

«I want something better for my baby than what I had!»

Supporting and modelling competent caregiving among psychiatrically ill parents

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« If there is one theme that runs throughout the pages of our case records it is: 'I want something better for my baby than what I had myself.' »

Fraiberg S (1980). Clinical Studies in Infant Mental Health. New York: Basic Books, Inc., p. 28.

The acquisition of self-regulation of emotion by the age of 4-5 years is essential for socialization and learning

The path towards the achievement of self-regulation of emotion begins during infancy with mutual emotion regulation between mother and baby

- This process occurs in the context of primary attachment (Hofer, 1994).
- It involves a bidirectional system between mother and infant that is asymmetric:
 - The infant is hard-wired to seek proximity and emotional responsiveness from mother since birth.*
 - But the mother, an adult, has clearly more capacities to understand, modulate and respond to her infant's emotional communication. and is thus essential.*

Factors that interfere with maternal participation in mutual emotion regulation

- Stress
- Trauma
- Psychopathology



A range of parental psychopathology is associated with impairment of participation in mutual regulation in different ways and during different sensitive periods

(Schechter & Willheim, 2009, *Child & Adolescent Psychiatry Clinics of N. America*)

- Having a schizophrenic mother represents the greatest risk for placing an infant outside the home due to inadequate care, followed by bipolar disorder and major depressive disorder (Ranning et al., 2015).
- Mothers with affective and schizophrenic disorders are prone to higher risk of child death (Liu, Chen & Loh, 2010)
- Primiparous mothers with subclinical depression differed significantly from healthy control mothers, i.e. showed poorer mother-to-infant attachment and higher infant-related hostility 6-8 months postpartum. (Behrendt, 2016)

Some effects of maternal major depression across development

Canadian Pediatric Society. Maternal depression and child development. (2004). <i>Paediatrics & Child Health, 9(8), 575–583.</i>	Prenatal	Inadequate prenatal care, poor nutrition, higher preterm birth, low birth weight, pre-eclampsia and spontaneous abortion
	Infant	
	Behavioural	Anger and protective style of coping, passivity, withdrawal, self-regulatory behaviour, and dysregulated attention and arousal
	Cognitive	Lower cognitive performance
	Toddler	
	Behavioural	Passive noncompliance, less mature expression of autonomy, internalizing and externalizing problems, and lower interaction
	Cognitive	Less creative play and lower cognitive performance
	School age	
	Behavioural	Impaired adaptive functioning, internalizing and externalizing problems, affective disorders, anxiety disorders and conduct disorders
	Academic	Attention deficit/hyperactivity disorder and lower IQ scores
Adolescent		
Behavioural	Affective disorders (depression), anxiety disorders, phobias, panic disorders, conduct disorders, substance abuse and alcohol dependence	
Academic	Attention deficit/hyperactivity disorder and learning disorders	

Different disorders, different effects

- Compared with a non-schizophrenia group, the speech of mothers with schizophrenia was less infant-focused... but showed a trend towards fewer negative comments than depressed controls. (Wan, Penketh, Salmon, & Abel, 2008)
- Mothers with anxiety disorders such as Obsessive-Compulsive Disorder (OCD) and Panic Disorder (PD) were less sensitive (Challacombe et al., 2016)(Warren et al., 2003)
- Borderline Personality Disordered mothers were rated as more "intrusively insensitive" toward their infants (Hobson et al., 2005) and also distinguished by the prevalence of their frightened/disoriented behaviour (Hobson et al., 2009)

Mothers despite severe mental illness can be «good mothers» and stable attachment figures even in the event of placement outside the home

- The most important determinant of an ongoing relationship we found in our clinical and research observations was that of a secure, organized attachment, permitting enough trust to seek and persevere in self-care and in care for one's child
- Clinical illustrations published in the Signal of the WAIMH by Almeida, Merminod, & Schechter, January-March, 2012
file:///C:/Users/daniel/AppData/Local/Microsoft/Windows/INetCache/IE/WYL6KV1K/signal_1_2012.pdf
- Research observations using RF as marker in the Infant Mental Health Journal by Schechter et al., 2006
<http://europepmc.org/backend/ptpmcrender.fcgi?accid=PMC2078524&blobtype=pdf>



Blood will have blood

(Shakespeare: Macbeth, Act III, Scene 4)

- Exposure to childhood maltreatment and family violence is associated with subsequent development of psychopathology in adulthood AND violence perpetration
- Across a range of psychopathology
- Witnessing domestic violence showed the strongest risk for adult violence (AOR 2.70, 95% CI 2.00, 3.65) through a direct pathway, with psychotic symptoms and antisocial PD as partial mediators.
- Childhood physical abuse was associated with IPV (AOR 2.33, 95% CI 1.25, 4.35), mediated by antisocial PD and alcohol dependence.

Ref: Gonzalez et al., 2016 Child Abuse & Neglect

Domestic violence affects over 100,000 women in Germany

For the first time, in November 2016, federal police released national data on violence in relationships in Germany. The Federal Criminal Police Office (BKA) together with the German Minister for Family Affairs, Manuela Schwesig, released the following statistics:

- In 2015, a total of 127,457 people in relationships were targets of murder, bodily harm, rape, sexual assault, threats and stalking.
- **Eighty-two percent, or over 104,000, of these were women.**
- Among the women, over 65,800 suffered simple injuries, 11,400 were badly injured, 16,200 were subjected to threats and nearly 8,000 were victims of stalking. Three hundred thirty-one women were killed intentionally or unintentionally by their partners.

Maternal Posttraumatic Stress Disorder (PTSD) related to interpersonal violence (IPV) exposure

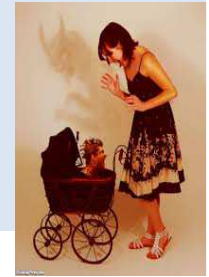
- **Interpersonal violence (IPV; i.e. child physical and sexual abuse, domestic violence, physical assault, rape, combat, etc) is among the most traumatogenic of human experiences (Breslau et al., 1991).**
- With a prevalence of only 6-7% in the general U.S. population, **PTSD prevalence** among victims of IPV can be as high as 60-80% (Gabbay et al., 2004; Breslau et al., 1991)
- In the U.K., showed that rates of IPV-PTSD have tripled among women ages 16-24 between 2007 and 2014 (4.2% to 12.7%) (NHS Statistics, September, 2016)
- PTSD is characterized by “intense fear, helplessness, and horror” related to life-threatening events, the memories of which do not extinguish over time (Rothbaum & Davis, 2003; Wessa & Flor, 2007)
- PTSD typically involves re-experiencing, avoidance/numbing, hypervigilance, and negative cognitions (APA, DSM-5, 2013)

First studies of PTSD and parenting



- Lyons-Ruth & Block (1996) found a significant association between maternal IPV-PTSD and atypical maternal behavior that was characterized by hostility and intrusiveness.
- Multiple studies have since shown that general maternal psychological functioning in the wake of violence exposure is a strong mediator of the impact of violence exposure on the child (Scheeringa & Zeanah, 2001, 2015).
- *We wondered about the effects of the infant and toddler's normative emotion dysregulation on the traumatized parent*

So where is the threat?: Hypotheses



- The child becomes a threat to the traumatized parent – parent avoids child



- And since the child cannot understand the avoidant and/or aggressive behavior of his traumatized parent, the parent becomes an unpredictable threat to the child – child gets more distressed

