>SE<sub>B</sub></i>	$\beta$	<i>t</i>	<i>sr</i> <sup>2</sup>	
a. Maternal Negative Regard/Affect							
	Anxiety	-.04	.04	-.09	-.99	.01	
	Avoidance	.14	.04	.29**	3.20	.08	
<hr/>							
b. Maternal Global Sensitivity							
	Anxiety	.002	.07	.002	.03	.00	
	Avoidance	-.17	.06	-.24*	-2.57	.05	

*Note.* All *p*-values are for 2-tailed tests. For analysis predicting maternal negative regard/negative affect: *N* = 124; *R*<sup>2</sup> = .08 for Step 1 (*p* = .007). Step 2 is not shown because  $\Delta R^2 = .003$  (*p* = .502) for this step (with attachment anxiety X attachment avoidance interaction effect). For analysis predicting maternal global sensitivity: *N* = 124; *R*<sup>2</sup> = .06 for Step 1 (*p* = .031). Step 2 is not shown because  $\Delta R^2 = .008$  (*p* = .303) for this step (with attachment anxiety X attachment avoidance interaction effect).

\* *p* < .05. \*\* *p* < .01.

## Paper 2: Corporal punishment of preschoolers: Adult attachment style predicts mothers' spanking behavior

Spanking is a widely used parenting practice intended to shape children's desired behavior through corporal punishment (UNICEF, 2014), but has been shown to predict childhood psychopathology (Gershoff & Grogan-Kaylor, 2016). Although multiple factors predict parents' use of spanking, no research has examined the role of attachment style. This study examines links between parental attachment style and spanking among high-risk mothers of preschool-aged children. Given previous work linking attachment insecurity to negative attributions and hostility (Mikulincer, 1998), we hypothesized that parents' attachment anxiety and avoidance would positively predict spanking.

Low-income mothers ( $N=137$ ;  $M_{\text{age}}=29.4$  years,  $SD=6.2$ ; 79% African-American) of 3–5-year-old children were recruited from Head Start centers for an intervention study. At the baseline assessment (T1), mothers completed the Experiences in Close Relationships scale (ECR; Brennan, Clark, & Shaver, 1998), a self-report measure of adult attachment, and a self-report measure of how often they spanked their children in the past month (Berlin et al., 2011). Following the 10-week intervention period, mothers completed these questionnaires again (T2). Because there were no intervention effects on variables of interest, intervention status was omitted from analyses.

Multiple regression analyses revealed concurrent positive associations between mothers' attachment anxiety and spanking at both time points, with small effect sizes ( $\Delta R^2=.10$  and  $.05$ , respectively). Moreover, baseline attachment anxiety longitudinally predicted more frequent spanking 10 weeks later,  $\Delta R^2=.04$ , a small effect size. No significant results emerged for avoidance (Table 2.1).

Findings suggest that maternal attachment anxiety, but not avoidance, is associated with more frequent spanking behavior in a high-risk sample. Research has demonstrated links between maternal attachment anxiety and distress and negative attributions in response to children's negative emotions (Leerkes & Siepak, 2010), which may precipitate punitive behavior. Results show that adult attachment style has important implications for parenting behavior, with consequences for child development.

Table 2.1

*Regression Analyses Demonstrating Concurrent and Longitudinal Associations between Maternal Attachment Style and Spanking Behavior.*

	$\beta$	$t$	$p$	$\Delta R^2$
<b>Model 1: Spanking at T1 (Concurrent)</b>				.10
Attachment avoidance (T1)	-.10	-1.11	.269	
Attachment anxiety (T1)	.34	3.87	<.001	
<b>Model 2: Spanking at T2 (Concurrent)</b>				.05
Attachment avoidance (T2)	-.13	-1.45	.149	
Attachment anxiety (T2)	.23	2.51	.013	
<b>Model 3: Spanking at T2 (Longitudinal)</b>				.04
Attachment avoidance (T1)	-.16	-1.72	.087	
Attachment anxiety (T1)	.20	2.20	.030	

*Note.* T1 = Time 1 (baseline assessment); T2 = Time 2 (outcome assessment). Attachment anxiety and avoidance were assessed with the Experiences in Close Relationships Scale (ECR).



### **Paper 3: Associations between parental attachment anxiety and school-aged children's emotion: Multimethod convergence across investigations**

Although children's attachment has repeatedly proven to have implications for the development of emotion regulation (Calkins & Leerkes, 2011), little work has examined the influence of parents' self-reported attachment styles on children's regulatory capacities. However, multiple studies document links between adult attachment style and parents' ability to regulate their own emotions in the context of parenting (Jones, Cassidy, & Shaver, 2015). Given that children's emotion regulation develops through interactions with their attachment figure (Sroufe, 1995), it seems likely that insecure parents' maladaptive regulation strategies might make children susceptible to emotion dysregulation later in development. Using a multi-method approach across three investigations of school-aged children and their parents, this presentation explores associations between parents' attachment style (anxiety and avoidance) and school-aged children's (ages 8-12 years) emotion regulation, integrating subjective, behavioral, and physiological metrics.

Study 1 ( $N = 114$ ) revealed that higher parental attachment anxiety was concurrently associated with poorer parent-reported traitlike and child-reported statelike emotion regulation, but was not concurrently associated with children's resting respiratory sinus arrhythmia (Table 3.1).

Study 2, which involved a subsample of the Study 1 sample ( $N = 68$ ) assessed 1.5 years later, revealed that higher parental attachment anxiety prospectively predicted children's lower resting RSA (Table 3.1).

Finally, in Study 3 ( $N = 89$ ), higher parental attachment anxiety was associated, during a stressful task, with children's greater physiological reactivity measured after their mothers' cardiovascular reactivity (Figure 3.1). Further, higher attachment anxiety predicted children's lower reflective functioning regarding the stressful experience (Table 3.1).

Taken together, the findings suggest that children of parents with higher attachment anxiety, but not higher avoidance, have more difficulty regulating their emotions. We believe that these findings suggest that self-reported attachment anxiety, but not attachment avoidance, is a reliable correlate of children's emotion dysregulation, opening myriad avenues for future exploration of these links

Table 3.1

Parent attachment style as a predictor of reports of children's subjective and physiological reactivity.

	Study 1 Children's Liability/Negativity				Study 3 Children's Self-Focused RF			
	$\beta$	$b$	SE	95% CI	$\beta$	$b$	SE	95% CI
<b>Step 1 <math>R^2</math></b>	<b>.10*</b>				<b>.06</b>			
Constant		2.22***	0.39	[1.44, 3.00]		2.08**	0.72	[0.64, 3.51]
Parent Age	-0.15	-0.01	0.01	[-0.02, 0.003]	0.18	0.02	0.01	[-0.003, 0.04]
Child Age	0.14	0.04	0.03	[-0.02, 0.09]	-0.01	-0.003	0.06	[-0.13, 0.12]
Parent Gender	-0.01	-0.01	0.13	[-0.27, 0.24]	--	--	--	--
Child Gender	-0.30**	-0.24**	0.08	[-0.39, -0.09]	-0.06	-0.07	0.13	[-0.33, 0.18]
Child Attachment	-0.09	-0.02	0.03	[-0.08, 0.03]	0.12	0.14	0.13	[-0.11, 0.40]
<b>Step 2 <math>\Delta R^2</math></b>	<b>.15***</b>				<b>.06*</b>			
ECR Anxiety	0.46***	0.16***	0.04	[0.09, 0.23]	-0.25*	-0.14*	0.07	[-0.28, -0.01]
ECR Avoidance	-0.18 <sup>†</sup>	-0.06 <sup>†</sup>	0.04	[-0.13, 0.01]	-0.02	-0.01	0.06	[-0.13, 0.11]
	Study 1 Resting RSA				Study 2 Resting RSA			
	$\beta$	$b$	SE	95% CI	$\beta$	$b$	SE	95% CI
<b>Step 1 <math>R^2</math></b>	<b>.07</b>				<b>.04</b>			
Constant		7.71***	1.77	[4.17, 11.25]		8.23***	2.12	[3.91, 12.54]
Parent Age	0.13	0.03	0.03	[-0.02, 0.08]	-0.17	-0.02	0.02	[-0.07, 0.03]
Child Age	-0.13	-0.11	0.11	[-0.34, 0.12]	-0.10	-0.07	0.12	[-0.30, 0.17]
Parent Gender	-0.18	-0.74	0.52	[-1.77, 0.29]	--	--	--	--
Child Gender	0.18	0.46	0.35	[-0.24, 1.17]	0.01	0.02	0.33	[-0.67, 0.69]
Child Attachment	0.00	0.00	0.12	[-0.24, 0.24]	-0.25	-0.16	-0.12	[-0.40, 0.07]
Study 1 Resting RSA	--	--	--	--	0.25	0.18	0.13	[-0.08, 0.43]
<b>Step 2 <math>\Delta R^2</math></b>	<b>.01</b>				<b>.15<sup>†</sup></b>			
ECR Anxiety	-0.09	-0.10	0.16	[-0.41, 0.22]	-0.42*	-0.32*	0.13	[-0.59, -0.05]
ECR Avoidance	-0.03	-0.03	0.16	[-0.35, 0.29]	0.07	0.13	0.13	[-0.23, 0.32]

Note. <sup>†</sup> $p < .10$ ; \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

Figure 3.1. Lagged association between maternal heart rate and children's RSA on subsequent puzzle as a function of attachment anxiety.

#### Paper 4: Parents' preparation of children for medical procedures and children's memory: The role of avoidant attachment

This study examined how parents' attachment style predicts parenting behavior when preparing children for a distressing medical procedure, and how parents' behavior, in turn, predicts children's memory of the procedure. Based on Shaver and Hazan's (1987) extension of Bowlby's (1980) attachment theory, we hypothesized that avoidant parents would be less likely to prepare their children for the procedure and less likely to provide emotional support. Further, we expected that parents' preparation would predict children's improved memory.

Eighty-eight children aged 3-6 years ( $M=4.55$  years, 51 girls) and their parents (82% mothers) participated. Children received inoculations at medical clinics. Parents completed the Child Preparation Questionnaire (Goodman et al., 1997; e.g., "Explained inoculation to child"). Approximately one week later, children were interviewed about the event with free recall and direct questions, and were administered the Memory for Sentences subtest of the Stanford-Binet Intelligence Scale (Thorndike, Hagen, & Sattler, 1986). The Experiences in Close Relationships scale (Mikulincer & Shaver, 2007) measured parents' attachment avoidance and anxiety. The NEO Five-Factor Inventory (Costa & McCrae,

1992) and Adult Self-Report (Achenbach & Rescorla, 2003) assessed parents' personality and behavioral adjustment, respectively.

Regression analysis showed that more avoidant parents were less likely to prepare their children for the inoculations (Table 4.1). When each of the personality and behavioral adjustment variables was statistically controlled, the result remained significant,  $\beta_s \geq -.32$ ,  $p_s \leq .02$ . Children who were better prepared produced more correct information during free recall even with their age and Memory for Sentences controlled (Table 4.2).

Attachment style shapes parenting behavior in a unique ecological context. More avoidant parents tended to eschew preparation of their children for distressing events. Preparing children for medical procedures is important to reduce their anxiety (Vaezzadeh et al., 2011). This is the first to show that parental preparation further supports children's recall.

Table 4.1

*Regression Analysis Predicting Parental Preparation of Children for Inoculations.*

	Parental preparation	
	$\beta$	$t$
Child age in months	-.12	-1.12
Parent attachment avoidance	-.35	-3.01**
Parent attachment anxiety	.12	1.04

Note.  $F(3, 80) = 3.36$ ,  $R^2 = .11^*$

\* $p < .05$ , \*\* $p < .01$ .

Table 4.2

*Regression Analyses Predicting Children's Memory for Inoculations.*

	Free recall (number of correct units)		Direct questions (proportion correct)	
	$\beta$	$t$	$\beta$	$t$
Child age in months	.52	5.43***	.49	4.96***
Memory for Sentences	.08	.86	.07	.71
Parental preparation	.21	2.19*	.01	.14

Note. For free recall,  $F(3, 78) = 10.79$ ,  $R^2 = .29^{***}$ ; for direct questions,  $F(3, 78) = 8.29$ ,  $R^2 = .24^{***}$ .

\* $p < .05$ , \*\*\* $p < .00$

## Attachment and children's social behaviors: A longitudinal study from the age 6 to 11 years on prosociality, shyness and aggression of children with secure and insecure attachment

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### Summary

The main aim of this study is to define whether or not the social behaviors such as Prosociality, Shyness and Aggression of children with secure and insecure attachment, living in a stable life period families, change from age 6 to 11 years in a sample of Turkish children. In total, 56 children participated in the study, of whom 29 are male and 27 are female living in families in Muş Province, Turkey. "Cassidy Incompleted Stories with Doll Family" measure was used to define children's attachment categories at age 6. "Teacher Assessment of Social Behaviors" Scale was applied initially at the end of their final preschool year (age 6) and was reassessed at the end of the first (age 7), third (age 9) and fifth grade (age 11) of elementary school. The first data were collected in May 2006. The second, third and fourth set of data were obtained respectively in May 2007, 2009, and 2011 when the children were in their fifth year of primary education. In conclusion, repeated measures ANOVA with Greenhouse-Geisser correction determined that the main effects for interaction between age and attachment type on aggression ( $F(2.20,118.92) = .578, p > .05$ ), on prosociality ( $F(2.64,142.72) = 1.246, p > .05$ ) and on shyness ( $F(3,162) = .729, p > .05$ ) were not significant. The main effects for age ( $F(2.20,118.92) = 2.146, p > .05$ ) and attachment type ( $F(1,54) = .902, p > .05$ ) on aggression and the main effects for age ( $F(3,162) = 2.150, p > .05$ ) and attachment type ( $F(1,54) = .999, p > .05$ ) on shyness were not significant. Also, while the main effect for age ( $F(2.64,142.72) = 1.232, p > .05$ ) on prosociality was not significant, it was significant for attachment type ( $F(1,54) = 5.083, p < .05$ ).

Figure 1, Figure 2, and Figure 3 are presented below:

### Figure 1. Shyness

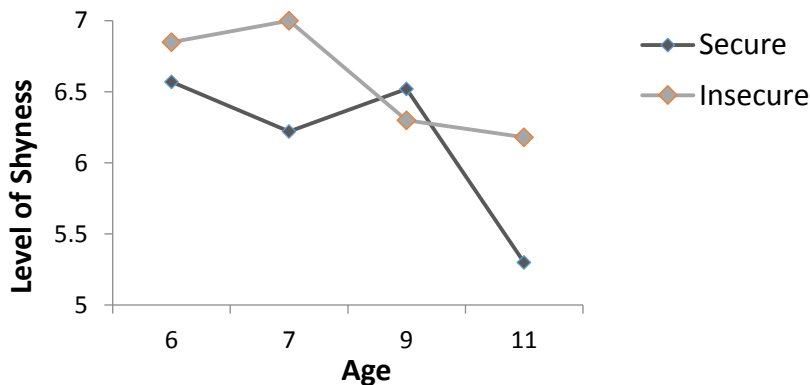
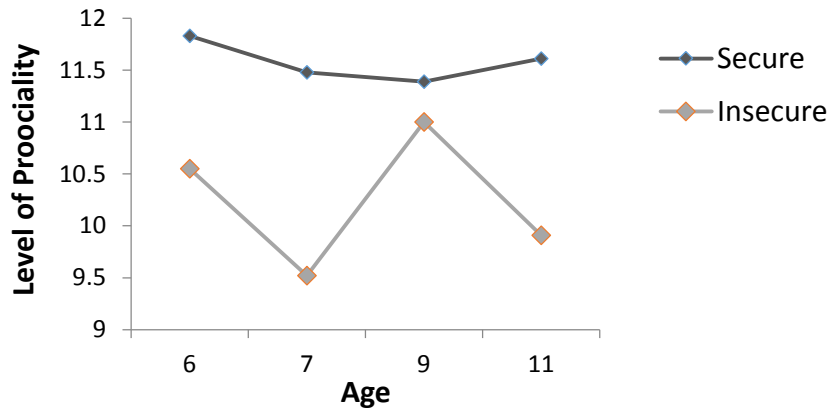


Figure 1. Level of shyness of children with secure and insecure attachment depending on age

**Figure 2. Prosociality**

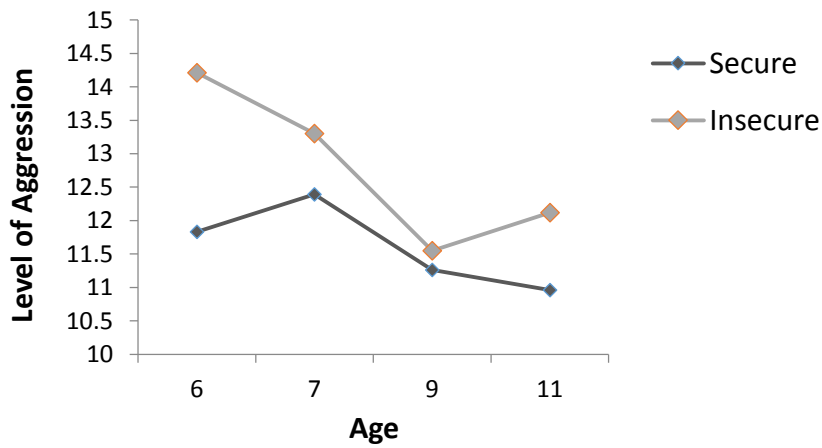
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*Figure 2. Level of prosociality of children with secure and insecure attachment depending on age*

**Figure 3. Aggression**

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*Figure 3. Level of aggression of children with secure and insecure attachment depending on age*

## Parent-child attachment and preschoolers' self-regulation: Secure base support to emotional regulation and autonomy in preschool classrooms

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Attachment theory provides a conceptual framework for understanding the ways in which parent-child relationship may influence children's self regulation, playing special emphasis on the child's use of the parent as a secure base from which to explore the environment. In fact, a modest body of existing research has provide evidence suggesting that secure attachment is positively associated with self-regulatory capacity over the course of development. This study aims to contribute to the current state of knowledge by addressing implications of both parent-child attachment relationships for the development of preschoolers' self-regulation.

Fifty middle class families were recruited. Attachment was assessed at home using the AQS when children were about 32 months of age. Mother-child and father-child dyads were observed during separated visits by two distinct teams each one with two independent observers. Self-regulation data was collected in preschool classrooms two years after, by a team of two distinct independent observers, using the CCQ to assess two important dimensions of preschoolers' self-regulation: Emotion Regulation and Autonomy.

Preliminary results show that preschoolers' emotional regulation and autonomy is predicted by early attachment security ( $R^2_{\text{Emotional Regulation}}=.20$ ;  $R^2_{\text{Autonomy}}=.22$ ) to mother (Emotional Regulation:  $\beta=2.49$ ,  $p=.006$ ; Autonomy:  $\beta=1.74$ ;  $p=.04$ ) and father (Emotional Regulation:  $\beta=2.42$ ,  $p=.004$ ; Autonomy:  $\beta=2.03$ ,  $p=.01$ ), and also their interaction (Emotional Regulation:  $\beta=-5.12$ ,  $p=.005$ ; Autonomy:  $\beta=-3.31$ ,  $p=.04$ ). Specifically, attachment security to at least one of the parents predicts better results in terms of emotional regulation and autonomy in preschool groups, than attachment insecurity to both of them. These findings are consistent with previous research suggesting that attachment security fosters self-regulation competencies, with securely attached children being more likely to demonstrate more competent emotional-regulatory skills (e.g., lability, flexibility, situational responsivity, and modulation of one's emotional arousal) and also to be observed as displaying autonomous behaviors (e.g., initiative, agency, choice, and self-determination) in the classroom.

## Pathways to Increased Foster Placement Stability: Reductions in Adolescent Problem Behaviour After Caregiver Participation in Connect for Foster Parents

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Adolescents in foster care are at a greater risk for behavioural problems (Ake et al., 2011). In turn, these behaviours increase the likelihood for conflict and instability in their foster home, as well as placement breakdown (Oosterman et al., 2007). Attachment security with caregivers is a significant protective factor for foster teens, and is associated with fewer internalizing and externalizing problems (Fernandez, 2008). However, few interventions supporting foster families are available. Connect for Foster Parents (CFP) (Moretti, Ostling, & Pasalich, 2014) is an attachment-based intervention for caregivers of pre-teens and teens. CFP aims to strengthen the foster parent-teen relationship and provide the teen experiences of stable care. In the present study of CFP it was hypothesized that youth with more previous foster placements would display higher levels of externalizing problems prior to treatment. In addition, as foster parents develop skills during CFP, both groups of teens would present with fewer behavior problems.

Participants in CFP (N=20) provided demographic and placement information for their foster-teen. A median split was used to group individuals into low (one to two) and high (three + previous) placements. Caregivers also completed the Brief Child and Family Phone Interview (Cunningham, Pettingill, & Boyle, 2000) to assess symptoms of Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD). Measurements were completed prior to treatment, at mid-treatment, and at the completion of the program. Results revealed significant decreases in youth ODD symptoms,  $F(2,30) = 19.44$ ,  $p < 0.05$ , but not CD problems  $F(2,28) = 1.99$ ,  $p = .15$ . Parent-reports also demonstrated decreases in the frequency of specific behaviours (e.g., defiance). The number of placements was also associated with decreases in specific behaviours. Results suggest that by reducing youth problem behavior, CFP may increase stability in the foster home and prevent placement breakdown. Future research directions and clinical implications will be discussed.

P-92

## Struggling with own parenting after an upbringing with substance abusing parents

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**Aim:** To increase knowledge concerning experience and key elements involved in growing up with substance abusing parents and the resulting challenges for their own parenthood.

**Methods:** In-depth interviews were conducted with parents (n = 19) who had participated in a mental health intervention programs, and who had experienced substance abusing parents in their family of origin, using a semi-structured interview guide and qualitative content analysis to analyze the data.

**Result:** Participants reported a high incidence of emotional abuse and neglect in their family of origin, an incapacity to communicate about their home situation with their network, and lack of support in general. Their own parental role was influenced by guilt, high levels of anxiety, difficult affect regulation and extreme sensitivity to possible hazards that could affect their own child.

**Conclusions:** The participants, adult children of substance abusing parents who sought help in their parenting, described an upbringing with abuse and neglect and inadequate support from the community. Their childhood experience of being raised by abusing parents and the resulting challenges that this created for their own parenting role could negatively influence their children's ability to developing a secure attachment pattern. It is therefore important to develop instruments that can help to identify children who were raised in misuse families in order to understand and accommodate the transgenerational effects of growing up with substance abusing parents.



P-95

## **Preliminary Results from an RCT of Family Minds – A Mentalizing Psychoeducation Intervention for Foster Parents**

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Mentalization-based interventions show promise in improving mental health outcomes for children and parents through increasing a family's ability to mentalize. Mentalization, or reflective functioning, develops within the context of a secure attachment relationship and involves the ability to understand behavior in relation to mental states such as thoughts and feelings. One area not given much consideration when training foster parents is their capacity to mentalize. Ensuring foster parents have such skills is especially relevant given that maltreated children who have been removed from their homes display higher rates of insecure attachment as well as emotional/behavioral challenges.

Family Minds is a short-term, psychoeducational intervention developed specifically for foster parents, to increase their mentalizing skills and help them see the meaning behind their children's behaviors and their own reactions. In 2014, a quasi-experimental study evaluated this intervention and results indicated the intervention significantly increased foster parents' mentalization as well as lowered parenting stress; effect sizes ranged from medium to large (Bammens, Adkins & Badger, 2015; Adkins, Fonagy & Lutyen, in prep). Due to these very promising results, a Randomized Controlled Trial (RCT) of this intervention will be conducted to more rigorously evaluate its' effectiveness.

This presentation will discuss preliminary results from an RCT of this intervention. Data collection is occurring from March – Sept 2017. The study involves 100 foster parents in Austin and Houston, who have been randomly assigned to the intervention group and a "treatment as usual" group. Measures include the Parental Reflective Functioning Questionnaire, the Five-Minute Speech Sample coded for Reflective Functioning, the Difficulties in Emotional Regulation Scale, the Parenting Stress Index, the Strengths and Difficulties Questionnaire and the Adverse Childhood Experiences survey. By June 2017, approximately half of the data will have been collected.

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## Psychometric Properties of Massie-Campbell Attachment During Stress Scale (ADS) in children between 8 and 11 months old from Lima, Peru

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Massie-Campbell Attachment During Stress Scale (ADS, Massie and Campbell, 1983) is a useful tool for research and large-scale attachment evaluation. However, evidence of its psychometric properties is yet scarce.

To evaluate ADS's convergent and concurrent validity, two analyses were carried out. First, classifications given by ADS's child scale and Attachment Q-Set scores (AQS, Waters, 1995) were compared. Then, relation between ADS's children classification and children's mothers sensitivity measured by Maternal Behavior Q Sort (MBQS 2.1, Pederson & Moran, 1995) was analyzed. Finally, to evaluate diagnostic accuracy, ADS's sensitivity and specificity were computed. Participants were 32 children between 8 and 10 months from a province near to Lima, Peru. Most of them were boys (62.5%). Mothers were from 19 to 44 years old ( $M = 29.6$ ,  $SD = 6.28$ ). They participated at larger study to evaluate children attachment and other children and maternal variables.

Results show that ADS's child classification is related to AQS's continuous scores ( $r = .408$ ,  $p = .021$ ) and to AQS's dichotomous classifications [ $\chi^2(1, N = 32) = 4.69$ ,  $p = 0.030$ ,  $d = 0.83$ ].

Maternal sensitivity scores between mothers of secure children and mothers of insecure children -as classified by ADS- didn't differ ( $M_{secure} = .245$ ,  $SD_{secure} = .218$ ,  $M_{non-secure} = .017$ ,  $SD_{non-secure} = .219$ ,  $t = 2.446$ ,  $gl = 30$ ,  $p = .021$ ,  $d = 0.89$ ). Finally, since ADS's sensitivity did not reach satisfactory level (33.3%, 95% CI = [15.48, 56.90]), a new cut-off point is proposed. It improves its sensitivity and maintains satisfactory level of specificity (sensitivity 47.6%, 95% CI = [4.26; 69.7]; specificity 90.9%, 95% CI = [57.1; 99.5]).

These results reveal that ADS could be a better instrument for research objectives than for diagnostic ones. This and other implications are discussed considering methodological limitations.

**P-104**

## **The Role of Maternal Psychological Well-being and Mentalization in Emotion Socialization during Toddlerhood**

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Emotion socialization involves the way parents regulate, express their emotions, and their parenting strategies in emotionally-charged circumstances (Eisenberg, Cumberland, & Spinard, 1998). It is known that in the early years of development, maternal psychological well-being or lack of psychiatric symptomatology, (Lavendosky et al., 2006; Vostanis et al., 2006) can be critical for emotion socialization and positive parenting practices. However, the contribution of mothers' mentalization skills, their level of awareness and interpretation of other person's emotional state, capacity, and behavior (Bateman & Fonagy, 2006), to emotion socialization has not been explored. Therefore, the present study aims to understand the pattern of relations among mothers' psychological symptoms, mentalization and emotion socialization strategies. The mothers ( $N= 245$ ) with toddlers (*Age Range= 12-36*) from low SES in Turkey completed the Parental Reflective Functioning Questionnaire (Rutherford et al., 2013), measuring mothers' mentalization skills, the Brief Symptom Inventory (Derogatis, 1992), the Coping with Toddler's Negative Emotions (Spinard, et al., 2004). Results demonstrated that, after child age was controlled, mothers' mentalization score was significantly and negatively correlated with mothers' depression, anxiety, negative self-view, somatization scores, and mothers' distress and punitive reactions towards children. Mothers' distress and punitive reactions were positively and significantly correlated with maternal depression, anxiety, hostility, somatization and negative self-view scores. Mothers' expressive encouragement of their children's negative emotions was negatively and significantly correlated with maternal depression, anxiety and hostility scores. A series of hierarchical regression analyses showed that maternal anxiety was positively associated with punitive reactions and the relationship between mothers' anxiety and punitive reactions was mediated by mothers' mentalization (Sobel Test Statistics: -2.82,  $p<.01$ ). Mothers' psychological well-being and mentalization capacity can play role in emotion socialization. The factors associated with maternal anxiety and methods to enhance mothers' mentalization skills might be the key elements for early interventions to prevent negative parenting.

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## **'Quality Of Life', Emotional Wellbeing and Behavioural Health as Experienced By Young Children with Congenital Heart Disease: A Systematic Review.**

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**Background and Hypotheses:** Quality of life (QOL) in young children with congenital heart disease (CHD) is poorly characterised. Better understanding of QOL during these formative years could enable earlier identification of difficulties and more timely intervention. This systematic review aimed to synthesise existing literature examining QOL, psychosocial and behavioural outcomes in children aged  $\leq 5$  years with CHD. It also aimed to identify demographic, clinical, and psychosocial determinants of these outcomes.

**Materials and Methods:** A systematic literature search was performed using five electronic databases; Medline, Embase, PsycINFO, CINAHL, Scopus. Articles were included if they reported on parent-proxy or self-report outcomes associated with QOL, emotional wellbeing or behavioural functioning for children with CHD with a mean age of 0-5 years. Risk of bias was appraised using the QualSyst framework.

**Results:** Thirty-eight articles were identified for review, with data from 3,841 children with CHD. Most studies assessing QOL (6/8) found poorer QOL in children with CHD compared to normative data or healthy controls. Behavioural and emotional functioning was poorer in children with CHD than comparator groups in 13/20 studies. All studies assessing adaptive behaviour and functional living skills (11/11 studies) reported impairments, with scores for 8-79% of children indicating a need for clinical intervention. Parental stress was the most common predictor of QOL-related outcomes. Only 1/38 studies assessed child attachment, finding that children with an insecure attachment pattern were at increased risk of internalising problems, such as social withdrawal and anxiety.

**Conclusions:** Young children with CHD demonstrate greater impairment than comparator groups in QOL, emotional wellbeing and behavioural functioning, highlighting the need to identify these difficulties in clinical settings. The prevalence and determinants of these impairments vary markedly, and there is a paucity of attachment-based research in the area. Research effort should be directed towards more accurately characterising these outcomes in this population.

**P-110**

### **The specificity of attachment-related interpretation bias modification training**

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Securely attached children are characterized by expectations reflecting trust in their attachment figure. These expectations are related to the processing of novel attachment-related information. Specifically, children interpret new information in congruence with their expectations. It has long been claimed that this biased information processing is an outcome of trust-related expectations. However, recent research indicated that interpretation biases might causally affect trust. That is, modifying attachment-related interpretation bias by means of a Cognitive Bias Modification (CBM) procedure causally influenced trust-related expectations. Yet, concerns were raised whether this CBM effect was specific for trust-related expectations or whether the CBM procedure may have primed a more general positive attitude towards mother. The current study therefore aimed to test the specificity of the CBM procedure by examining its effects not only on trust, but also on children's perceptions of parenting.

The sample included 60 children aged 9 through 13 years ( $M = 10.6$ ,  $SD = 1.20$ ). Children were randomly assigned to one of two training conditions: CBM training aimed at positively modifying attachment-related interpretation bias or Neutral training aimed to have no attachment-related effects. Trust in mother and perceptions of mother's parenting were measured pre- and post-training to assess the effects of CBM training.

Results showed that the effect of training condition on trust was replicated ( $F(1,56) = 5.01$ ,  $p < .03$ ): children who received CBM training showed a significant increase in trust after training, whereas no such effect was present after Neutral training. No training effects were found for the two perceptions of parenting scales ( $F_s < .16$ ). The current results suggest that CBM effects were specific for expectations of trust and did not reflect a general increase in positive attitude towards mother. This further supports the notion that attachment-related information processing biases might be a causal mechanism underlying trust development.

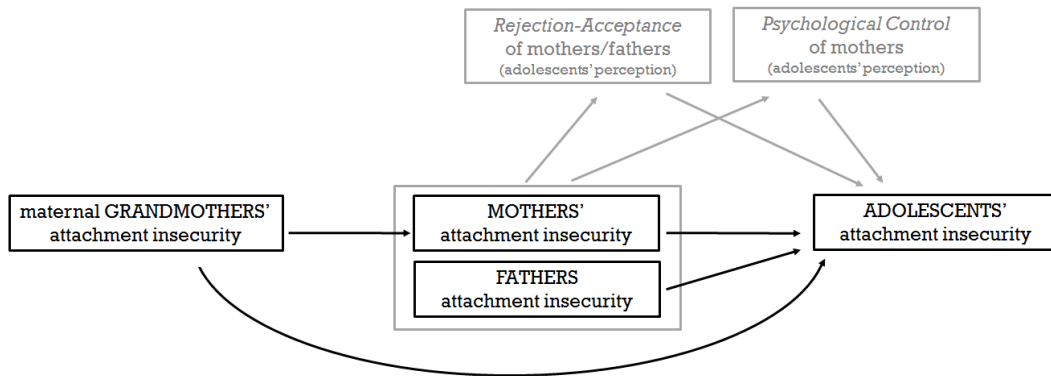
**Ecological moderators of three generational transmission of attachment through parenting in families of adolescents in Poland**

**Lubiewska K<sup>1</sup>**

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Referring to parents/grandmother-child relations (Figure below) proposed in the ecological model of intergenerational transmission of attachment, I aim to indicate which relations in the model are moderated by following contexts of family functioning: place of residence (Poland vs other countries, urban vs rural areas of living, and regions of Poland differentiated by cultural influences); type of the family due to the pattern of its cohesion; and maternal experiences of entrance into motherhood gained before vs after the collapse of Communism in Poland. To this end six studies based on quantitative data from the *Value of Children* project were summarized.



Data from 575 adolescents and mothers, 294 fathers, and 500 grandmothers from the same families living in four regions of Poland were used. Attachment insecurity was assessed by the Adult Attachment Scale. The PARQ (acceptance, rejection and control) scale was used to measure parenting as perceived by adolescents.

Results revealed that each relation in the model, except grandmother-to-mother relation, was moderated by contextual factors. In most of studied contexts, mother-to-child attachment insecurity was transmitted through parenting rejection, with acceptance being insignificant: mediator, and adolescents' attachment predictor. Psychological control was found to predict attachment insecurity of adolescents only in some contexts (e.g., urban but not rural areas), but not to mediate parent-to-adolescent attachments relation. Furthermore, father's attachment insecurity predicted adolescents' attachment in some regions of Poland and in families with the extreme (detached, amicable) patterns of family cohesion. Grandmother-to-adolescent relation was significant only in families living in the South region of Poland and in families of mothers who entered motherhood after (not before) the collapse of Communism. The results are discussed in terms of susceptibility of the model to contextual factors and the need to study adolescents' attachment predictors as dependent on family setting, social changes, and intra- and cross-cultural differences.

**P-116**

**Risk Taking and Attachment in adolescence: the mediating role of emotion dysregulation.**

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*Introduction:* Taking risks is traditionally depicted as a typical adolescent's behavior and has been related to elevated difficulties in emotional regulation. Moreover, empirical studies indicated that behave riskily seems to be associated with insecure attachment styles. Furthermore, empirical and theoretical literature supported the hypothesis of developmental relationships between emotional regulation capacities and attachments dimensions.

*Objective:* To investigate relationships between Attachment Styles, Risk Taking behaviors and Emotional Dysregulation among a sample of adolescents (N=400) aged between 13 and 19 years.

*Aims:* To explore pathways by which attachment styles lead to risk taking behaviors.

*Results:* Contrary to our expectations, risk taking was not significantly associated with attachment dimensions whereas we found significant and positive associations between risk taking and emotion regulation difficulties. Interestingly, we found that emotion dysregulation mediated the link between attachment dimensions and risk taking.

*Conclusions:* Our results extended previous research showing an association between risk taking and emotion dysregulation. Interestingly, among adolescents, insecure attachment does not seem to be directly connected to risk taking but predicted such behaviors trough emotional dysregulation difficulties, suggesting interesting clinical implications.

**P-119**

**Psychometric evidences in support of the Harter's response format: a study with the Security Scale**

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Two types of self-report scales have been used in the attachment literature for assessing children's perception of attachment relationships: Harter's format ("Some kids... but... Other kids") and the well-known and widely used Likert-scale format. The Harter's format has been designed to offset the child's tendency to give socially desirable responses and to provide participants with a range of choices broader than that provided by a single statement coded with Likert-scales. However, compared to Likert-scale questionnaires, Harter's format questionnaires require the experimenter to provide more instruction to the child and are thus considered to be time-consuming. If this cost is counterbalanced by robust psychometric proprieties has not been examined yet. Aim of the current study was to explore if the type of answer-format influences the psychometric properties of an attachment questionnaire, the Security Scale, administered in two different formats: Harter's and Likert. Participants were 194 Italian children (52% girls, age 8-12 years) from public schools in Northern Italy. Of these, 94 completed the original scale based on Harter's format, and 100 completed the Likert-type adapted version. Psychometric proprieties were evaluated through a series of Confirmatory Factor Analyses (CFA) and measurement invariance of the two models was tested through Multi-Group (MG) analyses. CFA fit indices were CFI = .971, RMSEA = .034, and CFI = .487, RMSEA = .103 for Harter and Likert format respectively, supporting Harter response format as more psychometrically robust than Likert format. Consistent with these results, MG analyses did not support measurement invariance. If this result is limited to the assessment of attachment or could be generalized to measures assessing other relevant relationships in a child's life will be the aim of future developmental studies.



**Security of attachment moderates the effects of maternal prenatal anxiety on infants’ anxiety problems at 14 months of age.**

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Previous studies have shown that maternal stress, and more specifically, anxiety, experienced during pregnancy is strongly associated with offspring behavioral and emotional problems. However, recent evidence suggests that postnatal factors such as maternal symptomatology and the quality of mother-infant relationship may moderate this association. This pilot study aimed at exploring the effects of maternal anxiety during pregnancy on infants’ behavioral and emotional problems, taking into account the role of postnatal factors (i.e. maternal anxiety and infant attachment). As part of an ongoing longitudinal study, 57 women completed the State-Trait Anxiety Inventory (STAI) during pregnancy and 14 months after delivery. Additionally, they took part in Ainsworth’s Strange Situation with their 14-month-old infants and completed the Child Behavior Checklist for Ages 1.5-5 (CBCL/1½-5). Hierarchical linear regressions showed no main effect of prenatal anxiety on infants’ behavioral problems. However, a significant interaction between maternal antenatal anxiety and mother-infant attachment on infant’s Anxiety Problems emerged, while controlling for infant gender and maternal anxiety at 14 months. Specifically, higher levels of maternal anxiety symptoms during pregnancy were associated with higher levels of infants’ anxiety problems only in insecurely attached infants. Our preliminary findings suggest that postnatal environment may moderate the adverse effects of antenatal maternal anxiety on infants’ anxiety problems, raising crucial questions about the timing and target of interventions aimed at reducing the adverse effects of antenatal stress exposure.

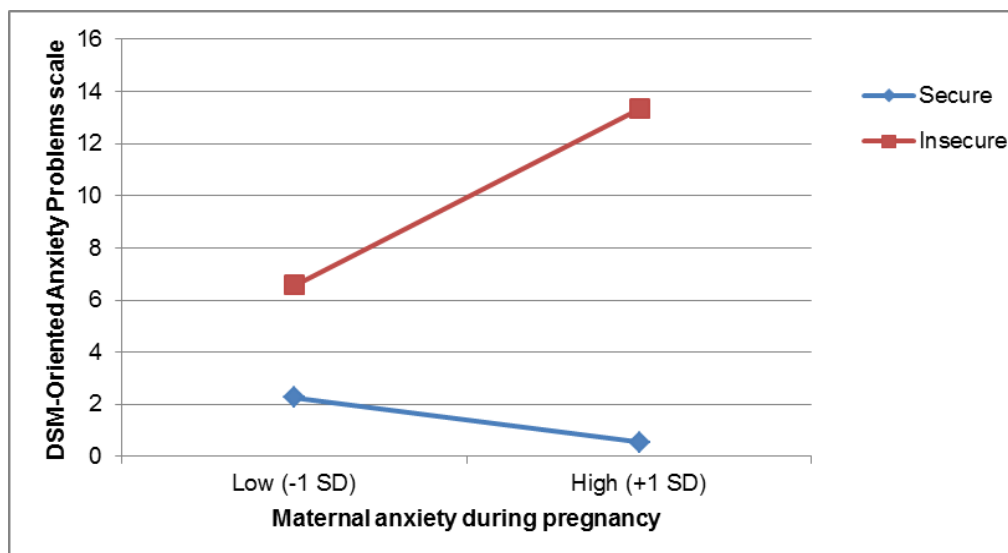


Figure 1 – Interaction between maternal anxiety during pregnancy and mother-infant attachment at 14 months on infants’ Anxiety Problems at the CBCL/1½-5

**Links among Attachment, Authentic Leadership, and Leader Emergence**

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In industrial/organizational psychology, predicting effective leadership is crucial to individual and organizational success. Authentic leadership, a leadership style that results in both greater self-awareness and self-regulated positive behaviors for leaders and followers (Luthans & Avolio, 2003), is important because it predicts job satisfaction (Rahimnia & Sharifirad, 2015), basic need satisfaction (autonomy, relatedness, and competence; Leroy, Anseel, Gardner, & Sels, 2015), and job performance (Wei, Li, Zhang, & Liu, 2016). Attachment theory is an under-researched construct within industrial/organizational psychology. We sought to marry these two separate, yet complimentary, areas by investigating links between attachment, authentic leadership, and leader emergence (being identified as a leader by others; Judge, Piccolo, & Kosalka, 2009). We proposed a model in which authentic leadership mediates the link between attachment and leader emergence. A sample of 405 employed university alumni responded to an online survey measuring attachment style (Experiences in Close Relationships—Revised; Fraley, Waller, & Brennan, 2000), authentic leadership (Authentic Leadership Questionnaire; Avolio, Gardner, & Walumbwa, 2007), and leader emergence (the highest level within an organization to which participant had risen). Using path analysis (controlling for age, sex, race, and education) we found that authentic leadership fully mediates the link between avoidant attachment and leader emergence. We also found that anxious attachment has a significant direct effect on leader emergence with no indirect effect through authentic leadership. These findings suggest that attachment is a predictor of authentic leadership and leader emergence. Consequently, attachment could be useful for leader training.

Figure. Links among Attachment, Authentic Leadership, and Leader Emergence

Anxious Attachment			
		-0.10*	
	-0.07		
		Authentic Leadership	
			-0.09*
			Leader Emergence
	-0.13*		
Avoidant Attachment			
		-0.02	

Note. N = 405. All path coefficients are standardized Beta weights. \* = p < .05.

**P-131**

**Exploratory study and validation of Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline (VIPP-SD) in low- and middle-socioeconomic status mothers**

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The Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline is an attachment-based intervention program developed to provide mothers of 1 to 3 year-old children with a more insightful understanding of their children's behaviours and, thus, to respond to them in a sensitive manner (Juffer, Bakermans-Kranenburg, & van IJzendoorn, 2008). This program has proven effective to enhance sensitive discipline, even in populations at risk. Financial and time constraints, plus daily stressors, are common difficulties for parents to display sensitive parenting, particularly in the toddlerhood years. To explore whether VIPP-SD in fact promotes positive parenting in families, we selected a sample of 14 mother-child dyads. Mothers' age ranged from 24 to 41 years ( $M=32.71$ ,  $SD=6.47$ ) and children were 19- 30 months-old ( $M=24.29$ ,  $SD=3.90$ ). Half of the sample lived in communities around the *Pantanos de Villa* nature reserve, mostly inhabited by low-income families, and the other half was comprised by middle class families living in an affluent neighborhood in the city. Of the total, seven dyads followed the 6-visit VIPP-SD program (intervention group) whereas the remaining seven received phone calls from a experimenter asking about their current parenting practices (control group). Maternal sensitivity was assessed with the Maternal Behaviour Q-Sort (Pederson & Moran, 1995), upon consent of participation, and at the end of the intervention. Despite the intervention group obtaining higher scores in the post than pre-test, and against expectations, results did not show more positive parenting, or sensitive discipline, with their children than those in the control group. In addition, we compared if VIPP-SD was more effective in the low or middle SES samples, but not significant differences were identified between them. The reduced number of participants may account for the current results, an issue that need to be addressed in future studies.

*Keywords:* positive parenting, sensitive discipline, VIPP-SD, maternal sensitivity

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## Intranasal Oxytocin Enhances Trust in Inpatient Adolescents and Attachment Moderates

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**Background:** Existing research suggests that oxytocin, a neuropeptide implicated in attachment, may be a promising clinical tool because it increases affiliation and attachment behaviors, which are reduced in a range of psychiatric disorders. Oxytocin has been recommended as a psychiatric treatment for adolescents, but this suggestion remains largely unstudied. The objective of this study was to examine the effect of intranasal oxytocin administration on attachment-related and non-attachment-related trust in an interactive game, determining how this effect differs among inpatient adolescents with emotional/behavioral disorders and healthy controls and whether this effect is moderated by attachment security.

**Methods:** 122 adolescents ( $n = 75$  inpatient,  $n = 46$  control) were randomized to receive either self-administered intranasal oxytocin or a placebo and played a trust game with their mother and a stranger over the internet. **Results:** Findings indicated that oxytocin only affected the trust game behavior of adolescents when attachment security was moderate or low. At these levels, oxytocin increased the trust of patients, such that their behavior was “normalized” to equivalence with that of healthy controls. Paradoxically, oxytocin reduced the investments of healthy control subjects.

**Conclusions:** This study takes a first step towards determining whether, and for whom, oxytocin may have clinical value in adolescent patients, and challenges simplistic notions of oxytocin as the attachment-chemical of the brain—pointing instead to differential oxytocin effects based upon clinical status (patient v. control) and attachment security.

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## The contribution of attachment disorganization and sensory regulation on child externalizing behaviors in clinic-referred pre-schoolers

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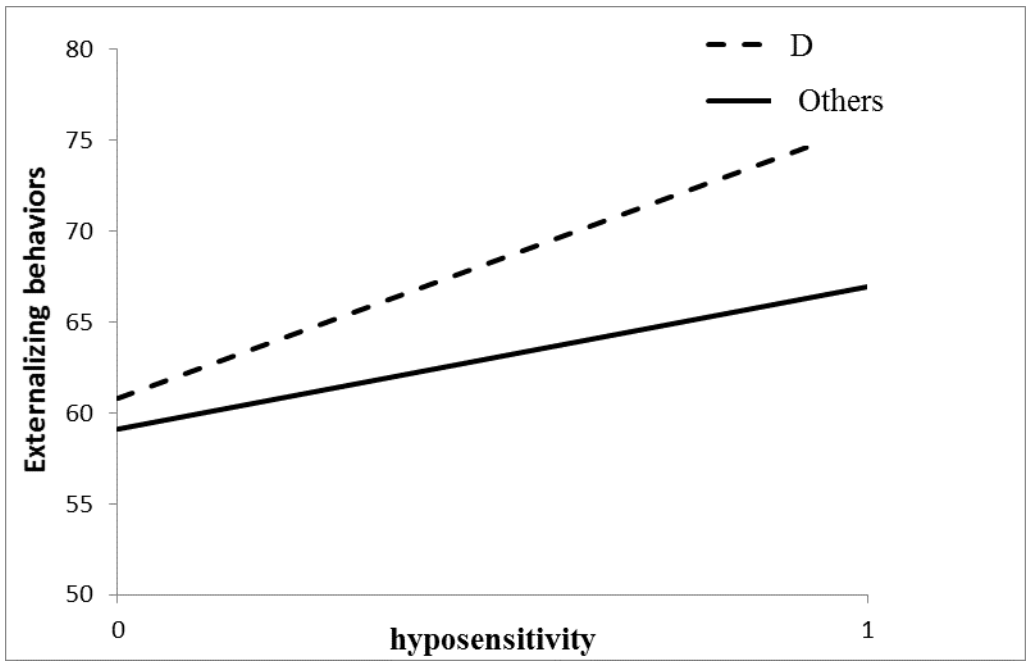
Research has shown child attachment disorganization to be an important risk factor in the development of behavior problem (Fearon et al., 2010). As well, evidence is showing that children with sensory hyposensitivity (a high threshold to sensory stimulation, a lack self-regulation abilities and effortful control) are at greater risk of developing externalizing behavior (Sadhvani et al., 2007). According to developmental psychopathology theories, factors of the parent-child environment should interact with risk biologically-related factors to explain child adaptation (Sroufe, 1990). Lack of sensory regulation abilities are certainly at play in cases of children with diagnosed behavioral disorders. The current study examined whether a behaviorally-disorganized or controlling-disorganized attachment to the mother increased the risk of children with sensory regulation difficulties to show externalizing problems.

The sample included 61 preschoolers (1-5 years, M=3.67, S.D.=1.01, 72% boys) and their parent recruited through a child psychiatric clinic at a children's hospital. Child attachment disorganization was assessed with the Separation-reunion procedure (Ainsworth et al., 1978) and coded with the MacArthur Preschool Attachment Coding System (Cassidy & Marvin, 1992). Fathers completed the Child Behavior Checklist (Achenbach & Rescorla, 2000), yielding scores of externalizing behaviors (clinical cut-off > 63), and mothers completed the Sensory Profile (Dunn, 1997), which assesses child hyposensitivity.

When controlling for child sex, results of a regression showed main effects of behaviorally-disorganized ( $\beta=-.25$ ) and controlling ( $\beta=-.27$ ) attachments on externalizing behavior. However, results indicated that children with hyposensitivity are at greater risk of externalizing problem ( $\beta=-.51$ ), even more so if they have developed an insecure behaviorally-disorganized attachment with their mother (see figure 1;  $\beta=-.29$ ). This study underscores the importance of cumulative risk factors in the development of child psychopathology and the protective role of attachment organization for child adaptation. The discussion will focus on clinical implications for professionals working with this population.

Graphic 1.

Behaviorally-disorganized vs others X hyposensitivity on externalizing problems



Clinical cut-off

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**The use of well-established research attachment measures to assess attachment in child custody evaluations: Just an exception or the norm?**

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The use of attachment theory is essential to the purposes of child custody evaluations as it is one centerpiece for determining the best interest of the child. The present study aimed at evaluating the scientific quality of children's attachment assessment in child custody evaluations for family courts. All evaluation reports that were commissioned by four family courts in Germany in 2010 and 2011 were included ( $n = 116$ ). Each evaluation report and its attachment assessment were rated by two independent trained raters.

The results show that only a minority of evaluations fulfil the basic standards of scientific attachment assessment. 93 evaluators referred to attachment (classification patterns) in their judgements, often using non-scientific and misleading terms like "good" or "strong" attachment. In 35 reports (38 %) the evaluators indicated in their results section some kind of attachment assessment. These were mostly (91 %) obtained by unstandardized methods (e.g., unstructured interviews or casual interaction observation), whereas standardized attachment measures (e.g., Strange Situation, Child Attachment Interview, Story Completion Tasks) were scarce (9 %). The results further indicate a strong influence of the child-mother attachment pattern and evaluators' referrals for future child custody ( $\chi^2(1) = 7.70, p < .01, \phi = .46$ ) but not for the child-father attachment pattern (n. s.). As noted above, the majority of evaluators misused the theoretical concept of attachment theory. The underlying framework for diagnostical decisions as well as the rationale of the resulting diagnostical judgement remain unclear. Implications and recommendations are discussed as well as the possibilities for a stronger implementation of standardized attachment measures in practice.

Keywords: psychological diagnostic for the family court, quality standards, child custody evaluation, child attachment

**P-143**

**Attachment styles and post traumatic growth among suicide loss survivors: The mediating role of interpersonal characteristics**

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The world loses approximately a million people to suicide every year, leaving behind many "suicide loss survivors" - family members, friends and co-workers, who are significantly affected by the death and need to cope with the traumatic loss. Yet some suicide loss survivors not only cope with the loss, but actually experience post-traumatic growth (PTG). To date, no studies have fully examined the psychological processes that may explain this personal positive change. We hypothesized that the adult attachment style of suicide loss survivors would predict PTG and that this association would be mediated by self-disclosure and social support. A community sample of 131 suicide loss survivors (108 women) aged 18-70 completed self-report measures of attachment style (RQ), self-disclosure, social support and PTG. As hypothesized, securely attached individuals scored highest on PTG, self-disclosure and social support. and those with avoidant attachment scored lowest on all three variables. Individuals with anxious and, surprisingly, disorganized attachment scored intermediately between the two. A Structural Equation Model confirmed that self-disclosure and social support mediated the association between attachment style and PTG. Suicide loss survivors with secure attachment tend to self-disclose more and perceive greater support from others compared to suicide loss survivors with insecure attachment, enhancing their chances of experiencing PTG. These results highlight the contribution of interconnectedness to PTG in suicide loss survivors. Attachment style should be considered in psychological interventions for suicide loss survivors, who should be encouraged to self-disclose and actively seek social support.



**P-146**

**Video-feedback preventive program offered to all first time parents in a italian primary care pediatrician's office: preliminary data analysis of the first year implementation.**

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The aim of this preventive program is to support caregivers' sensitivity and mentalization in order to promote secure attachment and infant mental health. All neonates born from January 2016 in a north-east Italian region and registered at a primary care pediatrician's office were consecutively enrolled for a video-feedback intervention called Primary Care - Video Intervention Therapy (PC-VIT: an adaptation of George Downing's Video Intervention Therapy) conducted by a pediatrician/psychotherapist. This type of intervention has already shown feasibility and good acceptability in a previous pilot study.

The program consist in six video-feedback sessions performed for each baby at different ages (1, 3, 6, 8, 12, 18 months) in the same pediatrician's office where the physical examination is conducted. The program is evaluated at different ages with questionnaires (EPDS,DAS,QUIT) and interviews (AAI) given to both parents plus coding of video clip interaction quality (SS, CIB).

During the analysed time period (January-August 2016) 45 newborn registered at the pediatrician's office. 21 of them met the enrollment criteria. The mean number of patients (0-14 years of age) registered at the pediatrician office in 2016 were 1.173. The medium daily activity was 16 sick visits and 7 well baby visits. The total number of PC-VIT sessions were 52 and the pediatrician time work load increased by total 39 hours (5-6 hours more each month). The preliminary data analysis of the program shows a high enrollment rate (19 of 21: 90 %), a high attendance rate of both mothers (100%) and fathers (90%). Interestingly if the father was present at the first session then the attendance rate to the following sessions is 100%. The mean EDPS decreased between 1 month and 8 months for both mothers (from 5,8 to 3,6) and fathers (from 4,5 to 3,5).

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## Early Signs of Role Reversal in Child-Parent Interactions

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Caregiving behavior may be directed toward a parent earlier than previously thought based on the results within this clinical sample. Children, zero to three, who experience being cared for by a parent with symptoms of depression or anxiety may be at an increased risk of developing controlling/caregiving behavior aimed at taking care of the vulnerable mother. Controlling/Caregiving behavior is often seen in children during the preschool years following a prior disorganized attachment relationship with their parent (Bowlby, 1969). This behavior is an example of role reversal in the parent-child relationship, which can have adverse on the child's development. We hypothesized that early signs of role reversal may be excessive verbal or non-verbal (positive) attention to the parent.

The current study consists of 89 mother-child dyads from a high-risk, low-income sample. Maternal depression and anxiety were measured via the Symptoms Check List-90 Revised (Derogatis, 1994). Behavior of both the mother and child was assessed via the Coding Interactive Behavior coding system (CIB, Feldman, 1998), a global rating system of social behavior examining mother, child and dyadic behavior.

Within the high-risk sample, maternal depression significantly correlated with heightened child positive affect ( $r=.23$ ,  $p<.05$ ). Maternal anxiety significantly correlated with heightened child positive affect ( $r=.28$ ,  $p<.01$ ) and high child vocalization/verbal output ( $r=.23$ ,  $p<.05$ ). The increased positive affect as well as vocalization by the child with mothers experiencing depression and anxiety symptoms may be an attempt to help regulate their mother emotionally and elicit engagement. Though role reversed behavior has been most often seen in preschool years, it appears that nascent signs of role reversal may be observed much earlier in childhood. Alternatively, it will be acknowledged that these heightened positive affect and high vocalization may be signs of resilience in these toddlers whose mothers are burdened with anxiety and depression.

**P-152**

**The mediating role of precociously turning to peers: Conduct disorder to internalizing symptoms.**

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Youth who experience insecure attachment to their caregivers are at risk for developing internalizing and externalizing problems (Rosenthal and Kobak, 2010). Studies specifically examining the heterotypic continuity of conduct disorder have demonstrated that youth with externalizing symptoms are at greater risk for developing internalizing disorders in adolescence and adulthood (Lahey & Waldman, 2012). In our current sample of high-risk youth, precociously turning towards peers and romantic partners for secure base functions has been associated with internalizing problems (Dangaltcheva, 2014). This study will build on previous findings and examine whether turning to peers over parents mediates the relationship between externalizing and internalizing symptoms in a smaller subsample ( $n = 91$ ). At the first time point, youth were approximately 15 years old. They reported who they turned to for secure base (Parent-Peer Attachment Function Questionnaire (PPAF); Moretti, 2003) as well as their levels of internalizing and externalizing problems (Ontario Child Health Study Scales (OCHS); Boyle et al., 1987). Youth also completed the same questionnaires approximately three years later. Correlational analyses revealed that turning to peers for secure base was correlated to externalizing symptoms at time one,  $r = .284, p < .05$ , and internalizing symptoms at time two,  $r = .333, p < .05$ . The association between externalizing symptoms and internalizing symptoms approached significance,  $r = .279, p = .057$ . Multiple regression analysis will be conducted in order to examine the potential mediating effects of precociously turning to peers on the trajectory from conduct disorder to internalizing symptoms. Clinical implications will be discussed.

## The prevalence of early withdrawal behavior in risk and non-risk samples of infants

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### Paper 1

The prevalence of infants' social withdrawal has been investigated in two Norwegian projects. One longitudinal project included a group of full-term infants (N=238) and their mothers and one group of moderately premature infants (N=64) and their mothers. The other project included one group of infants (n=50) born to mothers admitted to substance abuse treatment in pregnancy or born to mothers who had been referred to psychiatric treatment in pregnancy, and a non-clinical group of infants (n=26) where the mothers attended regular well-baby clinics. In the first project The Alarm Distress Baby Scale (ADBB) was used to assess social withdrawal at 3, 6 and 9 months, in the second project the infants were assessed at 3 months. Results from the first project revealed a higher proportion of premature infants with social withdrawal (total ADBB  $\geq 5$ ) at 6 months postpartum, and the premature infants had a significantly higher mean ADBB total score at 3 and 6 months of age compared to the full-term infants. This difference was not evident at 9 months of age. The results from the other project revealed that infants born to mother with substance problems or psychiatric problems in pregnancy had a significantly higher mean ADBB total score compared to the non-clinical group of infants. However, there was no significantly higher proportion of social withdrawal in the group of infants born to mother with substance problems or psychiatric problems in pregnancy compared to the non-clinical group of infants. The ADBB scale seems promising as a scale for describing socio-emotional problems expressed by young infants at risk. This is important, considering that social withdrawal may be related to later attachment problems.

### Paper 2

#### **Precursors of social emotional functioning among full-term and preterm infants at 12 months: Early infant withdrawal behavior and symptoms of maternal depression.**

This study is part of the Norwegian longitudinal investigation of early infant social withdrawal. The aim was to explore the relation between early signs of infant withdrawal, maternal symptoms of depression 3 months after birth, and later child social emotional functioning at 12 months. The sample consisted of a group of full-term infants (N= 238) and their mothers, and a group of moderately premature infants (N= 64) and their mothers. At 3 months, the infants were observed with the Alarm Distress Baby Scale and the mothers completed the Edinburgh Postnatal Depression Scale. At 12 months, the mothers filled out questionnaires about the infants' social emotional functioning (Infant Toddler Social Emotional Assessment and the Ages and Stages Questionnaire-Social Emotional). The mothers of the premature infants reported more child internalizing behavior at 12 months than the other group of mothers. It was further found that early maternal depressive symptoms predicted later child social emotional functioning. However, neither early infant withdrawal behavior, nor gestational age, did predict child social emotional outcome at 12 months in this study. An implication of the study is that clinicians should be aware of the complex interplay between early infant withdrawal and signs of maternal postpartum depression in planning ports of entry for early intervention.

### Paper 3

#### **Copenhagen Infant Mental Health Project (CIMHP): Effects of Infant Mental Health Screening and Indicated Prevention Approaches- Preliminary Results from a Randomized Control Study**

Recent estimates show that one in five Danish families is at risk of inadequate parenting resources and child neglect. Despite a solid body of evidence on the importance of infant mental health, insufficient knowledge exists on best practice in screening for and preventing adverse infant mental health risks and no systematic approaches are currently implemented in Denmark. The overall aim of CIMHP is to test the feasibility of an infant mental health screening and indicated prevention system and its capacity to (1) detect children at risk of longer term mental health adversities and (2) alter these risks in a cost effective way in a general population. During the project around 18.000 mothers and

infants in Copenhagen are screened using two standardized screening instruments: 1) Alarm Distress Baby Scale (ADBB) in detecting infant social withdrawal and 2) Edinburg Postnatal Depression Scale (EPDS) in detecting maternal postpartum depression. A sample of 314 eligible parent(s) enters into a randomized controlled trial to test the efficacy of an attachment based intervention program, Circle of Security –Parenting (COS-P), compared to Care as usual (CAU) in preventing mental health adversities and enhancing parental sensitivity and attachment security. Outcomes are measured at follow-up and include parental sensitivity and reflective functioning, child attachment, child social emotional and cognitive development. Preliminary results from the study will be presented focusing on the results from the screening part of the study. If proved effective these will represent a notable advance to initiating this system as a better infant mental health strategy in Denmark.

**P-158**

**Precursors of social emotional functioning among full-term and preterm infants at 12 months: Early infant withdrawal behavior and symptoms of maternal depression**

**Moe V<sup>1,2</sup>**

*<sup>1</sup>Department of Psychology, University of Oslo, <sup>2</sup>National Network for Infant Mental Health, Centre for Child and Adolescent Mental Health Eastern & Southern Norway*

Poster Session 5, June 30, 2017, 3:15 PM - 4:45 PM

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**P-161**

**Copenhagen Infant Mental Health Project (CIMHP): Effects of Infant Mental Health Screening and Indicated Prevention Approaches- Preliminary Results from a Randomized Control Study**

**Skovgaard Væver M<sup>1</sup>**

*<sup>1</sup>Department of Psychology, University of Copenhagen*

Poster Session 5, June 30, 2017, 3:15 PM - 4:45 PM

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## S6.1

### Psychophysiology of Mothers and Infants: Novel Perspectives on Maternal Sensitivity

**Kuzava S<sup>1</sup>**, Tarasova A<sup>1</sup>, Bernard K<sup>1</sup>, **Admoni N<sup>2</sup>**, Woodhouse S<sup>2</sup>, **Lauer M<sup>2</sup>**, Ablow J<sup>3</sup>

<sup>1</sup>*Stony Brook University*, <sup>2</sup>*Lehigh University*, <sup>3</sup>*University of Oregon*

Symposia 6.1, Nunn Hall, Level 4, June 30, 2017, 4:45 PM - 6:15 PM

Early in life, maternal sensitivity is essential for supporting infants' socioemotional, cognitive, and physical development. Unfortunately, many mothers struggle to respond sensitively to infant cues; these deficits in sensitivity may significantly undermine infants' healthy development. The papers in this symposium offer novel insights into maternal sensitivity by examining key physiological processes in mothers and infants.

Paper 1 examined the association between mothers' negative bias in evaluating their infants' emotionality and maternal brain responses to images of their own baby. Mothers who rated their infants as having higher negative emotionality than independent coders showed attenuated event-related potential (ERP) responses to images of their own baby versus a familiarized baby. Attenuated brain responses to one's own baby may reflect a psychophysiological risk marker for low maternal sensitivity. Papers 2 and 3 offer compelling evidence that maternal sensitivity plays a critical role in infant's physiological stress regulation. Specifically, Paper 2 found that maternal sensitivity was negatively associated with infants' pre-stressor salivary alpha amylase (sAA) levels, an index of sympathetic nervous system activity, whereas maternal depression was positively associated with sAA reactivity. Paper 3 examined trajectories of infants' respiratory sinus arrhythmia (RSA), an index of parasympathetic nervous system (PNS) activation, across episodes of play-disengagement-reunion. Growth mixture modeling showed maternal sensitivity to infant distress predicted distinct RSA trajectories, with low maternal sensitivity predicting reduced infant RSA (i.e., lower PNS activation) during reunion with mother.

Taken together, these studies identify psychophysiological predictors and outcomes of maternal sensitivity that have clear implications for sensitivity-based interventions.

#### **Paper 1: Bias in Perception of Infant Emotionality Predicts Attenuated Brain Response to Own Baby**

Heightened attention to one's own child has been identified as an evolutionarily adaptive mechanism that supports perceiving and sensitively responding to infant cues, thereby enhancing infant survival and development (Weisman, Feldman, & Goldstein, 2012). Imaging research reinforces this, demonstrating that parents typically show enhanced emotional attention and arousal to stimuli specific to their own child (Doi & Shinohara, 2012; Grasso, Moser, Dozier, & Simons, 2009). A number of factors, however, such as maternal psychiatric status, breastfeeding, and infant gender are known to influence parental attention to and perception of infant attributes.

The present study sought to examine how parents' misperception of infant qualities may be related to differences in parental brain activity. 69 infants (6-12 months) were put through a series of distress-eliciting tasks, which were videotaped and coded for negative affect by researchers. Mothers reported their infant's negative affect via the Infant Behavior Questionnaire Very Short Form- Revised, then completed an EEG task in which they passively viewed photos of their own infant, a familiar infant, and an unfamiliar infant.

Results from multivariate regression indicate that mothers whose report of their infant's negative affect was more negative compared to researcher observation showed an attenuated Late Positive Potential (LPP) ERP response to photos of their own baby, compared to a familiar baby. Follow-up analyses confirmed that maternal report of negative affect and LPP response to own baby specifically that accounted for this finding.

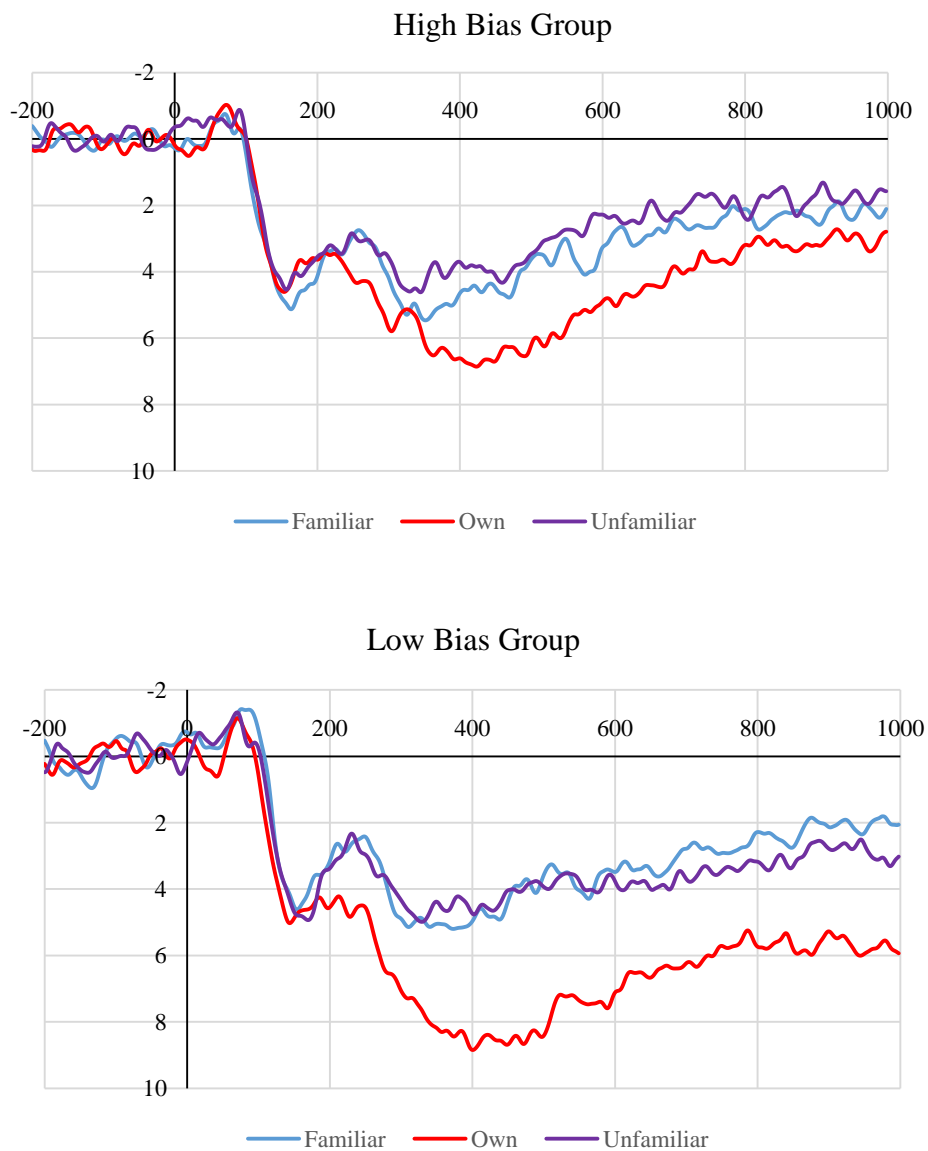
Our results suggest that negative perception of one's own infant may be related to diminished electrocortical indices of emotional attention. These findings may have relevance for identification and intervention efforts aimed at parents at risk for insensitive caregiving.



**Table 1.** Regression Predicting Familiar Baby-Own Baby LPP Difference

Variable	b	SE	$\beta$	t	p
Constant	-2.203	1.109		-2.016	.048
Cumulative risk	.526	.281	.220	1.875	.066
Breastfeeding history	-.864	1.004	-.099	-.861	.393
Maternal depression (CES-D $\geq 16$ )	-2.234	1.057	-.244	-2.114	.039*
Child gender	.051	.730	.008	.069	.945
Maternal bias (coded affect-IBQ)	-.966	.341	-.320	-2.834	.006**

**Figure 1.** LPP to all stimuli for high-and low-bias mothers (based on median split of bias scores)



**Paper 2: Maternal Sensitivity and Depression as Predictors of Infant’s Salivary Alpha Amylase Levels in Response to a Stressor Task**

Salivary alpha amylase (sAA) is a promising marker for sympathetic nervous system activity (Chatterton, et al., 1996). Theory and research point towards an interplay between maternal variables and reactivity of the stress reactivity system/SNS pathways (Hill-Soderlund et al., 2008). As such, it is possible that infant sAA reactivity varies across infants, and that other variables need to be taken into account to better understand reactivity, such as maternal sensitivity and maternal psychopathology. The present study examined whether maternal sensitivity and maternal psychopathology predicted infant’s sAA baseline and post-stressor levels.

Participants were 144 6-month-old infants (46% female, 26% African American, and 40% of mothers reported a yearly income below \$10,000). Infants provided a saliva sample shortly after arriving in the lab, and then completed the arm restraint task from the Lab-TAB (Goldsmith & Rothbart, 1999). Subsequent saliva samples were collected at 10, 20, and 30 minutes post task.

Means for each of the time points show that on average, sAA levels peaked 20 minutes post arm restraint. Peak reactivity was calculated as sAA change from baseline at 20 minutes. Two multiple linear regressions were conducted. As shown in Table 1, maternal sensitivity was negatively and significantly related with infant baseline sAA, but maternal depression did not significantly predict baseline sAA. As shown in Table 2, maternal depression was significantly related with infant sAA reactivity, but maternal sensitivity was not significantly linked with infant sAA reactivity.

The association between maternal sensitivity and infant baseline sAA is in line with a growing body of literature linking individual differences in sAA activity to social affiliation and active coping (Fortunato et al., 2008). Pre-natal maternal depression has recently been linked with ANS reactivity (Rash et al., 2016). The present findings show that concurrent maternal depression is also linked with concurrent sAA reactivity post stressor.

**Table 1.**

Maternal Variables	<i>t</i>	$\beta$	<i>F</i>	<i>df</i>	<i>p</i>
Overall model			3.35	2	.04
Maternal Sensitivity	-2.47	-.22			.01
Maternal Depression	.04	.043			.63

*Note.* The dependent variable was baseline sAA. sAA = salivary alpha amylase.

**Table 2.**

Maternal Variables	<i>t</i>	$\beta$	<i>F</i>	<i>df</i>	<i>p</i>
Overall model			3.24	2	.04
Maternal Sensitivity	1.40	.13			.16
Maternal Depression	2.27	.21			.02

*Note.* The dependent variable was sAA reactivity. sAA = salivary alpha amylase.

### Paper 3: Maternal Sensitivity and Trajectories of Infant Respiratory Sinus Arrhythmia across the Still Face Paradigm

Patterns of respiratory sinus arrhythmia (RSA), an index of parasympathetic nervous system, are crucial in socioemotional development (Porges & Furman, 2011). Adaptive patterns of RSA are exhibited by a decrease during challenge (to actively attend) and a increase during relaxation (Porges, 2007).

The Still-Face paradigm (SFP, Tronick et al., 1978) allows for studying RSA during 3-min social engagement with the mother, interruption by 2-min of challenge (maternal disengagement), followed by 2-minute reengagement. On average, most infants show adaptive RSA patterns (high RSA, low RSA, high RSA); group mean data, however, do not fit half of infants (Bazhenova et al., 2001; Moore & Calkins, 2004).

The present study represents methodological advances over previous research, which only examined group means for each episode of the SFP and episode-to-episode changes. We used growth mixture models to identify trajectories of RSA across the entire SFP and examine links to maternal sensitivity.

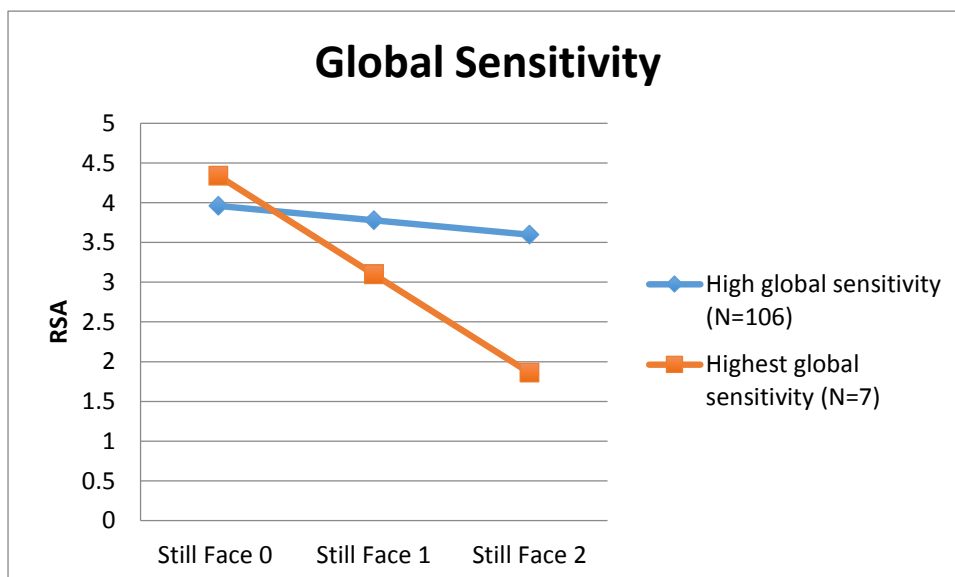
160 6-month-old infants and their low-income mothers participated in this study. RSA was extracted during the SFP (Porges, 1985). Sensitivity and infant behavior was reliably coded from tapes of the SFP.

A growth mixture model was a good fit to the data. Intercept was centered at reunion. Two classes were specified.

Global maternal sensitivity (mean of sensitivity to nondistress and distress) was added as a predictor. The two classes differed but both contained infants with highly sensitive mothers (Figure 1).

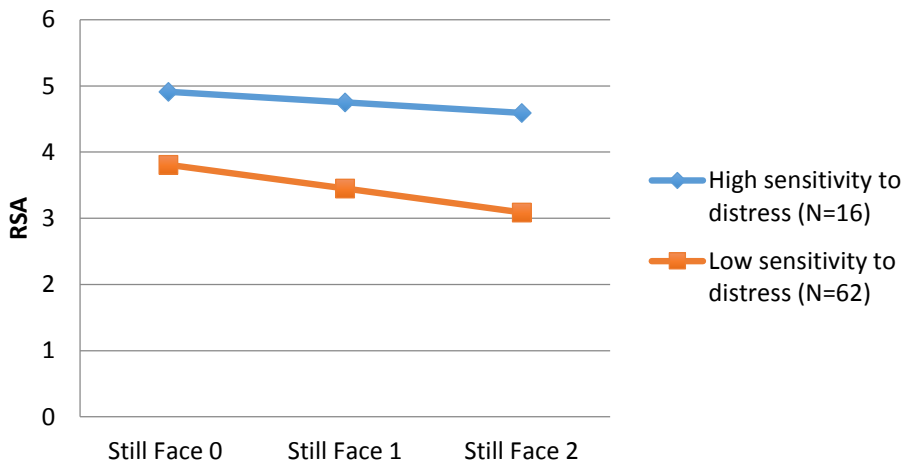
We then analyzed components of sensitivity separately. The two classes of infants differed on maternal sensitivity to distress (Figure 2). Class 1, contained infants whose mothers were highly sensitive to distress. Class 2 contained infants who had mothers insensitive to distress. When controlling for infant distress, we expect low sensitivity to distress to be associated with a less optimal pattern of RSA suggesting such infants are attending to challenge, even during mother-infant reunion.

**Figure 1.** *Classes differing on global sensitivity*



**Figure 2.** *Classes differing on sensitivity to distress*

## Sensitivity to Distress



## S6.2

### **Attachment in Middle Childhood and Adolescence: The Importance of Psychological Presence to the Development of Emotional Regulation.**

**Shmueli-Goetz Y<sup>11</sup>, Bosmans G<sup>2</sup>, Bijtteebier P<sup>3</sup>, Van de Walli M<sup>2</sup>, De Raedt R<sup>3</sup>, Brumariu L<sup>4</sup>, Kerns K<sup>5</sup>, Ruxandra Gherasim L<sup>6</sup>, Palmer A<sup>7</sup>, Borelli J<sup>8</sup>, Vanwoerden S<sup>9</sup>, Sharp C<sup>9</sup>, Ensink K<sup>10</sup>, Normandin L<sup>10</sup>, Target M<sup>11</sup>, Fonagy P<sup>11</sup>**  
*<sup>1</sup>Anna Freud National Centre For Children And Families, <sup>2</sup>KU Leuven, <sup>3</sup>Ghent University, <sup>4</sup>Adelphi University, <sup>5</sup>Kent State University, <sup>6</sup>Alexandru Ioan Cuza University, <sup>7</sup>Pomona College, <sup>8</sup>University of California, Irvine, <sup>9</sup>University of Houston, <sup>10</sup>University of Laval, <sup>11</sup>University College London*

Symposia 6.2, Drama Studio, Level 1, June 30, 2017, 4:45 PM - 6:15 PM

#### **Repetitive thinking about the mother during distress moderates the link between children's attentional breadth around the mother and depressive symptoms in middle childhood**

Research increasingly shows that attachment development in middle childhood alters the attentional processing of information regarding the attachment figure. However, the function of these biases have been little studied. Nevertheless, the idea is that these biases determine the extent to which children can use the attachment figure to cope with emotional distress. In line with this idea, research showed that children's trust in mother's availability and the extent to which children are focused on mother interact to explain emotional and behavioral problems. For children high on trust, a stronger focus was linked to less problems. For children low on trust, a stronger focus was linked to more problems. This led to the hypothesis that the relational context during distress determines whether a strong focus on mother is (mal)adaptive.

To test this hypothesis, we measured how repetitively children think about mother during distress (RTm). In prior research, we found that children who are less securely attached show higher RTm. This finding is in line with other middle childhood research showing that children learn to solve the majority of problems autonomously and that relying too heavily on mother becomes less adaptive. Based on these findings, we tested in the current study the prediction that a stronger attentional focus on mother is only linked with children's depressive symptoms when children show more RTm.

In this study, RTm was measured using a self-report questionnaire. Focus on mother was measured with the Attentional Breadth Task that assesses the extent to which children have a narrower attentional field around mother compared to unfamiliar women.

Results of the current study ( $n = 157$ ) support the hypothesis that 9-12 year old children who have a more narrow attentional field around mother and who at the same time report more RTm, have more depressive symptoms.

#### **Attachment Figures and Attachment Security in a Middle Childhood Romanian Sample: Does Maternal Migration Matter?**

Little is known about the identity of attachment figures (AF) and the relations of attachment security with adjustment in Eastern European countries. Importantly, after the fall of communism, parental international migration increased (Toth et al., 2007), leaving children in the care of others. In a Romanian sample, this study: 1) identified the AFs; 2) assessed whether preferences for peers as AFs varies with maternal migration history; 3) evaluated whether mother-child attachment security depends on maternal history of migration and 4) tested whether security relates to children's adjustment. Children ( $n = 122$ , Mage=12.77 years) completed a migration interview, the Attachment Figure Interview (Seibert & Kerns, 2009), the Security Scale (Kerns et al., 2001) and questionnaires of adjustment.

Mothers were identified as primary attachment figures (whom children go FIRST; Table 1), with father or peers next. When we considered all AFs nominated, mothers were still chosen most, followed by fathers.

Further, children with mothers who had migrated (35.6%; 17.1% of mothers currently away) were less likely to nominate peers (Table 2). They were also less secure than children of mothers who had not migrated,  $F(1, 216) = 6.64$ ,  $p = .01$ . More securely attached children showed lower anxiety and depression, and better emotion regulation, after controlling for maternal migration history ( $r$ s range  $-.20$  to  $-.24$ ,  $p < .01$ ).

Overall, Romanian children turn to mothers as AFs, although fathers are also important. Peers may function as “temporary attachment figures” (Schuengel & van IJzendoorn, 2001). Interestingly, children with mothers with a history of migration, who potentially would most benefit from their peer network, were less able to do so. They were also less securely attached, highlighting the importance of consistent maternal presence in children’s lives. Attachment security predicted adjustment, further confirming its importance in an Eastern European sample.

### **Convergence in Parent-Child Reports of Adolescent Psychopathology: Associations with Disorganized Attachment and Reflective Functioning**

While convergence in parent-child reports of adolescent psychopathology is critical for treatment planning, research documents a pervasive lack of agreement in ratings of children’s symptoms. Attachment insecurity is one factor that might explain low convergence in reports, but existing research testing this hypothesis is limited by the use of a problematic statistical methods (Laird & De Los Reyes, 2013). Further, no studies to date have explored the mechanisms underlying the association between attachment security and low convergence in parent-child reports.

In the current investigation involving a sample of adolescent psychiatric inpatients ( $N=264$ ), we follow assess whether disorganized attachment on the Child Attachment Interview (CAI; Shmueli-Goetz, Target, Fonagy, & Datta, 2008) is associated with low convergence in parent-child reports of adolescent internalizing and externalizing symptoms, as well as whether adolescent and parent reflective functioning (RF) explain this relation. After controlling for demographic factors, convergence in parent-child reports of internalizing is lower among adolescents classified as having disorganized, as compared to organized, attachment ( $b = -.56$ ,  $p = .01$ ), while convergence in parent-child reports of externalizing is higher among adolescents classified as having disorganized, as compared to organized, attachment ( $b = .37$ ,  $p = .03$ ; see Fig.1). Further, adolescents’, but not parents,’ RF mediates the association between disorganized attachment and convergence in externalizing symptoms only ( $b = .03$ , 95% CI  $[-.003, .074]$ ; see Fig.2). Findings suggest that disorganized adolescents attachment is associated with lower convergence in internalizing symptoms and higher levels of convergence in externalizing symptoms; with respect to externalizing symptoms only, low adolescent RF may explain levels of and attachment-based differences in convergence of parent-adolescent reports.

We will discuss potential mechanisms underlying differing degrees of convergence in reports of adolescents’ symptoms, as well as the implications of these findings for assessment and treatment planning for youth at risk for disorganized attachment.

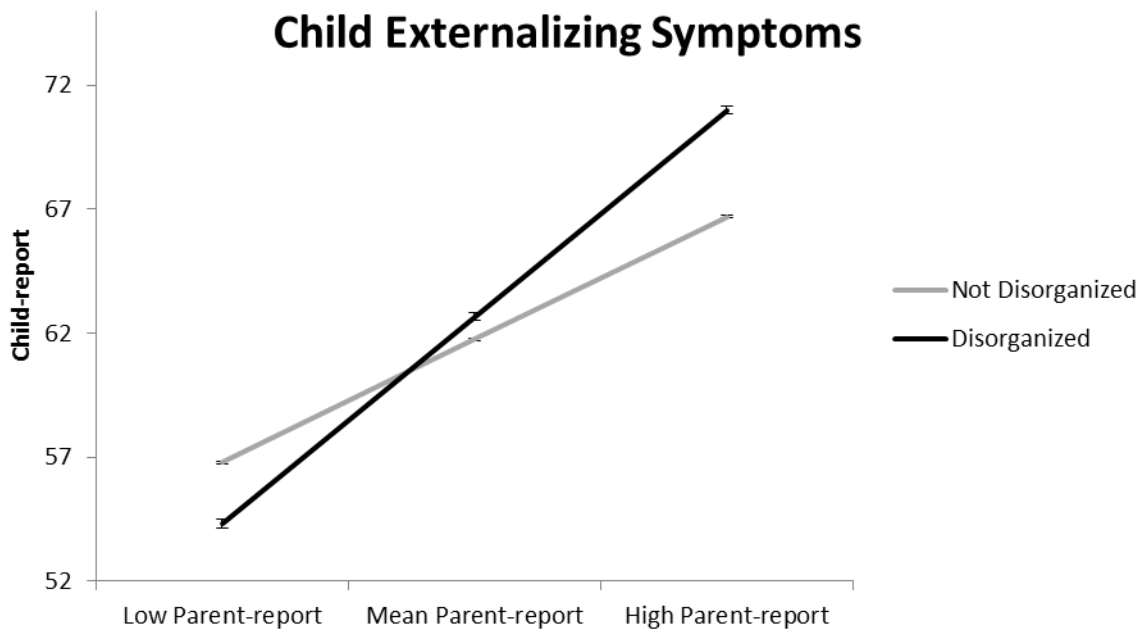


Figure 1. Convergence in Parent-reported adolescent externalizing symptoms and adolescent-reported externalizing symptoms, as moderated by adolescent disorganized attachment. Adolescents' gender and age controlled in analyses.

### Childhood Sexual Abuse and Attachment Insecurity: Independent and Interactive Associations with Children's Psychopathology

Children who have been victims of sexual abuse are at significant risk for psychopathology. As primary co-regulators of children's emotional experience, attachment figures have the potential to help or hinder children's ability to process frightening experiences, including childhood sexual abuse (CSA). However, when CSA is perpetrated by family members, attachment figures' roles in heightening or attenuating children's risk may be even more central. To date, despite documented links between both CSA and insecure, and particularly disorganized, attachment and psychopathology, little is known about their interactive associations. Further, extremely few studies have explored distinctions between CSA occurring outside of the family (extrafamilial CSA) and that which occurs inside the family (intrafamilial CSA), and even fewer studies have explored links between CSA and attachment in middle childhood.

In the current study, we examined both main and interactive effects of school-aged children's abuse history and attachment in the prediction of children's depressive symptoms, internalizing symptoms, externalizing symptoms, sexualizing difficulties, and dissociation. Participants were 109 children aged 8-12; 43 had experienced CSA. Children classified as secure on the Child Attachment Interview were significantly more likely to have no CSA history (see Figure 1), whereas children classified as insecure and especially children classified as disorganized were more likely to have experienced CSA. Further, findings suggested that the interaction between attachment and CSA predicted child psychopathology (see Table 1). In the non-abused comparison group, there was a consistent pattern where secure children manifested the least internalizing and externalizing difficulties, sexualized behavior and dissociation, while disorganized children manifested the most difficulties. In the CSA group, a more complex pattern of interactions was found. The clinical and theoretical implications of the findings are discussed.

Table 1.  
Analyses of Covariance examining predictors of children's psychopathology.

Independent Variable	Dependent Variable									
	Depression		Internalizing		Externalizing		Sexual Problems		Dissociation	
	<i>F</i>	$\eta^2$	<i>F</i>	$\eta^2$	<i>F</i>	$\eta^2$	<i>F</i>	$\eta^2$	<i>F</i>	$\eta^2$
Sex	0.09	---	1.57	---	0.09	---	0.02	---	2.81	---
Age	0.11	---	0.11	---	0.05	---	0.5	---	0.01	---
Race	0.19	---	1.94	---	0.18	---	1.35	---	0.03	---
Attachment <sup>a</sup>	6.93**	0.1	6.32**	0.1	1.94	---	2.91	---	0.06	---
Abuse <sup>b</sup>	1.46	---	1.65	---	0.74	---	1	---	0.77	---
Attachment x abuse	0.84	---	2.60*	0.1	3.30*	0.1	4.05**	0.1	3.41**	0.1

<sup>a</sup> secure, insecure, disorganized

<sup>b</sup> no sexual abuse, extrafamilial sexual abuse, intrafamilial sexual abuse

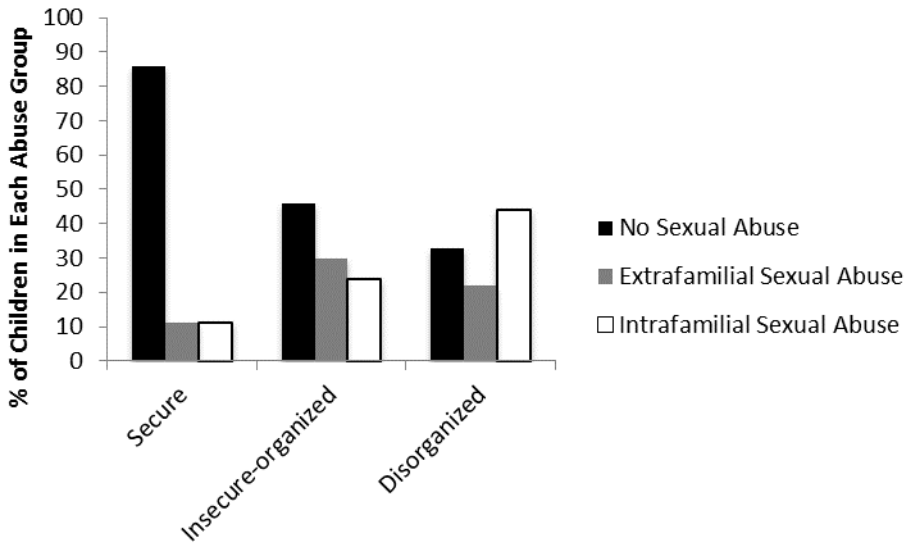


Figure 1.  
Association between attachment and children's experiences of sexual abuse in terms of percentage of each attachment group.



## S6.3

### **Enabling parents to mentalize and hold their children in mind: Innovative clinical applications informed by attachment theory and Mentalization Based Treatment (MBT) with parents and families**

**Byrne G<sup>1</sup>, Mein C<sup>1</sup>, Lees G<sup>1</sup>, Redfern S<sup>2</sup>, Cooper A<sup>2</sup>, Motz A<sup>1</sup>**

<sup>1</sup>Oxford Health NHS Foundation Trust, <sup>2</sup>Anna Freud National Centre

Symposia 6.3, Clarke Hall, Level 3, June 30, 2017, 4:45 PM - 6:15 PM

#### **Introduction**

Disorganization of attachment is considered a major risk factor in the development of child psychopathology (Zeanah, 1996). Mentalizing is defined as the ability to understand feelings, cognitions, intentions and meaning in oneself and in others. The capacity to understand oneself and others is a key component of the parent-infant/child relationship. Links between parental mentalization of the infant and the development of affect regulation and secure attachment in the child have been demonstrated (Slade *et al.*, 2005), (Meins *et al.*, 2001), Oppenheim & Koren-Karie, 2002). Mentalization-based treatment is evidence-based treatment for borderline personality disorder and self-harm. Mentalization is an integrative conceptual framework; its coherence with Social-Ecological, Neurodevelopmental, and particularly Attachment models means that it lends itself well to applications extending beyond adult borderline personality disorder. Innovative applications including the manualized Lighthouse MBT-Parenting Programme and the Reflective Parenting guidebook for parents will be described alongside an exploration of how failures in reflective parenting can lead to the development of the 'alien self' and contribute significantly to intergenerational transmission of violence.

#### **PAPERS (3)**

**1: TITLE: Illuminating the 'child-in-mind'. Mentalization-based treatment for parents (MBT-P) in families where severe child abuse has taken place**

The Lighthouse<sup>®</sup> MBT-Parenting programme aims to enhance parents' capacity mentalize and in particular to mentalize their children, to enhance attunement in parent-child relationships, to promote secure attachment and reduce Disorganization and to reduce risk of harm and of trans-generational transmission of psychopathology including BPD traits. The programme is underpinned by research in the fields of attachment, child development and neuroscience, by core psychoanalytic concepts offering insight into how minds and relationships work & advances in Mentalization Based Treatment for BPD.

The Lighthouse<sup>®</sup> MBT-P programme is being piloted in the UK on two sites, ReConnect Service, Buckinghamshire and FASS Service Oxfordshire. An independent evaluation of the ReConnect Service has been conducted by the UCL/Anna Freud Centre.

Parents were referred to the ReConnect Service by a range of professionals including: social workers, GPs, midwives, health visitors, community paediatricians, children's centre staff, and mental health professionals. Essential referral criteria included: the child to be under the age of two, and the parent to have acknowledged difficulties in their relationship with their child or in previous relationship breakdowns. In addition, at least one of the following criteria was essential for referral: current parental mental health problems; parental history of childhood trauma or neglect; history of domestic violence; history of substance abuse; or history of severe parenting breakdown, including permanent removal of previous children.

Parents received individual MBT treatment fortnightly, an Mentalization-Based Group Therapy course (20 sessions) and Video Interactive Guidance (VIG).

The presentation will draw on the emerging data from the evaluation and will reflect the on-going work of manualizing the Lighthouse<sup>®</sup> MBT-P.

## **2: Title: Addressing Shame and Violence in an Abusive Father**

Ms. XXXX presents a clinical discussion of successful treatment of a violent father, who was able to acknowledge his assault of his infant daughter and eventually rebuild a relationship with her, allowing him to regain regular contact with her. She describes the application of mentalization-based treatment with individuals with antisocial difficulties including violence and emotional dysregulation. The modification of this treatment for this group of individuals includes a psychoeducational component in which their understanding of antisocial personality disorder, and the role of early attachment disruptions is explored. She will briefly describe key difficulties in engaging this traditionally hard-to-treat group, and show how it can be effective, through focusing on the background history and offending of this 24-year-old father, and his engagement in treatment.

By presenting key aspects of the offence, and the father's history, she demonstrates how failures in reflective parenting can lead to the development of the 'alien self' and contribute significantly to intergenerational transmission of violence. She describes the course of this group and individual treatment and key moment in the therapy itself. Finally she situates this particular clinical vignette in the context of research into the efficacy of mentalization based treatment for violent and antisocial individuals. She reports on how this model of treatment has shown promising effects on violence reduction, but her focus in the presentation remains on the clinical issues of engagement, treatment and potential reunification of parents who have enacted violence against their children.

She explores the complex issues of denial and shame in this treatment, and describes how it can enable parents with longstanding histories of being both perpetrators and victims of violence to acknowledge and modify their own aggression. She discusses the impact of this work on the therapist, and the importance of recognising their dual status as both victims and perpetrators.

## **3: *Reflective Parenting*: translating MBT into a practical guide for parents**

The conceptual framework and empirical findings concerning reflective function or mentalization have been translated via 'Reflective Parenting' - a guidebook for parents - into a practical application of the theoretical model. This resource, for all parents, brings mentalization or reflective function into widespread everyday parenting practices. It builds on recent research findings, which demonstrates how psychoeducation and skills building can increase parents' capacity to mentalize about their children. Key concepts of mentalizing are translated into a language parents can understand, aiming to increase mentalizing capacity. This is done via a series of three key tools for parents; The Parent Map which prompts parents to reflect on their own history of being parented, as well as their current influences and triggers; The Parent APP which takes the key mentalizing principles of being curious (A - attention), being aware of separate mental states (P - perspective taking) and needing to use empathy and validation of the child's feelings and state of mind (P - providing empathy); and the Two Hands model which shows parents how to managed behaviour and to reflect on the meaning behind the behaviour at the same time.

This published manual for parents is the first to bring the mentalizing theory and stance into mainstream parenting to create curiosity in the child, but chiefly to encourage parents to hold the infant and child's mind in mind. The authors of the manual hope to reach a wide audience and make a positive impact on the stance parents have towards their children, building children's emotional resilience and abilities to form positive peer relationships, in line with the well-established positive outcomes from higher reflective functioning/secure attachment. This guide also innovates a model of mentalizing for parents of infants and young children with particular sensitivities and deficits in mentalizing, namely looked after children and children with Asperger's.

## S6.4

### The Earliest Origins: Attachment and Caregiving Representations During Pregnancy and Their Implications for the Mother-Infant Relationship

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Symposia 6.4, Elvin Hall, Level 1, June 30, 2017, 4:45 PM - 6:15 PM

#### Paper One: Prenatal State of Mind Regarding Attachment and the Subsequent Child-Parent Relationship: An Integrative Review

Of the many areas of attachment research, understanding the antecedents of the quality of children's attachments to their parents has remained a high priority. Previous research has shown that relationships exist between parents' state of mind regarding attachment and the quality of their children's attachment (van Ijzendoorn, 1995; Verhage et al., 2015). Researchers have measured the attachment representations of mothers-to-be during pregnancy as a way of understanding the impact maternal state of mind regarding attachment has on the relationship between mother and child after birth. The goal of this study is to present an integrative review of the literature to date that has measured the prenatal state of mind regarding attachment of mothers-to-be and the postnatal mother-child relationship. This study seeks to address the question: Are there links between the maternal antenatal state of mind regarding attachment and the subsequent mother-child relationship?

As part of a larger review, computerized databases were searched for relevant key phrases including the words: prenatal attachment, antenatal attachment, maternal-fetal attachment, postnatal, attachment, caregiving, and bonding. The search found 10 articles that focused specifically on mother-to-be's state of mind regarding attachment prenatally and the parent-child relationship after birth: 8 with Strange Situations, 1 with the Attachment Q-Sort, and 1 with a measure of maternal sensitivity and frightening behavior. Additionally, some studies also included interactional measures of parenting behavior such as mind-mindedness, the CARE-Index, and the AMBIANCE, thus extending this review from other meta-analyses that have investigated the concordance between adult attachment and child-parent attachment. The review provides a cohesive picture of the literature links between state-of-mind during pregnancy and the child-parent relationship quality and interaction after birth.

#### Paper Two: Stability of Attachment Representations Across the Transition to Motherhood

Adult attachment is a powerful predictor of caregiving and child outcomes, making it important to understand whether and how it may change over time. Longitudinal research has shown attachment representations to be mostly stable over time, with instability being predictable based on changes in the caregiving environment. The transition to parenthood is a time of intense reorganization of the caregiving environment, as new parents take on the role of attachment figure for their new infant. Stability and change on the gold standard Adult Attachment Interview (AAI) has been examined in a handful of studies, though none have specifically examined attachment stability in first-time mothers. Thus, the goal of this project was to investigate the stability of attachment representations across the transition to parenthood for first-time mothers.

The present sample of 93 mothers participated in the AAI during their third trimester and again when their child was 24-months-old. At the first assessment, mothers had an average age of 29 years and were either married (91%) or cohabiting (9%) with the child's father. Mothers were predominantly white (82%) and socioeconomic status ranged from lower to upper middle class.

Organized attachment showed stability over time while unresolved attachment did not. Individual classifications showed different stability patterns. Preoccupied was the most stable organized category (78.6%), followed by autonomous (64.1%), with dismissing being the least stable (33.3%), as well as most likely to become autonomous (53.3%). Neither unresolved loss nor abuse showed stability, though 41% of mothers maintained their unresolved status for abuse compared to 21% of mothers unresolved for loss.

These findings have meaningful implications for clinicians working with new mothers and researchers seeking to understand attachment stability over time. Correlates and possible mechanisms of change will be discussed, including therapy, negative life events, experience of motherhood, and their current relationship with their parent(s).

### **Paper Three: The development of maternal-fetal-bonding over the course of pregnancy and its association with maternal romantic attachment**

There is a growing consensus that the mother-child relationship already develops before a child is born. Maternal-fetal bonding is defined as the emotional tie or bond, which normally develops between a pregnant parent and the unborn child (Condon and Corkindale, 1997). Condon (1993) further differentiates between the quality of emotional bonding and the mental preoccupation with the fetus. In recent studies, maternal-fetal bonding was not only associated with maternal well-being, but also with postnatal maternal bonding and mother-child interaction. Furthermore, researchers suggest that working models, which form the basis of adult romantic attachment, also influence emotional adjustment during pregnancy: Avoidant and anxious-ambivalent attached women might experience more distress and, therefore, try to emotionally and mentally distance themselves from the source of distress, namely their unborn child. So far, there is little research on the influence of maternal romantic attachment on the development of individual aspects of maternal-fetal bonding throughout pregnancy. Therefore, the aim of our study was to longitudinally investigate associations between maternal romantic attachment and the development of Condon's prenatal bonding dimensions quality and preoccupation.

We expected romantic attachment anxiety and attachment avoidance to be negatively associated with both the quality and preoccupation dimensions of prenatal bonding. As part of a bigger population-based longitudinal study in Hamburg, Germany, pregnant women (N=180) filled out self-report questionnaires on prenatal bonding (Maternal Antenatal Attachment Scale, Condon, 1993) and psychological well-being at 14th, 24th, and 36th gestation week. Attachment anxiety and attachment avoidance were assessed once during pregnancy using the German version of the Experiences in Close Relationships-Revised (Ehrental et al., 2009).

Results for the three assessment points are presented. Findings are further discussed in the light of maternal-fetal bonding as a potential forerunner for the postnatal mother-child relationship, and put in the larger context of mechanisms influencing the intergenerational transmission of attachment.

### **Paper Four: Prenatal screening of postnatal non-optimal caregiving behavior**

Early identification of mothers at risk for non-optimal caregiving behavior is important for guiding preventive interventions aimed at enhancing maternal sensitivity. Attachment research and allied disciplines have focused on how motherhood develops during pregnancy. As such attachment research have been able to demonstrate associations between prenatal maternal representations of the future infant and self as a mother and the quality of maternal behavior and infant attachment at one-year. This research supports maternal screening based on representations of the future child as early as during pregnancy. However, the existing instruments are all time consuming interviews of mothers and not suited for screening purposes. Based on the promising results with postnatal questionnaires of maternal representations, the aim is to explore if a questionnaire based assessment of prenatal maternal representations - the Prenatal Caregiving Experiences Questionnaire (PCEQ) can predict maternal sensitivity at 16 weeks.

The present study is a sub study of the WARM study. To be able to demonstrate associations of both optimal and non-optimal caregiving we will include a sample (N = 43) of mothers with and without lifetime severe mental illness (SMI) that experience a range of current symptom severity. Based on maternal interviews both lifetime DSM-V diagnosis and severity of psychopathology will be assessed. In addition to the PCEQ, maternal behavior will be assessed with the Coding Interactive Behavior (CIB) at 16 weeks.

Preliminary results with the PCEQ have shown that mothers with severe mental illness (SMI) experiences more Heightened caregiving and Helplessness than mothers without SMI. In addition, results on associations between caregiving representations and postnatal maternal behavior will be presented. Potentials and limitations of

questionnaire-based assessments of maternal representations in pregnancy in relation to predictability to mother-infant interaction at 16 weeks will be discussed.

## S6.5

### Including fathers in attachment research: a value-added approach

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#### Paper 1. A plea for a family systems approach to attachment research and parenting interventions

Attachment researchers have claimed that mothers' adult attachment and children's attachment to mothers are more predictive of children's current and later development than fathers' adult attachment and children's attachment to fathers. These claims have been made using a pool of studies in which approximately 10% have included fathers. One reason for ignoring fathers has been that standard measures of father-child attachment are not correlated well with children's adaptation (Grossman, Grossman, Kindler, & Zimmerman). Measures have usually emphasized fathers' role as a provider of a safe haven, and minimized their salient role in providing a secure base while encouraging children's exploration.

Outside the field of attachment research, emerging studies documents the fact that fathers make important contributions to their children's development (Cabrera & Tamis-LeMonda, Lamb & Lewis, Parke). Family systems theorists and researchers also emphasize fathers' importance, and point to the key contribution of the relationship between the parents in shaping parenting behavior and child outcomes. Based in part on this body of work, Panter-Brick and colleagues have argued for the added value of including fathers in parenting interventions.

To support the argument that attachment theorists need to pay more attention to these findings in designing new studies and intervention program, we summarize briefly our studies of both middle-class and low-income parents of young children. Using a family systems perspective, we present path models that include measures of adult attachment, couple attachment, parenting style, and children's internalizing and externalizing behavior. The studies demonstrate that: (1) adding fathers' data to mothers' increases the amount of variance explained in children's behavior, and (2) the quality of attachment relationship between the parents explains unique variance in children's internalizing and externalizing behavior. We conclude with a list of negative consequences for researchers and policy makers of choosing to ignore fathers' contributions to family life.

#### Paper 2. Fathers in the picture: the role of vasopressin

Human parenting is not hormone-dependent; however, hormonal changes prime and accompany the expression of parenting. Oxytocin is the most well-known 'parenting hormone', and is related to the quality of father-child interaction. Vasopressin is structurally similar to oxytocin and has been implicated in mammalian fathering, e.g. in the protection of their young and their partner after mating (Carter, 2014), but little research examined the role of vasopressin in human parenting. In our study fathers-to-be were observed twice during the third trimester of their partners' pregnancy; once after nasal administration of vasopressin and once after sniffing a placebo. We observed fathering on various levels: fathers' representation of the relationship with their child, their neural and behavioral responses to infant signals, and parenting behavior with a lifelike baby doll.

Moreover, we pay special attention to a largely neglected aspect in studies of human parenting: protective parenting. Protective parenting has received considerable attention in animal research but, despite its evolutionary importance,

not in studies on humans. This is the more remarkable since John Bowlby (1969) defined attachment as “the strong disposition to seek proximity to and contact with a specific figure and to do so in certain situations, notably when he is frightened, tired or ill.” In what Bowlby called the environment of evolutionary adaptedness, genetic selection favored attachment behaviors because they increased the likelihood of infant-parent proximity and thus increased the likelihood of protection and survival to reproductive age. This points to a strong parallel between infant attachment as proximity seeking to a protective caregiver, and parental protection of the infant: the same dynamics and evolutionary roots may apply. In the past few years, we developed a series of measures of protective parenting (e.g., Mah et al., 2014), and results will be presented at the symposium.

### **Paper 3. Predicting Reflective Functioning in the 17<sup>th</sup> Year of Life: Maternal, Paternal and Couple Influences**

This presentation will report on longitudinal data from a low-risk sample that includes Adult Attachment Interviews from expectant mothers and fathers and from their first-born child at age 17. Additionally, we present information from Life Events & Difficulties (LEDS) Interviews collected independently from mothers and fathers when their first-born child was aged 72-months.

Parents’ and children’s verbal IQ, as well as children’s gender, were entered into the models predicting reflective functioning of the 17-year olds, with no significant results. Similarly, and perhaps surprisingly, infant-mother and infant-father attachment data were available for consideration, but these did not correlate significantly to reflective functioning (RF) in the 17<sup>th</sup> year.

In terms of bivariate correlations: Maternal AAI Coherence of Mind correlated positively and significantly with offspring RF (17 years later) in the AAI ( $r = .40$ ,  $p < .005$ ,  $N=46$ ) and Paternal Derogation of Father correlated negatively and significantly with offspring RF (17 years later) in the AAI ( $r = -.33$ ,  $p < .025$ ,  $N=46$ ). Finally, parents’ agreement on whether or not there were difficulties in the marriage over the first six years of parenthood (yes/no, summary score for each parent’s recollection of the 10 six-month periods of time since becoming parents) correlated significant with offspring RF (10 years later),  $r = .39$ ,  $p < .025$ ,  $N=33$ ).

With Maternal Coherence of Mind in the linear regression model, 18% of offspring RF was explained. Adding Paternal Derogation of Father increased the explained variance to 24%, a significant increase. In a separate model, Paternal Derogation of Father explained 17% of offspring RF, while adding LEDS agreement on marital difficulties increased the explained variance significantly to 30%.

Discussion will focus on the value of a teenager developing and maintaining RF and the unique yet additive, and partially overlapping maternal, paternal and couple influences on this important developmental outcome.

### **Paper 4. Secure attachment toward the father as a protective factor in the development of borderline personality disorder in adolescence**

Longitudinal data point to disorganized attachment toward the mother as a risk factor in the development of borderline personality disorder (BPD). However, several authors posit that the deleterious effects of an insecure relationship with the mother can be moderated by a secure relationship with the father. A few studies do suggest that internal working models (IWMs) specific to each parent combine to account for child outcomes in infancy and childhood, but research on the difference fathers can make beyond childhood is sparse.

The present study is aimed at examining the additional role fathers can play in preventing the onset of psychopathology in adolescence, more specifically BPD.

As found in previous studies, we expected BPD to be associated with disorganization toward the mother; We also expected an insecure or disorganized relationship with the father. Conversely, we expected security toward the father to be significantly higher among control participants and to constitute one of the main attachment-related factors that differentiates them from adolescents with BPD.

Thirty-six adolescents with BPD and 30 control participants (aged 13-19) were included. Psychiatrist diagnosis was verified with the SIDP-IV and comorbidity was assessed using the Kiddie-SADS. Reported trauma was assessed with the Child Trauma Questionnaire and attachment IWMs of each parent were assessed with the Attachment Multiple Model Interview.

Results of a discriminant analysis suggested that beyond insecure attachment models, having disorganized IWMs of not just the mother but the father also is particularly characteristic of adolescents with BPD. Conversely, belonging to the non-clinical group was predicted by higher security scores with the father. Although higher levels of childhood abuse or neglect were reported by adolescents with BPD, attachment IWMs predicted group membership better than reported trauma.

The findings have important implications regarding clinical intervention. Our findings also highlight the protective role fathers may have.



## Attachment in a Cross-Cultural Perspective: The Case of Arab Infants and Mothers in Israel

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Poster Session 6, June 30, 2017, 4:45 PM - 6:15 PM

This study is the first to examine infant–mother attachment in the Arab culture. Eighty-five Arab 1-year-old infants were observed in the strange situation, and maternal sensitivity was assessed from home observations using the Maternal Behavior Q-sort (Pederson & Moran, 1995).

Based on accumulating cross cultural research (e.g. Van IJzendoorn & Sagi-Schwartz, 2008) we did not expect the Arab-Israeli attachment classification distribution to differ from distributions reported in many other countries including comparable Jewish-Israeli samples. Moreover, we hypothesized that the sensitivity-security link found cross-culturally in many samples including Jewish-Israeli samples will be similar in this sample.

No differences were found between the Arab-Israeli attachment distribution and Jewish-Israeli, Western, and non-Western distributions when examined at the two-way secure versus insecure level, although a few differences emerged when examined at the four-way ABCD level. The secure attachment was the modal classification; the majority of infants (about 67 %) had secure attachments. Moreover, in the Arab-Israeli sample, as with previous Jewish-Israeli samples, the anxious-ambivalent classification also appeared to be overrepresented, with underrepresentation of the avoidant classification compared to the global “world” distribution. We found the expected association between sensitivity and attachment security, only among Christian Arabs (as opposed to Muslim Arabs). In the Christian group, mothers of secure infants scored higher in sensitivity as compared to mothers of insecure infants, whereas no differences were detected between the sensitivity scores of Muslim mothers of secure and insecure infants. No differences were found between the two groups regarding infant security; in both groups the majority of infants were securely attached to their mothers.

The findings provide support to attachment theory’s generalizability but raise questions regarding the assessment of maternal sensitivity cross-culturally.

**The Scent of Security: Effects of Romantic Partner Odor and Adult Attachment Security on Subjective Discomfort and Electrodermal Responses to Stress**

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Using a novel “olfaction meets attachment” design, we tested whether a romantic partner’s (i.e., adult attachment figure’s) body odor attenuates adults’ subjective and psychophysiological stress-responses, and whether such effects are qualified by romantic attachment security. Participants ( $N=39$ ) provided body odor samples (worn t-shirts, later masked by the experimenters) and adult attachment ratings (using the Experiences in Close Relationships scale; Brennan, Clark, & Shaver, 1998). In a randomized blocked design, their partner’s body odor, their own body odor, the odor of a clean t-shirt, and the positive rose odor were presented while participants were exposed to weak electric shocks. Subjective discomfort was assessed twice during the shock phase of each block and skin conductance (SC) was assessed continuously. As predicted, there was a main effect of odor on subjective discomfort ( $p<.001$ ); the partner’s odor, relative to other odors, significantly lowered subjective discomfort ( $ps<.02$ ). Also, highly secure participants displayed attenuated SC specifically when exposed to partner odor ( $p<.03$ ; see Figure 1). We conclude that partner odor may generally facilitate felt security, but that working models associated with dispositional attachment security may be required for partner odor to have a calming effect on autonomic nervous system functioning.

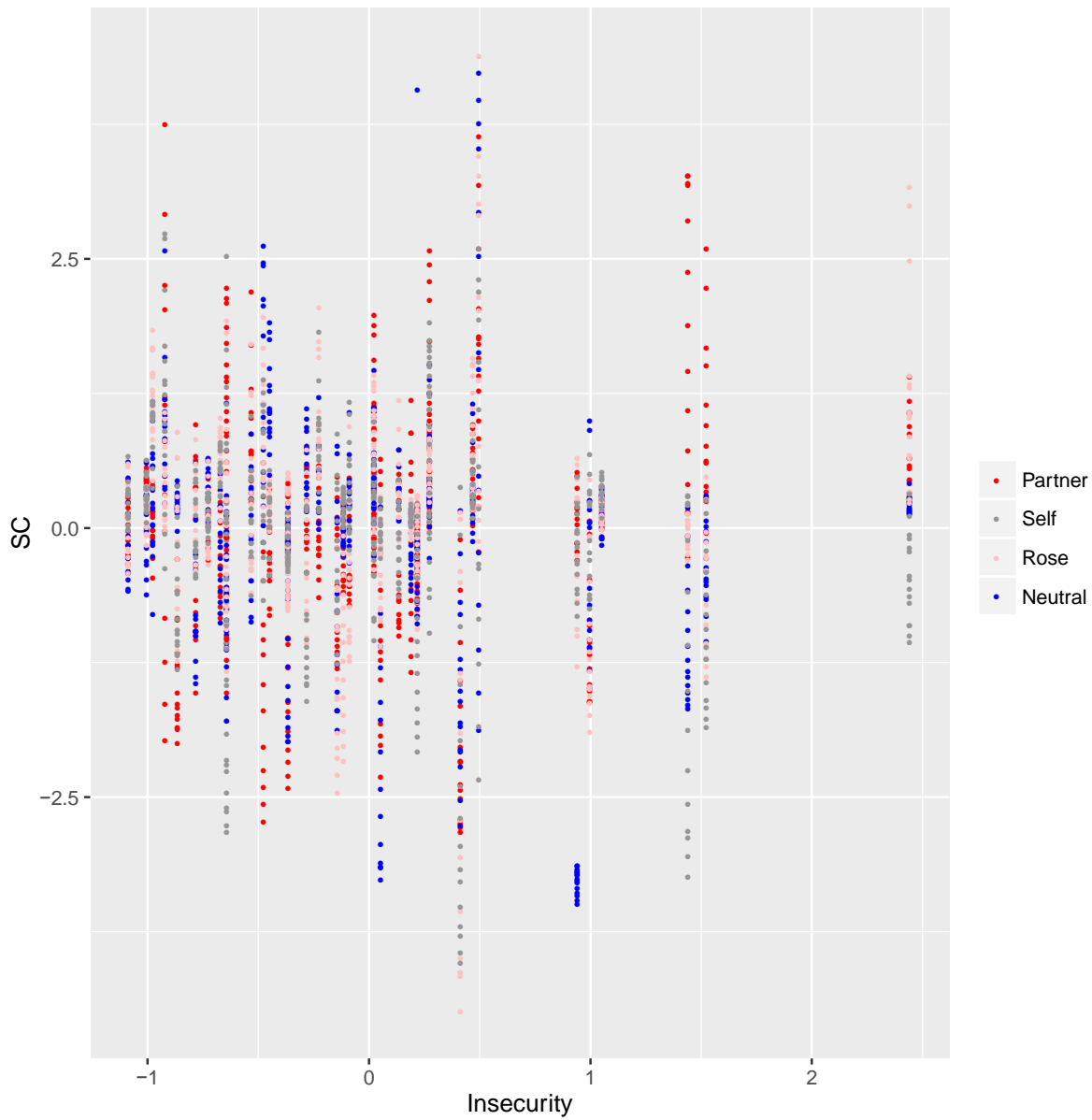


Figure 1: Scatterplot and fit lines of the relationship between insecurity and Skin Conductance in each condition. Data points represent observations at each data point in each participant. The slope for Partner condition differs from all the other conditions averaged together ( $p < .03$ ;  $Bayes Factor_{10} = 4.25$ ).

## Infant self-regulation and mother-infant attachment in Portuguese healthy preterm and full-term infants

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A meta-analytic study indicates that infants' higher positive affect and lower negative affect during the Face to Face Still Face paradigm (FFSF) predicted mother-infant secure attachment at 12 months of age. In a sample of healthy preterm infants, infant style of self-regulatory behavior (Positive, Negative and Self- Directed Coping) predicted attachment status.

The aim of this study is to investigate mother-infant attachment with healthy preterm infants and full-term infant in Portuguese samples and to identify specific, independent predictors of infant-mother attachment status from a set of variables including maternal and family factors, infant health and neonatal status, infant self-regulatory behavior and mother and infant interactive behavior in free play. The samples consisted of 67 medically low-risk preterm infants (PT) and 87 full-term (FT) infants and their mothers. When infants were 3 months (corrected age for preterm infants), infants' capacity to regulate stress (self-regulation) was evaluated during FFSF. At 12 months corrected age, the incidence of attachment security was assessed during Ainsworth's Strange Situation. Compared to full-term infants, preterm infants are were likely to exhibit Self-Directed Coping (FT:11.1% vs PT:34.7%) and less likely to exhibit Negative Other- Directed Coping (FT:34.3% vs PT:10.9%). Moreover, in dyads with pre-term infants, secure attachment was less likely and avoidant attachment is highly prevalent compared with full-term infants. Interestingly, preterm infants with Self-Directed Coping remained in NICU for longer than infants scored as Positive Other-Directed Coping. Furthermore, healthy preterm infants that exhibit Positive Other-Directed Coping had higher birthweight and gestational age than other infants. In hierarchical regression analyses, infant self-regulation, maternal education and maternal responsiveness were significant predictors of attachment status in both samples.

*Keywords:* Infant Self-regulation, Still-face, and Attachment

**P-93**

## **The Relationship Between Insecure Attachment and Anorexia Nervosa in Women**

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Body image plays a major role in an adolescent's life, especially in today's society. Currently there are three main categories of eating disorders, which fall under, Anorexia Nervosa, Bulimia and Binge Eating Disorder. However, research shows that Attachment style is a strong predictor in the development of Anorexia Nervosa throughout adolescents into early adulthood, especially in young women. Insecure attachment styles specifically, seem to play a major role in body dissatisfaction. The four styles of attachment Secure, Anxious Ambivalent (insecurely attached), Avoidant (insecurely attached), and Disorganized-Disoriented (insecurely attached), will be reviewed through literature. This paper will also incorporate a recent research study which uses the *Adult Attachment Projective Picture System* (AAP) and the criteria for Anorexia Nervosa using the DSM-V to show the relationship between insecure attachment style and the development of Anorexia Nervosa. Findings showed that 51% of female participants who met criteria were classified as having dismissing and unresolved-disorganized attachment. 37% of participants were classified as having avoidant or detached attachment. These findings suggest a strong relationship between Insecure Attachment styles and Anorexia Nervosa in young women.

**Pre-teen Attachment Security is related to More Positive Parental Expectations for Adolescence**

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Parent-child attachment security is generally stable over development (Pinquart, Feubner, Ahnert, 2013). One factor that may contribute to stability is the parental expectations about adolescence (Freedman, Arbretton, Harold, Eccles, 1993). Indeed, earlier relationship quality is associated with expectations for future adolescent levels of maturity and responsibility, and expectations of the dyad's future relationship (Shearer, Crouter & McHale, 2005). However, less is known about the particular influence of child attachment on parental expectations, and no study has examined the dimensions of attachment on parental expectations. Therefore, the following study hypothesized that higher levels of parental ratings of their pre-teens' attachment security is related to more positive expectations for their child's adolescent years. The sample (N= 33) comprised predominantly of males (67%), of Asian descent (58%), with a mean age of 9.23 (SD= 1.57). Parent reports were used to measure attachment (Comprehensive Adolescent-Parent Attachment Inventory; Moretti, McKay, & Holland, 2000), parent specific (the Future Parent-Adolescent Relationship Scale; Freedman-Doan, Arbretton, Harold, & Eccles, 1993), and general (Parents' Belief Scale (adapted); Chhin, and Shaver, 2005) expectations for adolescence. A hierarchical linear regression revealed that attachment anxiety was associated with parental expectations for negative emotional responses in their child during adolescence  $R^2 = .51$ ,  $t(32) = 3.06$ ,  $p < .05$ , above and beyond the influence of general expectations of difficulties in adolescence and demographic factors. Expectations for negative emotional responses in their own adolescent also explained a significant proportion of variance in attachment anxiety scores  $R^2 = .3$ ,  $F(4, 32) = 3.04$ ,  $p < .05$ . The same model was run for attachment avoidance, but did not yield statistically significant results  $R^2 = .01$ ,  $F(4, 32) = 1.0$ ,  $p = .95$ . Because parent-teen attachment is important for adolescent resilience, these findings highlight the value of promoting secure attachments and positive parental expectations in the



## Is parental attachment security contextual? Taiwanese parent-child attachment patterns across sporting, schooling, and global domains

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Little research has been directed at attachment processes and how they differ across contexts. The concept of 'context-specific' attachment might be useful. The purpose of this study was to initially explore if parental attachment patterns varied across sporting, schooling, and global contexts. A cross-sectional study explored Taiwanese parental attachment patterns across three contexts. The Chinese version of the Contextual Attachment Scales (CAS, edited by authors – for context-specific attachment assessment) and the Inventory of Parent and Peer Attachment (IPPA; Sun & Yen, 2004 – for global attachment assessment) were administered to 431 youth athletes (84% boys,  $M_{age}=13.65\pm 2.46$ ). Two-stage Cluster analyses were used to discover possible contextually-different combinations. The first stage of Cluster analyses was applied to all variables: (1) security in sport, (2) insecurity in sport, (3) security in schooling, (4) insecurity in schooling, and (5) global security. Results identified four emergent clusters (details see Table 1). These clusters did not identify clusters where stark differences in attachment existed across contexts. The second stage sought to further identify individuals who experienced different perceptions of parental attachment by context. Three separate cluster analyses were conducted in the context of sport, schooling and global attachment. Results identified four emergent clusters in sport, three clusters in schooling, and two for global attachment. Exploring the sample in relation to these separate cluster analyses, five<sup>a</sup> contextually-different combinations were identified (details see Table 2), and 7% of the sample appeared to have parental attachment scores that differed markedly by context. This proposed concept of 'context-specific' attachment could provide a considerable perspective to further clarify if 'contextual-level' attachment could be linked between 'state-level' and 'global-level' attachment as a hierarchical model of attachment. Furthermore, the causal relationships between contextual attachment and children's psychological-related outcomes, as well as the transition of parental attachment processes across contexts are suggested for future research.

**Table 1. Contextual attachment characteristics of clusters in general**

Input variables/clusters	Sporting Security M (SD)	Sporting Insecurity M (SD)	Schooling Security M (SD)	Schooling Insecurity M (SD)	Global Security M (SD)
<b>Total (N=385)</b>	4.05 (0.76)	2.02 (0.82)	3.97 (0.74)	2.17 (0.77)	3.79 (0.61)
<b>1 (n=70)</b>	4.33*(0.52)	2.76 (0.51)	4.19*(0.47)	2.67*(0.61)	3.75 (0.45)
<b>2 (n=73)</b>	3.05*(0.57)	2.87 (0.51)	3.11*(0.62)	2.92*(0.61)	3.02*(0.47)
<b>3 (n=115)</b>	4.67*(0.42)	1.35*(0.47)	4.68*(0.42)	1.45*(0.49)	4.34*(0.41)
<b>4 (n=127)</b>	3.91*(0.52)	1.72*(0.47)	3.71*(0.43)	2.12*(0.49)	3.74 (0.36)

**Note.** \* $p<.05$ ; M (SD)= Mean (Standard deviation)

**Cluster 1 (Overall-moderate insecurity)**= **Moderate** Sporting Security, **High** Sporting Insecurity; **Moderate** Schooling security, **High** Schooling Insecurity; **Moderate** Global Security

**Cluster 2 (Overall insecurity)**= **Low** Sporting Security, **High** Sporting Insecurity; **Low** Schooling Security, **High** Schooling Insecurity; **Low** Global Security

**Cluster 3 (Overall security)**= **High** Sporting Security, **Low** Sporting Insecurity; **High** Schooling Security, **Low** Schooling Insecurity; **High** Global Security

**Cluster 4 (Overall-moderate security)**= **Moderate** Sporting Security, **Moderate** Sporting Insecurity; **Moderate** Schooling Security, **Moderate** Schooling Insecurity; **Moderate** Global Security



**Table 2. Contextual attachment characteristics of clusters in three contexts**

Variables/clusters in each context	Total M (SD)	Cluster 1 M (SD)	Cluster 2 M (SD)	Cluster 3 M (SD)	Cluster 4 M (SD)
<b>In the context of Sport - 4 clusters</b>					
<i>Sporting Security</i>	4.05 (0.76)	4.47*(0.46)	4.25*(0.44)	3.21*(0.54)	2.88*(0.39)
<i>Sporting Insecurity</i>	2.02 (0.82)	1.39*(0.39)	2.74*(0.44)	2.00*(0.40)	3.28*(0.45)
<b>In the context of schooling - 3 clusters</b>					
<i>Schooling Security</i>	3.97 (0.74)	4.64*(0.43)	3.25*(0.67)	3.79*(0.48)	
<i>Schooling Insecurity</i>	2.17 (0.77)	2.97*(0.41)	3.18*(0.52)	2.05*(0.34)	
<b>In the context of global - 2 clusters</b>					
<i>Global Security</i>	4.21 (0.36)	3.22*(0.38)	2.66*(0.28)		

Note. \*p<.05

***In the context of sport:***

**Cluster 1 (Security in sport)= High Sporting Security, Low Sporting Insecurity**

**Cluster 2= Moderate Sporting Security, High Sporting Insecurity**

**Cluster 3= Low Sporting Security, Moderate Sporting Insecurity**

**Cluster 4 (Insecurity in sport)= Low Sporting Security, High Sporting Insecurity**

***In the context of schooling:***

**Cluster 1 (Security in schooling)= High Schooling Security, Low Schooling Insecurity**

**Cluster 2 (Insecurity in schooling)= Low Schooling Security, High Schooling Insecurity**

**Cluster 3= Moderate Sporting Security, Moderate Schooling Insecurity**

***In the context of global:***

**Cluster 1 (Security in global)= High Global Security**

**Cluster 2 (Insecurity in global)= Low Global Security**

**<sup>a</sup>Contextually-different parental attachment styles as the following combinations:**

- (1) Cluster 4 (**Insecurity in sport**), Cluster 1 (**Security in schooling**), Cluster 1 (**Security in global**)
- (2) Cluster 1 (**Security in sport**), Cluster 1 (**Security in schooling**), Cluster 2 (**Insecurity in global**)
- (3) Cluster 1 (**Security in sport**), Cluster 2 (**Insecurity in schooling**), Cluster 2 (**Insecurity in global**)
- (4) Cluster 4 (**Insecurity in sport**), Cluster 2 (**Insecurity in schooling**), Cluster 1 (**Security in global**)
- (5) Cluster 1 (**Security in sport**), Cluster 2 (**Insecurity in schooling**), Cluster 1 (**Security in global**)

## Effects of Video-Feedback Intervention on Maternal Intrusiveness

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Understanding maternal sensitivity requires exploring each of its elements independently (Mesman & Emmen, 2013). Especially considering cultural variation in maternal sensitivity as a domain-specific way by assessing maternal intrusiveness might be important in partialling out these elements. With this aim this study investigated the effectiveness of “Video-feedback Intervention to Promote Positive Parenting and Sensitive Discipline” (VIPP-SD) on maternal intrusiveness as a novel aspect of maternal sensitivity.

Using a randomized controlled trial with pre, post, and follow-up measurements; 53 mothers with children aged 10 to 31 months ( $M_{age} = 20.00$ ,  $SD = 6.32$ ) were randomly assigned to intervention ( $n = 28$ ) and control ( $n = 25$ ) groups. Participants were living in low socioeconomic regions in Ankara/Turkey, having the features of a relatively collectivist cultural context. The intervention group received four thematic sessions directing sensitive parenting with personal video-feedback, whereas control group was followed by telephone-interviewing. The variables of maternal sensitivity and maternal intrusiveness were rated utilizing short duration (i.e. 10 minutes) videos, in which mother-child pairs playing together. Maternal sensitivity was assessed both globally by using *Ainsworth Sensitivity Scale* and domain-specifically by coding the frequency of physical intrusive behaviors of mothers. Maternal behaviors which are interrupting for the ongoing activity of the child directly or indirectly were rated as maternal intrusiveness.

Results showed that VIPP-SD was effective in increasing maternal global sensitivity and decreasing frequency of intrusive behaviors in intervention group relative to control group. VIPP-SD enhanced maternal sensitivity and decreased maternal intrusive behaviors even when child’s gender and age at baseline were controlled for. Moreover, the effectiveness of VIPP-SD maintained in the follow-up test. We suggest that VIPP-SD, which was shown to be effective in enhancing global maternal sensitivity, was also effective in decreasing maternal intrusive behaviors. The implications for practice, policies, and future research were discussed.

**P-105**

## **Mental health and wellbeing in adolescence: Research protocol and preliminary results**

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Adolescence is a sensitive developmental period, with changes occurring at the biological, cognitive, affective and social level. Adolescence is also a sensitive period for the onset of mental disorders, which tend to persist into adulthood. While there is ample evidence for risk factors of mental disorders in adolescence, a lot less is known about protective factors. One important protective factor to have emerged from recent research concerns attachment security.

This on-going project investigates the link between attachment and behavioural problems in adolescence, and their reciprocal relationships with other factors (e.g. early separation, parental representations of their children, autonomy and relatedness, cultural factors). The research-design also involves the continuous monitoring of adolescents' psychophysiological responses (heart rate, electrodermal activity) during the attachment interview and an interaction task, while parents are asked to provide saliva samples for later cortisol analysis. The research addresses German-speaking adolescents and their parents, who live in Luxembourg and in the Greater Region Saar-Lor-Lux. Families come from different cultural backgrounds, and may be adoptive, biological or divorced parents.

First results suggest that secure attachment is a protective factor against the emergence of behavioural problems, and that the parental representations of their children affect adolescents' attachment. Furthermore, security of attachment is also linked to adolescents displaying more autonomy and relatedness than peers that are classified as insecure.

The project is particularly relevant, as it examines representations of the self in relation to significant others (parents, friends) during adolescence. The expected results might support clinical services in the establishment of interventions that can help parents in understanding adolescents' needs and difficulties, thus improving their wellbeing. More generally, this project will generate new important knowledge concerning the effects of caregiving, attachment, early separation and divorce on mental health during adolescence, and the protective role of secure attachment.

**P-108**

## **Insecure attachment as a factor of vulnerability of hoarding behaviours**

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Hoarding has entered the DSM-V as an obsessive and compulsive disorder. This disorder is defined by behaviours of excessive accumulation of objects, regardless of their value. It has many negative effects on the individual, such as shame, feeling trapped in a vicious circle, and identity problems. Hoarding is linked to ambivalence and uncertainty about self and others. These notions are close to those constituting attachment representations. Indeed, an individual's experiences with parents and self-model are component to attachment representations. Hoarding would also be linked to seeking support from objects.

While studies concerning attachment and hoarding are still quite limited, they do suggest that attachment representations may impact seeking or possessing objects. These studies imply that some people are reassured by possession. Acquiring objects may give them momentarily support, normally provided by the attachment figure in cases of stress. The aim of this study is to better understand the links between attachment and hoarding.

In support of this study, research was conducted among 219 non-clinical adults ( $M = 30.3$ ,  $SD = 10.7$ ). Participants completed two self-report questionnaires: the Relationship Scale Questionnaire (RSQ) and the Saving Inventory-Revised (SI-r).

The results show that scores of SI-r—evaluated on the scales of disorder, economy, and acquisition—are significantly correlated with preoccupied and fearful attachment.

This is the first study to our knowledge conducted on attachment and hoarding behaviours in France. The research findings suggest a link between insecure (i.e., preoccupied and fearful) attachment and hoarding behaviours. Preoccupied and fearful attachments are characterized by a fear of loss and abandonment. The possession and accumulation of objects in hoarding may help insecure people to deal with these fears. Therefore, insecure attachment appears to be a vulnerability factor in hoarding behaviours development. Therapeutic care aimed at reducing attachment insecurity could reduce this disorder.

**P-111**

**How do residential care social climate and relationship with caregiver associate with adolescent's well-being?**

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According to attachment theory, the quality of the relationships between adolescents and caregivers can represent an important protective factor to dealing with vulnerabilities during development. Studies highlight that, in residential care context, the relationships with caregivers can improve well-being and reduce the negative effects associated with adverse life circumstances. Less attention however, has been attributed to the role of environment and social context as a key influence on adolescent's behavior in residential care. This study aims to analyze the contribution of the residential care social climate to the adolescent's well-being and test the moderating effect of quality of relationship with caregivers on the previous association. The sample was composed by 120 adolescents 12 to 18 aged from both genders, living in residential care. Data was collected using dimensions of the Network Relationships Inventory (Furman & Buhrmester, 1985), Échelle de Mesure des Manifestations du Bien-Être Psychologique (Massé et al., 1998) and the relational component of the Family Environment Scale (Moos & Moos, 1986; adapted to residential care context). The results will be discussed in the light of attachment theory, pointing out the role of the relationship with caregivers in the affective reorganization of adolescents from residential care, valuing the importance of social climate in their lives.

Keywords: caregivers, adolescents, well-being, social climate

**P-114**

## **Looking at faces: Infants` Quality of Attachment predicts their Visual Responses towards different Facial Expressions**

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Faces are one of the most important cues in social communication. The emotional information conveyed through facial expressions is crucial to early social interactions. However, infant`s categorical discrimination proficiency, as well as valence and arousal modulation effects on face processing are poorly understood. In this study, angry and happy faces were selected from the Nim Stim face stimuli set, according to 4 conditions: High Happy (HiHA), Low Happy (LoHA), High Angry (HiHA), and Low Angry (LoAN). Thus, categories of valence, arousal and valence + arousal were included. A total of thirty 12-month-old infants participated in a Visual-Paired Comparison Task. In this protocol first a LoHA face was presented (habituation) followed by 6 trials composed of two contrasting emotional faces (one new and the other was the one used in habituation). Data was collected using an eye-tracking system. Infants` attachment was also evaluated using the strange situation procedure. Generally, we found a significantly higher fixation time for the new face when compared with the habituation face, suggesting that 12-month-old infants are able to discriminate different emotional faces. Moreover, differences of fixation time were significant for the arousal but nor for the valence contrast. We also found a statistically significant effect of infant`s attachment classification on infant`s emotional discrimination, specifically in the arousal contrast. Particularly, resistant-ambivalent infants showed a preference for HiHA (high arousal, happy) compared to LoHa (low arousal, happy), while avoidant infants showed the reverse pattern (LoHA>HiHA). Our findings support the notion that early social-emotional experiences with the mother are related to infants social information processing. Further research should address infant`s ability to recognize and discriminate affective faces as they might be markers of infants` developing internal working models of attachment.

Keywords: attachment, infants, visual responses, faces, emotions

**P-117**

**Maternal perinatal or current depressive symptoms and parenting behaviour in middle childhood.**

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The focus of this study is on the influence of maternal depressive symptomology on parenting behaviour. Depression is associated with a broad range of symptoms and can be reflected in maternal behaviour by passivity, negativity and a lack of emotional availability. Therefore maternal depression is considered as risk factor for child development across a variety of developmental outcomes as a large body of previous research has shown links to child psychopathology. The study yields two major objectives: What is the contribution of perinatal as compared to current depression symptoms on the quality of the interaction behaviour during middle childhood? Does the predictability of maternal behaviour by depression symptoms depend on the type of situation in which parental behaviour is assessed?

The presented data are drawn from a longitudinal research project aiming to reveal the association between perinatal maternal mental health disturbances and quality of mother-child interaction in middle childhood. Data from 97 mother-child dyads were obtained in a matched-pair control-group design. Symptoms of maternal depression were assessed by self-report via the Edinburgh Postnatal Depression Scale during the third pregnancy trimester, 6 months postpartum and 8-10 years later. Maternal interaction quality (in terms of sensitivity and emotional support) was assessed when the child was 8-10 years old in three different situations: free play, a cognitively challenging situation, and a conflict discussion situation, the latter two situations providing some emotional stress for the child.

Preliminary findings indicate that only current depressive symptoms are associated with lower interaction quality whereas mothers with previous depressive symptomology don't differ in interaction quality when compared to previously healthy mothers. Further analyses will examine the meaning of the situational context for maternal behaviour. Findings implicate the benefit of treatment for the mothers not only in terms of mental wellbeing but also with respect to maternal functioning.

**Effects of an attachment-based intervention on maternal discipline in a maltreatment risk sample: A pilot study**

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There is strong evidence that maltreatment experienced in childhood has devastating long-lasting effects on several domains of child development. Therefore, preventing maltreatment constitutes one of the most compelling issues worldwide, especially in high risk contexts where parents may be likely to behave in an abusing or neglecting way. The Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline (VIPP-SD) is a brief attachment-based intervention program, aimed at increasing maternal sensitivity and sensitive discipline strategies through the video-feedback. The VIPP-SD has been proved to be effective across different contexts, however, it has never been tested in a sample with multiple risk factors for child maltreatment. The present pilot study is aimed at evaluating the feasibility and efficacy of the VIPP-SD in a sample of mothers and their children placed in parental residential care, due to a guardianship order issued by the Youth Court. The VIPP-SD was tested through a randomized control design in a sample of 12 women and their 10-36 month-old children placed in parental residential care centres due to a guardianship order. The dyads were randomly assigned to either the intervention group (N= 7) or the control group (N= 5) through a computer-generated list stratified for child's gender and age. Maternal sensitivity and sensitive discipline were assessed through observational measures, both at the pre-test and post-test, during mother-child interaction. Despite no significant effects of the intervention on maternal sensitivity, mothers who received the intervention had significantly reduced dysfunctional strategies of maternal discipline, namely inflexibility and laxness, as compared to mothers in the control group. Our preliminary findings provide the first evidence of the feasibility and usefulness of the VIPP-SD in residential care with a high-risk sample, thus widening the application of this intervention to such a challenging context with promising implications for the prevention of child maltreatment.



**P-123**

**Theory to practice: An exploration of the current application of attachment concepts and methods in UK health and social care practice with children and families.**

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Various professional training programmes across health and social care teach attachment theory as a framework for understanding child development and psychopathology. This encourages practitioners to use their knowledge of attachment theory and research when working to meet the needs of the children and families they encounter. However, the extent to which attachment theory is a focus in training varies. Additionally, scholars including Oppenheim and Goldsmith (2007) suggest that it is difficult to maintain the integrity of attachment concepts and methods while applying them meaningfully to routine practice. In light of national guidance emphasizing the importance of assessing and addressing attachment needs in children and young people (e.g. NICE, 2015), exploration of this concern in UK professional practice is warranted. The aim of this research is to explore current applications of attachment theory and research when working with children and families in health and social care settings. Study one comprised 15 focus groups with practitioners to explore their awareness of, and views on, key attachment research findings. Study two used vignettes in conjunction with semi-structured interviews to examine how social workers and clinical psychologists reason about attachment phenomena in family assessments. Study three used Q-methodology – an empirical assessment of human subjectivity – to capture divergence and consensus amongst clinicians in child mental health services regarding their use of attachment theory. Combined, these studies tackle the concern of theory-practice integrity and highlight potential implications for practice and policy. The researchers will present qualitative impressions of conducting the research and preliminary findings, offering insights into the practice-based reasoning and conceptualization of attachment from the bottom-up. This work seeks to complement the rich theoretical literature that proposes clinically significant and wide-ranging applications of attachment theory in addressing the needs of children and young people.

## Can unresolved attachment status after losing a loved one be predicted from early adversity and mentalization?

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Introduction: The predictors of Unresolved loss following bereavement and/or separation (relationship break-up) are unclear. Prevalences of Unresolved attachment status as assessed with the Adult Attachment Interview (AAI) and childhood adversity are high in personality disorders (Cirasola, et al., 2017; Levy, et al., 2006), as are impairments of mentalization (Fonagy et al., 1996; Luke & Banerjee, 2012).

The overlap of Unresolved status and mentalization deficits suggests that a lack of mentalization, i.e. the ability to understand oneself and others as influenced by mental states (Fonagy & Target, 1996), predicts Unresolved loss, especially if preceded by childhood adversity. Therefore our aim is to reveal associations between childhood adversity, mentalization, assessed as reflective functioning (RF; Fonagy, et al., 1998), and the presence or absence of Unresolved status in the AAI.

Method: 130 bereaved or separated adults aged between 25 and 57, bereaved or separated up to 6 years previously, were administered the German short version of the Childhood Trauma Questionnaire (CTQ; Wingenfeld et al., 2010; Bernstein et al., 2003) and the AAI (Main & Goldwyn 1985/2002).

Results and discussion: Preliminary results based on 80 coded AAIs, demonstrate significant associations between CTQ parameters and Unresolved attachment status: for Unresolved status after loss through death<sup>1</sup> or separation<sup>2</sup> and physical maltreatment ( $r^1 = .218, p = .023$ ;  $r^2 = .180, p = .049$ ) and for Unresolved status after separation and CTQ overall score ( $r = .209, p = .027$ ). Attachment and RF coding are ongoing and will reveal in how far mentalization predicts attachment status in circumstances of loss. A mediation model in which mentalization accounts for the association between childhood adversity and Unresolved attachment status in general, as well as Unresolved loss and separation / relationship break-up in particular will then be tested, to broaden our understanding of resolution processes and providing implications for treatment

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## Effect of Video-Feedback Intervention for Positive Parenting on Marital Functioning

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Video-Feedback Intervention to Promote Positive Parenting (VIPP) was developed in order to promote positive parenting. VIPP was found to be effective in enhancing caregiving sensitivity across different cultures. However, it was not investigated if it has also secondary effect on other domains of family functioning such as marital satisfaction, which is not specifically targeted by the intervention. The present study was derived from the Turkish adaptation of VIPP, which was a 2-year longitudinal study with a randomized control trial design having pre, post and follow-up assessments. A total of 103 mothers with an average age of 30 years ( $SD = 5.29$ ) and their 10-to-33 months old children with an average of 20 months ( $SD = 6.64$ ) participated in the study ( $N_{intervention} = 60$ ;  $N_{control} = 43$ ). Mother-child interactions were recorded on video camera during seven home visits, four of them were intervention sessions. During these, feedback for sensitivity was given on the video recordings. Previous studies commonly investigated the effectiveness of VIPP on different aspects of maternal sensitivity. The present study however specifically focused on marital satisfaction and stress of mothers to see if VIPP has any secondary gains in family functioning beyond caregiving sensitivity. Marital satisfaction was measured by Relationship Happiness Scale and maternal stress was assessed via Parenting Stress Index-Short Form. The results revealed that although there was no specific change in the stress levels in the assessment periods, mother's marital satisfaction levels significantly increased from pre-test to post-test assessments ( $t = -2.28, p < .05$ ). Even though marital satisfaction relatively decreased from posttest to follow-up, the increase in marital satisfaction from pre-test ( $M = 4.69, SD = 1.06$ ) to follow-up ( $M = 4.92, SD = .96$ ) was still significant ( $t = 2.70, p < .01$ ) suggesting that VIPP has a positive effect in enhancing marital satisfaction.

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## Adaptation and Evaluation of Video-Feedback Intervention for Sensitive Care in Childcare Centers in Uruguay

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The availability of the attachment figure to the child, the answers provides and if they are appropriate to child's needs, is what is known as sensitivity (Ainsworth, 1982). This research aimed to adapt and to test the effectiveness of the Video-feedback intervention to promote sensitive care and sensitive discipline (VIPP-SD), conducted with caregivers who worked in child care centers (VIPP-CC) in Uruguay.

A first study asked to mothers ( $N=55$ ) and childcare workers ( $N=52$ ) about their ideals of a sensitive mother in Uruguay ( $N=58$ ) and Brazil ( $N=49$ ). Results showed highly similar ideals between mothers and childcare workers and across de countries. Nevertheless, significant differences between groups and a main effect of the interaction of country and type of caregiver on the ideal sensitivity was found ( $F(3,104)=5.38$ ;  $p<0.01$ ); as well as an effect of participants' country ( $F(1,106)=7.85$ ;  $p<0.01$ ); and an interaction effect between type of caregiver and country ( $F(1,106)=8,36$ ;  $p<0,01$ ). We conclude that cognitive models about sensitivity in childcare workers overlap with the theoretical model from attachment theory.

A second study was conducted to assess the impact of the VIPP-CC intervention. Were randomly assigned volunteers into two groups: the VIPP-CC intervention ( $N=16$ ) and the control group intervention ( $N=17$ ). Caregiver sensitivity of caregivers working in childcare centers were tested after intervention, through coding videotaped routines of childcare in the centers. The attitudes towards sensitive caregiving reported and quality of childcare environment were measured before and after the intervention. Comparisons made shown effects in VIPP-CC intervention group, but not in control group. Significant difference between groups in sensitivity were found ( $U=68.50$ ;  $p<.05$ ), and significant difference between scores before and after interventions was found only in VIPP-CC group regarding attitudes toward sensitive care ( $Z=-2.88$ ;  $p<.01$ ) (effect size *Cohen d*=0,83 ( $r=0,38$ ); *Cohen d*=1,30 ( $r=0,54$ ) correspondingly). Final comments were made in order to analyze the results implications.

**P-135**

**Attachment to adoptive parents, image of self and parents of the adopted children**

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The aim of the study was to reveal the peculiarities of adopted adolescents' images of themselves and image of the adoptive mother and the self-image depending on the characteristics of their attachment to parents. The study was focused on the following particular objectives: 1) to identify the link between security of attachment to parents, the perception of stylistic characteristics of the adoptive parents and of adolescent's self-image. 2) to identify the relationship between the characteristics of attachment and similarities or differences in views about the parent and the ideal parent. 3) to identify the connection between adolescent's self- image and the adoptive mother's image of the adolescent. Experience in Close Relationships Questionnaire by Brennan, Clark, Shaver (1998), Inventory of Peer and Parent Attachment (IPPA) by Greenberg and Armsden (1987) modified by Sabelnikova and Leary's Interpersonal Behavior Circle Inventory modified by Sobchik (1994) were used in the study. 30 mothers and their adoptive children aged 12-18 took part in the investigation. The results showed the interrelations of the features of attachment to mother with adolescents self-image and with their representations of adoptive parents. The strengths and limitations of the study were discussed.

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**Parenting styles and well-being: The mediating role of basic psychological needs satisfaction and frustration in Peruvian adolescents**

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In the last years, there has been an increase in the interest to study parenting styles and how these are associated with psychological well-being and ill-being. Some studies have concentrated in examining the roles of mediating variables in these associations. Using Self-Determination Theory (SDT) framework, the aim of this research is to study the role of basic psychological needs satisfaction and frustration (autonomy, competence and relatedness) in mediating the relationship between need supportive parenting styles (adaptive styles: autonomy support, structure, warmth), need thwarting parenting styles (maladaptive styles: coercion, chaos, rejection) and well-being (positive and negative affect). The sample consisted in 304 high school students (161 female, 143 male students; mean age = 14.91 years-old, SD = 0.91) from a private school in Lima (Peru). The measures included the Parent as Social Context Questionnaire (PASQ), the Basic Psychological Needs Test (BPNT) and the Scale of Positive and Negative affect (PANAS). All instruments showed good psychometric properties (validity and reliability). Structural equation modeling (SEM) was used to investigate the associations between the studied variables. According to the hypothesized model, need satisfaction and need frustration mediated the associations between parenting styles and well-being. Specifically, need satisfaction mediated the relationship between need supportive parenting styles and well-being while need frustration mediated the relationship between need thwarting parenting style and ill-being. These results are in line with previous research using SDT framework (i.e., bright and dark side). Implications will be discussed.

**P-141**

## **Effectiveness of Video Intervention Therapy with mothers of children with ASD in Mexico**

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Children with ASD present socio-emotional impairments, including interaction difficulties with their caregivers; Video Intervention Therapy might improve parental interaction skills for this population.

Purpose: 1) to determine whether mother's assumptions of attachment needs in their children generate particular ways of interaction that hinder communication between them, 2) whether VIT could be a tool to enhance maternal sensitivity and empathic understanding when mother-child interactions occur, and 3) to point out differences and challenges between the clinical and non-clinical samples.

### Method

Sample: 15 mothers with children (age-range: 3-7 years) diagnosed with ASD, and 15 mothers and their children without a clinical history of ASD.

Measures: Autism Diagnostic Interview (ADI-R), the Childhood Autism Rating Scale (CARS) and the Maternal Behavior for Preschoolers Qsort (MBPQs).

Therapeutic technique: Video Intervention Therapy (VIT)

### Procedure:

1) One or both parents were interviewed with the Autism Diagnostic Interview (ADI-R) by a trained clinician to diagnose for ASD. 2) A two hour video was recorded of daily mother-child interaction at the participants' home; this was used to confirm the child's ASD severity and the mothers' Maternal Sensitivity score. 3) Video Intervention: 1 to 5 additional videos will be recorded, including mother-child interactions and sessions where the mother and the therapist watch fragments of the recorded interaction video and reflect upon it. 4) An additional measure will be used by external evaluators to determine differences pre and post VIT within and between groups.

### We expect:

- 1) A differentiated pattern of interactions in mothers with ASD children vs. mothers with children of the non-clinical group, given the socio-emotional difficulties associated with the disorder.
- 2) Mothers will have more thorough understandings of the motivations underlying their behaviour and of their child's capacities post VIT, according to their age and traits.

**P-144**

**DMM assessment of attachment in school-age children with HFA: from a categorical approach to a functional formulation**

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Poster Session 6, June 30, 2017, 4:45 PM - 6:15 PM

Although most studies investigate attachment in child with Autism spectrum disorders (ASD), the focus on attachment relationships in middle childhood still results limited compared to preschool-age. Literature show few significant groups differences in secure attachment level between children with High Functioning Autism (HFA) and children with typical development (TD). However, these studies largely used questionnaire and/or observational methods, exclusively based on child's behavior. These procedures may neglect specific information about child attachment mental representation, which could in turn highlight particular differences between groups. A new method for assessment of attachment in school-age children with HFA is proposed. The School-age Assessment of Attachment (SAA) (Crittenden, 1997-2005) is a semi-structured clinical interview that assesses self-protective strategies in children from six to thirteen years following the Dynamic-Maturational Model of attachment and adaptation (DMM). The method consists of a set of cards with increasing levels of threats that school-age children frequently face. The interview is audio recorded, and the classification of the transcript is based on both the observation of the child's behavior and the discourse analysis derived from the Adult Attachment Interview (AAI). The SAA generates information about: 1) child preeminent self-protective strategy, including modifiers and unresolved traumas and losses 2) information processing that underlying strategy 3) application of self-protective strategies in child's developmental context. The DMM perspective allows considering information about child interpersonal context (family and peers) and child's dispositional representations. Therefore, it is proposed to move from a categorical assessment to a functional formulation, including the entire family. This approach may helps professionals to explain child's thoughts, feelings and signals used to interpret and to cope with danger. Moreover, DMM assessment could contribute to plan personalized treatments, suggesting new strategies to improve quality of parenting for this specific clinical population.



P-150

## Parent-adolescent attachment and peer victimization at school: Do adolescent's aggressive or non-aggressive social behaviours make a difference?

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Poster Session 6, June 30, 2017, 4:45 PM - 6:15 PM

*Introduction:* Worldwide, approximately 25% of adolescents suffer from peer victimization. Peer victimization has serious consequences for adolescent health, resulting in costs for individuals, families and society. Identifying the driving forces of peer victimization - namely family factors - is essential to prevent it. Although it is well-established that parent-child attachment influence child's social development, few studies have examined the relationship between attachment security to each parent and peer victimization during adolescence. Furthermore, it remains unclear whether this relationship differ for adolescents who display aggressive and non-aggressive behaviours.

*Objectives:* This study aimed to compare parent-adolescent attachment security between aggressive-victimized, non-aggressive victimized and non-victimized adolescents, controlling for adolescent age and gender.

*Method:* The sample consisted of 222 adolescents who were recruited in two Portuguese schools. Adolescents completed the *Kern Security Scale* and the *Extended Class Play* (ECP) to evaluate parent-adolescent attachment security and adolescent social behaviour, respectively.

*Results:* Based on the ECP, adolescents were classified as aggressive-victimized ( $n = 67$ ), non-aggressive victimized ( $n = 55$ ) and non-victimized ( $n = 100$ ). Controlling for adolescent age and gender, a significant multivariate group effect in attachment security was found,  $V = 0.055$ ,  $F_{4,434} = 3.062$ ,  $p = .017$ ,  $\eta^2_p = .027$ . Univariate MANCOVAs showed a significant effect in attachment security to the mother ( $F_{2,217} = 5.143$ ,  $p = .007$ ,  $\eta^2_p = .045$ ) and to the father ( $F_{2,217} = 4.134$ ,  $p = .017$ ,  $\eta^2_p = .037$ ). Post-hoc comparisons with Bonferroni corrections revealed that aggressive-victimized adolescents reported significantly lower attachment security to the mother ( $p = .008$ ) and to the father ( $p = .017$ ) compared with non-victimized adolescents.

*Conclusions:* The findings seem to support that aggressive-victimized adolescents tend to live in more negative family environments than non-victimized adolescents. Family interventions targeted at peer victimization need to be adjusted to the different needs of aggressive and non-aggressive adolescents.

**P-153**

## **Associations between preschoolers' attachment representations and self-concept during late childhood**

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Poster Session 6, June 30, 2017, 4:45 PM - 6:15 PM

Attachment theory suggests that, based on early experiences with primary caregivers, children develop internal representations of the self and others. Children who experienced emotional proximity, protection and safety from attachment figures may develop a positive representation of the self-concept, a view of others as reliable and, are subsequently, able to develop positive relationships with peers. The present study aimed to examine the relation between attachment representations at age 5, and children's sense of self-concept at age 9. Sixty-three children participated in the study. Attachment Story Completion Task was used to assess children's attachment representations at age 5. Videos were coded independently by two different teams of researchers and inter-rater agreement reached .72 and .99. Self-concept was measured at age 9, using a self-report questionnaire (Self Perception Profile for Children), composed by six subscales: Competence Scholastics, Social Acceptance, Athletic Competence, Physical Appearance, Behavioral conduct and Global self-worth. Regression analyses were performed with the six subscales of the Self Perception Profile for Children as dependent variables. Results showed significant effects of secure attachment representations at age 5 on perceived academic competence (Beta=.27,  $p=.033$ ), social acceptance (Beta=.28,  $p=.031$ ) and behavioral conduct at age 9 (Beta=.26,  $p=.047$ ). Our results reveal that secure attachment representations at age 5 are significant predictors of different dimensions of children self-concept at age 9.

Key words: attachment representations, self-concept, children.

## **Faith in the Wake of Disaster: A Qualitative Study of How Disasters Affect Adults' Religious Attachment Representations**

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Poster Session 6, June 30, 2017, 4:45 PM - 6:15 PM

This paper reports findings from a qualitative field study exploring the impact of natural disasters on adults' religious attachment representations. Four weeks after the devastating 2016 Louisiana floods (the worst U.S. natural disaster since 2011), 36 adult disaster survivors (16 males, 20 females) completed in-depth, face-to-face interviews, using a disaster-adapted version of the Religious Attachment Interview (RAI; Granqvist & Main, 2003). Twenty-one survivors had direct exposure (their home flooded), whereas 15 only had indirect exposure (their community flooded). All participants answered a structured set of open-ended questions about their disaster experience and its impact on how they view and relate with God.

Interview transcripts were analyzed using a directed (deductive) approach to qualitative content analysis (Hsieh & Shannon, 2005; Potter & Levine-Donnerstein, 1999), in which we attempted to validate and conceptually extend the religion-as-attachment model (Granqvist & Kirkpatrick, 2016; Granqvist, Mikulincer, & Shaver, 2010) within a postdisaster context. We specifically explored participants' views of and perceived relationship with God (before and since the disaster), using the coding scheme Kimball and colleagues (2013) developed to operationalize the defining aspects of the religion-as-attachment model: (a) seeking and maintaining proximity to God, (b) perceiving God as a safe haven, (c) perceiving God as a secure base, (d) responses to perceived separation and loss, and (e) perceiving God as stronger and wiser (Granqvist & Kirkpatrick, 2016; Granqvist et al., 2010; cf. Ainsworth, 1985; Bowlby, 1969/1982). We demonstrate qualitative reliability using cross-checking and qualitative validity using several strategies, including member checking; rich, thick descriptions; reflexivity practices; presenting negative or discrepant findings; peer debriefing; creating an audit trail; and utilizing an internal and external auditor (Creswell, 2014; Potter & Levine-Donnerstein, 1999).

Findings are discussed in terms of their implications for research on attachment, religion/spirituality, and disasters. We also highlight implications for clinical practice with disaster survivors.

**P-162**

## **The Religious Attachment Interview**

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Poster Session 6, June 30, 2017, 4:45 PM - 6:15 PM

Attachment-related “felt security” derived from religious believers’ perceived relationships with deities may promote the pervasiveness of theistic religions. Previously, adult studies on attachment and religion, including relationships with deities, have relied on self-report questionnaires. Both corporeal and non-corporeal attachment relationships, however, are laden with affect, subject to defensive distortions, and partially hidden from subjective awareness, rendering religious self-report results ambiguous. To investigate implicit representations of attachment relationships with deities, we applied a semi-structured interview, the Religious Attachment Interview (RAI), which was closely modeled on the Adult Attachment Interview (AAI), with added questions on religious life. We will present the first empirical findings using this instrument with 52 adult participants who reported having a relationship with a deity, from varied religious settings in Sweden. Results from the RAI will be compared with the AAI, conducted three years previously, and with an extensive questionnaire battery to assess other aspects of religion and mental health, conducted at both assessment times. Pilot RAIs have been coded reliably. Preliminary results suggest support for the extension of internal working models according to the correspondence hypothesis, with over three-quarters having the same classification for states of mind with respect to attachment as for relationships with deities, as assessed by the RAI. Greater security on the RAI than on the AAI among some participants also lends support for the compensation hypothesis (Granqvist & Kirkpatrick, 2016). Some participants who were classified secure on the AAI, however, showed *less* security on the RAI, which requires a slightly more stringent criterion for secure status: active engagement with the deity. More than twice as many were classified fearful/unresolved on the RAI, in part due to slightly broader criteria for this trauma-related classification than in the AAI. New theoretical implications to account for common patterns within these results will also be presented.

## **A Case Study Exploring Changes in Human and Religious Attachment Representations Over the Course of Existential-Dynamic Psychotherapy**

**Halstensen K<sup>1,2</sup>**

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Poster Session 6, June 30, 2017, 4:45 PM - 6:15 PM

This paper explores the religion-as-attachment model within a clinical context. An in-depth case study is presented, tracing a religious/spiritual adult's change in human and religious attachment representations, over the course of intensive, existential-dynamic psychotherapy in an inpatient setting in Norway. The patient completed the "VITA" (Latin for "life") program, which is a 12-week, structured, group-psychotherapy treatment utilizing existential (e.g., religiously/spiritually and meaning focused), psychodynamic (e.g., intrapsychically and relationally focused), experiential (e.g., emotionally focused), and narrative (e.g., life-story focused) interventions. The VITA program has preliminary research supporting its effectiveness treating people with persistent depression and a comorbid personality disorder (Stalsett et al, 2010, 2012), but its underlying change mechanisms have not yet been identified.

In this paper, we explore Bowlby's (1988) hypothesis that changes in internal working models of self and others are a key mechanism underlying psychotherapeutic effectiveness (Dozier & Tyrrell, 1998). Specifically, we explore the patient's changes in mental representations of self, others, and God over the course of existential-dynamic psychotherapy, in order to advance understanding of whether improved quality of object relations underlies the effectiveness of existential-dynamic psychotherapy with religious/spiritual patients. The patient completed figure drawings (of self, mother, father, and God) regularly throughout treatment and self-report questionnaires (of general psychopathology, depression symptoms, and interpersonal problems) at intake, discharge, and 1-year follow up. At discharge and 1-year follow up, the patient completed the Adult Attachment Interview (George et al., 1996), which will be administered again in March 2017, along with the Religious Attachment Interview (Granqvist & Main, 2003). Qualitative and quantitative data from these measures are presented in the context of literature on psychotherapy effectiveness (Barber et al., 2013; Consoli et al., 2017; Worthington et al., 2011), attachment and psychotherapy (Mikulincer & Shaver, 2016; Slade, 2016), and human and religious attachment representations (Granqvist & Kirkpatrick, 2016; Rizzuto, 1979).

O-7

**Adolescence as a sensitive period for goal flexibility and social-affective engagement.**

**Crone E<sup>1</sup>**

<sup>1</sup>*Leiden University*

Keynote Session 7, Logan Hall, Level 1, July 1, 2017, 9:00 AM - 10:00 AM

Adolescence is an important transition phase between childhood and adulthood during which individuals gain independence and develop mature social goals. It is also a natural time for explorative learning, risk taking and sensation seeking. Prior neuroimaging studies including children, adolescents and adults consistently reported a protracted development of cortical brain regions which are important for cognitive control and future orientation. Yet, at the same time many studies report heightened activation in subcortical brain regions, with most emphasis on the ventral striatum as a key brain region involved in reward seeking behavior.

In this talk I will present results from a large longitudinal neuroimaging study referred to as the Braintime study, in which participants were scanned on three time points while performing a cognitive control and a gambling task in the scanner. Outside of the scanner, participants completed questionnaires for puberty, impulsivity, working memory, reading and arithmetic and performed several risk-taking tasks. This longitudinal design allows us to relate individual slopes to behavioral change, but also gives the possibility to use behavioral and neuroimaging data to predict future behavioral outcomes. The neuroimaging results support the model of protracted development of the frontal-cortical network and heightened ventral striatum response in mid-adolescence. The results further show that the same neural sensitivities can be informative for multiple aspects of reward processing (self-related rewards and other-related rewards).

Currently, we are examining how social-affective engagement is related to genetic and environmental factors using a longitudinal brain imaging twin study (the Together Unique study). I will present the first results from the first wave of a randomized controlled intervention study with a specific focus on aggression regulation and prosocial behavior. Together, these findings are discussed in the context of adolescent specific vulnerabilities, such as increases in risk taking, but also opportunities for social learning, such as fast adaptation to different social contexts, forming friendships and close relationships and prosocial development.

O-8

**Epistemic trust and secure attachment: A fresh look at therapeutic processes in personality disorder**

**Fonagy P<sup>1</sup>**

<sup>1</sup>*University College London, UK*

Keynote Session 8, Logan Hall, Level 1, July 1, 2017, 10:00 AM - 11:00 AM

The relationship of intellectual achievement and attachment has been part of our understanding of child development almost since the beginning of the scientific study of care given in infant relationship. The mechanism that immediate the benefit with secure attachment brings to the development of cognition and the general adaptation given requiring intelligence has been less clear. This paper will bring the concept of epistemic trust and ideas of natural pedagogy to bear on this issue and achieve better integration between the ways attachment facilitates social cognition development and the cognitive and emotional challenges which arise out of the failure out of interpersonal trust. The context for looking at this issue is the psychotherapeutic situation where irrespective of modality the client needs to be open to learn and where a trusting relationship and secure attachment has frequently been shown to be a necessary even as not a sufficient condition for change. The presentation will outline a generic model for therapeutic change which may account for some of the difficulty that we encounter in achieving a demonstrating differential treatment effects in psychological therapies.

## **Evaluating Attachment Treatments for Suicidal Adolescents: Findings from a Comparative Efficacy Trial**

**Kobak R<sup>1</sup>**

<sup>1</sup>*University of Delaware*

Keynote Session 9, Logan Hall, Level 1, July 1, 2017, 11:30 AM - 12:30 PM

Findings from an NIMH funded comparative efficacy trial for depressed and suicidal adolescents will be used to discuss challenges in defining and evaluating attachment treatments for adolescents. The randomized clinical trial compared two treatments Attachment Based Family Therapy (ABFT) and Non-Directive Supportive Therapy (NST) for their effectiveness in reducing adolescents' suicidal ideation and depressive symptoms. The guiding principles, protocols and theory of change in both ABFT and NST will be described. These two treatments will be contrasted with other evidenced based treatments for suicidal adolescents to more clearly delineate the boundaries for defining attachment treatments.

The second part of the presentation will address challenges to measuring treatment response in attachment guided interventions. In addition to standard assessments of symptom reduction, well validated attachment measures will be considered as possible indicators of therapeutic change. States of mind in the Adult Attachment Interview and observational ratings of parent-adolescent communication administered before and following treatment offer potential windows on whether treatments are effective in increasing attachment security. These analyses will be useful in evaluating the degree to which measures of attachment security are sensitive to change following sixteen weeks of treatment.

Although both the ABFT and NST are effective in reducing adolescents' suicidal ideation and depressive symptoms, adolescents show substantial variation in how they respond to these treatments. The last part of the presentation will focus on identifying pre-treatment factors that distinguish between adolescents whom benefit from attachment treatments and adolescents that are likely to show little or no treatment benefit. A number of potential predictors of adolescents' treatment response will be considered. In addition to pre-treatment AAI classifications and observational ratings of attachment, other prognostic indicators of differential treatment response will be evaluated including co-morbid diagnoses, symptom severity, and self-reported interpersonal measures of family conflict.



## S7.1

### **Infant attachment security correlates, continuity and outcomes, and the influence of stress on caregiving sensitivity: New meta-analytic evidence.**

**McIntosh J<sup>1</sup>, Bant S<sup>1</sup>, Opie J<sup>1</sup>, Tan E<sup>1</sup>, Booth A<sup>1</sup>**, Macdonald J<sup>1</sup>, Youssef G<sup>1</sup>, Kothe E<sup>1</sup>, Hutchinson D<sup>1</sup>, Messer M<sup>1</sup>, Macvean M<sup>1</sup>, Olsson C<sup>2</sup>

<sup>1</sup>Deakin University, <sup>2</sup>Murdoch Children's Research Institute

Symposia 7.1, Nunn Hall, Level 4, July 1, 2017, 1:45 PM - 3:15 PM

#### **Integral and summary statement**

This symposium features current meta-analytic work from the Australian Temperament Project – Generation 3 research group. Mature cohort studies including attachment observations are rare and present important opportunities for knowledge synthesis and growth. Our team's study of predictive pathways associated with caregiving sensitivity and offspring attachment security relies on solid meta-analytic evidence. The cluster of meta-analytic studies presented in this symposium represents our most recent evidence bases, informing empirical studies of our inter-generational data.

The four papers address the meta-analytic evidence for a) the current evidence for infant attachment security as a developmental indicator of psychosocial adjustment in childhood, b) continuity of attachment across the pre-school years, c) impacts of couple relationship quality on infant attachment security, and d) predictive associations between parent stress and caregiving sensitivity.

Individually, each paper captures a critical corner of the literature, re-examining seminal hypotheses about offspring attachment security and care-giving sensitivity. Meta-analytic evidence of the first paper in our series confirms and further delineates the cascading pathway of advantage associated with secure attachment beginnings. The second paper presents the most comprehensive meta-analytic study yet conducted on attachment continuity across infancy and the pre-school years. Evidence in the third paper disaggregates parental relationship quality and conflict, and their associations with infant attachment security. The paper confirms the negative influence of couple conflict, but raises questions about positive couple adjustment in the causal pathway. The final paper systematically explores the role of three dimensions of ecological stress on the expression of care-giving sensitivity.

Collectively, the papers illustrate key decisions encountered and made in the application of meta-analytic methodologies to complex theoretical constructs, as well as the value of building subsequent studies of care-giving sensitivity and offspring attachment on meta-analytic foundations. Together the papers represent an important set of new findings about the aetiologies of secure base care-giving and offspring attachment.

## **Paper 1. Infant attachment security as a developmental indicator of psychosocial adjustment in childhood: A prognostic systematic review and meta-analysis**

**Background:** Infancy is a critical and sensitive period for development of complex neural pathways implicated in human social-emotional development. Attachment theory is a dominant organizing framework within which to understand this unfolding of human socio-emotional potentials<sup>1 2</sup>. Existing literature has had a dominant clinical emphasis on factors that disrupt security and lead to avoidant, ambivalent and disorganised states. The pathway from a secure beginning has remained an assumed advantage, given far less attention, yet needing verification in light of recent attachment studies. This review synthesises evidence of the long-term outcomes of infants who start life securely attached to their primary caregiver.

**Method:** Nine academic databases were searched to identify studies that were (1) longitudinal and prospective; that (2) reported outcomes of secure attachment (classification B); (3) using infant attachment assessed by the Ainsworth Strange Situation Procedure at around 12 months; (4) as a predictor of social, emotional, behavioural or academic outcomes from 24 months of age to adulthood. Our prognostic approach placed no restrictions on outcome measures used in the research reviewed<sup>3</sup>.

**Results:** Forty-three studies met inclusion criteria. This is the first meta-analysis to synthesise literature reporting specifically on the longitudinal outcomes of secure infant attachment. The meta-analysis confirms a predictive association between secure attachment in infancy and several later psychosocial outcomes, specifically social and emotional outcomes. However the underlying developmental processes are less understood.

**Conclusion:** Further follow-up of outcomes into adolescence and young adulthood using longitudinal cohort study designs are needed. Underlying mechanisms may be understood using a transaction model that understands development of human attachment from infancy as a non-linear 'initiating condition' in the context of multiple, cumulative and transactional processes.<sup>4 5</sup>

## **Paper 2. Early Childhood Attachment Stability: A Systematic Review and Meta-Analysis**

**Background:** This meta-analysis identified, synthesised and analysed the current body of empirical evidence on attachment pattern continuity throughout early childhood (12-80 months), a transitional period, in which the attainment and retention of attachment security has profound implications for later development (see Symposium Paper 1). To date, three meta-analyses of attachment stability have been conducted; two journal articles<sup>1,2</sup> and one unpublished dissertation<sup>3</sup>. The current synthesis is the first to examine attachment stability at the three and/or four-way (ABC/D) classification level, crossing four developmental periods: infancy, toddlerhood, preschool and the early school years.

**Method:** The authors systematically searched the PsycINFO, Academic Search Complete, MEDLINE Complete, CINAHL, SocINDEX and Embase electronic databases, by title, key words and abstract. Cross checks occurred in Scopus and Web of Science. Grey literature was screened, and relevant unpublished studies identified through conferencing with experts. Studies were included if attachment was assessed via independent observational methods, at least twice between 12 and 80 months of age, with a minimum interval of six months between assessments and crossed two developmental periods: infancy, toddlerhood, preschool and the early school years prior to age 6 years.

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<sup>1</sup> Navarez, D., Panksepp, J., Schore, A. N., & Gleason, T. R. (Eds.). (2012). *Evolution, Early Experience and Human Development*. Oxford: Oxford University Press.

<sup>2</sup> Schore, A. N. (2015). *Affect Regulation and the Origin of the Self*. Abingdon-on-Thames: Routledge.

<sup>3</sup> Steyerberg, E.W., Moons, J.K.G.M., van der Windt, D.A., Hayden, J.A., Perel, P., Schroter, S., Riley, R.D., Hemingway, H., Altman, D.G., for the PROGRESS Group. (2013). Prognosis Research Strategy (PROGRESS) 3: Prognostic Model Research. *PLOS Medicine*. February. <http://dx.doi.org/10.1371/journal.pmed.1001381>.

<sup>4</sup> Sameroff, A. (2009). The transactional model. In A. Sameroff (Ed.), *The transactional model of development: How children and contexts shape each other*. (pp. 3–21). Washington: American Psychological Association.

<sup>5</sup> Sroufe, L. A. (2005). Attachment and development: A prospective, longitudinal study from birth to adulthood. *Attachment & Human Development*, 7(4), 349–367.

**Results:** Of the 903 articles identified, 33 met the review's inclusion criteria. A total of 2,232 attachment relationships were examined and 49 test-retest time intervals assessed, ranging from 6 months to 3 years (36 months). Four studies not previously identified in any prior stability meta-analysis were included, representing 20 estimates of attachment stability and approximately 350 dyads. Findings suggest a moderate stability correlation coefficient between attachment assessment one and two of  $r=.30$ , at the two-way secure/insecure level. Stability levels were highest across the infant-toddler period, decline with increasing interval between attachment assessments, and also with three or four way classification relative to secure/insecure distinctions. Lower stability levels are evident in high risk samples.

**Conclusion:** Findings are discussed in light of methodological decisions made in the course of this meta-analysis. Implications for measurement and reporting are considered, across research and practice contexts.

## References

1. Fraley, R. C. (2002). Attachment stability from infancy to adulthood: Meta-analysis and dynamic modeling of developmental mechanisms. *Personality and Social Psychology Review*, 6(2), 123-151.
2. Pinquart, M., Feußner, C., & Ahnert, L. (2013). Meta-analytic evidence for stability in attachments from infancy to early adulthood. *Attachment & Human Development*, 15(2), 189-218.
3. Vice, G. (2005). A meta-analysis of the stability of attachment styles from birth to adulthood (Unpublished dissertation). University of Hartford.

## Paper 3. Couple relationship quality and offspring attachment security: A systematic review and meta-analysis

**Background:** Attachment security in the early years plays an important role in a range of psychosocial outcomes in later life, and continues to be an important focus of prevention and intervention research. Couple relationship quality has long been argued to play a seminal role in offspring attachment<sup>1</sup>, and is in turn shaped by relationship experiences earlier in life (e.g. in the preconception years including adolescent dating experiences and parental marital conflict)<sup>2,3</sup>. This review provides a synthesis of the evidence on the role of intimate partner relationship quality in the development of offspring attachment security.

**Methods:** Search terms encompassing three major concepts (intimate partner relationship, intergenerational, attachment) were used in EBSCOHost databases, Informit, and Web of Science. A grey literature search was conducted in Google and ProQuest, and key articles were cross-checked in Web of Science and Google Scholar.

**Results:** Twenty-two studies met inclusion criteria, and two meta-analyses were conducted. The first meta-analysis found that couples' dyadic adjustment was not associated with offspring attachment security ( $r=0.16$ ,  $p=0.15$ ). On the other hand, the second meta-analysis found a significant negative association between inter-parental conflict and attachment security in offspring ( $r=-0.28$ ,  $p<0.01$ ).

**Conclusion:** Findings regarding the negative association of inter-parental conflict and attachment security verify are unequivocal. However the relationship between more positive aspects of couple relationship quality and offspring attachment security remain less clear. The paper considers both theoretical and measurement implications of these findings.

## References:

- <sup>1</sup>Cowan, P. A., & Cowan, C. P. (2009). Couple relationships: a missing link between adult attachment and children's outcomes. *Attachment & Human Development*, 11(1), 1-4.
- <sup>2</sup>Amato, P.R., & Booth, A. (2001). The legacy of parents' marital discord: Consequences for children's marital quality. *Journal of Personality and Social Psychology*, 81(4), 627-638.
- <sup>3</sup>Madsen, S.D., & Collins, W.A. (2011). The salience of adolescent romantic experiences for romantic relationship qualities in young adulthood. *Journal of Research on Adolescence*, 21(4), 789-801.

#### **Paper 4. Ecological stress and maternal sensitivity: a meta-analytic review of stress associations with the Maternal Behaviour Q-Sort in infant observational studies**

**Background:** Maternal sensitivity is a critical and modifiable determinant of infant attachment security (Bakermans-Kranenburg, van Ijzendoorn, & Juffer, 2003; De Wolff & van Ijzendoorn, 1997; Pederson et al., 1990). Although it is recognised that prolonged or acute stress exposures in the family ecology undermine sensitivity (Belsky & Fearon, 2002; Pianta, Sroufe, & Egeland, 1989; Tarabulsky et al., 2005), research in this area remains under-developed. We aimed to identify: i) the types of stress associations analysed in studies of maternal sensitivity; and, ii) the strength of effects of various ecological stress factors on sensitivity.

**Methods:** EBSCOHost, EMBASE, SCOPUS, Cochrane Library and Google Scholar databases were systematically searched with terms designed to retrieve all studies that used the Maternal Behaviour Q-Sort (MBQS). Articles were included if they coded sensitivity using the MBQS in an infant observational study and reported a coefficient representing an ecological stress association with MBQS data.

**Results:** Ecological stressors identified in the literature cohere around three spheres comprising seven indicators: the sociodemographic climate (maternal education, family income, composite SES, maternal age and cohabitation of infant's parents); parenting stress (maternal stress related to parenting); and mental health (maternal internalising symptoms). All stress indicators were measured during the perinatal period and most associations were cross-sectional. 21 of 722 retrieved studies met inclusion criteria, and meta-analysis of an eligible subset of associations assessed aggregated effects of each stress (n=7) on sensitivity. Significant mean effects emerged in expected directions, whereby all stress indicators were negatively associated with sensitivity. Small effects were found for associations between sensitivity and the parenting stress and mental health indicators, while generally moderate effects were found against socio-demographic indicators. Limited numbers of studies per aggregation meant that larger sample studies often drove results. Aggregate effects were robust to methodological variation in observation time, long- or short-form measures, inter-rater reliability and sample characteristics.

**Conclusion:** Preliminary findings align with theoretical expectations that stress along multiple dimensions in the perinatal period undermines maternal sensitivity. Theoretical implications and research directions are discussed.

- Bakermans-Kranenburg, M. J., van Ijzendoorn, M. H., & Juffer, F. (2003). Less is more: meta-analyses of sensitivity and attachment interventions in early childhood. *Psychological Bulletin, 129*(2), 195-215.
- Belsky, J., & Fearon, R. M. P. (2002). Early attachment security, subsequent maternal sensitivity, and later child development: Does continuity in development depend upon continuity of caregiving? *Attachment & Human Development, 4*(3), 361-387. doi:10.1080/14616730210167267
- De Wolff, M. S., & van Ijzendoorn, M. H. (1997). Sensitivity and attachment: A meta-analysis on parental antecedents of infant attachment. *Child development, 68*(4), 571. doi:10.1111/1467-8624.ep9710021672
- Pederson, D. R., Moran, G., Sitko, C., Campbell, K., Ghesquire, K., & Acton, H. (1990). Maternal sensitivity and the security of infant-mother attachment: A Q-sort study. *Child development, 61*(6), 1974-1983. doi:10.2307/1130851
- Pianta, R. C., Sroufe, L. A., & Egeland, B. (1989). Continuity and Discontinuity in Maternal Sensitivity at 6, 24, and 42 Months in a High-Risk Sample. *Child development, 60*(2), 481. doi:10.1111/1467-8624.ep7266836
- Tarabulsky, G. M., Bernier, A., Provost, M. A., Maranda, J., Larose, S., Moss, E., . . . Tessier, R. (2005). Another look inside the gap: ecological contributions to the transmission of attachment in a sample of adolescent mother-infant dyads. *Developmental Psychology, 41*(1).

## S7.2

### Insights from Meta-analytic and Intervention Studies of the Association between Attachment and Depression across Development

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Symposia 7.2, Elvin Hall, Level 1, July 1, 2017, 1:45 PM - 3:15 PM

#### **Abstract 1**

##### **The Link between Adult Attachment Security and Depression: A Meta-Analysis**

Attachment theory has long theorized about the association between insecure and unresolved attachment patterns and depression. A growing body of research suggests that individuals classified as having insecure and unresolved attachment states of mind are at increased risk for presenting depressive symptomatology (Stovall-McClough & Dozier, 2016). With mounting evidence supporting the link among insecure attachment states of mind and depression, it is important to quantify the overall magnitude of this association across studies.

In the present meta-analysis, we aimed to estimate the degree to which attachment classification is associated with depression. Studies were compiled in March 2016 through a systematic search of the electronic databases PsycINFO and PubMed. Studies were eligible if they included a standardized assessment of depression and if attachment state of mind was measured using the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1996). Given these criteria,  $k = 38$  studies with  $N = 3332$  adolescents and adults were included in this meta-analysis.

Effect sizes were calculated as Cohen's  $d$  and pooled using a random effects model. Results indicated that adults with insecure (i.e., dismissing/preoccupied) states of mind showed significantly higher rates of depression than adults with secure-autonomous classifications ( $d = 0.24$ , 95% CI [0.10, 0.38]). Additionally, when unpacking attachment insecurity by specific classification, the effect size for preoccupied (versus secure-autonomous) attachment state of mind and depression was medium and significant ( $d = 0.50$ , 95% CI [0.29, 0.71]), whereas the effect size for dismissing attachment and depression was small and non-significant ( $d = 0.13$ , 95% CI [-0.02, 0.29]). Finally, adults with unresolved attachment state of mind had higher rates of depression than resolved adults ( $d = 0.32$ , 95% CI [0.13, 0.51]).

These findings hold significant implications for attachment theory, with a particular focus on characteristics of insecure and unresolved states of mind (e.g., coping strategies) that may influence depression.

#### **Abstract 2**

##### **Stability and Change in the AAI in a Comparative Efficacy Trial for Depressed and Suicidal Adolescents**

Although the insecure states of mind (Dismissing, Preoccupied, and Unresolved) have been extensively studied as correlates of depressive symptoms, many studies have relied on cross-sectional data that cannot evaluate potential direction of effects between symptoms and states of mind. The current study reports the degree to which adolescents' states of mind change before and immediately after treatment for depression and suicide ideation. The current findings provide some initial indication of the degree to which states of mind are stable or amenable to change over the course of sixteen weeks of treatment.

Data is from a Randomized Clinical Trial for 129 depressed and suicidal adolescents and their parents (PI's: Diamond & Kobak). Study inclusion required elevated scores on the Suicidal Ideation Questionnaire (SIQ >31), elevated scores on the Beck Depression Inventory (BDI >20), and parents' willingness to participate in the treatment. The Adult Attachment Interview (AAI; George, Kaplan, & Main, 1996) was administered prior to treatment randomization and following treatment completion at 16 weeks. Descriptive statistics and correlations are presented in Table 1. Pre- and post-treatment AAI classifications are presented in Figure 1. Twenty-one adolescents (22%) were classified as Preoccupied pre-treatment compared to 11 (12%) post-treatment, indicating a reduction of nearly 50%. Fifty-two

adolescents (54%) were classified as Dismissing at pre-treatment compared with 59 (62%) classified as Dismissing post-treatment. There was also a small increase in adolescents classified as Secure with 23 (24%) classified as Secure pre-treatment compared to 26 (27%) post-treatment.

Overall, there was substantial stability in pre-post classifications ( $\kappa = .47, p < .001$ ). However, adolescents showed the least stability in maintaining preoccupied states of mind, which were reduced by nearly 50% at the post-treatment assessment. Further tests of the direction of effects between changes in states of mind and symptom reduction will be presented.

**Table 1 [for abstract 2].** Descriptive statistics and zero-order correlations (N=129)

	M	SD	1	2	3	4	5	6	7	8	9	10
(1) Age	14.96	1.66	—									
(2) Gender	.17	.38	-.04	—								
(3) Race	.31	.46	.13	-.08	—							
(4) Income-to-Needs Ratio	2.07	1.45	-.04	-.01	.44**	—						
(5) BDI_Pre	35.62	9.30	.18*	-.18*	.09	-.10	—					
(6) SIQ_Pre	49.89	15.16	.04	.01	-.09	-.09	.41**	—				
(7) SecurePrototype_Pre	-.23	.42	.02	-.15	.24**	.26**	.09	-.03	—			
(8) UnresolvedAbuse Pre	1.12	2.59	-.04	.02	.23*	-.16	.21*	.19	-.19	—		
(9) SecurePrototype_16	-.19	.44	-.05	-.12	.37**	.31**	.02	-.04	.67**	-.19	—	
(10) UnresolvedAbuse_16	1.05	2.54	.02	.19*	-.08	-.03	-.01	-.01	-.15	.36**	-.21*	—

Note. Gender was coded as 0-male, 1-female. Race was dummy-coded as 0-Non-White, 1-White.

\* $p < 0.05$ , \*\*  $p < 0.01$

### **Abstract 3**

#### **Maternal Depression and Maternal Sensitivity during Infancy: Results of a Meta-Analysis**

Maternal depression is highly prevalent following childbirth (CDC, 2011) and chronically impairing for exposed offspring (Goodman et al., 2011). Therefore, it is critical to examine *how* maternal depression disrupts children’s early environments. Infants’ early environments are characterized primarily by interactions with mothers or other primary caregivers, who serve as co-regulators of infant distress, physiology, and behavior. In a number of studies, maternal sensitivity has been shown to be disrupted in depressed mothers (e.g., Azak & Raeder, 2013; Dix & Yan, 2014; McGinnis et al., 2015). We conducted a meta-analysis to quantify the magnitude of the association between maternal depression and maternal sensitivity during the first year of life.

Studies were compiled in March 2016 through a systematic search of the electronic database PsycINFO. Studies were included if they met the following criteria: 1) maternal depression was measured with standardized assessment, 2) sensitivity was measured using an observational assessment of parent-child interaction, 3) mean child age was 12 months or younger, 4) written in English, and 5) peer reviewed or dissertation. The literature review resulted in  $k = 40$  studies, including  $N = 4078$  dyads, which were independently coded by two raters.

Effect sizes were calculated as correlation coefficients and were pooled using a random effects model. The aggregate effect size was  $r = -.17$ ,  $p < .001$  (95% CI =  $-.22$  to  $-.11$ ), indicating that mothers with higher depression levels were less sensitive than mothers with lower depression levels. Sample and research design characteristics did not moderate the association between maternal depression and sensitivity. The lack of significant moderators may suggest that the association is robust.

This meta-analytic evidence of the association between maternal depression and reduced sensitivity has clear clinical implications, such as screening for depression following childbirth and sensitivity-focused interventions for mothers with elevated depression.

## S7.3

### **Children's safety & the Courts: The uncomfortable intersection of developmental science and judicial decision-making for children and families at highest risk.**

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Symposia 7.3, Logan Hall, Level 1, July 1, 2017, 1:45 PM - 3:15 PM

#### **Paper 1: Beyond the best interests of the child**

"Beyond the Best Interests of the Child," (Goldstein et al., 1973) posed the question of how the law can assure each child a chance to be a member of a family, to feel wanted, have an opportunity to receive and return affection, express anger and learn to manage aggression. The answer was that first, the law should make the child's needs paramount and second, give preference to maintaining family integrity. The concept of least detrimental alternative emerged as a legal construct for managing the tension that may exist between a child's best interest and that of his parents in court decisions about child placement. We have applied the theories and constructs that were developed here to custody evaluations for the courts, child welfare agencies and dissenting parents, and interventions for children and families. This presentation will describe the Intensive, In-Home Child and Adolescent Psychiatric Service (IICAPS) whose primary aim is to treat children with severe psychiatric disorders, their parents and family members in the service of reducing days in psychiatric hospital. The course of the work reveals the environmental and biologic factors which contribute to the child's illness and in some cases, underscores the need for consideration of placement outside of the family system. Consideration of the least detrimental alternative may result in recommendations regarding the quality of the child's or adolescent's attachments and the need to consider alternative placements. Other cases involve children and adolescents whose lives demonstrate the effect of placements which have not given primary consideration to the child's primary attachments. This presentation will describe IICAPS and provide case examples to demonstrate the translation and applications of best interest constructs to work in the real world. The development of IICAPS and demonstrates the still vital connection between theory and a home-based clinical program almost 50 years later.

#### **Paper 2: Safety and permanency planning for children and families coping with abuse and neglect: The struggle to apply attachment theory and research to inform lifetime-impacting decisions.**

Translating developmental science into real-world benefit for children and families, especially those at highest-risk, continues to be elusive with regard to attachment theory and the court system. The recent 159-page decision from the District of Columbia Court of Appeals, U.S.A., IN RE TA.L.; IN RE A.L.; IN PETITION OF R.W. & A.W.; IN RE PETITION OF E.A. (December 2016) is another example of how the courts are grappling with how to apply attachment theory within the legal framework of permanency placement for young children. This *en banc* review affirmed the need to assess children's attachment to their birth and/or foster parent/s to better clarify the potential of long-term consequences of placement in establishing the "best interest of the child" standard, albeit attachment not being the only factor for consideration. It also notes that assessing attachment is critical as the research has amply demonstrated that the quality of the attachment relationship that a child shares with his or her caregiver is a powerful predictor of later emotional, social, and cognitive adaptation and that disruption of attachment figures' connection "poses 'unacceptably grave' risks to the children's short- and long-term psychological, intellectual, and social development." This presentation spotlights the attachment-centered, team-based evaluation model cited by the court in this case and that is housed in a community-based early childhood mental health clinic. The 20-year history and development of this assessment model and its current practice will be presented with particular attention to examining key considerations for translating research methodology within clinical settings and towards individual children and families. Ethical considerations will also be highlighted in differentiation treatment versus evaluation. These weighty and solemn matters need ongoing attention to improve the attachment field's ability to positively impact children's and families' safety and lifelong healthy development.



### **Paper 3: Attachment theory in the service of the court system: Contributions and risks**

A growing number of professionals who work for the court system around child related issues (e.g., divorce, adoption) use attachment theory as a guiding platform. Thus, being well informed about what we know and what we do not know is critical. In this presentation, I will raise some of these issues, attempting to highlight the potential contribution of attachment theory to the court system as well as the potential risks associated with this connection, depending on how the research findings are being used, and how informed they are. The discussion will focus on issues of divorce, and a controversial special issue in the field will be used as a reference point (Family Court Review, Vol. 49 No. 3, 2011). An Israeli case in the court system will be presented to underscore the various issues. In this specific divorce case, a relocation issue had to be decided upon, with conflicting decisions between the lower and higher court systems, resulting from different appraisals of what attachment theory and research inform.

## S7.4

### **Who benefits from psychoanalytic Parent-Infant Psychotherapy and in what way? Primary and Secondary findings from a randomized controlled trial of Parent-Infant Psychotherapy for parents with mental health problems and their infants**

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Symposia 7.4, Drama Studio, Level 1, July 1, 2017, 1:45 PM - 3:15 PM

#### **Paper 1**

##### **Randomized controlled trial of parent-infant psychotherapy for parents with mental health problems and their young infants: Findings from the main trial**

This paper will present and discuss the main findings of a randomized controlled trial investigating the outcomes of psychoanalytic parent–infant psychotherapy (PIP) for parents with mental health problems and their young infants. Seventy-six mother-baby dyads were clinically referred and randomly allocated to PIP or a control condition of standard secondary and specialist primary care treatment. Outcomes were assessed at baseline and at 6-month and 12-month follow-ups and included measures of infant development, parent–infant interaction, maternal psychopathology, maternal representations and maternal reflective functioning. Infant attachment status was assessed at the 12 month follow-up. An intent-to-treat, group level analysis was carried out and showed no differential effects over time between the groups on measures of infant development, parent–infant interaction or maternal reflective functioning. Infant attachment classifications at the 12 month follow-up did not differ between the groups. However, there were favorable outcomes over time for the PIP- treated dyads relative to the control group on several measures of maternal mental health, parenting stress and parental representations of the baby and their relationship. These findings and the methodological limitations and clinical implications will be discussed.

#### **Paper 2**

##### **“What support would you find helpful?” The influence of treatment expectations on engagement and outcomes in parent-infant psychotherapy (PIP)**

The aim of this study was to investigate the impact of pre-treatment parental expectations on engagement and clinical outcomes in PIP. The sample consisted of 61 parent-infant dyads participating in a study evaluating the outcomes of this intervention. A mixed-methodology was used to examine, analyse and collate participants’ expectations through thematic analysis of pre-treatment interviews. Further statistical analysis explored the impact that expectations had on engagement in treatment and clinical outcomes. No significant correlation was found between expectations and engagement. Yet, several clinical measures significantly correlated with specific expectations held by participants. Most notably, improved reflective functioning (RF) was predicted by participants who held the expectations of wanting to improve their parent-infant relationship through the treatment, and those who expressed concerns about discussing their past experiences. These two expectations predicted improvements in RF independently and when combined. These results indicate the benefits of assessing future clients’ expectations at the point of referral as treatment outcomes may differ according to the subjective expectations held by parents being referred for support. The study also provides some insight into the individual level difficulties that can be most successfully addressed by psychoanalytic parent-infant psychotherapy. The findings and their clinical and research implications will be presented.

#### **Paper 3**

##### **Who should be targeted? Secondary analysis of a randomised controlled trial that evaluates the effectiveness of parent-infant psychotherapy (PIP) for mothers with mental health problems and their infants.**

This research is a secondary analysis of data from a randomized controlled trial (RCT) that compared parent-infant psychotherapy (PIP) and treatment-as-usual (TaU) for mothers with mental health problems who also experienced high levels of socio-economic deprivation and their young infants (<12 months). Mothers were randomly assigned to

treatment groups and assessed at baseline, 6-month follow-up and 12-month follow-up. The aim of the current study was to explore the relationship between baseline characteristics (moderators) and the effectiveness of PIP; focusing on the mother's primary reason for referral, reflective functioning levels (RF) and socio-economic status (SES). Intention-to-treat analysis of Treatment-by-Time-by-Potential moderator effects, significantly favoured PIP treatment for low RF mothers, who revealed better outcomes in measures of maternal sensitivity, non-hostile interactions and paternal stress. Additionally, infants of low RF mothers showed significantly higher levels of responsiveness and involvement by the 12-month follow-up in comparison to the control group. The mother's SES revealed significant effects on measures of dyadic attunement, whereas the mother's reason for referral did not have any effect on the outcomes. These results offer important insights into the results of the main trial, and provide valuable indications of the potential clinical sample of mothers that PIP should be targeting. The findings will be presented, and the implications of this study will be discussed.

## S7.5

### **Attachment relationships: from a theory to a lived experience**

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Symposia 7.5, Clarke Hall, Level 3, July 1, 2017, 1:45 PM - 3:15 PM

#### **From Secure Dependency to Attachment: Mary Ainsworth's integration of Blatz's Security Theory into Bowlby's Attachment Theory**

John Bowlby (1907-1990), British child psychiatrist and psychoanalyst, is generally regarded as the founder of attachment theory. Mary Ainsworth (1913-1999) is increasingly seen as the co-founder of attachment theory. She found empirical evidence for attachment theory through her work in Uganda, which she followed up by the famous Baltimore study. Apart from that, she contributed the notion of the secure base and exploratory behavior, the Strange Situation Procedure and its classification system, and the notion of maternal sensitivity. However, the fact that many of her theoretical contributions were derived from the ideas of her mentor and colleague William Blatz (1895-1964) is usually only mentioned in passing.

Ainsworth started off as one of Blatz's students at the University of Toronto in the early 1930s and after writing her PhD thesis on the measurement of security, she continued to work with Blatz in Toronto on the subject of security until she left for London in 1950. When Ainsworth started working with Bowlby at the Tavistock Clinic in London, she brought with her extensive knowledge of Blatzian security theory, experience in designing instruments to measure security, and an awareness of the importance of a sensitive and responsive attitude towards children. On arrival, Ainsworth started to infuse Bowlby's theory in the making- up to that point based only on separation findings—with Blatz's security theory.

In this contribution, on the basis of an evaluation of written papers and books as well as of understudied correspondence from the personal archives of Mary Ainsworth and John Bowlby, a new perspective is added to the historiography of attachment theory by showing that Ainsworth's use of Blatzian security theory has been much more important in shaping attachment theory than hitherto realized and that specific parts of attachment theory can be directly traced back to Blatz and his security theory.

#### **The relevance of John Bowlby's 1950 WHO study for the development of attachment theory**

Attachment theory, developed by John Bowlby in the 1950s and 1960s, is generally considered a major theory in developmental psychology. However, Bowlby did not create his theory overnight and his WHO report on the consequences of maternal deprivation for child development is regarded as crucial for the development of attachment theory. Bowlby's report (1952) was important for several reasons. First, it was highly influential for his own intellectual development. In an interview Bowlby once testified of the importance of his search for evidence supporting the ill-effects of deprivation: "[T]hose five months I worked for [the] World Health [Organisation] were very crucial ones for me" (Senn, 1977). His assignment with the WHO gave him the chance to absorb the field and brought him in contact with leading researchers in the field of psychology and psychiatry. Secondly, it was important for the field of psychology as a whole, as the report was generally very well received in medical circles and is considered a landmark publication in psychology to this day (Bretherton, 1992).

To give an accurate account of the state of the art in the care for homeless children for his report, in the first half of 1950, Bowlby visited the USA, France, Sweden, and The Netherlands. During his time, he kept notebooks and wrote dozens of letters to his colleagues at the Tavistock and to his wife Ursula. In this contribution, on the basis of these primary sources, the author will relate the story of Bowlby's trip and the coming into existence of his report on 'maternal care and mental health'. This will give us a clearer picture of the development of Bowlby's ideas and of attachment theory as a whole.

## **"Bowlby's own trauma history and creativity"**

This paper shall explore the impact that John Bowlby's own traumatic experiences had on his personal and professional development, as well as the factors and relationships that helped him develop resilience, self-confidence and creativity. The paper will draw on the comprehensive research done by the author for his psychobiography of Bowlby, published in January 2017. This biography agglutinates the findings of a range of key contributors who have written about Bowlby's journey. These include Ainsworth (1990), Byng Hall (1991), Parkes (1995), Grossman (1995), Karen (1998), Van Dijken (1998), Coates (2004), Van der Horst (2011), Marrone (2014), and Holmes (2014).

There were several events affecting Bowlby's early life. His mother was emotionally distant and he could not form a secure attachment with her. His main attachment figure in early childhood was a nanny who left quite suddenly before his fourth birthday. He was sent to boarding school where he was unhappy and subjected to physical punishment. He had a strong rivalry with his brother Tony, which sometimes resulted in physical fights when they were children. His father was largely absent from his life and suffered from post-traumatic stress, on his return home after being away for five years as a consequence of the Great War. His paternal grandfather was captured during the British-Chinese Opium War and tortured to death.

During his adolescence and young adulthood, Bowlby was a shy person who found it difficult to express emotion and to form satisfactory relationships with women. However, there were a number of compensatory factors and relationships that contributed to building his remarkably creative personality. These include his friendship with Evan Durbin, his mentorship with Frederick Bartlett, John Alford and Aubrey Lewis, his personal analysis, and his relationship with his wife Ursula who became his secure base for 52 years, until his death.

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### **Mother-child emotional communication in early adolescence: The challenge of puberty**

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Poster Session 7, July 1, 2017, 1:45 PM - 3:15 PM

Parent-child open and emotionally supportive communication has been highlighted as a marker of secure relationships. However, the transition to early adolescence, and the changes associated with puberty in particular, may challenge such interactions. Previous studies found decreasing warmth and increasing conflicts in early adolescents' communication with parents (Marceau et al., 2014). The present study used observations of mother-adolescent emotional communication when narrating meaningful autobiographical events (Koren-Karie et al., 2003), and examined their associations with adolescents' pubertal development (Petersen et al., 1988). Participants were 108 early adolescents and their mothers. Pubertal development was negatively associated to mothers' sensitive guidance. Girls' menstruation was associated with lower maternal sensitive guidance and lower child cooperation. The results suggest an association between puberty and reduced acceptance and cooperation in mother-adolescent emotional communication. However, the direction of effects cannot be determined, and longitudinal data is needed to determine if the findings reflect temporary or lasting effects.

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## Japan-U.S. comparison of maternal wishes for their child's future: Examining wishes discussed during the Adult Attachment Interview

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Poster Session 7, July 1, 2017, 1:45 PM - 3:15 PM

Nobody would dispute that parents within the normative population wish the best for their children. While parents in general may be absorbed in the day-to-day caregiving practices, they also prepare their children for a positive future. What kind of specific wishes for their children's future would parents talk about? Are such wishes likely to reflect what parents want based on their cultural values? Are parental wishes for their children's future similar across cultures or diverse? Can types of wishes be distinctly categorized? The present study explores these questions, using content analysis to compare maternal wishes between Japan and the U.S.

The Adult Attachment Interview (AAI), a widely used measure of attachment includes the wish question, asking interviewees to discuss three wishes for their child 20 years into the future. This is the first study to cross-culturally examine maternal wishes for children's futures in the context of attachment.

Japanese mothers ( $N = 48$ ) and U.S. mothers ( $N = 62$ ) participated in the study. Five distinct wish categories were identified independently in each cultural group. Specifically, four out of five categories of wishes were the same between Japanese and U.S. mothers (*Well-being, Achievement, Personal fulfillment, and Relationship*). However, culture-specific categories of wishes were also found (*Peace making/Fitting in* only for Japanese mothers and *Religion* only for U.S. mothers).

When we explored a link between the type of wishes and the attachment security, using a Likert scale based on *emotion-oriented-ness*, mothers with secure attachment representation in both cultures discussed their wishes for their child in a more *emotion-oriented* manner (e.g., happy) whereas mothers with insecure attachment representation discussed their wishes in a more *instrumental* manner (e.g., economic success). Implications from this exploratory study's findings will be discussed.

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## Markers of Domestic Violence Exposure in Parent-Child Interactions. Is the “Double Whammy Effect” real?

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Poster Session 7, July 1, 2017, 1:45 PM - 3:15 PM

Dual exposure to domestic violence and other abuse and neglect for at-risk children is one of the most high risk contexts that impact child development.

This paper will present data from 140 parent-child dyads, 40 of whom have mothers who endorsed DV exposure for the child, and 100 that have reported significant trauma in the child's life but not exposure to domestic violence. This study offers a confirmation of the distinguishable differences that DV exposure adds to the relational patterns of interactions of families who have suffered high levels of adversity.

The mothers who endorsed exposure to domestic violence for their infants and toddlers, come from a diverse, low-SES background and are referred for early intervention due to concern of the parent's ability to take care of their child's needs and are participating in RCT for the effectiveness of the Group Attachment- Based Intervention (GABI). 80% of the mothers have endorsed 4 or more adverse childhood experiences (ACE's) such as sexual and physical abuse, emotional and physical neglect and growing up in a household with drug abuse in their own history. 55% of children have been also exposed to 4 or more ACE's. The mothers report higher parenting stress, higher psychiatric symptomatology and lower perceived support from their environment. Regarding their children, they report higher adversity in the child's life and higher problematic socio-emotional development.

To better understand this area, the current report analyzed and will present observational data of parent-child interactions from a high-risk underserved population, using the Coding Interactive

Behavior (CIB) system. The CIB was used to identify relational patterns of parent-child dyads that have endured the additional stressor of exposure to domestic violence when compared to the dyads that endorse trauma but not DV.

This paper will also present on markers of domestic violence in free play parent-child interactions, that flag potential exposure to DV and can alert clinicians and mental health professionals to the particular hardship that their patients might be experiencing.



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## **Does Attachment Predict Psychotherapists' Mentalization with Real Patients?**

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Poster Session 7, July 1, 2017, 1:45 PM - 3:15 PM

The elaboration of countertransference experience (ECE) is the implicit and explicit psychological work to which therapists submit their experiences with patients, and may be defined as a mentalizing process of a particular kind through which therapists' experiences acquire and increase in mental quality and become available for meaning-making and intentional clinical use. Research addressing psychotherapists' mentalizing processes is extremely scarce, and very few studies within this field involved real patients as participants. In addition, despite the clearly established association between the constructs, no studies have yet investigated the impact of attachment on therapist mentalization processes in psychotherapy. In this poster, we start by presenting a model for assessing ECE in research, comprising six diversely mentalized countertransference positions and seven underlying dimensions of elaboration along which countertransference experience can be mentalized (experiencing, reflective elaboration, epistemic position, experiential groundedness, emotional differentiation, temporal focus, internal focus). We then report preliminary findings from an ongoing study, currently involving 16 therapists working with 25 adult patients in natural settings of individual psychotherapy. Seventy-five post-session therapists' written comments will be used for an assessment of mentalization processes by two independent judges, with both therapist and patient self-reported attachment (avoidance and anxiety) being tested as possible predictors. Results will be discussed in light of previous research on attachment, mentalization, and their importance in psychotherapy.

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## Attachment on a spectrum? Exploring the dimensions of attachment in children diagnosed with Autism Spectrum Disorder

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Poster Session 7, July 1, 2017, 1:45 PM - 3:15 PM

Autism Spectrum Disorder (ASD) is a complex neurodevelopmental disorder that is characterized by difficulties with social interaction and behaviour (Klinger, Dawson, Barnes, Crisler, 2014). Because social deficits impede the development of relationships, there is empirical support to suggest higher rates of insecure parent-child attachment in children diagnosed with ASD. However, despite the importance of parent-child relationship quality for child development, there is limited data exploring these associations in depth, including the specific dimensions of attachment. (Rutgers, Bakermans-Kranenburg, van Ijzendoorn, and van Berckelaer Onnes, 2004). Therefore, it was hypothesized that children diagnosed with ASD would be rated as having higher rates of insecure attachment (anxious and avoidance), compared to their typically developing (TD) peers. It is to be noted that interpreting data analyzing the constructs of attachment and ASD however may be a difficult endeavor; what behavior is attributed to social impairment of the disorder and what interactions are a result of an insecure attachment?

The current data was drawn from the SFU Summer Camp study. Attachment was measured using the CAPAI (Comprehensive Adolescent-Parent Attachment Inventory; Moretti, McKay, & Holland, 2000). The sample (N=69) consisted of 48% children diagnosed with ASD, with a mean age of 9.23 (SD=1.65), and was 76% male. Preliminary results indicated that participants diagnosed with ASD had statistically significantly higher levels of attachment avoidance (M=2.46, SD=.87) compared to TD children (M=1.81, SD=.76),  $t(66) = -3.26, p < 0.05$ . Conversely, there was no statistically significant differences between the levels of attachment anxiety in the ASD (M=3.09, SD=1.31) versus TD groups (M=3.00, SD=1.48),  $t(67) = -0.29, p = 0.78$ . Results suggest that children with ASD may have higher rates of avoidance attachments with their primary caregiver. Because social deficits may confound results regarding attachment, future research should examine measurement tools that are better able to capture attachment more accurately in this group.

## Past Pair Bonds as Attachments: Development of a New Attachment Interview to Investigate Former Partnerships

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Past Pair Bonds as Attachments: Development of a New Attachment Interview to Investigate Former Partnerships  
In emerging adulthood, romantic relationships gain seriousness and emotional intimacy. They become more long-lasting, and are more likely to also figure as attachment relationships. Still, they are mostly of limited duration (Carver, Joyner & Udry, 2003) and relationship breakups are likely. Attachment theory not only provides a framework for understanding partnerships in adulthood, but also stresses the importance and influence of separations from attachment figures. Some studies already found that relationship breakup has the potential to undermine attachment security (e.g. Birnbaum, Orr, Mikulincer & Florian, 1997). Surprisingly, in the tradition of developmental psychologists using attachment interviews to measure mental representations, former partner relationships or breakup experiences remain unfocused.

Employing a retrospective design, the present study wants to close this gap by shedding light on IWMs of former relationships and the significance of individual differences in attachment representations to former partners in influencing the present. Therefore, on the basis of the Current Relationship Interview (CRI; Crowell & Owens, 1998) a new interview was developed to assess attachment representations in past romantic relationships: the Former Relationship Interview (FRI). An additional section about the separation was included and corresponding attachment-informed scales (*Attempts to Prevent Separation*, *Separation Distress* and *Coping Behavior*) were established.

Data was taken from the German study "Let's talk about relationships" comprising 30 couples in a current relationship with previous relationship experiences over 18 months to provide first findings with the FRI. Besides the CRI and the FRI, the Prompt-Word Outline Method (Waters & Rodrigues, 2004) and the AAP (George & West, 2012) were also conducted.

In line with theory, individual differences in IWMs are present also in evaluating former relationships, but don't necessarily follow the same distribution as current relationship representations. Inter-Rater-Reliability is excellent regarding representations. The results will be discussed in a divorce and attachment-based framework.

## **Prenatal reflective functioning related to childhood attachment and one's own parenting: Inter-relations and effects on mother-infant interaction among drug-abusing mothers**

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**Introduction:** Mother's reflective functioning (RF) during pregnancy is known to predict the quality of postpartum mother-infant relationship. RF can be measured either based on one's childhood attachment experiences, or directly related to one's own parenting. The inter-relations of these two types of RF are not well-known, and it is not clear whether they predict different aspects of future parenting.

**Aims of the study:** This study examines, first, the interrelations between mother's prenatal attachment-related RF and pre- and postnatal parenting-related RF, in a sample of treatment-enrolled drug-abusing (DA) mothers. Second, we examine, how these two types of RF are associated with mother-infant interaction quality at 4 and 12 months and with post-intervention change in interaction quality.

**Methods:** The drug-abuse group comprised 51 mother-infant dyads, participating in outpatient substance-abuse/parenting interventions. The comparison group comprised 50 non-using, medical risk dyads. Mother's attachment-related RF was measured with AAI during pregnancy in the whole sample, and parenting-related RF only in the DA group, with PI during pregnancy and PDI at child age of four months. Mother-infant interaction quality was measured with Emotional Availability Scales at 4 and 12 months.

**Results:** There was no difference in AAI-RF between drug-abuse and medical risk mothers, both showing lower-than-average RF. AAI-RF was highly correlated with parenting-related RF both pre- and postnatally ( $r=.053$ ). Higher prenatal parenting-related RF predicted higher maternal sensitivity, structuring, child responsiveness and child involvement at 4 months, and their more positive change from 4 to 12 months. Higher prenatal AAI-RF predicted higher sensitivity and lower hostility at 12 months, and more positive change in hostility, both in the whole sample and in the DA group.

**Discussion:** Our results suggest that AAI-RF and parenting-related RF are inter-related, but only partially overlapping concepts, which may have different contributions for dimensions of dyadic interaction quality and for intervention effectiveness.

## Attachment avoidance paradox? Attachment-related avoidance as possible protection factor against depression symptoms

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The purpose of this study is to examine the relation between attachment and depression as mediated by marital adjustment in Czech adults.

Participants in Sample 1 (S1) was 339 Czech pregnant women (mean age=29.63, SD = 4,51). Participants in Sample 2 (S2) was 896 Czech adults (mean age=25.72, SD=6.88). All of them are in a relationship. Participants completed online questionnaires to measuring romantic attachment (ECR-RS, Fraley, Heffernan, Vicary, & Brumbaugh, 2011), marital adjustment (RDAS, Busby, Christensen, Crane, & Larson, 1995) and depression (PHQ-9, Kroenke, Spitzer, & Williams, 2001). The same mediational model was tested separately in each sample.

The fit of both models is satisfactory (S1:  $\chi^2(67)=150.95$ ,  $p<.001$ , RMSEA=0.061, CFI=0.963, SRMR=0.044; S2:  $\chi^2(67)=297.64$ ,  $p<.001$ , RMSEA=0.062, CFI=0.959, SRMR=0.042). In both models, higher attachment-related avoidance directly leads to lower depression symptoms (S1:  $\beta=-0.378$ ,  $p=0.04$ , S2:  $\beta=-0.185$ ,  $p=0.01$ ), while it indirectly leads to more depression symptoms through the decrease in marital adjustment (S1:  $\beta=0.388$ ,  $p=0.02$ , S2:  $\beta=0.237$ ,  $p<0.01$ ). The total effect of attachment-related avoidance on depression was almost none (S1:  $\beta=0.001$ ,  $p=0.98$ , S2:  $\beta=0.052$ ,  $p=0.31$ ). Attachment-related anxiety directly leads to higher depression symptoms (S1:  $\beta=0.274$ ,  $p=0.01$ , S2:  $\beta=0.278$ ,  $p<0.01$ ). Indirect effect is small (S1:  $\beta=0.176$ ,  $p=0.02$ , S2:  $\beta=0.088$ ,  $p<0.01$ ).

The findings could support the notion that attachment-related anxiety may lead to depression through intrapsychic processes rather than through interpersonal, while attachment-related avoidance may lead to depression through interpersonal processes rather than through intrapsychic. Furthermore, some part of the attachment-related avoidance can protect against depressive symptomatology.

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## **A history of attachment research in the Czech Republic: A new era begins**

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For a long time of period, attachment theory, which is one of the most influential developmental theories of the 20th century, has been almost ignored in Czech psychological research, education, and practices. However, in the first volume of his seminal trilogy, John Bowlby actually referred to the work of Czech researchers Z. Matějček and J. Langmeier (1963) citing their book 'Psychological deprivation in childhood.' At that time, this work was one of the limited numbers of studies which focused on models of child deprivation and possible factors underlying its development. Like this book, there also existed other empirical studies solving questions of various forms of substitute care in Czechoslovakia. This strong tradition of studying child development could have created excellent conditions for the growth of attachment theory in the 1970s in Czechoslovakia environments. Unfortunately, these promising conditions were destroyed by political changes in the time of "normalization" after the Warsaw Pact invasion of Czechoslovakia in 1968. This normalization period ended with the Velvet Revolution in 1989, but the awareness of Bowlby's work in the Czech psychological community in this period was very low, although it is difficult to accurately evaluate anymore nowadays. As anecdotal evidence, in the 1990s attachment theory was not included in developmental psychology courses in the master's degree in psychology. It is likely that some of the child/developmental psychologists, clinicians and counselors, especially those who were psychodynamically oriented, were familiar with the basics of attachment theory. However, in the Czech Republic, systematic inclusion of this theory in the current curriculum was dated roughly from the beginning of this millennium. However, the professional community must still actively work to remove many handicaps. The aim of this presentation is to describe a history of attachment research in the Czech Republic with great details of current Czech attachment research projects.

**Undetected Scars? Personality, Attachment, and Romantic Relationships among Well-Functioning Childhood Sexual Abuse Survivors**

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*Background:* Studies have amply demonstrated the negative impact of childhood sexual abuse (CSA) on intimate relationships. The majority of studies have focused on revictimization in at-risk or clinical samples, with very few addressing the impact of CSA on otherwise well-functioning adults and even fewer investigating the psychological mechanisms involved. To fill this gap, this study focuses on the effect of CSA on “normative” romantic relationships in otherwise well-functioning young women and the mediating role of personality and attachment in this regard. We test this model and investigate whether self-criticism and attachment avoidance mediate the relationship between CSA and romantic relationship satisfaction, while also examining the potential reciprocal associations between these variables. *Method:* The hypothesized double-mediation model was examined in a two-wave 6-month cross-lagged longitudinal design, using structural equation modeling. Participants were 59 otherwise well-functioning young women drawn from an earlier study that purposefully oversampled for CSA survivors. For the purpose of the current study, data from women who had been either sexually abused by a familiar perpetrator ( $n = 30$ ) or had no history of sexual trauma ( $n = 29$ ) were included. *Results:* Consistent with expectations, self-criticism mediated the association between CSA and romantic relationship satisfaction over time. In addition, a scarring effect of romantic relationship satisfaction on attachment avoidance was demonstrated. *Conclusions:* Findings suggest that CSA may lead to elevated levels of self-criticism, which in turn may be linked with reduced satisfaction in romantic relationships, setting in motion a vicious cycle involving relationship satisfaction and attachment avoidance.

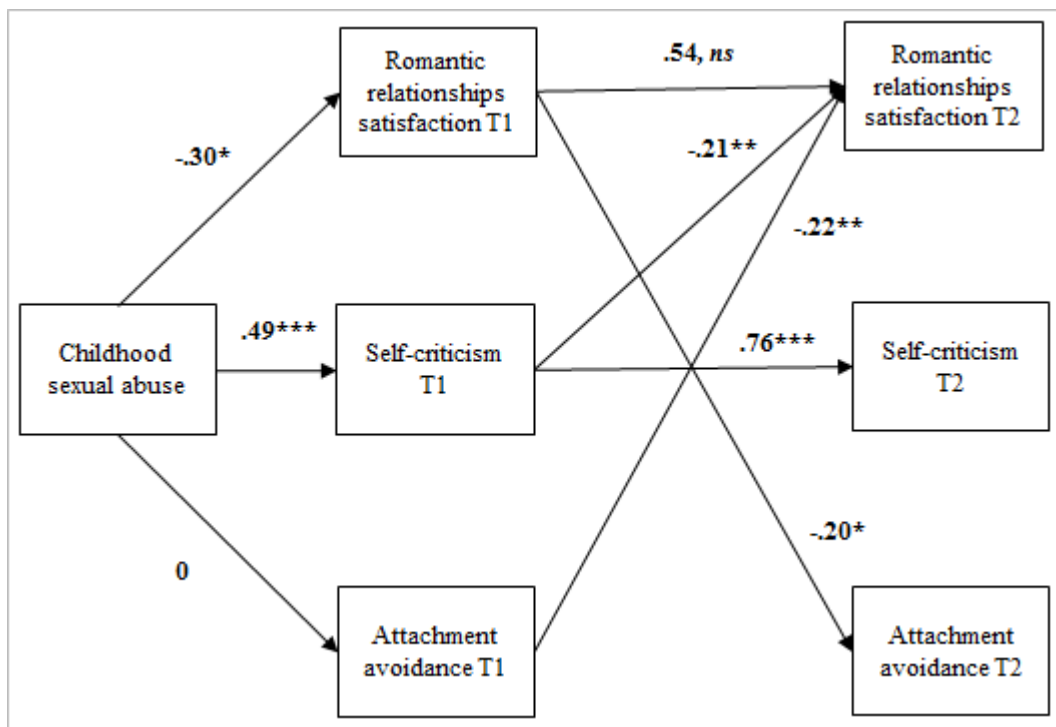


Figure 1. A SEM model testing indirect effects leading from CSA to romantic relationship satisfaction via self-criticism and attachment avoidance.

Note. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

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**Attachment-based Prevention Program SAFE®. Results of an RCT-study**

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Based on attachment theory, research on intergenerational transmission of trauma and knowledge about methods to foster attachment security, the concept of the SAFE (Secure Attachment Formation for Educators) program was developed by K. H. Brisch and implemented in Germany from 2005 on.

The attachment-based prevention program SAFE was evaluated in a randomized-control-trial between 2006 and 2013 in a non-clinical community sample. Control group participants received group sessions and support in the same frequency and time span as the intervention group but without explicit focus on attachment topics, like the reflection on the parents' own childhood experience, psychoeducation on attachment theory as well as the attachment needs of children, video-based sensitivity training and video-feedback on parent-child-interaction. N= 167 mothers and N= 138 fathers were included into the study with a dropout rate of approx. 25 % depending on group and gender. Reflective functioning (in the AAI; George, Kaplan & Main, 1985) of the parents prior to the intervention, emotional availability (Biringen, 2008) in parent-child-interaction during intervention and attachment security (in the Strange Situation Procedure; Ainsworth, 1978) post intervention to both parents was measured.

Results on mother-child-dyads will be presented. In both the control and intervention group the program was accepted well, with mothers of the intervention group attending the group sessions significantly more often than mothers of the control group. Results further suggest that mothers in the intervention group show higher emotional availability in interaction with their child. Moreover, the program seems to buffer the possible negative effects of depressive symptomatology and negative childhood experiences on mother-child-interaction quality.

Results will be discussed regarding the efficacy of the SAFE program and the positive impact of an attachment-based approach in prevention programs, compared to programs offering more general support during the transition to parenthood with no special focus on attachment.



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**Validity of Clinical Observations in High-Risk Preschool Settings: Concordance with Parent Reports, Teacher Reports and Delay of Gratification: Identifying Children in Need of Attachment-Informed Therapy**

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Past research reveals low-to-modest parent-teacher agreements in rating preschool children's behaviors such that research is needed to better identify young children in need of attachment-informed support. This presentation reports on concordance rates among multiple observers, including teachers, parents, the children themselves, and also via clinical observations of the children over the first 2-3 weeks of the preschool year. Parents completed the Adaptive Social Behavior Inventory (ASBI), Parenting Stress Index (PSI), Devereaux Early Childhood Assessment (DECA) and Child Behavior Checklist (CBCL). Teachers completed the Penn Interactive Peer Play Scale (PIPPS). Children were administered the classic marshmallow task (Mischel & Ebbeson, 1970).

Sample consisted of 111 children aged between 33 and 59 months (47% girls. Approximately 55% of the sample was selected as in need of mental health services by the clinicians via their observational procedures.

After age and gender were controlled, MANCOVA model with all questionnaire data was significant for predicting clinical status of children,  $F(23, 75) = 2.90, p < .001$ . In keeping with previous research, low-modest concordance was found between parent and teacher reports. Results underscored the utility of the classic Delay of Gratification task. While 40% of children in the non-clinical sample waited for the full reward in Delay of Gratification Task, only 22% of children in the clinical sample waited for it,  $\chi^2(1, N = 108) = 4.11, p < .05$ . The Interaction subscale of the PIPPS (teacher ratings) distinguished children who waited for the whole time and who did not at a trend level,  $t(105) = 1.89, p = .062$ . Results provided support for the validity of repeated clinical observations over a few weeks at the beginning of the preschool year. For the 55% of children identified as needing support, their families were offered an attachment-informed service called Relationships for Growth and Learning (RfGL).

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## **Attachment to Mother as a Factor of Adolescents' Separation from Parents: Cross-Cultural Study**

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Separation from parents is an important developmental task of adolescence (R. Havighurst). Attachment to mother influences the person's development during late adolescence (Mikulincer, Shaver). Russian psychologists emphasize that the problems of late adolescents' separation from their parents are more often the problem of separation from mother in Russia (Varga, Harlamenkova, Dzukaeva).

There were four places where research was conducted from 2013 to 2014: two megalopolises and two towns of Russian and Ossetian culture regions of RF. The total sample is 338 students aged from 17 to 21. The aim of the study was to explore features of the adolescents' separation from parents (ASP) depending on different types of adolescents' attachment to mother (AAM) (secure and insecure – preoccupied, dismissed).

Inventory of Parent and Peer Attachment (IPPA) (Armsden, Greenberg, 1987), Psychological Separation Inventory (PSI) (Hoffman, 1984) in adaptation by Dzukaeva & Sadovnikova (2014) and The **Sentence Completion Test** by Sacks-Levy (1950) in authors' version were used.

The theoretical framework of the studies was Age-Approach theory (L.S. Vygotsky, D.B. Elkonin), Attachment theory (J. Bowlby, K. Bartholomew, M. Mikulincer), Model of Psychological Separation by J. Hoffman and Cross-Cultural Psychology Approach (J. Berry, D. Masumoto, T. Stefanenko, N. Lebedeva).

Cross-cultural distinctions between all components of ASP of Russian and Ossetian students were revealed.

The ASP patterns (on the basis of the cluster analysis) of Russians and Ossetian students have similar profiles of separation. It was proved, that features and patterns of ASP were influenced by AAM in both culture groups of students.

Influence of ethno-cultural factor on process ASP was confirmed by results of the one-factorial dispersive analysis of ANOVA.

Significant distinctions in distribution of students with different patterns of separation depending on AAM were obtained.

The research concludes that the AAM is important for developing psychological separation from parents at late adolescence.

**Pregnant women's attachment to their unborn baby: Are pregnant women likely to be attached to their unborn baby when they are more threatened?**

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The activation of attachment behavior toward preferred attachment figures appears throughout entire life. Children and adults particularly activate their attachment behavior during threatening situations, for example, when they feel tired, ill, or separated from attachment figures (Ainsworth, 1982; Bowlby, 1969/1982). As people grow up, preferred attachment figures typically transfer from parents to peers (Fralely & Davis, 1997; Hazan & Zeifman, 1994), and the most commonly reported attachment figure in adulthood is romantic partners (Doherty & Feeney, 2004). However, some pregnant women may be also attached to their unborn baby because they often feel a threat due to their potential risks connected with their oncoming childbirth. We developed this idea because people seem to develop their attachment during life-threatening situations. For example, adults with life-threatening jobs (firefighters and soldiers) tend to develop attachment relationships with their colleagues and fellows (Umemura et al., *under review*). Hence, we assume that pregnant women in their threatening situations would also develop attachment relationships with their unborn baby, as well as with other figures.

Our sample consists of 889 Czech women in their third trimester of pregnancy who were involved in our longitudinal survey study (called "the DOMOV project"). We assessed their attachment preferences during pregnancy using Important People Interview (Rosenthal & Kobak, 2010). We will present associations of these pregnant women's attachment preference for their unborn child with their physical health, anxiety (GAD-7), depression (PHQ-9), attachment quality to partner (ECR-RS) and marital satisfaction (RDAS) during pregnancy. Preliminary analysis showed that approximately 10% of pregnant women reported their unborn baby as one of their preferred attachment figures.

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## Developmental Outcomes of Disorganized Attachment: A Machine Learning Approach

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Disorganized attachment has been meta-analytically associated with externalizing behaviour problems (Fearon et al., 2010), but little is known about other long-term health risks it poses, particularly physical health risks. The current study explores potentially new outcomes of disorganized attachment as part of a larger prospective, population-based cohort study on development and health from fetal life into young adulthood. An ethnically homogeneous subgroup of  $N = 900$  infants and their parents was selected for in-depth measurements, which so far have been completed at several time points between 0-4 years, at 5 years, and at 9 years. Attachment was assessed when infants were 14 months using the Strange Situation. Data is available for more than 700 dyads and little over 20% of children were classified as disorganized (varying somewhat according to the examined correlate).

Early findings on sequelae showed that disorganized infants who had a fearful temperament displayed more distress during a venipuncture procedure (Wolff et al., 2011), and disorganized infants showed lower levels of physiological emotion regulation in the presence of higher levels of maternal postpartum depression (Tharner et al., 2013).

In addition to these initial findings, a Data Mining approach is applied to all available measurements in order to further identify health outcomes of disorganized attachment, including physical health risks (e.g., hair cortisol, parent-reported health habits). The principle of Data Mining is to search for associations, without a priori hypotheses, to “let the data speak” trying to evaluate whether associations or patterns exist (Yarkoni & Westfall, 2016) through an approach called machine learning, a key objective of which is to find a model that *predicts* well (rather than one that explains well). The machine learning approach has the potential to generate new hypotheses for future research, expanding the field toward new clues to inform intervention strategies for disorganized infants.

## Parent-Child Attachment Moderates the Prospective Link Between Observed Parental Overcontrol in Pre-adolescence and Anxiety Symptoms in Emerging Adulthood

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Overcontrol (OC), parents' intrusive or dominant restriction of child autonomy, confers risk for the development of youth anxiety by conveying that the world is unsafe and that the youth is not competent to cope independently (Barber, 1996). However, in the globally autonomy-supporting context of a secure attachment relationship, youth may be protected from OC's autonomy-limiting impact. Using observational data, we follow families across ten years to test whether perceived attachment security buffers the effect of OC on anxiety across the transition from pre-adolescence to emerging adulthood.

Participants were 113 families (mother, father, child), recruited from a longitudinal study examining adolescent risk and resilience in an urban community. Preadolescents ( $M$  age = 12.68, 54 female) reported baseline anxiety symptoms (STAIC; Spielberger, 1973), and families engaged in a triadic discussion of desired areas of change. Discussions were rated for each parent's attempts to constrain or control child behaviors (e.g., telling child how to think, dictating what topic is discussed, interrupting child). During adolescence ( $M$  age = 18.18), participants reported attachment to parents (IPPA; Armsden & Greenberg, 1987). In early adulthood ( $M$  age = 22.53), participants reported anxiety symptoms (GAD-7; Spitzer et al., 2006).

Adjusting for baseline symptoms, father OC predicted greater young adult anxiety ( $b = 0.77$ ,  $SE = 0.30$ ,  $p = .01$ , see Table 1). As shown in Figure 1, this relationship was moderated by attachment ( $b = -0.26$ ,  $SE = 0.12$ ,  $p = .03$ ), such that father's OC conferred risk at low ( $b = 0.28$ ,  $SE = .10$ ,  $p = 0.01$ ) but not at high ( $b = -0.02$ ,  $SE = .10$ ,  $p = 0.85$ ) levels of perceived security. Models of mother OC were not significant. Results highlight the importance of the larger parent-child context in determining how adolescent relationships confer risk for the development of psychopathology (Cicchetti & Rogosh, 2002).

Table 1.

*Bootstrapped moderation analyses to predict young adult anxiety symptoms from the interaction of attachment security with fathers' (left panel) and mothers' (right panel) observed overcontrol during preadolescence.*

Predictors	Fathers			Mothers		
	B	SE	CI	b	SE	CI
Baseline anxiety	-0.01	0.01	-0.03, 0.01	-0.01	0.01	-0.02, 0.02
Father overcontrol	0.78*	0.30	0.18, 1.38	0.13†	0.07	-0.02, 0.27
Mother overcontrol	0.01	0.07	-0.13, 0.01	0.36	0.37	-0.37, 1.09
Attachment security	0.23	0.26	-0.28, 0.73	0.02	0.33	-0.64, 0.67
Overcontrol x attachment <sup>1</sup>	-0.26*	0.12	-0.49, -0.02	-0.13	0.14	-0.41, 0.15

1. Left panel displays interaction of fathers' overcontrol and adolescent perceived attachment; right panel displays interaction of mothers' overcontrol and adolescent perceived attachment.

† $p < .10$ , \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Figure 1. Interaction of fathers' overcontrol and adolescent perceived attachment to predict values of young adults' anxiety symptoms.

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## Effects of Attachment to Parents and Peers and Achievement Motivation on Academic Performance

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We examined the associations between attachment to parents and peers, on the one hand, and academic performance, and whether these associations were moderated by achievement motivation. We hypothesized that having secure attachments to parents would better prepare individuals to cope with the stress of transitioning to college, which would in turn be associated with higher academic performance. We hypothesized that such association would be qualified by the individual's motivation to succeed in college. Finally, we hypothesized that secure attachment to peers would be highly correlated to secure attachment to parents and could therefore have a similar positive effect on the individual's academic performance. We suspected that security of attachment to peers would have a significant effect on the outcome variables given the increased reliance on friends that occurs during this stage of development. We tested these hypotheses in a group of 148 women and 57 men undergraduate students of a Californian University. Participants completed self-report measures of attachment insecurities (anxiety and avoidance) to mother, father, and best friend(s). They also completed measures of four aspects of achievement motivation: performance approach, performance avoidance, mastery approach, and mastery avoidance. Finally, participants self-reported their overall and major GPAs. Contrary to our expectations, results showed that participants who were anxiously attached to their mothers had higher overall and major GPAs. Moreover, participants who were avoidantly attached to their friends showed higher major GPAs. Both overall and major GPA were also associated to a subset of the motivation variables, but these variables did not mediate the effects of anxious or avoidant attachment. Finally, anxiety and avoidance were significantly correlated across the different types of relationships, but attachment to mother was significantly more important for academic performance. We suggest that the positive association between attachment insecurities and types of GPAs are independent from the individual's wellbeing.

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## **Task-related Expressions of Pride and Shame: Links to Attachment**

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Pride and shame are two very powerful emotions that can serve to propel or immobilize a child as s/he seeks to learn, adapt, and constructively act upon her environment (Holodynski & Kronast, 2009). This study investigated the direct links between attachment security and achievement-related pride and shame with a middle-class sample of thirty-four 3-year-olds from diverse racial / ethnic backgrounds.

Like a previous study that looked at the direct links between the task-related self-evaluative emotions of pride and shame to attachment security (Lutkenhaus, Grossman & Grossman, 1985), the current study utilized a competitive ring stacking game as a means to elicit and measure the self-evaluative emotions of pride and shame. Additionally, the Attachment Story Completion Task (ASCT) was used with a Q-Sort coding system developed by Miljkovitch, Pierrehumbert, Bretherton, & Halfon, (2004) (see Methods section below). The inter-rater reliability measures for both of these procedures were significant and quite high for all related variables, with the sole exception of the anxious-ambivalent variable (which is a problem often encountered in attachment coding with the ASCT) (Bretherton, Ridgeway & Cassidy, 1990).

All children showed pride upon winning, including those with high insecure scores. What differentiated children with higher security scores from those with lower scores were their greater tendency to persist after failure, in addition to the pride they showed for whatever work products they produced— even in the face of failure. The incidence of shame was very low and was dropped as a study variable. The reasons for the low levels of shame will be explored, using essential clues from past related literature. Finally, the implications for education will be considered with a strong focus on ways to that teachers can be better supported to be sensitive to attachment and self-evaluative issues in students.

### References

- Bretherton, I, Ridgeway, D. & Cassidy, J. (1990). Assessing the internal working models of the attachment relationship: An attachment story completion task for 3-year-olds. In M. T. Greenberg, D. Cicchetti & E. M. Cummings (Eds.), Attachment in the preschool years: Theory, research, and intervention, 273 – 308. Chicago, IL: University of Chicago Press. Cassidy, J. (1994).
- Holodynski, M. & Kronast, S. (2009). Shame and Pride: Invisible Emotions in Classroom Research. Emotions as bio-cultural processes (3), 371 - 394.
- Lutkenhaus, P., Grossman, K. E. & Grossman, K. (1985). Infant –mother attachment at twelve months and style of interaction with a stranger at the age of three. Child Development, 56, 1538 – 1542.

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**Attachment and Emotion Regulation in Children with Somatic Symptoms Disorder: An Italian Study**

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It is widely recognized that attachment has a long-term impact on the child's mental health because, in part, the emotional regulatory patterns developed within the parent-child relationship influence the way children express their emotions and behaviors. Nevertheless, in examining the complex links between attachment and psychopathology in middle childhood and early adolescence few studies have focused on specific psychopathological conditions, such as Somatic Symptoms Disorder. Somatic Symptoms Disorder is a clinical condition characterized by multiple and variable physical symptoms without demonstrable pathophysiological processes, accompanied by thoughts, feelings, and unusual behaviors in response to symptoms.

These somatic expressions suggest underlying difficulties in emotional regulation, which may be related to the quality of attachment relationships. The aim of this study was to elicit attachment representations and assess emotional regulation strategies in young patients with SSD. The sample consisted of 56 Italian children (8-15 years), with a diagnosis of SSD. The Child Attachment Interview and the Emotional Regulation Questionnaire for Children and Adolescence were completed concurrently along with additional measures. As predicted, the findings revealed an over-representation of Insecure attachment patterns (over 80%) with a preponderance of Disorganized attachment (over 40%). Additionally, low levels of Cognitive Reappraisal (adaptive strategy of emotional regulation) and negative correlations between Cognitive Reappraisal and Insecure attachment were reported. The clinical implications of our findings are discussed.



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## Developmental investigation of attachment representation and maternal sensitivity in mothers of 1 to 5 years old children

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**Background:** One of the important issues in attachment theory is whether early experience or consistency of maternal sensitivity over time is the key to child security after infancy. Despite the theoretical support of the caregiving system role in anticipation of the attachment security, a few studies investigate the role of this dimension, during toddlerhood and preschool years which is sensitive period of caregiving. As the child grows, the caregiving representation and behaviors that supports the child's confidence in secure base, certainly must change in coordination with the child's new explorations. This study tries to track developmental changes in the maternal representation of attachment and her behavioral responses to the child's needs.

**Method:** In order to reach the aim of the study, Working Model of The Child interview, Maternal Behavior Q-Sort and Attachment Q-set were applied on 60 mothers and their 1-5 years old children in Tehran. Data were analyzed using Chi Square and ANOVA.

**Results:** Analysis shows there was a significant difference between observed and expected value of study variables, maternal representation sensitivity and child attachment, in different age periods.

**Conclusion:** It seems that maternal representation and sensitivity are altering during early childhood. According to the results mothers of 36-40 months old children are more likely to show "disengaged" representation and lower sensitivity than mothers of younger or older children. This can be explained by emerging autonomy and defiant behaviors during toddlerhood and the mother's difficulty to change her attitude in order to catch up with the child's new needs. Consequently the caregiver may not be able to maintain her roles as a sensitive cooperative secure base to a child whose behavior is changing over time. That would emphasize the importance of mother-child relationship during this period of developmental path, in determining future attachment security.

**Keywords:** development, maternal representation, maternal sensitivity, attachment, 1-5 years old

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**Evaluating oneself as a sensitive and protective parent suggests a better psychosocial functioning of the child**

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Attachment theory emphasizes the importance of parental sensitivity to the child's needs, and protection of the child, as a basis for secure attachment and a better psychosocial functioning of the child. The present study suggests that not only the actual parental sensitivity and protection behaviours matter, but also parents' evaluations of their own behaviours. The study used a four-dimensional model for parental self-evaluation, which consisted of sensitivity, protection, limits-setting and encouragement-enjoyment. It investigated the relations between the different dimensions of parental self-evaluation, parental characteristics (general self-esteem, anxiety, and attachment) and the psychosocial functioning of middle childhood children. Participants were 136 Israeli children (53% girls), 8-11 years old (Mean age= 9.6 years, SD=1.1 years), and their two parents. Among fathers and mothers alike, the highest self-evaluation reported was in the protection dimension, followed by the dimensions of sensitivity, limits-setting and encouragement-enjoyment. Maternal self-evaluation in the sensitivity and protection dimensions was positively associated with their child's security of attachment, self-esteem and autonomy, while paternal self-evaluation in the sensitivity and protection dimensions was positively associated only with their child's security of attachment. Structural equation model (SEM) showed that the relations between maternal characteristics (general self-esteem, anxiety, and attachment) and child attachment and autonomy were mediated by maternal self-evaluation in the sensitivity dimension, while the relations between maternal characteristics and child self-esteem were mediated by maternal self-evaluation in the protection dimension. Among fathers, the relations between paternal characteristics and child attachment were mediated by paternal self-evaluation in the sensitivity dimension. The findings indicate that parental self-evaluated sensitivity and protection contribute to the psychosocial functioning of children in middle childhood. Taking a little further, these findings support the idea that therapists can facilitate parental functioning by enhancing parents' awareness to positive performance in the sensitivity and protection dimensions.

### TTAS-60: Turkish Adaptation of a Toddler Attachment Sort

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One of the commonly used measures of mother-child attachment appears to be "Strange Situation Procedure" (Ainsworth et al., 1978). However, since its ecological validity was questioned due to administration in laboratory settings, Attachment Q-Set (AQS; Waters, 1995) was developed to assess mother-child attachment in a home environment. But, AQS measures attachment only based on security score, and administration and coding procedure is time consuming. For these reasons, researchers based on 45 items of AQS using Multidimensional Scaling, generated a new measure called "Toddler Attachment Sort-45" (TAS-45; Bimler & Kirkland, 2002) which produces not only security score but also scores for each type of insecure attachment.

Purpose of the current study was to adapt TAS-45 to Turkish. First, 45 items were translated into Turkish language and 23 culture-specific items were added. A card sorting procedure was used with 35 participants for 68 items. After analyzing data using Multidimensional Scaling, 8 unclassified items were excluded. Finally, TTAS-60 (Turkish Toddler Attachment Sort-60) has been constituted. TTAS-60 consists of 9 hotspots; one of which is disorganized attachment. Different combinations of hotspots indicate different attachment types. These hotspots provide continuous scores for each attachment type in addition to categorical ones. The data was collected from 120 mother-child (18-36 month) dyads through one hour semi-structured observation. Home visits were videotaped and coded by two researchers. Consensus codes were implemented if interrater reliabilities were below the cut-off point of .70. Additionally, maternal sensitivity was coded using a 28-item measure.

The results showed that 20% of children showed avoidant, 74% secure, 3% anxious, and 3% disorganized attachment. The correlation of maternal sensitivity with avoidant attachment was -.44, secure attachment .42, anxious attachment .06, and disorganized attachment -.54.

TTAS-60 is a time saving and practical measure for both academic and clinical settings and gives detailed information about mother-child attachment.

*Keywords:* attachment, TTAS-60, mother-child relationship, toddler.

Authors: Berument, S. K., Bahtiyar-Saygan, B., Okur, Ş., Kirkland, J., Bimler, D., Fletcher, P., Sümer, N., Bakır, T., & Yavaşlar, Y.

Ainsworth, M. D. S., Blehar, M., Waters, E., & Wall, S. (1978). Patterns of attachment: Observations in the Strange Situation and at home. Hillsdale, NJ: Erlbaum.

Bimler, D., & Kirkland, J. (2002). Unifying versions and criterion sorts of the AQS with a spatial model. *Canadian Journal of Early Childhood Education*, 9(1).

Waters, E. (1995). Appendix A: The attachment Q-set (version 3.0). *Monographs of the society for research in child development*, 234-246.

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## Caregiving Behavior Profiles among Turkish Mothers

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Poster Session 7, July 1, 2017, 1:45 PM - 3:15 PM

Attachment theory proposes that sensitivity of the caregiver determines the quality of early relationship between the caregiver and the infant. Previous studies examining emergent profiles of maternal sensitivity have been mostly conducted in North American and European samples, however, there is little evidence on maternal behavior profiles among Turkish mothers (e.g., Karagöbek, Aran, Selcuk, Gunaydin, 2017). The aim of the current study is to identify the patterns of Turkish mothers' (N = 98) caregiving behaviors (mean-age = 29.62, *SD* = 5.29,) by observing the interactions with their infants (mean-age = 19.63, *SD* = 6.63 months). We used the Turkish adaptation of a commonly used measure of caregiver sensitivity, Maternal-Behavior-Q-Set, (MBQS; Pederson & Moran, 1995; Sumer, Sayil, & Kazak-Berument, 2016), which provides the opportunity for the identification and analyses of complex patterning of maternal behaviors. All mother-infant dyads were visited at home setting and their daily interaction was video-recorded and coded by independent coders. Q-factor analyses were conducted on the MBQS items via "qmethod" package for R. A two-factor solution best described the behavior profiles of Turkish mothers. These factors were labeled as 'sensitive vs. insensitive', and 'nonsynchronous vs. synchronous'. The mothers who had high positive loadings on the first factor were characterized by sensitivity and responsiveness to and acceptance of their infant whereas the behaviors of mothers with high negative loadings were characterized by relative insensitivity to their infants. Mothers who had positive loadings on the second factor displayed nonsynchronous behaviors during interactions such as providing infant little opportunity to contribute to the interaction. The findings are discussed considering potential cultural effects on maternal caregiving and sensitivity, and the limitations of the measures. .

Key Words: caregiving behaviors, MBQS, Q-methodology, Turkish culture.

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**Parental caregiving: Gender differences between married and divorced custodial mothers and fathers**

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Bowlby asserted that the caregiving system complements the attachment system, and is activated to ensure that the child remains safe. Dysfunction of the caregiving system can be manifested in either hyperactivation or deactivation, resulting respectively in anxious or avoidant caregiving.

Research on parenting styles and family structures indicates gender-differentiated parenting, caregiving, and affections. The study aimed to examine whether differences in parental caregiving dispositions predict dissimilarities in parental affections among custodial fathers (n=122) and mothers (n=85), and married fathers (n=107) and mothers (n=82), whose children were middle childhood aged.

Co-parenting, found in previous studies to affect parental practice, particularly among divorced parents, was selected as a control variable under the hypothesis that it will affect parental affections.

All parents completed the following: the Caregiving System Function Scale; PARQ- Short form (examining parental affections); and Co-parental Coordination scale.

A comparison between the 4 groups of parents revealed the following gender differences: mothers scored higher on anxious caregiving, parental warmth and co-parenting coordination than fathers, and lower on avoidant caregiving. Regression analysis indicated that the higher the caregiving avoidance and/or anxiety, the lower the parental warmth. It is noteworthy that avoidant caregiving decreased parental warmth among married parents, but not among custodial ones. Research evidence indicated that married parents with an avoidant caregiving disposition tended to be cold, remote and controlling. This finding, whereby avoidant caregiving did not impair warmth and acceptance among single custodial parents (fathers or mothers), suggests that responsibility and parental role shape parental caregiving, not gender.

## The relation between caregiving disorganization and child interactive behaviours: The mediating role of maternal sensitive responsiveness

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**Background.** The child's attachment system is complemented by a separate and reciprocal caregiving system in the parent, which guides parent's protective responses to his or her child (Bowlby, 1982; George & Solomon, 1996). Disruptions in the caregiving system may lead to a disorganized caregiving, which is characterized by maternal helplessness, fear and/or role-reversal, and has been linked to the child's attachment disorganization (George & Solomon, 1996, 2011; Lyons-Ruth & Block, 1996). While the attachment system has been the focus of considerable research over the past decades, the knowledge about the caregiving system is still very incomplete. Research is needed to better understand caregiving disorganization and to identify associated outcomes.

**Objectives.** The purpose of this study was to examine the associations between disorganized caregiving—namely mother-reported Helpless, Frightened and Role-reversal caregiving experiences—and child interactive behaviours, and the mediating role of maternal sensitive responsiveness on the above relations.

**Method.** One-hundred-and-fourteen mothers and their preschool-aged children were evaluated. Mothers completed the Caregiving Helplessness Questionnaire (CHQ; George & Solomon, 2011) to assess maternal caregiving disorganization. Maternal and child interactive behaviours were coded based on an interactive task, using Ainsworth's Sensitivity and Cooperation scales (Ainsworth et al., 1974), and the Coding System for Mother-Child Interactions (CSMCI, Healey et al., 2010), respectively.

**Results.** Regression analysis revealed that maternal reports of both helpless and frightened caregiving experiences were associated with poor quality of child interactive behaviour. Maternal sensitive responsiveness mediated the effects of helpless (but not frightened) caregiving experiences on child interactive behaviours. No association was found between maternal reports of role-reversal caregiving experiences and the quality of child interactive behaviours.

**Discussion.** Caregiving disorganization plays a role in the quality of mother-child interactive behaviours. The clinical implications of the present results will be discussed.

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## **Infant Massage in Preterms During NICU Stay**

**Fernández A<sup>1</sup>**

<sup>1</sup>*Clinica Las Condes*

Poster Session 7, July 1, 2017, 1:45 PM - 3:15 PM

### **Introduction**

The infant massage is a technique that provides multiple benefits to the newborn (RN) and their parents. This could be a very good strategy to promote attachment and the establishment of an appropriate bonding between the members of the triad. But, tolerance of hospitalized preterm is an important issue to assess.

**Aim:** To assess tolerance of preterm children to infant massage during NICU stay.

### **Patient and Methods**

17 children hospitalized in NICU were assessed, divided in 2 groups: 9 extreme premature, with an average Gestational Age (GA) at birth of 27 weeks (24-30) and birth weight 737.1 +/- 166 grs. The 2<sup>nd</sup> group, were 8 children before discharge with Median GA of 33 weeks, Age Corrected (AC) 35 weeks and mean birth weight 1,830 +/- 140 grs. Once achieved hemodynamic, metabolic and respiratory stability, started an intervention of gentle limb massage for 2 minutes.

Child Massage technique is applied on limbs. Heart Rate (HR) and Saturation (SaO<sub>2</sub>) are measured before and after the procedure performed by parents.

### **Results**

Median age of protocol beginning was 23 days (14-35) in the 1st group, and 18 (11-20) in the 2nd group. The median AC was 30 weeks (27-32) and 35 (34-36) respectively. Signs of stress were observed in only 11.1% (1/9) of preterm infants and 12.5% (1/8) of those close to discharge. These differences were non-significant. Adequate cardiac stability and SaO<sub>2</sub> were observed in all NBs studied.

### **Conclusions**

Infant massage applied to preterm infants is a safe methodology, even in corrected ages prior to 30 weeks. This technique could be used to encourage parents to participate in the welfare of their children, and in the same time promoting bonding behaviors. Future research, the number of cases should be increased to obtain definitive conclusions considering the small size of this sample.

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## **Mode of Father Participation in Birth Experience in Promoting Fathering Behaviours**

**Tuma D<sup>1</sup>**

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Poster Session 7, July 1, 2017, 1:45 PM - 3:15 PM

### **Introduction**

Previous experiences (Rev Chil Pediatr 2014), on fathers' participation in their children birth, showed many positive effects on fathering behaviors. In this study, fathers had an active role in the immediate care of their newborns. However, it is unclear whether the only presence of father in delivery room is well enough, or if direct participation is required to achieve the desired positive effect.

**Aim:** Determine whether passive fathers' participation in delivery rooms, is as beneficial as an active participation, on fathering.

### **Patients and Methods**

Randomized controlled trial, included 32 primiparous parents undergoing vaginal, healthy full-term deliveries, belonging to medium-high socioeconomic status. 18 fathers were randomly allocated to attend their newborns: dry skin, cord cutting off, and anthropometry. 14 fathers assisted passively (control). All of them were properly supervised by the medical team. One month later, mothers were blindly asked about fathers' care behavior. Results were analyzed with Epi info 7 program.

### **Results**

Both groups were comparable in weight, fathers' age and GA. Significant difference was observed in nappy changing category in active fathers (55.6% vs 14.3% 8/18, 2/14,  $p < 0.02$ ). No significant differences in attendance, night crying, post prandial assistance and bathing were recorded. All parents, in both groups, visited their child upon arrival, and most of them attended the first medical control.

### **Conclusions**

Apparently, the only presence of fathers in childbirth, promotes fathering behaviors in early care of their children, in the medium-high socio-economic environment. In spite of the small sample size a trend can be seen. Further research is needed to get conclusions.



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## Biodemographic Features of an Early Contact Program

Villalón H, Fernández A

Poster Session 7, July 1, 2017, 1:45 PM - 3:15 PM

### Introduction

The medical practice in private hospitals in South America, is difficult because of the great diversity of medical teams and criteria. Therefore, promoting early contact between parents and their children requires the design of an attractive and accessible program, and a strong rapport with the therapist to give continuity to these activities.

**Aim:** To describe the biodemographic features of parents attending to this program.

### Patients and Methods

A retrospective descriptive study in which 52 dyads are studied, over a period of two months. Clinical files are reviewed, analyzing parameters of mothers and children: age, parity, delivery, occupation, anthropometry at birth, nationality and use of kapulana (baby sling). In a 3-sessions workshop, techniques of infantile massage, use of kapulanas (baby sling) and swaddling techniques are taught; as well recommendations of early touch.

### Results

Median maternal age was 34 years-old (24-42), and 80.8% of them were primiparous (45/52). Half of children were born by c-section (50%, 26/52). Most of these mothers had university studies (96%, 50/52) and 11.5% were outlanders (6/52). Average age of children, at the beginning of program, was 40.8 +/- 15.4 days. All of them were healthy full-term, weighing 3376 +/- 489.8 grs, 49.0 +/- 1.9 cm size at birth. 63.5% of them (32/52) were exclusively breastfed.

### Conclusions

Despite bias of a selected population, because of a private hospital, which is reflected in the low proportion of foreign mothers and the high percentage of c-section, it is important to know the characteristics of this group, to design future studies tending to identify failure risk factors and adhesion strategies. The predominance of primiparous, moves to develop activities that encourage the participation of multiparous.

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## **Is it Possible to Respect the Maternal Desire at Birth?**

Villalón H<sup>1</sup>, **Tuma D**

<sup>1</sup>*Clinica Las Condes*

Poster Session 7, July 1, 2017, 1:45 PM - 3:15 PM

### **Introduction**

Today, medical teams have recognized the importance of respecting maternal desires as to the way in which they wish to experience their delivery, as far as possible, without resigning safeness. Many mothers plan their births trying to avoid anesthesia and episiotomy. Such a good experience in childbirth could provide a healthier experience with positive feelings toward the child and her partner.

**Aim:** To assess the proportion of mothers who achieve a delivery without anesthesia or episiotomy and possible protective factors.

### **Patients and Methods**

A retrospective case-control study was carried out to analyze the experience of delivery in 22 mothers. Median age, 29 years-old (21-40) and 45.5% primiparity (10/22). All of them had planned with their midwife, to avoid anesthesia and episiotomy. Protective role of primiparity and cervix dilation greater than five at admission were assessed. Analysis with double entry contingency table and Fisher test.

### **Results**

13.6% of mothers (3/22) underwent caesarean section. Out of 19 who had vaginal delivery, only 8 did not receive anesthesia (42.1%, 8/19) and 10 were able to avoid episiotomy (52.6%, 10/19). A non-significant protective tendency of primiparity over both outcomes (OR 2.9,  $p = 0.37$  and OR 3.0,  $p = 0.36$ ) was seen, as was dilation greater than five on anesthesia (OR 5.3,  $p = 0.30$ ), but none in episiotomy (OR 1.12,  $p = 1.0$ ).

### **Conclusions**

A high proportion of mothers does not achieve their delivery goal. However, despite the small sample size and design of this study, some trends are observed regarding the protective role of parity and cervical dilation at admission. Further research is required.

## S8.1

### Predicting attachment quality from maternal response to infant affect: Four experimental studies

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Symposia 8.1, Logan Hall, Level 1, July 1, 2017, 3:15 PM - 4:45 PM

#### Summary statement

With respect to the origin of individual differences in the quality of parent-child attachment relationships, researchers have predominantly focused either on the proximal factor of behavioral interactions between parents and children or the more distal factor of parents' mental representations of their own attachment experiences. Increasingly, researchers seek explanations at an intermediate level, namely the organization of parental responses to children's signals and needs. Research at this level is strategically poised to not only contribute to understanding the mechanisms involved in intergenerational transmission of attachment, but to widen the set of parental psychological processes that are associated with or independent of attachment representations that may facilitate or hinder the development of organized attachment patterns. The four contributions to this symposium offer a kaleidoscopic perspective on an array of maternal responses, each predictive of attachment quality. These include affective and physiological responses to infant distressed and non-distressed affect, synchrony in mother-infant processing of attachment-relevant information, adaptation of parenting efficacy cognitions, and frequency and timing of behavioral responses to simulated infant affect. Important topics for discussion of these experimental data include the directions for further development of theory as well as for work that may translate the insights gained in alternative approaches towards assessment and preventive intervention.

#### Paper abstracts

**Title:** Prenatal Patterns of Physiological Response to Distressed and Non-Distressed Infant Cues Differentially Predict Attachment Classification

**Abstract:** Infants emit positive and negative emotional signals to communicate basic needs for survival, comfort, and play. Cries of distress can elicit a wide range of caregiving responses ranging from anger, a desire to soothe, or a need to withdraw. To identify caregivers at risk of misinterpreting and/or respond insensitively to infant cry, researchers have turned to the prenatal period to understand whether prenatal response patterns are related to postnatal parenting behaviors. Presently, much remains to be understood about how prenatal response to infant distress is related to eventual parenting behavior, and even less is known about whether responses to infants' positive emotional bids might anticipate postnatal caregiving. This study examines whether prenatal physiological responses to infant distressed and non-distressed cues are differentially related to postnatal maternal caregiving behaviors and, in turn, the quality of the infant-mother relationship.

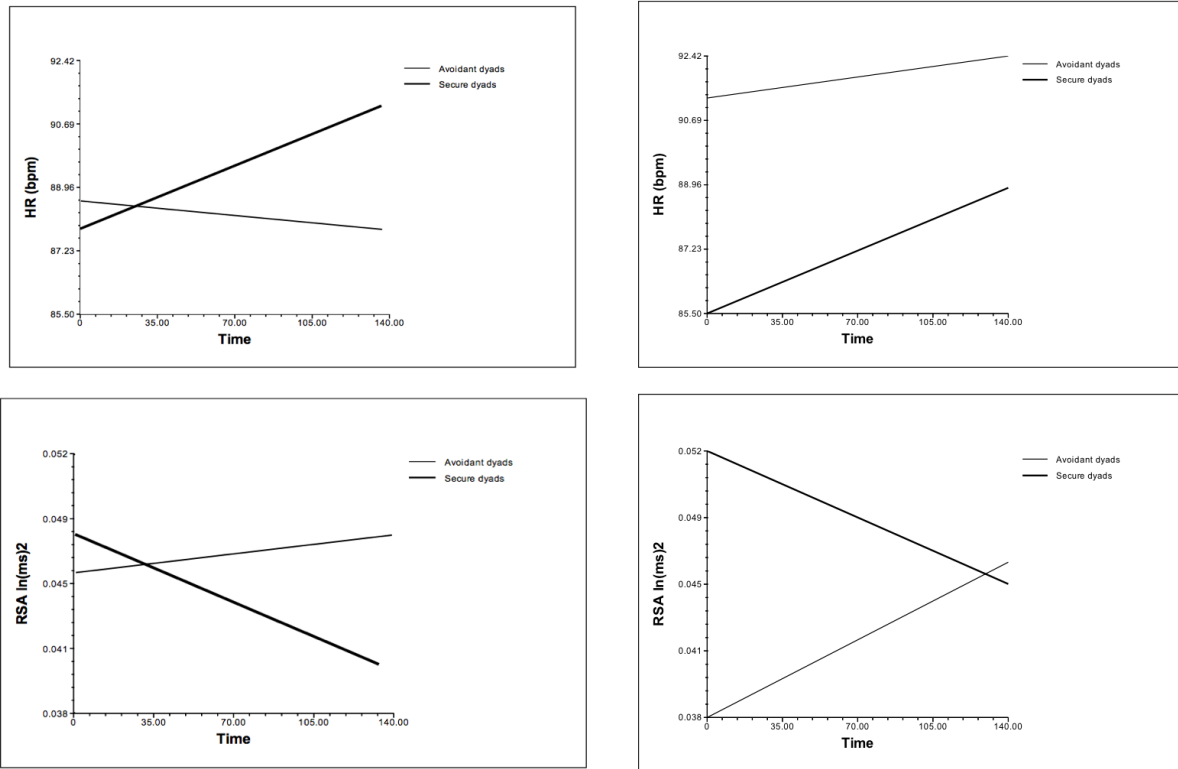
We measured 105 primiparous women's physiological reactions (heart rate, electrodermal, and RSA change) while they watched video clips of infant non-distress and distress. At 5 months postpartum, maternal sensitivity was coded from the Still Face. Infant attachment classification was determined with the Strange Situation Procedure when infants were 18 months.

We use Hierarchical Linear Modeling to test models linking prenatal physiology with postal maternal behavior and, subsequently, infant attachment status. Perhaps most interesting in our results thus far is a pattern linking what we call expectant women's "activated avoidance" in response to infant distress (increased HR and increased RSA), and little physiological response to non-distressed cry with infant avoidance at 18-months. This contrasts significantly with women of eventually secure infants who show varying levels of physiological approach (increased HR, decreased RSA) to both distress and non-distress cries (Figure 1). Additional results and discussion will consider the mediating role of behavioral (in)sensitivity in linking prenatal physiology and postnatal infant-mother attachment security.

**Figure 1**

**Physiological Response to Non-Distress**

**Physiological Response to Distress**



**Title:** Mothers' Physiological and Affective Responding to Infant Distress: Unique Antecedents of Avoidant and Resistant Attachment

**Abstract:** Although it is well-established that maternal sensitivity is a robust predictor of attachment security (Verhage et al., 2016), evidence regarding distinctive antecedents of specific patterns of insecure attachment has been less conclusive. It has been argued that examining multi-level indicators of responding within attachment-relevant contexts might help identify distinctive correlates of insecure patterns (e.g., Roisman, 2007). Accordingly, we examined mothers' physiological (RSA withdrawal) and observed (neutral v. positive affect) emotional responding to their infants in relation to avoidant and resistant attachment.

Participants were 127 mother-infant dyads who completed the Still-Face procedure (SFP) and Strange Situation procedure (SSP) when infants were 6 and 12 months old, respectively. Average RSA during the play and reunion episodes of the SFP was subtracted from baseline. Greater values reflect greater RSA withdrawal during non-distressing (play) and distressing (reunion) caregiving contexts. Videotapes were coded offline for mothers' neutral versus positive affect during play and reunion. SSPs were coded following Fraley and Spieker's (2003) guidelines for deriving avoidance and resistance dimensions and using the categorical system to create complementary avoidant (vs. not-avoidant) and resistant (vs. not-resistant) categories.

As seen in Table 1, mothers' RSA withdrawal during reunion was uniquely associated with infant avoidance assessed dimensionally, indicating that mothers who exhibited less physiological self-regulation following a challenging social disruption were more likely to have infants who did not seek them out upon reunion in the SSP. Mothers' neutral affect during reunion was uniquely associated with infant resistance assessed dimensionally, indicating that mothers who were more affectively neutral following a challenging social disruption were more likely to have infants who became emotionally overwhelmed in the SSP.

Findings highlight benefits of employing multi-level indicators of maternal responding, considering the caregiving context, and employing the dimensional approach to attachment in identifying unique antecedents of infant attachment avoidance and resistance.

Table 1

*Regression analyses of mothers' physiological and observed emotional responding within distressing and non-distressing caregiving contexts predicting infant attachment dimensions.*

	Avoidance				Resistance			
	B(SE)	$\beta$	p	R <sup>2</sup>	B(SE)	$\beta$	p	R <sup>2</sup>
				.15*				.15*
Infant Sex	0.26(.27)	0.09	.33		0.24(.17)	0.14	.17	
Ethnicity	-0.07(.27)	-0.03	.80		0.13(.17)	0.08	.44	
Income	0.42(.29)	0.15	.15		0.05(.18)	0.03	.78	
Infant Negative Affect	-0.72(.54)	-0.14	.18		-0.05(.33)	-0.02	.87	
Avoidance	--	--	--		-0.05(.06)	-0.08	.39	
Resistance	-0.13(.16)	-0.08	.39		--	--	--	
RSA Withdrawal (Normal)	0.36(.24)	0.25	.13		-0.15(.16)	-0.17	.36	
Neutral Affect (Normal)	0.28(.85)	0.05	.74		-0.50(.51)	-0.15	.33	
RSA Withdrawal (Reunion)	-0.52(.21)	-0.37	<.05		0.23(.14)	0.27	.12	
Neutral Affect (Reunion)	-0.29(.92)	-0.06	.75		0.98(.49)	0.31	<.05	

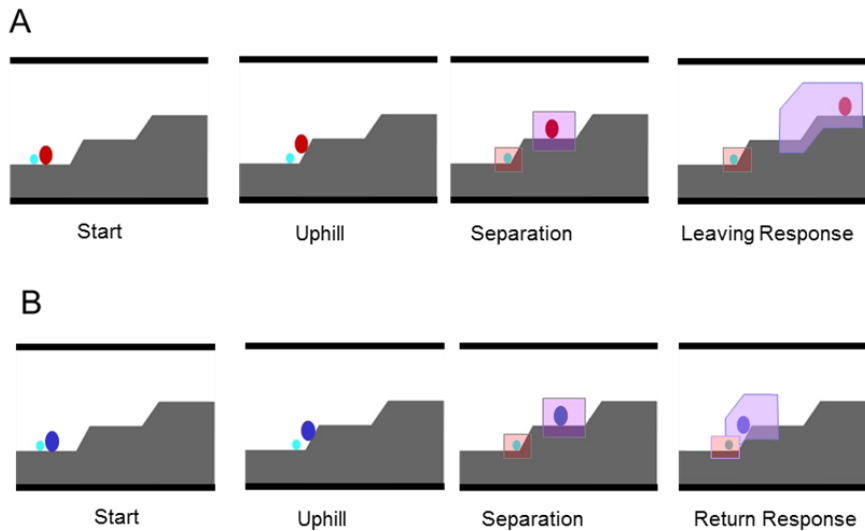
*Note.* Sex: 1=Male, 0=Female; Ethnicity: 1=African American, 0=Caucasian; Income: 1=Below 200% poverty threshold, 0=Above 200% poverty threshold; Normal = normal play episode of the Still-Face procedure; Reunion = reunion episode of the Still-Face procedure. \* $p < .10$ , \*\* $p < .05$ .

**Title:** Attachment quality is related to the synchrony of mother and infant monitoring patterns

**Abstract:** Recent studies provide evidence for the formation of attachment-related social information processing biases in infancy (Biro et al., 2015; Johnson et al., 2010). Attachment quality is also associated with the level of synchrony between caregivers and infants, with attachment disorganization linked to the lowest levels of synchrony (Beebe et al., 2016). In the current study, we investigated the attunement of infants' and their caregivers' monitoring strategies while they observed animations involving attachment-related interactions. We assessed the dyadic patterns of attention and examined if these patterns are related to attachment disorganization.

Sixty 12-month-old infants and their mothers participated in an eye-tracking study in which they watched abstractly depicted separation-reunion interactions involving an "infant" and a "parent" character (see Figure 1). We measured infants' and their mothers' relative fixation duration to the two characters in the animations. Fifty-three infant-mother dyads provided usable eye-tracking measures. Disorganized attachment behavior was assessed by the Strange Situation Procedure. Main and Solomon's 9-point scale (1990) was used for coding attachment. Sixteen infants were classified as disorganized and 37 as non-disorganized.

We found that infant attachment disorganization moderated the correspondence between the monitoring patterns of infant-mother dyads,  $p = .02$ . Organized infants and their mothers showed complementary monitoring patterns: the more the mothers focused their attention on the "baby" character, the more the infants focused their attention on the "parent" character ( $r = -.43$ ,  $p = .01$ ). Disorganized infant-mother dyads showed the opposite pattern although the correlation was non-significant,  $r = .28$ ,  $p = .21$ : mothers and their infants focused on the same character. The differences in the nature of the synchrony in the attentional processes of infants and their mothers suggests that by 12 months the representations of infants and their caregivers about attachment-related events reflect their shared social-emotional experiences.



**Figure 1.** Frames from the Start, Uphill, Separation, Leaving Response (A) and Return Response segments (B) of the animation. Areas of interests (AOIs) for the two figures during the Separation and Response segments are shown (not visible during the presentation).

**Title:** Womens' cognitive and behavioral responses to infant cries during pregnancy are associated with later infant-mother attachment

**Abstract:** Infants' responses to parental caregiving provide parents with feedback that may alter parents' perceptions of their caregiving competence and likelihood of success in future interactions. Infant responses may yield success and failure experiences. Success bolsters parenting self-efficacy, contributing to internal motivation to take care of infants' needs, whereas failure undermines parenting self-efficacy, which may lead to disengagement or externally regulated caregiving motivation. This study tested the hypothesis that women whose prenatal parenting self-efficacy was less resilient against simulated negative infant feedback would be more likely to have avoidant attachment relationships with their infants. It further explored associations between behavioral indicators of persistent parenting, parenting self-efficacy resilience, and infant attachment, and examined whether these linkages were compatible with intergenerational transmission of attachment. First-time pregnant women (N = 145) participated in a computerized Cry Response Task in which they responded to non-distressed and distressed infant cries. Cognitive (i.e., parenting self-efficacy resilience) and behavioral responses (i.e., response latency, number of responses) to infant cries were recorded during the task. Maternal attachment representations were measured during pregnancy, infant-mother attachment at 12 months after birth. No significant associations were found between resilience of parenting self-efficacy, response time, and number of responses. Multinomial logistic regression analyses showed that maternal responses to the cries in the paradigm predicted infant-mother attachment. Lower resilience in parenting self-efficacy was associated with avoidant attachment, as was faster responding to the non-distressed cries. A larger number of responses to the distressed cries was associated with resistant attachment. The responses to the cries did not mediate the association between attachment representations and infant-mother attachment, but explained additional variance. Discussion focuses on suitable motivational and learning models that may account for this pattern of results.

Table 1.

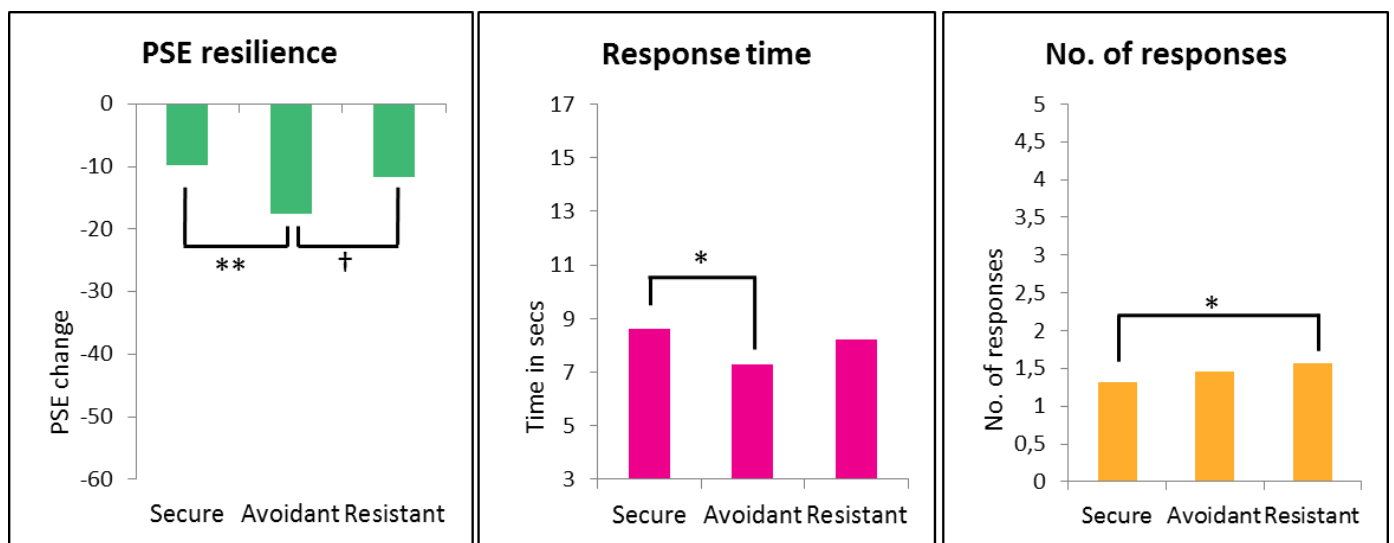
*Associations between cognitive and behavioral responses to simulated infant cries and infant-mother attachment*

Variable	Avoidant attachment		Resistant attachment	
	OR (95% CI)	<i>p</i>	OR (95% CI)	<i>p</i>
PSE resilience	<b>0.95 (0.92 – 0.98)</b>	<b>&lt; .01</b>	0.99 (0.96 – 1.02)	.45
Response time baby 1	<b>0.79 (0.64 – 0.98)</b>	<b>.03</b>	0.93 (0.79 – 1.09)	.35
Response time baby 2	0.91 (0.79 – 1.04)	.17	0.94 (0.84 – 1.05)	.30
Number of responses baby 1	1.28 (0.53 – 3.05)	.58	1.75 (0.89 – 3.45)	.11
Number of responses baby 2	1.08 (0.45 – 2.57)	.87	<b>1.93 (1.06 – 3.49)</b>	<b>.03</b>
	Secure attachment		Resistant attachment	
	OR (95% CI)	<i>p</i>	OR (95% CI)	<i>p</i>
PSE resilience	<b>1.05 (1.02 – 1.09)</b>	<b>&lt; .01</b>	1.04 (1.00 – 1.08)	.07
Response time baby 1	<b>1.26 (1.02 – 1.56)</b>	<b>.03</b>	1.17 (0.92 – 1.49)	.19
Response time baby 2	1.10 (0.96 – 1.27)	.17	1.04 (0.89 – 1.22)	.62
Number of responses baby 1	0.78 (0.33 – 1.87)	.58	1.37 (0.58 – 3.27)	.48
Number of responses baby 2	0.93 (0.39 – 2.21)	.87	1.79 (0.72 – 4.43)	.21

Note. This table reflects the results of multiple univariate analyses, which were all controlled for maternal attachment representation. Significant results are displayed in bold font.

The reference category for the dependent variable in the upper part of the table is Secure attachment, the reference category in the lower part of the table is Avoidant attachment.

Figure 1. The association between differences in resilience in parenting self-efficacy, response time to the cries, and number of responses to the cries and the infant-mother attachment relationship



1. (b)

(c)

## S8.2

### **Integrating research and clinical practice: Providing attachment-based and relationship-building interventions in health services.**

**Drozd F<sup>3</sup>, Jakobsen R<sup>1</sup>,** Bjørknes R<sup>2</sup>, **Nielsen B<sup>4</sup>,** Slinning K<sup>3,4</sup>, Weie Oddli H<sup>4</sup>, **Singstad Høivik M<sup>5,6</sup>,** Lydersen S<sup>6</sup>, Drugli M<sup>3,5</sup>, Onsøien R<sup>3</sup>, Bergum Hansen M<sup>3</sup>, Berg-Nielsen T<sup>5,7</sup>, Kiamanesh P<sup>8</sup>, Sten Olafsen K<sup>7</sup>

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Symposia 8.2, Elvin Hall, Level 1, July 1, 2017, 3:15 PM - 4:45 PM

#### **Integral Statement**

Despite that some attachment-based and relationship-building interventions have been heavily marketed, promising interventions such as the Circle of Security and Marte Meo, are not particularly widespread. On average, it takes about 17 years for research to translate into practice (Balas, 1998), and Caporino et al. (2003) have estimated that effective programs have only 1% market penetration. Thus, many families may never be offered potentially effective help. For these interventions to become more widespread and embedded in regular practice, it is necessary to conduct more primary implementation studies and studies using hybrid designs (i.e., examining both effectiveness and implementation).

In this symposium, we present four studies on two interventions; namely, Circle of Security (COS) and video-feedback of infant-parent interaction (VIPI)/Marte Meo, both of which are concerned with parental sensitivity, mental representations, and attachment. The first presentation concerns the early lessons from a randomized trial of COS in state child welfare services (CWS). It highlights the importance of establishing a mutual, collaborative inquiry between therapists, organizations, and researchers. The second study presents findings from COS-Virginia family model, as used in health and social services. Overall, therapists find COS to be beneficial in their practice, but also point toward clear and tangible opportunities for quality improvement such as utilizing mobile cameras to document circle stories. The third study presents results from a randomized trial on VIPI in well-baby clinics demonstrating both short- and long-term effects, and the importance of examining moderating effects (i.e., VIPI most beneficial for parents with postpartum depressive symptoms). The final presentation is a qualitative study with interviews of VIPI/Marte Meo-therapists and their experiences with the method in municipal CWS. In combination, these studies demonstrate that to bring research on attachment-based interventions into practice we need to move beyond studies of efficacy and effectiveness and on to studies of implementation.

#### **Paper #1**

##### **The Challenges of Implementing Circle of Security in State Child Welfare: Early Lessons from a Randomized Trial**

Circle of Security (COS) is an intervention designed to promote a secure attachment among caregiver–child dyads by means of increasing caregiver sensitivity and reflective functioning. The purpose of this study is to test the effectiveness of COS in the foster care system with children aged 4 to 10 years in the state child welfare service (CWS). The study is designed as a two-armed randomized, controlled trial; an intervention group that will receive COS and a control group based on the Secure Base model. However, prior to trial commencement, the study experienced implementation challenges both in research and practice. The aim for this presentation is, therefore, to learn from these early challenges. And thereby, to provide insight into the uptake and use of COS in research and practice. Sources of data included meetings, seminars, and telephone interviews with COS–therapists and CWSs. The research project was well-received and considered timely among COS–therapists; however, some therapists expressed concerns regarding the choice of outcome measures and control group. For example, the Strange Situation Procedure, which is an inherent part of COS but only applicable to children between 1 and 5 years, and thereby not suitable as an



instrument in this study. At the state-level, an early trial preceding a large-scale implementation is highly beneficial. But this entails challenges such as competing priorities among research and development activities in the CWS, and misalignment in authorities versus CWS preferred choice of COS model. As a consequence, this has led to a lack of clear leadership commitment and support from trial onset. Early experiences from this trial will be discussed.

## **Paper #2**

### **The Use and Implementation of the Circle of Security-Virginia Family Model in Health and Social Services**

Along with the growing body of evidence that demonstrates the negative consequences attachment problems can have on a child's psychological development, there has been an increased focus on effective preventive measures such as improving parenting skills to reduce future psychological problems for at-risk children. Accordingly, there has been a shift toward more attachment-based methods in health and social services. Due to a great demand, attachment-based interventions such as Circle of Security (COS) have been implemented in various health and social services. The implementation of interventions has proved to be challenging due to a variety of factors such as individual and organizational values, cultures, and other characteristics that shape practice. The aim of this study was to identify any strengths, weaknesses, opportunities, and threats (SWOTs) to the individual, therapeutic Circle of Security–Virginia family model, in order to adapt and facilitate COS for continued and future use in the health and social services. Results from both quantitative and qualitative methods will be discussed in the symposium.

## **Paper #3**

### **Video-feedback of infant-parent interaction (VIPI) in families with early interaction problems: A randomized controlled trial**

Video feedback has been used in interventions targeting problems in parent–child interactions. The methods have a particular focus on increasing parent's sensitivity and attunement to their children's emotional states. For the first time to our knowledge, short- and long-term effects of a multi-site randomized-controlled trial of video feedback of infant–parent interaction intervention (VIPI—a manualized version of Marte Meo) in naturalistic settings was investigated. The intervention included families with children younger than 2 years and parent–child interactions problems. Outcome variables were; 1) observed emotional availability in the parent–child interactions and 2) parent-reported child social and emotional development. Between-group differences of the moderating effects of parental symptoms of depression, personality disorders traits, and demographic variables were also investigated. The study had a parallel-group, consecutively randomized, single-blinded design; participants were recruited by health- and social workers. Seventy-five families received VIPI, and 57 families received treatment as usual (TAU). Videotapes of each parent–child interactions were obtained before treatment, right after treatment, and at a 6-month follow-up and coded according to Biringen's Emotional Availability Scales. Parental symptoms of depression and personality disorder traits were included as possible moderators. Evidence of a short-term effect of VIPI treatment on the emotional availability in the parent–child interactions was established, especially among depressed parents and parents with problematic interactions—and, to some extent, among parents with dependent and paranoid personality disorder traits. A long-term positive effect of VIPI compared with TAU on child social/emotional development was also evident. In a secondary analysis, VIPI had a direct positive effect on the depressive symptoms of parents compared with TAU. Evidence from the study suggests that VIPI effectively supports families with interaction difficulties by increasing the mutual emotional availability in the parent–child dyad.

## **Paper #4**

### **Video-based guidance of parents in child welfare services: Key advantages and strategies for improvement**

Marte Meo is a manual-, home-based intervention used in municipal child welfare services (CWSs). The purpose is to increase parental sensitivity, enhance parent-child interactions, and, ultimately, promote healthy child development. However, the use of Marte Meo in CWSs has not been previously examined, thus there is a need to identify the (dis-)advantages and opportunities for quality improvement in a CWS context. In the current study, we interviewed eight Marte Meo–therapists from the CWS about their perceived strengths, weaknesses, opportunities, and threats (SWOT).

Data were analyzed using an inductive thematic analysis within the SWOT-format. The therapists identified visualization of parent-child interactions, home visitation as a pre-requisite for change, empowerment, and creating change through empowerment, as the major advantages of this method. The only weakness was that the manual is designed for use with children aged 0 to 2 years, and not applicable for older children. Opportunities for improvement included more interdisciplinary collaboration between the CWS and other services for early identification of parent-child interactional problems, which often remain unidentified or secondary to other more prominent problems (e.g., parental substance abuse), and the combination of Marte Meo with other methods such as the Circle of Security, to make Marte Meo potentially even more potent. Finally, therapists were concerned about the lack of continued professional development and quality assurance. In conclusion, therapists often experience that use of video-feedback can instigate changes in parents' mental representations, and thereby improve the quality of parent-child interactions. The use of video-feedback can support parents to connect with their children and becoming emotionally available, rather than becoming avoidant or overprotective. However, future development should emphasize adapting Marte Meo for older children and establishing a central agency to contribute to continuous quality improvement and professional development in the CWS.

## S8.3

### Body representations and attachment from childhood through adulthood

**Knafo H**<sup>1</sup>, Steele M<sup>1</sup>, Buhl-Neilsen B<sup>2</sup>, Feniger-Schaal R<sup>3</sup>, Koren-Karie N<sup>3</sup>

<sup>1</sup>The New School, <sup>2</sup>University of Copenhagen, <sup>3</sup>University of Haifa

Symposia 8.3, Drama Studio, Level 1, July 1, 2017, 3:15 PM - 4:45 PM

#### Body image in adolescents: The impact of personality pathology and culture.

This presentation will describe the development of the Mirror Interview (MI) in which subjects look are interviewed in front of a full-length mirror. The MI was the idea of Paulina Kernberg who hypothesized that mirror behavior would co-vary with both attachment experiences and psychopathology. A normative group of 68 adolescents were interviewed using the Adult Attachment Interview modified for use with adolescents and the MI and compared to 66 adolescents with personality disorder diagnoses. Qualitative review of responses pointed to a split between 'self-as-seen' with 'self-as-felt' (referred to as 'alienation') in adolescents with personality disorder. These adolescents were further characterized as having higher levels of shame and lower body esteem. A quantitative coding system was developed to code mirror behavior. Six coding items specific to mirror behavior were seen to mediate the relationship between attachment status and personality disorder. These results have the potential to help clinicians to understand the role of body esteem and alienation when treating adolescents with personality pathology. The Mirror Interview was also administered to 25 adolescents from Northern Tanzania and compared to the normative control group of adolescents with a western background. These interviews revealed interesting findings regarding the role of non-western culture on adolescent body image. These adolescents seemed to have a predominantly positive body image that was not to any substantial degree influenced by societal pressure. Indeed the concept of body dissatisfaction was not familiar to these subjects. Some were characterized by an almost jubilant sense of joy in their bodies and were not afraid of expressing this openly. In comparison to western subjects, these adolescents expressed appreciation of a well-functioning body. Factors influencing positive body image including lack of affluence and exposure to western media will be discussed.

#### The embodiment of attachment: Attachment classification and the mirror game.

In this study we used the 'mirror game' to explore the nonverbal expression of attachment in adulthood. The *mirror game* is a common exercise in theatre practice (Spolin, 1999), used to promote actors' ability to enter and remain in a state of togetherness (Schechner, 1994). Forty-eight participants (22 females, mean age = 33.2,  $SD = 7.3$ ) played the mirror game with the same gender-matched expert players. In addition, participants were interviewed on the AAI to assess their quality of attachment. All mirror games were videotaped. To analyse the data we developed the "mirror game scales" that coded the nonverbal behaviour during the movement interaction, using 22 parameters. Using statistical methods we reduced the scales into two dimensions referred to as "together" and "free". The "free" subscale was significantly correlated to the AAI classification,  $t(46) = 7.858, p = 0.000$ , so that participants with secure attachment on the AAI demonstrated expressions such as positive affect and wide use of body movements and openness to explore while playing the mirror game. The results point to the nonverbal expression of attachment. This exploratory data analysis suggests that a dyadic movement interaction tap into the implicit knowledge of attachment. Hence, the results bring to focus the embodiment of attachment and its possible clinical and research implication.

#### The intergenerational transmission of body representations from mothers to school-aged daughters

This study examines the intergenerational transmission of body representations from mothers to their five- to seven-year-old daughters, as conveyed via the Mirror Interview (MI; Kernberg, 2007). Forty female children, ranging from age 5.5 to 7.75, were administered the Child Mirror Interview (CMI; adapted from Kernber, 2007). The mothers of these children were administered the Mirror Interview (Kernberg, 2007) and the Adult Attachment Interview (AAI). The relationships between mother mirror behaviors and body representations and those of their children were explored. Additionally, the role of the mothers' childhood experiences and attachment representations in the transmission of body image was also evaluated. It was found that there was a significant correlation between the

child's *appearance-related reflective functioning* (e.g., her ability to take the perspectives of others when discussing her appearance) and her mother's *positive approach to the mirror* during the MI. It was also found that the mother's experience of being pressured to achieve by her own parents during childhood, as well as her experience of having had involving parents (e.g., being parentified as a child), had a significant effect on her child's mirror behaviors and narratives. These results explain some of the nuanced ways in which a mother's own childhood experiences may affect the way her child perceives herself and her body at a young age. Additionally, our results elucidate one specific way that a child of this age is affected by her mother's body representation. This study helps to develop further understanding of the unique pathways of body image transmission from mothers to daughters. Furthermore, specific attributes of the CMI narratives will be further discussed in order to help clarify the links between self-esteem, body representations, parental representations, and peer representations during this developmental stage of middle childhood.

## S8.4

### Are father-child encounters low in sensitivity?

Ahnert L<sup>2</sup>, Quehenberger J<sup>1</sup>, Landers S<sup>1</sup>, Beck A<sup>1</sup>, Meinardi-Weichhart L<sup>1</sup>, Helfrich D<sup>1</sup>, Teufel L<sup>2</sup>, Supper B<sup>2</sup>, Ruiz N<sup>2</sup>, Piskernik B<sup>2</sup>, Witting A<sup>2</sup>, Brisch K<sup>1</sup>

<sup>1</sup>Medical center of the university of Munich Dr. von Hauner Children's Hospital, <sup>2</sup>University of Vienna Department of Developmental Psychology

Symposia 8.4, Nunn Hall, Level 4, July 1, 2017, 3:15 PM - 4:45 PM

#### PAPER 1

##### Fathers' spontaneous book reading conversations

In a study of 12 to 32 month olds (N=120), children's attachment quality with fathers and mothers (*Attachment Q-Sort*: Waters, 1995) and their receptive and expressive language skills (*BSID-III*: Bayley, 2006) were assessed. We also explored different modes of spontaneous book reading conversations separately and randomly, carried out for father-child as well as mother-child dyads of the joint child. The conversations were then coded from videotapes that captured both parents' *Teaching*, *Sharing* and *Encouraging* modes, as well as children's responses (in rates per minute). From these modes, *Sharing* (with mother) appeared most effective for the child's receptive language skills and *Encouraging* (with father) for the child's expressive skills. In addition, path modelling explored the impact of attachment quality on child language acquisition, revealing strong attachment-language associations for mother-child dyads incorporating the maternal sharing modes of conversation. In contrast, father-child dyads failed to embed the *Encouraging* mode into an attachment-language association.

#### PAPER 2

##### Father-child attachment in preterm children

The objective of the present study was to determine whether preterm children (23 to 37 weeks gestation) differ in their attachment to their fathers from their term peers (> 37 weeks gestation), and whether certain child characteristics, such as sex, twin status, and developmental status, have an influence on the parent-child relationship. We involved the parents with their n=190 preterm (including 45 twin pairs) and n=100 term children (age range 12 to 36 months) in the study. Attachments of the father-child and mother-child dyads were assessed using the *Attachment Q-Sort* (Waters, 1995) during two home visits. Children's developmental status was measured with *BSID-III* (Bayley, 2006).

Within a multigroup analysis of parents of preterm and term children, correlates of attachment specific to preterm fathers were found, which accumulated to an explained variance of  $R^2 = .82$ . For preterm fathers, less education, as well as lower development scores and male sex of the child, were associated with lower attachment scores. The findings correspond with analyses on the arousal states of the children during the Strange Situation Procedure, pointing to the idea that fathers of preterm children are less able to handle child arousals if children appear vulnerable.

#### PAPER 3

##### Can attachment-focused intervention facilitate sensitivity and attachment security in father-child dyads?

Attachment-based intervention programs in transition to parenthood have been predominantly oriented towards mothers, and it is only recently that the focus has also shifted to fathers (to be) in early attachment intervention practice and research. SAFE<sup>®</sup> (Secure Attachment Formation for Educators) is an attachment-focused, group-based intervention program, which explicitly addresses both parents. By conducting the *Adult Attachment Interview* (George et al., 1985), administering questionnaires and discussing attachment theoretical topics, parents are inspired to reflect on their own attachment experiences. SAFE<sup>®</sup> includes video-based sensitivity trainings and feedbacks in order to help detect potential vulnerabilities that can interfere with the healthy development of a parent-child relationship. The program started during pregnancy and was conducted throughout the child's first year. To evaluate the effectiveness of the SAFE<sup>®</sup> program on the father-child relationship, a nonclinical sample of fathers was examined in a randomized control study at three postnatal measurement points: (1) 3-6 months after birth, father-child dyads from the SAFE<sup>®</sup> group showed significantly higher scores on the *Emotional Availability Scales* (Biringen, 2008) from a videotaped

diapering interaction. (2) Also, three months later, negative effects of depressive symptoms on paternal emotional availability were found in the control but not in the SAFE® group, confirming a positive moderating effect of the program. (3) At the age of one, 79% of the SAFE® group (n=50) and 63% of the control group (n=37) showed a secure attachment to their fathers in the *Strange Situation Procedure* (Ainsworth, 1978).

## S9.1

### Panel discussion on disorganized attachment and social/clinical policy

Granqvist P<sup>1</sup>, Dozier M<sup>2</sup>, Duschinsky R<sup>3</sup>, Hesse E<sup>4</sup>, Steele M<sup>5</sup>, Schuengel C<sup>6</sup>

<sup>1</sup>*Department of Psychology, Stockholm University*, <sup>2</sup>*Department of Psychological and Brain Sciences, University of Delaware*, <sup>3</sup>*School of Clinical Medicine, University of Cambridge*, <sup>4</sup>*Department of Psychology, University of California at Berkeley*, <sup>5</sup>*The New School for Social Research*, <sup>6</sup>*Vrije Universiteit Amsterdam*

Symposia 9.1, Logan Hall, Level 1, July 1, 2017, 4:45 PM - 6:15 PM

How and when should attachment theory and research be used in clinical and social welfare practice? And what uses are appropriate of the disorganised attachment classification in this work? In this discussion, designed as to be of particular interest to clinicians and practitioners, a panel of leading researchers will consider key questions involved in clinical/social applications of attachment theory and research, with particular focus on disorganised/disoriented (D) attachment. The panel discussion contains two parts of equal length.

In the first part, important questions will be posed to the panellists: What actually is disorganised attachment? What do researchers really know, as things stand, about different pathways to disorganised attachment? Is disorganised attachment the same as attachment disorder, or in what ways are they different? Can the fact that disorganised attachment is more common in maltreatment samples allow it to be used for screening for infant maltreatment? What particular dangers are there for clinicians and practitioners in making use of the disorganised attachment classification in their work? How does a disorganised attachment classification compare to other well-known attachment-related risk factors in child development? How can attachment best be used in the context of supportive welfare or clinical work with parents and children?

The second part is an interactive Q&A session, and the audience will be invited to provide comments and ask questions to the panellists.

## S9.2

### Infusing Attachment Approaches into Community-Based Service Delivery

**Harden B<sup>1</sup>, Cassidy J<sup>1</sup>, Venza J<sup>2</sup>**, Berlin L<sup>3</sup>, Ziv Y<sup>4</sup>

<sup>1</sup>University of Maryland, <sup>2</sup>Lourie Center for Children's Social Emotional Wellness, <sup>3</sup>University of Maryland School of Social Work, <sup>4</sup>University of Haifa

Symposia 9.2, Elvin Hall, Level 1, July 1, 2017, 4:45 PM - 6:15 PM

Young children are served in a variety of community-based settings, including early care, education, and intervention settings. Scholars have called for particular attention to the experiences of young children exposed to very high-risk environments (e.g., poverty, trauma; Shonkoff, 2010), and how attachment theory can inform the development of programs for these children (Berlin et al., 2005). This symposium includes three papers about the experiences of children in 3 different settings (i.e., Early Head Start, Head Start, and a Therapeutic Preschool) which use an attachment-based approach to intervention.

The first paper will present findings from a randomized trial of home-based Early Head Start plus the Attachment and Biobehavioral Catch-up (ABC) program in a sample of low-income families with infants and toddlers ( $N = 208$ ). The second paper uses data from an evaluation of a therapeutic preschool program to examine the relations between caregiver risk, insightfulness and parenting and children's social-emotional outcomes ( $N=15$ ). The third paper will describe findings from a randomized trial of The Circle of Security-Parenting (COS-P) intervention in a low-income sample of Head Start-enrolled children and their mothers ( $N = 141$ ).

All presenters will discuss their findings in the context of theory and research on attachment, as well as the implications of their findings for attachment-based service delivery in community settings. Discussion from symposium attendees will be encouraged.

#### **Paper 1: Early Head Start plus *Attachment and Biobehavioral Catch-up* for Low-Income Families: Initial RCT Findings**

Early Head Start (EHS) has demonstrated positive effects on both parenting and toddler development (Love et al., 2005), however, studies have found limited program effects for families classified as "high risk" (ACF, 2002) and for mothers with more self-reported attachment insecurity (Berlin et al., 2011). This paper will present initial findings from a randomized controlled trial testing an enhanced model of EHS supplemented by the *Attachment and Biobehavioral Catch-up* (ABC) intervention, which consists of 10 home-based mother-child sessions focused on parental nurturance, following the child's lead, and reducing frightening behavior. Three previous randomized trials have demonstrated the efficacy of ABC for improving parenting behaviors, infant attachment security, and child stress regulation in child welfare-involved families.

Participants included 208 low-income, adult, biological, English- or Spanish-speaking mothers who were primary caregivers of 6- to 20-month-old infants receiving home-based EHS. Mothers were randomly assigned to EHS plus ABC ( $n = 104$ ) or EHS plus a light control condition, "Book-of-the-Week" ( $n = 104$ ). At random assignment, the mean age of the infants was 13 months ( $SD = 4$ ) and 49% were male.

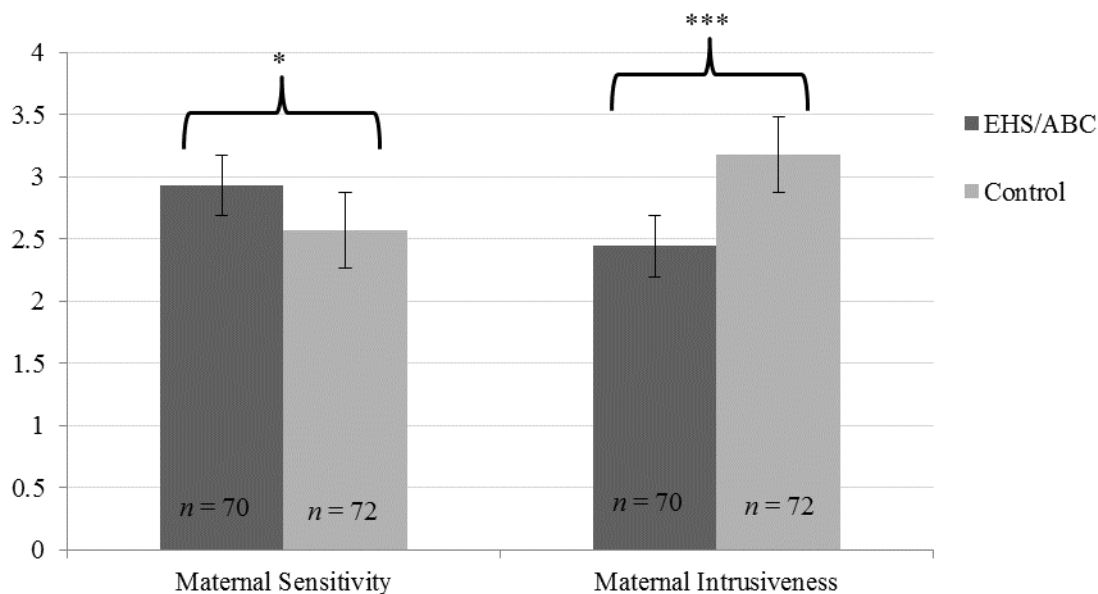
Post-intervention assessments were conducted within 4 weeks of completion of the ABC or control condition. They included the 15-minute, video-recorded "Three-Bag" semi-structured mother-infant interaction assessment, quantitatively coded for maternal *sensitivity* and *intrusiveness*.

One-tailed  $t$  tests of intervention group differences in observed maternal sensitivity and intrusiveness illustrated greater maternal sensitivity and less maternal intrusiveness in the EHS/ABC group (see Figure 1). For the conference, we will include data (currently being coded) that examine the effect of ABC on children's behavioral regulation.

Extant results suggest that the EHS/ABC model is efficacious in increasing supportive parenting behaviors and preliminarily suggest that a brief attachment-based intervention can add value to home-based EHS services. Implications for sustained implementation of ABC within EHS programs will be discussed.



Figure 1  
*Intervention Group Differences in Observed Maternal Sensitivity and Intrusiveness*



Note. For maternal sensitivity, one-tailed  $t = -2.31$ ; for maternal intrusiveness, one-tailed  $t = 5.16$ . \*  $p < .05$  \*\*\*  $p < .001$

**Paper 2: Relations among caregiver adversity, insightfulness, parenting and the social-emotional functioning of children in a therapeutic preschool program**

Mental health complications and trauma exposure in early childhood continue to overwhelm childcare settings, preschools, and homes – and challenge the field to develop effective intervention programs (Johnston & Brinamen, 2006). This study is part of a larger study evaluating the effectiveness of an attachment-based therapeutic preschool (TNP). The TNP is a specialized early childhood education-intervention program designed to improve developmental and educational outcomes in preschool children and caregivers facing intergenerational trauma. Children, ages 3 to 5, are referred to the TNP due to severe social-emotional and behavioral problems that result in school/daycare expulsion and relationship ruptures. The program offers caregivers emotionally-attuned, predictable, and regulating relationships from a multidisciplinary team of clinicians and teachers.

In the caregiver sample ( $N=15$ ), almost all caregivers (93%) reported childhood exposure to ACEs. All children in this program have been unable to successfully function in typical settings, so present with a variety of behavioral challenges. Exposure to ACE was measured with the ACE questionnaire (Felitti et al., 1998). Caregiver insightfulness was measured via a one-on-one interview with the caregiver (IA, Oppenheim & Koren Karie, 2002). Emotional availability (EA) was coded using Biringen's (2008) coding system based on direct observations of caregiver-child interactions. The child's social information processing (SIP) patterns were measured using the Social Information Processing Interview, Preschool Version interview (SIPI-P; Ziv & Sorongon, 2011), and the child's behavior in preschool was measured by teacher reports (ACF, 2005).

Significant associations were found between the caregiver's exposure to ACE and parental emotional availability and insightfulness. Caregiver's insightfulness and EA were also strongly associated with more competent SIP and social behavior. These findings will be discussed with regard to attachment theory and research. The clinical implications of these findings will be considered, in particular for the design of intervention programs.

### **Paper 3: Circle of Security-Parenting and Low-Income Families Enrolled in Head Start**

The Circle of Security–Parenting intervention (COS-P; Cooper et al., 2009) trains community service providers to use a manualized, video-based program containing stock footage of parents and children to help caregivers provide a secure base/safe haven for their children. The present study is a randomized controlled trial of COS-P in a low-income sample of Head Start-enrolled children and their mothers.

Mothers (N = 141; 75 intervention, 66 waitlist control) completed a baseline assessment and returned with their children after the 10-week intervention for a lab assessment. Child attachment was measured via the Preschool Attachment Classification System (Cassidy et al., 1992). Maternal response to child distress was measured using the Coping with Toddlers' Negative Emotions Scale (Spinrad et al., 2007). Child internalizing and externalizing behavior was reported via the Child Behavior Checklist 1.5 – 5 (Achenbach & Rescorla, 2000). Child executive functioning was assessed via The Puppet-Says task (Kochanska et al., 1996) and the Dimension Change Card Sort (Zelazo et al., 1996). Potential moderators of intervention efficacy were examined, including adult attachment anxiety and avoidance (Experiences in Close Relationships Scale; Brennan et al., 1998), and maternal depressive symptoms (Center for Epidemiological Studies Depression Scale; Radloff, 1977).

Intent-to-treat analyses revealed intervention effects largely moderated by maternal attachment style or depressive symptoms, with moderated intervention effects emerging for child attachment security and disorganization, but not avoidance; for one dimension of child executive functioning (inhibitory control but not cognitive flexibility); and for child internalizing but not externalizing problems. Main effects of intervention emerged for maternal response to child distress, with mothers assigned to COS-P reporting fewer unsupportive (but not more supportive) responses to distress than control group mothers. Findings shed light on “what works for whom” in attachment intervention and suggest that COS-P has the potential to enhance child outcomes among families at risk.

Table 1

*Intervention Findings Regarding Attachment and Maternal Responses: Main and Moderated Effects*

<b>Outcome</b>	<b>Main Effect</b>	<b>Moderation</b>
<i>Attachment (SSP)</i>		
Security	--	Intervention x Attachment Avoidance; $t(128) = 3.37, p = .001$ <ol style="list-style-type: none"> <li>1. Children of highly avoidant mothers assigned to COS-P were more secure than children in the control group <math>t(128) = 2.38, p = .02</math></li> <li>• Children of low avoidant mothers assigned to COS-P were less secure than children in the control group; <math>t(128) = -2.31, p = .02</math></li> </ol>
Organized v Disorganized	--	Intervention x Attachment Avoidance; $t(128) = 2.38, p = .02$ <ul style="list-style-type: none"> <li>• Children of highly avoidant mothers assigned to COS-P were less likely to be disorganized than children in the control group; <math>z = 2.31, p = .02</math> (<math>OR = 6.77</math>),</li> </ul>
Avoidance	--	--
<i>Maternal Self-Reported Responses to Child Distress (CTNES)</i>		
Supportive Responses	--	--
Unsupportive Responses	Mothers assigned to COS-P reported they were less likely to respond to their children's distress in unsupportive ways than did control mothers; $t(132) = -2.18; p = .03$ .	--

*Note.* SSP = Strange Situation Procedure. CTNES = Coping with Toddlers' Negative Emotions Scale.

Table 2  
*Intervention Findings Regarding Child Functioning: Main and Moderated Effects*

Outcome	Main Effect	Moderation
<i>Child Executive Functioning</i>		
Inhibitory Control (Puppet Says task)	Children in the intervention group showed better inhibitory control than children in the control group; $t(126) = 2.31; p = .02$	Intervention x Attachment Anxiety; $t(122) = -2.16, p = .03$ <ul style="list-style-type: none"> <li>Intervention group children showed greater inhibitory control than control group children, unless their mothers were high on attachment anxiety. For children whose mothers were high on attachment anxiety, no group differences emerged.</li> </ul>
Cognitive Flexibility (DCCS)	--	--
<i>Mother Reported Child Behavior Problems (CBCL)</i>		
Internalizing Behavior Problems	--	Intervention x Attachment Anxiety; $t(128) = 2.22, p = .03$ <ul style="list-style-type: none"> <li>Mothers with low attachment anxiety assigned to COS-P reported that their children had fewer internalizing behavior problems than mothers in the control group; <math>t(128) = -1.99, p = .05</math></li> </ul> Intervention x Maternal Depressive Symptoms; $t(129) = 2.17, p = .03$ <ul style="list-style-type: none"> <li>Mothers with low baseline depression assigned to COS-P reported that their children had fewer internalizing behavior problems than mothers in the control group; <math>t(129) = -1.95, p = .05</math></li> </ul>
Externalizing Behavior Problems	--	--

*Note.* DCCS = Dimensional Change Card Sort; CBCL = Child Behavior Checklist.

## Indiscriminate Friendliness and Behavior Problems in Dutch Foster Children

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Indiscriminate friendliness (IF) is often seen in children adopted from institutions (e.g., Rutter et al., 2007; Van den Dries, Juffer, Van IJzendoorn, Bakermans-Kranenburg, & Alink, 2012) and foster children (Love, Minnis, & O'Connor, 2015). Tizard defined IF as "behavior that is affectionate and friendly toward all adults (including strangers) without the fear or caution characteristic of normal children" (Chisholm, 1998, p. 1094). In the current study we examined whether observed as well as reported IF were related to behavior problems in foster children.

The sample currently consists of 36 foster children (1-6 years, 35.1% boys) and their foster parent. The Stranger at the Door (SATD) procedure (Zeanah, Smyke, & Koga, 2005) and the Indiscriminate Friendliness Questionnaire (IFQ; Chisholm, Carter, Ames, & Morison, 1995) were used to measure observed and reported IF, respectively. For the SATD we used a more elaborate coding system than originally used by Zeanah et al. (2005) to gain more insight in the severity of IF. In addition to coding whether or not a child was willing to leave with a stranger, we coded if the child hesitated and/or displayed social referencing (e.g., seeking proximity) towards the foster parent when invited to leave with the stranger (Table 1). Behavior problems were measured with the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2000) and the Assessment Checklist for Preschoolers – Short Form (ACP-SF; Tarren-Sweeney, 2014). Because data collection is still ongoing, only preliminary data are presented.

Correlation analyses showed significant positive relations between reported IF and behavior problems (CBCL and ACP-SF), and between observed IF and age at assessment (Table 2). No significant relation was found between observed and reported IF, or between behavior problems and observed IF (Table 2). With our larger sample we will explore these associations further by testing moderating roles of age of placement and placement duration.

Table 1  
*Frequencies for Coded SATD Categories (N = 36)*

<i>Stranger at the Door procedure</i>	<i>n</i>
Child does not leave with stranger	6
Child leaves with stranger after second invitation with hesitation and/or social referencing	4
Child leaves with stranger after first invitation with hesitation and/or social referencing	13
Child leaves with stranger directly after first invitation	13

Table 2  
*Pearson Correlations (N = 36)*

	1. Observed IF (SATD)	2. Reported IF (IFQ)	3. CBCL	4. ACP-SF	5. Age at measurement	6. Age at placement	7. Placement duration
1.							
2.	.07						
3.	.10	.52**					
4.	.14	.48**	.82**				
5.	.45**	.19	.19	.30			
6.	.24	.24	.28	.34*	.64**		
7.	.19	-.10	-.17	-.12	.27	-.57**	

\*\*  $p < .01$ , \*  $p < .05$

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## **How social support recover the emotion after being excluded: the role of attachment**

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Poster Session 8, July 1, 2017, 3:15 PM - 4:45 PM

Previous studies found attachment influences the connection between stressful environment and well-being. To elucidate the association between stress and well-being, Simpson and Rholes (2012) proposed "Attachment Diathesis-Stress Process Model", which provides more elaborate frame to explore the role of attachment by dividing its function into stress stage and recovery stage. The first purpose of current research is to explore whether attachment acts in both stages, or just work in the second stage. The second purpose is to illustrate the impacts of attachment on the effect of social support when external supports are equally provided to all individuals, during the recovery process of social exclusion.

We set a two-stage experiment with cyberball paradigm and pre-post design, including social exclusion stage (study 1, including exclusion and inclusion condition) and its recovery stage (study 2, providing four different levels of social support). In study 1, 156 Chinese college students (30 of them were randomly distributed to inclusion group) finished Adult Attachment Scale (AAS, Collins & Read, 1990) and PANS (Watson, 1988) before playing cyberball game (Williams et al., 2000). They completed PANS again and manipulation check scale after the game. In study 2, 126 participants in exclusion group of study 1 continued to play cyberball game and filled final PANAS. They were randomly assigned to one of four groups.

Compared with the inclusion group, the exclusion group showed more negative emotion, regardless of attachment avoidance (counted by combined depend and close scores) and anxiety (study 1). We found negative emotion began to decrease under middle-level support, and both positive and negative emotion began to change under high-level support. The moderating role of attachment avoidance between group and effect of social support was found in our research. Less avoidant individuals were more sensitive to the increase of support (study 2).

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## Adult attachment continues scores and emotion regulation as predictors of couple adjustment: a pilot study

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**Introduction.** Attachment theory is often used as a conceptual framework guiding research on both couple adjustment and emotion regulation processes (Bloch, Haase & Levenson, 2014). Several studies found that good emotion regulation strategies can contribute to the couple adjustment (Bloch *et al.*, 2014). On the other hand, recent researches highlight the correlation between adult attachment and emotion regulation strategies (Pascuzzo, Cyr & Moss, 2013). To the best of our knowledge, the impact of both adult attachment and emotion regulation on couple adjustment has not been enough investigated.

**Aim.** The current pilot study aimed to evaluate whether the couple adjustment can be predicted on the basis of adult attachment continues scores and emotion regulation processes.

**Method.** We administered the *Couple Attachment Interview* (CAI), the *Dyadic Adjustment Scale* (DAS) and the *Difficulties in Emotion Regulation Strategies* (DERS) to 154 cohabiting/married Italian subjects.

**Results.** A two-steps hierarchical multiple regression was conducted using the Dyadic Adjustment as dependent variable. The CAI adult attachment categories was entered in step one. The results of step one indicated that the variance accounted for ( $R^2$ ) was equal to .06 (adjusted  $R^2 = .04$ ), which was significantly different from zero ( $F_{(3, 150)} = 3.30$ ,  $p < .05$ ). The DERS variables were entered in step two. The results of step two indicated that the change in variance accounted for ( $\Delta R^2$ ) was equal to .65, which was statistically significant increase in variance accounted for over the step one model ( $DF_{(7,143)} = 46.25$ ,  $p < .001$ ).

**Conclusion.** Our data seem to confirm the hypothesis that both adult attachment and emotion regulation strategies represent valid predictors of couple adjustment. In particular, we found that dismissing attachment and a limited access to the emotion regulation strategies may represent a valid perspective through which look at the couple adjustment.



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## Familial Psychological Abuse: The Role of Parental Attachment, Parent-Child Attachment, and Gender

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**Background:** Substantial available research suggests that psychological abuse from parents predicts greater psychological abuse by youth. Often this psychological abuse by youth is directed towards parents. This study aimed to investigate the role of attachment in explaining why parents engage in psychological abuse and why there is a robust association between parental psychological abuse and psychological abuse by the youth towards parents.

**Methods:** Data was obtained from a sample of 561 biological mothers and 120 biological fathers who participated in a manualized attachment-based parenting intervention - Connect. Baseline data from parental reports on the quality of their own attachment, the quality of the parent-child attachment, and psychological abuse in their family were used in the analyses.

**Results:** A direct and positive relationship between parental psychological abuse and psychological abuse from the youth to his/her parents was found. Mediation analyses indicated that this direct relationship was explained, at least in part, by higher levels of insecure attachment in the parent-child relationship. This finding was present for both mothers and fathers. There was also evidence that insecure parental attachment was indirectly associated with insecure parent-child attachment through higher levels of parental psychological abuse. This finding, nonetheless, was present for mother but not for fathers.

**Conclusion:** Findings indicate that the quality of the parent-child attachment can explain why higher levels of parental psychological abuse are associated with higher psychological abuse from youth towards parents. The quality of parental attachment appears to precede and explain the presence of parental psychological abuse but only for mothers. Possible explanations of this gender difference will be provided.

**A preliminary validation study of the Ages and Stages Questionnaire: Social- Emotional (ASQ:SE) with teacher reports.**

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**Background:** Early detection of mental health problems in childhood is important. However, studies on screening instruments for preschool children are rare. The aim of the present study was to validate the Ages and Stages Questionnaire: Social-Emotional (ASQ:SE) with teacher reports and examine its screening accuracy in a preschool population.

**Methods:** This poster is based on preliminary analyses from a subsample (n= 371) of preschool children in one of the participating municipalities in the study *Children in Central Norway*. Children from one and one-half to five years old were recruited and their teachers completed a survey including the ASQ:SE and the Caregiver-Teacher Report Form (C-TRF). Pearson's r was calculated for the convergence between the ASQ:SE and the C-TRF and the screening accuracy of the ASQ:SE was assessed using receiver operating characteristic (ROC) analysis with the criterion of a score at or above the 90th percentile for the C-TRF total problem score.

**Results:** The Pearson's r correlations ranged from .45 to .86 between the total scores for the ASQ:SE and the C-TRF. The ROC analyses demonstrated that the ASQ:SE had an AUC ranging from .73 to .97, indicating an acceptable to outstanding ability to classify children at risk based on the C-TRF criterion. The ASQ:SE generally demonstrated high specificity across all forms and some forms produced both high sensitivity and high specificity using the selected cutoff values.

**Conclusion:** The ASQ:SE could serve as a good starting point for screening for socioemotional problems at a preschool community level. The ASQ:SE forms 30, 48, and 60 exhibit promising psychometric properties and may well prove useful in early detection of children at risk. The 18- and 36- month forms show more limited efficacy in detection compared to those abovementioned, while the 24- month form should be avoided with only 29% sensitivity.

**Attachment Security and Developmental Patterns of Late Preterm Infants from Infancy to Kindergarten**

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**Background:** Late preterm infants (LPIs: GA 34-36 weeks) have higher rates of learning problems in math compared to full-terms. Late preterm infants do not receive any specialized neonatal followup prior to school entry, and risk factors for suboptimal learning are not well characterized.

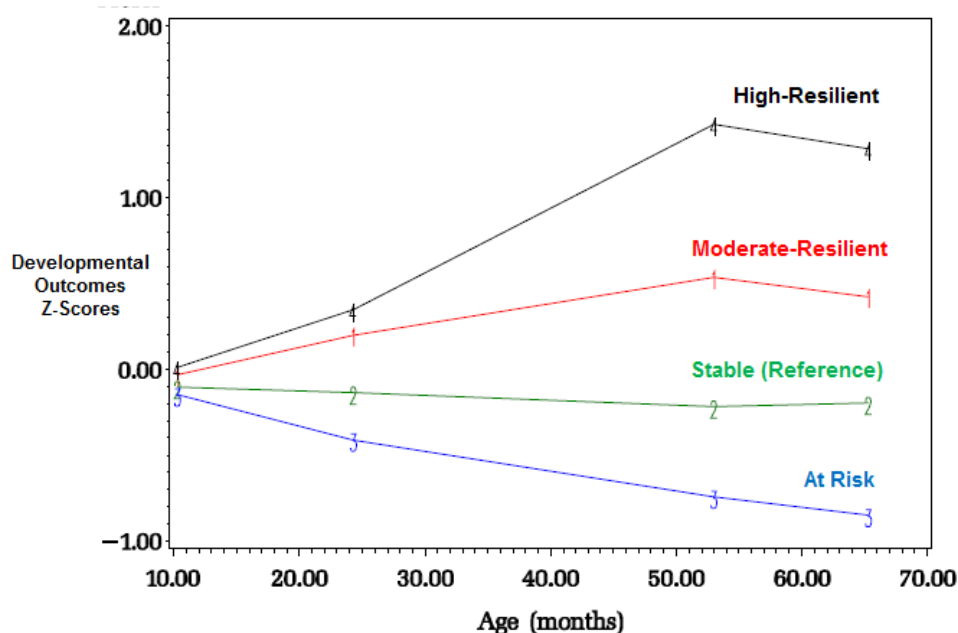
**Objective:** To examine developmental profiles of LPIs from 9 months to kindergarten, in a nationally representative sample, and to identify neonatal, caregiving and environmental factors associated with profiles of risk and resilience.

**Methods:** Sample included 850 children born late preterm in the Early Childhood Longitudinal Study, Birth Cohort. Developmental outcomes were assessed at 9- and 24 months using the Bayley Short Form and direct assessments of preschool and kindergarten math generated standardized theta scores. Socioeconomic status (SES) was assessed at 9 months, parenting and attachment security was assessed at 24 months using the Two-bags task, and the Toddler Attachment Q-Sort, and neonatal risks were abstracted from birth-certificate data. After standardizing developmental and academic outcomes as z-scores, latent profile analysis (LPA) identified distinct developmental trajectory patterns. Multinomial logistic regression examined contributions of neonatal and environmental characteristics on developmental trajectories.

**Results:** LPA identified 4 patterns of development in LPIs: high-resilient; moderate-resilient; stable (reference); and at risk (Figure 1). In adjusted models, compared with the reference group, higher SES (aOR=5.5, 95%CI [3.3, 9.1]) was associated with the “high-resilient” and “moderate-resilient” (aOR=2.2, 95%CI [1.7, 2.8]) profiles. Attachment security was associated with the “moderate-resilient” profile (aOR=1.6, 95%CI [1.1, 2.3]). Less sensitive caregiving (aOR=1.3, 95%CI [1.02, 1.57]) and receipt of developmental services at 24-months (aOR=3.9, 95%CI [1.4, 10.3]) were associated with the “at risk” profile.

**Conclusion:** Attachment security, SES, and early parenting differentiated the **developmental trajectories of LPIs** from infancy to kindergarten. More optimal developmental trajectories were associated with secure attachment and higher SES. Fostering attachment security may optimize math trajectories in LPIs.

**Figure 1: Developmental Trajectories of Math Achievement in Late Preterm Infants**



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## Intracultural determinants of intergenerational transmission of attachment in adolescence

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Extending previous research on intergenerational transmission of attachment in infancy and a study revealing that different sensitivity-related parenting dimensions predict adolescents' attachment insecurity diversely across countries, we aimed to test: the extent to which the relation between maternal and adolescent attachment is mediated through maternal warmth and psychological control (Transmission Hypothesis); and whether these relations are moderated by the place of residence (Moderation Hypothesis). The assumption of *ecologically differential expression of maternal attachment* was the basis for our hypotheses.

The sample of 575 mother-adolescent dyads from urban and rural areas in Poland was studied. Mothers and adolescents reported their attachment insecurity using the *Adult Attachment Scale* (Collins & Read, 1990). Maternal warmth and psychological control were reported by adolescents using the *Parental Acceptance-Rejection/Control Questionnaire* (Rohner, 2005).

The results revealed that maternal warmth partially mediates mother-adolescent attachment insecurity relation and supported the Moderation Hypothesis. The link between maternal attachment and child perception of maternal parenting and own attachment was significant in urban (not rural) families. To verify the validity of our assumption we carried out the Exploration Study, which showed that mother-adolescent conflict is related with maternal attachment in urban (not rural) areas. The results are discussed in the light of previous research and the assumption of *ecologically differential expression of maternal attachment*.

Key words: attachment, maternal sensitivity, parenting, cross-cultural psychology, intergenerational relations.

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**"But don't tell anybody!": a pilot process research study exploring the impact of attachment-related nonverbal communication on the working alliance.**

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**Objectives:** The working alliance is consistently demonstrated as significant to psychotherapy outcomes. Given the key relevance of individual fit factors to working alliance, this pilot begins to address the dearth of research on attachment styles—as they manifest nonverbally—and their impact on working alliances.

**Design:** This pilot generated clinician observations on nonverbal behaviours related to attachment styles and assessed acceptability/relevance of the topic to practicing clinicians. This informs future research into both key attachment-related nonverbal behaviours and pan-theoretical clinical practices used with insecure styles.

**Method:** Post-piloting, clinicians with a range of theoretical orientations were recruited, and participatory, semi-structured interviews conducted.

**Results:** Preliminary deductive and inductive thematic analyses indicated that clinicians found an awareness of attachment-related nonverbal behaviours to be highly significant to working alliances, regardless of theoretical orientation. Main themes included: common clinical practices (i.e. decoding, attunement, relational formulation, reflection/transference, and contingent pacing); insecure attachment style presentations; and key nonverbal modalities included posture/position, vocal turn-taking, silences, and facial affect. Clinicians struggled to verbalise details of attachment-related nonverbal behaviours—but were more aware of dismissive attachment styles (and withdrawal cues), than other attachment styles. Overall, clinicians expressed interest in further research on the topic, as well as noted its absence from their training/supervision. Whilst clinicians indicated their awareness developed over years of practice; novice clinicians particularly expressed the need to reflect on these factors in training/supervision.

**Conclusions:** Clinicians' perspectives indicate the relevance and clinical utility of further research on this topic, as well as justify targeted future microanalysis on attachment-related cues. Recommendations for future research are discussed alongside research challenges.

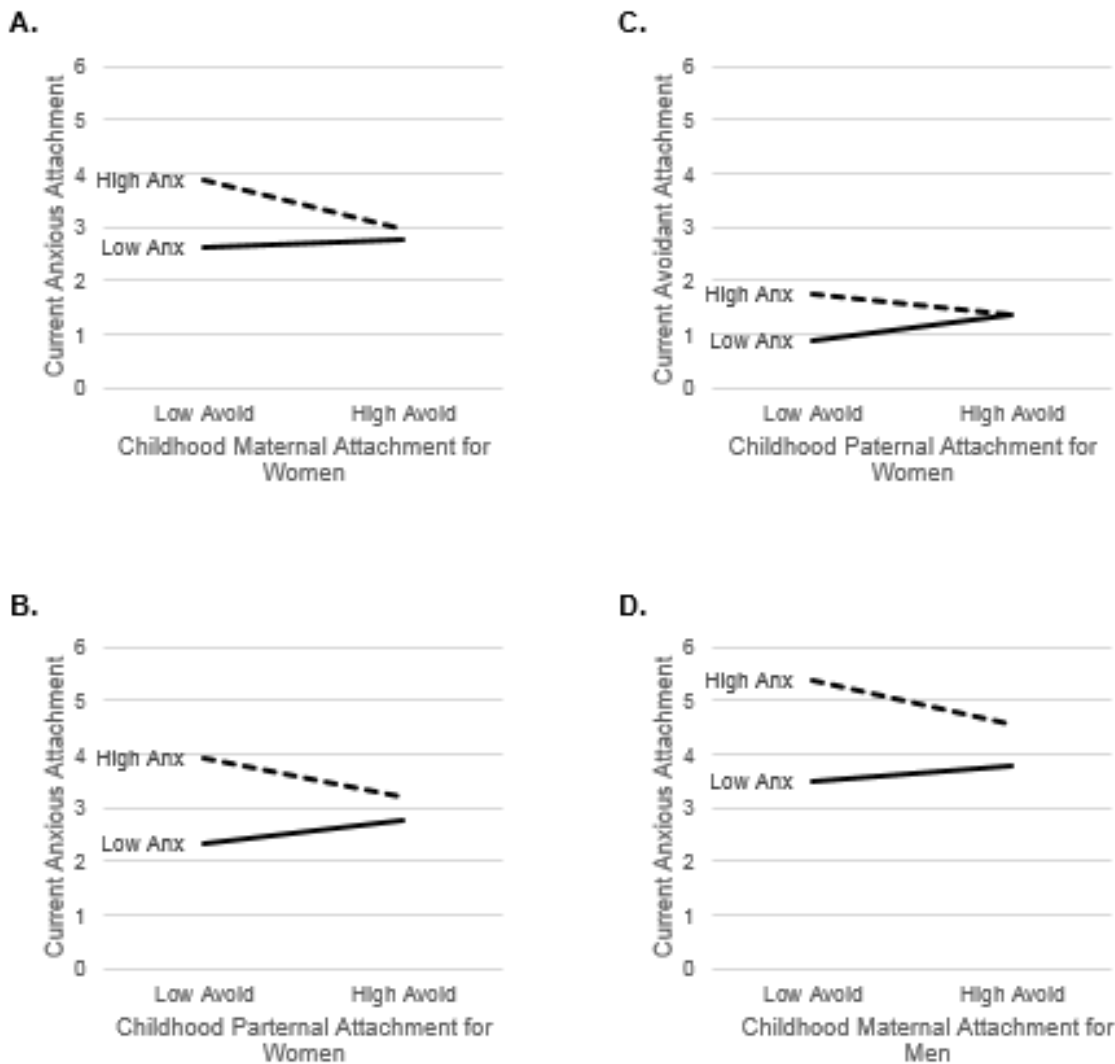
**Which Aspects of Childhood Attachment Predict Adult Attachment? Synergistic Effects of Anxiety and Avoidance in Relation to Mother and to Father**

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Bowlby (1969) postulated that the attachment system guides the formation and maintenance of close relationships “from the cradle to the grave,” a theoretical perspective that psychologists have since developed into a rich literature on attachment in adult romantic relationships (e.g., Hazan & Shaver, 1987). This study examined the relations between childhood and adult attachment with 679 heterosexual individuals residing in the United States (56% female, 82% White, mean age = 32.3) and recruited online through social media. Current attachment was assessed using the Experiences in Close Relationships–Relationship Structures Questionnaire (ECR-RS; Fraley, Heffernan, Vicary, & Brumbaugh, 2011). Past attachment was assessed with a modified version of the ECR-RS that asked participants to report feelings they had toward their attachment figures before the age of 13. Few main effects of childhood anxious or avoidant attachment on comparable dimensions in adult attachment were found. However, interactions assessing the synergistic effects of childhood anxious and avoidant attachment on adult attachment were found (Figure 1). These analyses facilitated examination of childhood attachment patterns on adult attachment, indicating that, as expected, securely attached individuals in childhood had the lowest levels of adult anxious attachment. Anxiously attached individuals in childhood reported high anxious attachment in adulthood, supporting the transmission of attachment between relationships and over time. Interestingly, those with both high anxious and avoidant attachment in childhood (i.e., fearful attachment) reported relatively low levels of anxious attachment in adulthood, supporting Bartholomew’s hypothesis (1990) that anxiously attached individuals may avoid others to protect themselves. We also highlight the contribution of paternal attachment to the development of romantic attachment in this study. Finally, we found that current attachment to parents did not significantly predict adult or romantic attachment, indicating that it is childhood parental attachment that matters for subsequent attachment.



**Figure 1.** Predicting romantic attachment: (A) interaction of childhood maternal anxious and avoidant attachment predicting anxious romantic attachment in women; (B) interaction of childhood paternal anxious and avoidant attachment predicting anxious romantic attachment in women; (C) interaction of childhood paternal anxious and avoidant attachment predicting avoidant romantic attachment in women; and, (D) interaction of childhood maternal anxious and avoidant attachment predicting anxious romantic attachment in men.

## References

- Bartholomew, K. (1990). Avoidance of Intimacy: An Attachment Perspective. *Journal of Social and Personal Relationships*, 7(2), 147-178. doi: 10.1177/0265407590072001
- Bowlby, J. (1969). *Attachment and Loss: Vol I. Attachment* (2nd ed.). New York, NY: Basic Books.
- Fraley, R. C., Heffernan, M. E., Vicary, A. M., & Brumbaugh, C. C. (2011). The Experiences in Close Relationships-Relationship Structures questionnaire: a method for assessing attachment orientations across relationships. *Psychological Assessment*, 23(3), 615-625. doi: 10.1037/a0022898
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52(3), 511-524. doi: 10.1037/0022-3514.52.3.511

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**Personality traits across middle childhood: does attachment security matter?**

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Exploring the attachment impact on understanding the origins of personality development in the middle childhood is a relatively new scientific field for the last decade (Hagekull & Bohlin, 2003; Goldner & Scharf, 2013; Fransson, 2014). As the middle childhood is very important developmental stage that predicts success in adolescence and adulthood it is important to understand the interlinkages between attachment security and personality traits (Fransson et. al, 2013). The current study addresses the role of attachment security for children's personality traits across middle childhood in a longitudinal community sample of 8-10 years old Lithuanian children (N = 119). Children described their relationships with their primary caregivers during Child Attachment Interview (CAI; Shmueli-Goetz et al, 2008) at the baseline. Both parents rated child's personality traits using Hierarchical Personality Inventory for Children (HiPIC; Mervielde and De Fruyt, 1999) at two measurement occasions separated by a 2-year interval. Although attachment security showed positively relationships with extraversion and imagination (from both mother ( $p < 0.05$ ) and father perspectives ( $p < 0.05$ )) concurrently and longitudinally. The hierarchical regression analyses revealed that attachment does not predict Emotional stability, Conscientiousness and Benevolence over two years beyond what is predicted by the initial levels of personality traits. However extraversion was predicted by attachment security according to mother ( $\beta = 1.72$ ,  $p = 0.035$ ) and father ratings ( $\beta = 2.84$ ,  $p = 0.01$ ) and imagination only from mother perspective ( $\beta = 1.7$ ,  $p = 0.001$ ). The findings are discussed in the light of developmental changes in attachment system during middle childhood and its relation to the dynamics of personality dimensions.



**Social Withdrawal, Attachment and Depression in Portuguese Adolescents**

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Behavior of consistently withdrawing oneself from the peer group has been linked with internalizing difficulties, as depression (Rubin & Coplan, 2010), and researchers postulated a number of moderating factors, including parent-child relationships, that might influence the associations between social withdrawal and adjustment outcomes (Chen & Santo, 2015). This study aims to analyze, from longitudinal perspective the relationship between social withdrawal, attachment relations (mother and father), and depressive symptomatology, in a sample of adolescents. Participants were 219 subjects from 7<sup>th</sup>-8<sup>th</sup> grade with average age of 14 years old. Data were collected using E.C.P. (peer evaluations of social behavior); K.S.S. (attachment quality), and C.D.I. (self-rated depression), in longitudinal and comparative perspective. Participants whose Shyness/Withdrawal standardized scores were in top 33% and Aggression standardized scores were in bottom 50% were assigned to the Socially Withdrawn Group. Comparison Group comprised those participants whose Shyness/Withdrawal and Aggression standardized scores were in bottom 50%. Only adolescents who were identified by their peers as socially withdrawn during two consecutive years were included. Multivariate analysis of variance (MANOVA) by group and gender was conducted and results showed significant differences between groups [ $F_{\text{Group}}(14,66)=9.63, p<.01, \lambda \text{ Wilk}=.27, \eta^2_p=.73, \pi=1.00$ ]. For social functioning, withdrawal adolescents were described as significantly less aggressive, less social and popular and more withdrawal/shy and excluded when compared with control group in the second year. Regarding attachment, as expected (Bowlby-Ainsworth theory), withdrawal adolescents reported significantly less security in attachment for mother and father. In relation to depressive symptomatology, social withdrawal group reported less interpersonal problems, more ineffectiveness and negative self-esteem when compared with control group. The present results support the contention in the literature about the negative consequences of social withdrawal, demonstrating that persistence of this behavior (at least during two consecutive years) can be associated with less secure attachment and depressive symptomatology.

**P-198**

**What do parents know about their children's understanding of emotions? Accuracy of parental mentalization in a community sample of pre-schoolers**

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*Background*

Parents' ability to correctly perceive their child's skills may have implications for the parent-child interaction and the child's social-emotional development. In some studies, parents have shown to overestimate their child's abilities in areas such as IQ, memory and language. Emotion Understanding (EU) is a skill central to children's emotion regulation, initially learned from their parents. Parents' ability to estimate a child's EU performance gives a measure of parental mentalization. The aim of the current study was to investigate how accurate parents mentalizations were at identifying their children's EU and which parental factors that were associated with this accuracy.

*Methods*

A community sample of 882 4-year-olds completed the Test of Emotion Comprehension (TEC). Parents were then instructed to guess their children's responses on the TEC. Possible associations of parental accuracy of mentalization were child actual performance on the TEC, child verbal skills, observed parent-child interaction, the education level of the parent, and child mental health.

*Results*

Ninety-one per cent of the parents overestimated their children's EU. On average, parents estimated that their 4-year-old children would display the level of EU corresponding to a 7-year-old. Higher accuracy of parental mentalization was associated with high child performance on the TEC, child advanced verbal skills, and more optimal parent-child interaction.

*Conclusion*

Parents' ability to estimate the level of their child's EU was characterized by a substantial overestimation. The more competent the child, and the more sensitive and structuring the parent was interacting with the child, the more accurate the parent was in mentalizing their child's EU.

**P-200**

**Preliminary findings from an attachment- and sensitivity-based intervention for at-risk families with young children in rural Canada**

**Symons D<sup>1</sup>**

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A number of attachment- and sensitivity-based home interventions have arisen following the criteria of effective interventions of Bakermans-Kranenberg et al. (2005). For example, Moss et al. (2011) reported on their own intervention in French Canada targeting families with young children and maltreatment histories which effectively doubled rates of attachment security and cut rates of disorganization in half. We have implemented this intervention for high risk families in a rural area of English Canada, and the goal of this presentation is to describe preliminary data from our program. Following Moss, there is an 8-week home-based intervention with videotape feedback components organized around sensitivity constructs, and assessments that address attachment security, sensitivity, parent trauma history and mental health. A small number of families have begun the program. Q-sort observations show that child security and parental sensitivity are highly related, with maltreatment history accounting for the lowest scores. Using clinical cutoff scores of parents, 66% of parents reported a significant child abuse history, 94% Axis II personality disorders, and 44% Axis I clinical syndrome scores revolving around depression, anxiety, and PTSD. Personality disorders revolved around Cluster B categories, and in fact, 28% score above the cutoff for BPD. On the AAP, none of the women were secure, 25% were dismissing, 25% were unresolved, and 50% were unresolved, with these last two categories accounting for all the major mental health problems, a majority of personality disorders, most of the childhood abuse history, and being more common in maltreatment groups. The average pretest-post-test increase in Q-sort scores was .47, and half showed dramatic improvement. This intervention study has not been without challenges, but initial findings are heartening. Results are in keeping with the importance of trauma history to mental health problems, disorganized attachment, and the ability to benefit from attachment-based intervention.

**Disordered Eating, Body Image, Hostile Parental Discipline, and Attachment**

Bishop V<sup>1</sup>, Stupica B<sup>1</sup>

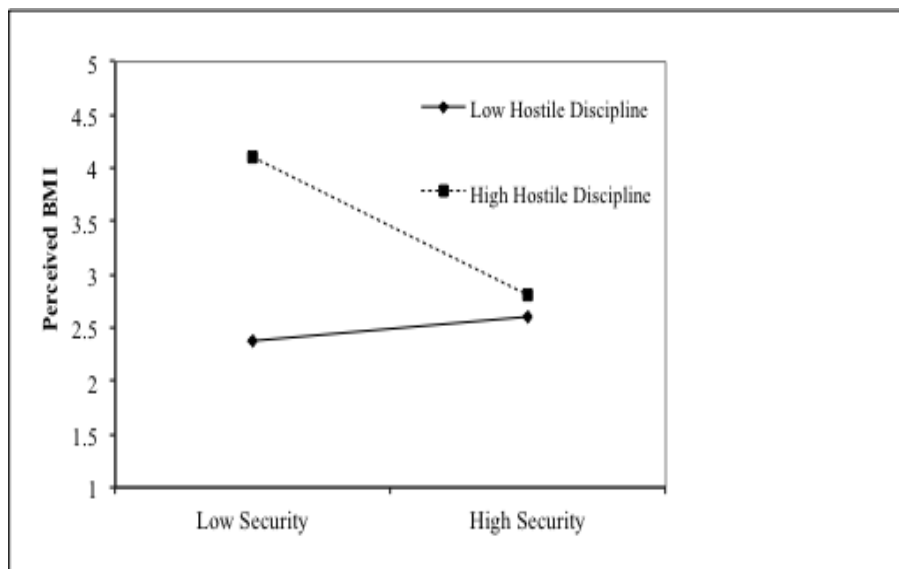
<sup>1</sup>Alma College

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Parental use of harsh discipline and attachment insecurity are linked to disordered eating (see Cassidy & Shaver, 2016 and Paolucci & Violato, 2004). Lacking, however, is research on how both hostile parental discipline and attachment predict disordered eating and its correlates. This study examines how hostile parental discipline and attachment influence disordered eating, body mass index (BMI), perceived BMI, fasting, purging, bingeing, having felt fat or feared becoming fat, and judging oneself based on body shape and size.

Undergraduates ( $N=101$ , 75.2% women) completed measures on childhood experiences of hostile parental discipline (Robinson et al., 1995), attachment style (Experiences in Close Relationships; Brennan et al., 1998), body mass index (BMI) and perceived BMI, and eating behaviors and cognitions (Eating Attitudes Test; Garner et al., 1982).

Multiple regression analyses (controlling for sex, age, semesters of college completed, and parental education) with parental hostile discipline, attachment, and their interaction entered as predictors for each of the aforementioned outcomes revealed no effects for BMI or having felt fat or feared becoming fat. Increased experiences of childhood hostile discipline predicted increased fasting ( $B = 0.493$ ,  $SE = .245$ ,  $p = .048$ ) and bingeing behaviors ( $B = 0.223$ ,  $SE = .106$ ,  $p = .038$ ). Lower levels of attachment security predicted increased judging oneself based on body shape and size ( $B = -0.592$ ,  $SE = .254$ ,  $p = .023$ ), purging behaviors ( $B = -0.761$ ,  $SE = .315$ ,  $p = .018$ ), and bingeing behaviors ( $B = -0.299$ ,  $SE = .117$ ,  $p = .012$ ). In addition, students with low levels of attachment security and high levels of hostile discipline perceived their BMI as four standard deviations larger than students reported on average (see Figure).



**Figure.** Hostile discipline as a moderator of the link between attachment security and perceived BMI.

**P-204**

### **Mother-child early interactions evolution along the first two years of life**

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The aim of this study is to analyze if the early interactions between the mother and her child undergo changes during the first two years of the child's life. Given the relevance that the quality of the interactions have over the whole infant development and on the attachment quality particularly, we consider that is necessary to analyze in this early moments of child's development, which are the most distinctive interactive patterns of a quality interaction that take place between mother-child dyad according with the demands of the child's evolutionary moment.

The participants were forty nine mother-infant dyads from general population. The infant development level and the interactive patterns of the dyads were assessed at 6, 12, 18 and 24 months, with the Bayley Scales of Infant Development, BSID II (Bayley, 2006), and the Early Mother-Child Interaction Coding System- Revised Version, CITMI-R (Trenado y Cerezo, 2007), respectively.

The quality mother-child early interactions, typical of the Maternal Sensitivity and Sensitive upbringing, which work as a protective factor of the infant development, tend to evolve during the first two years of children's life with: an increase of the Maternal Sensitive responses along the time, and a decrease of the Maternal Intrusive and Protective responses, observing an adjustment of the mother behaviours to the infant needs and demands, consistent with child's evolutive moment.

P-206

## Intergenerational Transmission of Role Confusion – The Contributions of Attachment Orientations and Self-Fragmentation

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Role confusion between a child and his parents occurs when emotional aspects in traditional parent-child roles become confused or reversed. Most studies have found role confusion as a major risk factor for child development. Lately, developmental researchers view role confusion as part of a mother's atypical maternal behavior and related to mother's insecure attachment, helplessness, and unresolved trauma or loss. However, very few studies have examined the intergenerational transmission of role confusion and have attempted to explore the ways by which mother's inner structure of the self contribute to this phenomenon. In the current study, we examined the intergenerational transmission of role confusion through the lens of attachment theory and Kohut's self-psychology. A total of 66 Israeli families participated in the study, in which both mothers and their teenagers' child (aged between 12 and 18) completed all the following questionnaires. Role confusion was assessed using two scales from the Inadequate Boundaries Questionnaire (IBQ), one scale tapping child's guilt feelings towards mother and the other tapping child's parentification behavior. Attachment was measured using the Experience in Close Relationship scale (ECR). In order to assess participant's self-structure, based on self-psychology, we built and validated a new self-report tool called Fragmented Self Inventory (FSI). Regression analyses and Hierarchical Linear Modeling did not find a simple trajectory of intergenerational transmission of role confusion. Rather, these analyses revealed that this transmission (mainly along the guilt feelings subscale) was moderated by mothers' insecure attachment. Also a very strong association was found between insecure attachment and self-fragmentation (within- and between-generations). The interconnections between parentification, attachment, and self-fragmentation are discussed.

P-208

**A multidimensional investigation of interpersonal and human-animal attachment: Associations with empathy and anthropomorphism in Romanian cultural context**

**Costea Barluti C<sup>1</sup>**, Rusu A<sup>1</sup>

<sup>1</sup>*Babes-Bolyai University, Special Education Department*

Poster Session 8, July 1, 2017, 3:15 PM - 4:45 PM

Attachment theory represents one of the most fruitful recent theories of significant relationships. Stemming from research and clinical practice on mother-child dyads, subsequently extended to adult relationships, it is nowadays a promising framework for the investigation of other types of relations, such as human-animal interactions (HAI). HAI significantly contribute to the development of heterospecific social networks, with potential impact on the well-being of both humans and animals. The purpose of the current study was to investigate the complex associations between interpersonal and human-animal types of attachment, empathy towards animals and anthropomorphism, in the Romanian cultural context, where problems and dilemmas regarding the effectiveness of pet management programs are still being reported, while the use of attachment-based intervention in clinical practice is in its early years. A sample of 244 adult respondents, aged between 17 and 66 years ( $32.9 \pm 9.7$ ), mostly females (89.8%) and animal owners (84.4%) completed standard measures of interpersonal and pet attachment, empathy towards animals and anthropomorphism. Our data indicate significant correlations between both anxiety and avoidance dimensions of pet and interpersonal attachment, proving similitudes between the two types of relationships, between anxiety in the relationship with the pet and anthropomorphism, as well as negative associations between avoidance on one side, and empathy towards animals and anthropomorphism on the other side. Several comparisons were made, based on socio-demographic aspects and the investigated variables, such as: participants' gender, marital status, as well as the type and number of companion animals owned. The findings will be discussed in terms of both attachment theory and ethological models of HAI, and the implications for the optimization of training and intervention programs concerning responsible ownership and well-being of humans and animals will be emphasized.

## S9.3

### The embodiment of attachment in action

#### Feniger-Schaal R<sup>1</sup>

<sup>1</sup>*University of Haifa*

Symposia 9.3, Drama Studio, Level 1, July 1, 2017, 4:45 PM - 6:15 PM

This workshop will offer the opportunity to experience the way attachment patterns are encapsulated in our body and how a simple movement interaction can express the internal working model. The workshop is based on a multidisciplinary study that included scientists from the Weizmann institute and from the University of Haifa. This study group used the mirror game (MG) as a paradigm to explore the experience of togetherness. The MG is a commonly used exercise in theatre practice where players are mirroring each other's movements. This paradigm enables the investigation of themes like synchrony, affect, co-regulation, exploration and more. In our study the participants played the mirror game, and the data was analyzed using computerized and non-computerized coding. In addition, all participants were interviewed on the AAI. As a result we gained broad understanding and experience in looking at non-verbal behavior during dyadic interaction of adults. During the workshop we hope that the participants will be able to experience the connection between body and attachment.

\*participants are advised to come in comfortable clothes and ready to be active participants



## S9.4

### Joining together and reflecting on attachment theory, research and practice

King D<sup>1,2</sup>

<sup>1</sup>*International Attachment Network*, <sup>2</sup>*Institute of Group Analysis*

Symposia 9.4, Clarke Hall, Level 3, July 1, 2017, 4:45 PM - 6:15 PM

Large groups were developed in the UK by Pat de Mare, a psychiatrist and group analyst, who was a member of IAN. Amid the intense programme of speakers, symposia and posters during any international conference, there is often little time to reflect, share ideas and experiences and get to know other delegates you have not met before. The aim of this session will be to create a space for a structured form of group dialogue at the close of the conference, which will also facilitate a sense of belonging, cohesion, cooperation and future expansion of our international network of attachment researchers and practitioners in promoting attachment theory and its ideas.

## S9.5

### **Predictors, correlates and consequences of resolving loss, relationship breakup and traumatic experiences: What attachment interviews can tell us**

**Behringer J<sup>1</sup>, Crowell J<sup>2</sup>, Steele H<sup>3</sup>, Cirasola A<sup>4</sup>, Hillman S<sup>4</sup>, Fonagy P<sup>5</sup>, Chiesa M<sup>5</sup>, Fearon P<sup>5</sup>, Heider J<sup>1</sup>, Stellmann K<sup>1</sup>, Spangler G<sup>1</sup>, Lux U<sup>6</sup>**

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Symposia 9.5, Nunn Hall, Level 4, July 1, 2017, 4:45 PM - 6:15 PM

### **Mapping the road from childhood adversity to personality disorder: The role of unresolved states of mind**

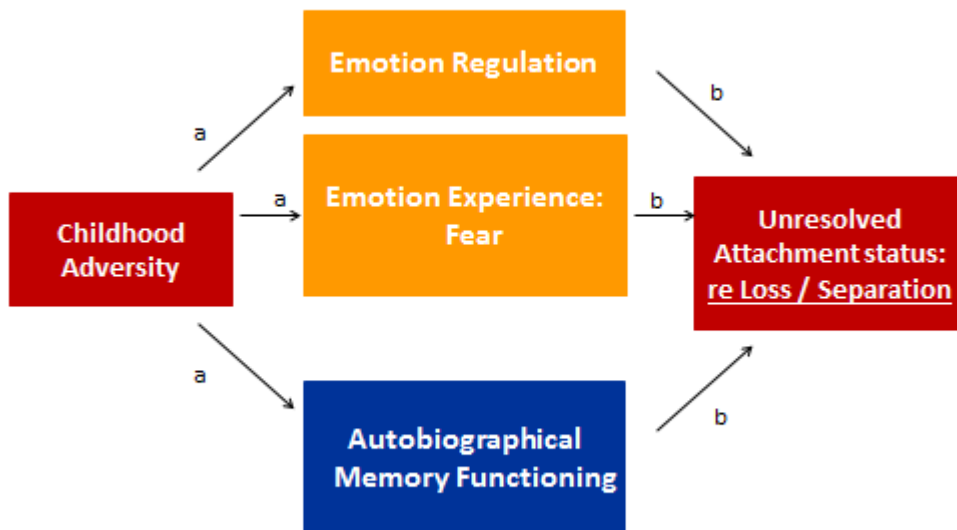
A growing body of literature has consistently illustrated the key role of environmental early experiences in the aetiology of personality disorder (PD). However, controversy surrounds the role of trauma and early social experiences in the development of PD. In particular, little is known of the means by which continuities from infancy through adulthood might be mediated. Among different perspectives, attachment theory has proved to be an important framework for a subtle understanding of the potential consequences of childhood trauma on psychological functioning in later life. Research has consistently backed the role of unresolved/disorganised attachment, both as sequelae of traumatic experiences and as a risk factor for subsequent development of PD. However, the role of disorganized attachment with unresolved mental states for traumatic experiences requires further investigation. This study explores the relationship between childhood adversities, unresolved states of mind, PD diagnosis and psychiatric distress. 245 adult participants, 124 from a clinical PD group and 121 non-psychiatric controls were assessed using the Structured Clinical Interview for DSM-IV, the Cassel Baseline Questionnaire, the Symptom Checklist-90-R and the Adult Attachment Interview, in order to ascertain presence of PD, childhood adversity, level of psychiatric distress and unresolved states of mind. Within the overall unresolved (U-overall) attachment category, a distinction was made between unresolved for abuse (U-abuse) and unresolved for loss (U-loss). The results indicated that childhood adversity was significantly associated with unresolved states of mind, as well as with overall PD diagnosis, paranoid PD, borderline PD, avoidant PD and psychiatric distress. Mediation analyses confirmed that U-overall and U-loss were significant mediators between childhood adversity and PD diagnoses, but surprisingly, U-abuse was not a significant mediator. The strength, limitations and clinical implications of the findings are discussed.

### **Is there something like vulnerability toward remaining Unresolved with regard to loss and/ or separation? Test of a mediation model to predict AAI Unresolved status from early adversity, emotion regulation, and autobiographical memory functioning**

Unresolved status in the Adult Attachment Interview (AAI) is particularly prevalent in clinical groups and predicts infant attachment disorganisation, but little is known about predictors of Unresolved loss. It is also unclear whether relationship break-up may cause a state of mind paralleling Unresolved loss following bereavement. Previous research (Bailey et al., 2007; Fearon & Mansell, 2001; Hesse & Main, 2000; deOliveira et al., 2005) highlights the relevance of early adversity, unintegrated autobiographical memories, fear, and emotion regulation deficits in Unresolved status. The aims of this study are to (1) define criteria for Unresolved separation following relationship break-up, (2) investigate the predictive value of autobiographical memory deficits, emotion dysregulation, and fear for U-status re loss / separation; (3) test a mediation model with early adversity, fear, unintegrated memories, and emotion regulation deficits predicting U-status (see figure below).

130 adults, bereaved or separated up to 6 years previously, were administered the Childhood Trauma Questionnaire CTQ, the AAI (Main & Goldwyn, 1985/2002), the Emotion Dysregulation Scale (EDS; Bradley et al., 2011), the Hospital Anxiety and Depression Scales (HADS) and the Continuous Word Association Task (CWAT; Brewin & Soni, 2011). The CWAT captures vividness of involuntary memories elicited during cue-word triggered word associations, which – if highly vivid – may be regarded as a mild form of memory intrusions.

Preliminary analyses using 80 AAls revealed significant correlations between CTQ scales, emotion dysregulation in the EDS, HADS anxiety, vividness of involuntary memories (particularly in response to negative cue words), and U-status re Loss and/or Separation, as well as overall U-status. At this stage, the hypothesised model can be confirmed for vividness of involuntary memories ( $b = -.02$ , 95% CI [.009, .057] mediating the association between CTQ overall score and overall U-status, and for anxiety ( $b = -.04$ , 95% CI [.005, .116]) mediating the association between CTQ overall score and U-separation.



### The influence of previous pair bonds on attachment representations: Resolving relationship breakup in young adulthood

Partner relationships gain seriousness and emotional intimacy in young adulthood, become more long-lasting, and are more likely to figure as attachment relationships. Accordingly, separation experiences are likely to be more salient events. Attachment theory not only provides a framework for understanding partnerships in adulthood, but also stresses the importance and potential influence of separations from attachment figures like parents and former partner. Insecure attachment in partnerships is linked to less adaptive and more dysfunctional coping with separation (Davis, Shaver & Vernon, 2003). Surprisingly, in the tradition of developmental psychologists using attachment interviews, research on relationship breakup is scarce. Employing a retrospective design, this study wants to close this gap by shedding light on IWMs of former relationships and the significance of individual differences of attachment representations to overcome separations from non-marital partners.

Data was taken from 30 heterosexual couples (60 young adults with a mean age of 26 years) who had at least one former partnership of more than 18 months ( $\bar{M} \sigma 27$  and  $\bar{M} \sigma 42$  months). As indicator of attachment representations in the previous partnership a new developed Former Relationship Interview (FRI; Lux, 2017) adapted from the CRI (Crowell & Owens, 1998) were used. In line with hypotheses, individual differences in IWMs are also present in evaluating former relationships: 41.7% were classified Secure vs. 38.3% Dismissing or 20% Preoccupied respectively. Women significantly more often than their former partners were the initiators of the breakup. They also show more constructive coping behaviour than men in the sample (captured by a new Coping Behaviour Scale in the FRI). Besides gender also FRI-Coherence is connected to constructive coping with breakup ( $r = .533^{***}$ ), with secure participants using more emotional support and focussing on new goals than insecure ones. Resolving separation is being shown as meaningful for current relationships.

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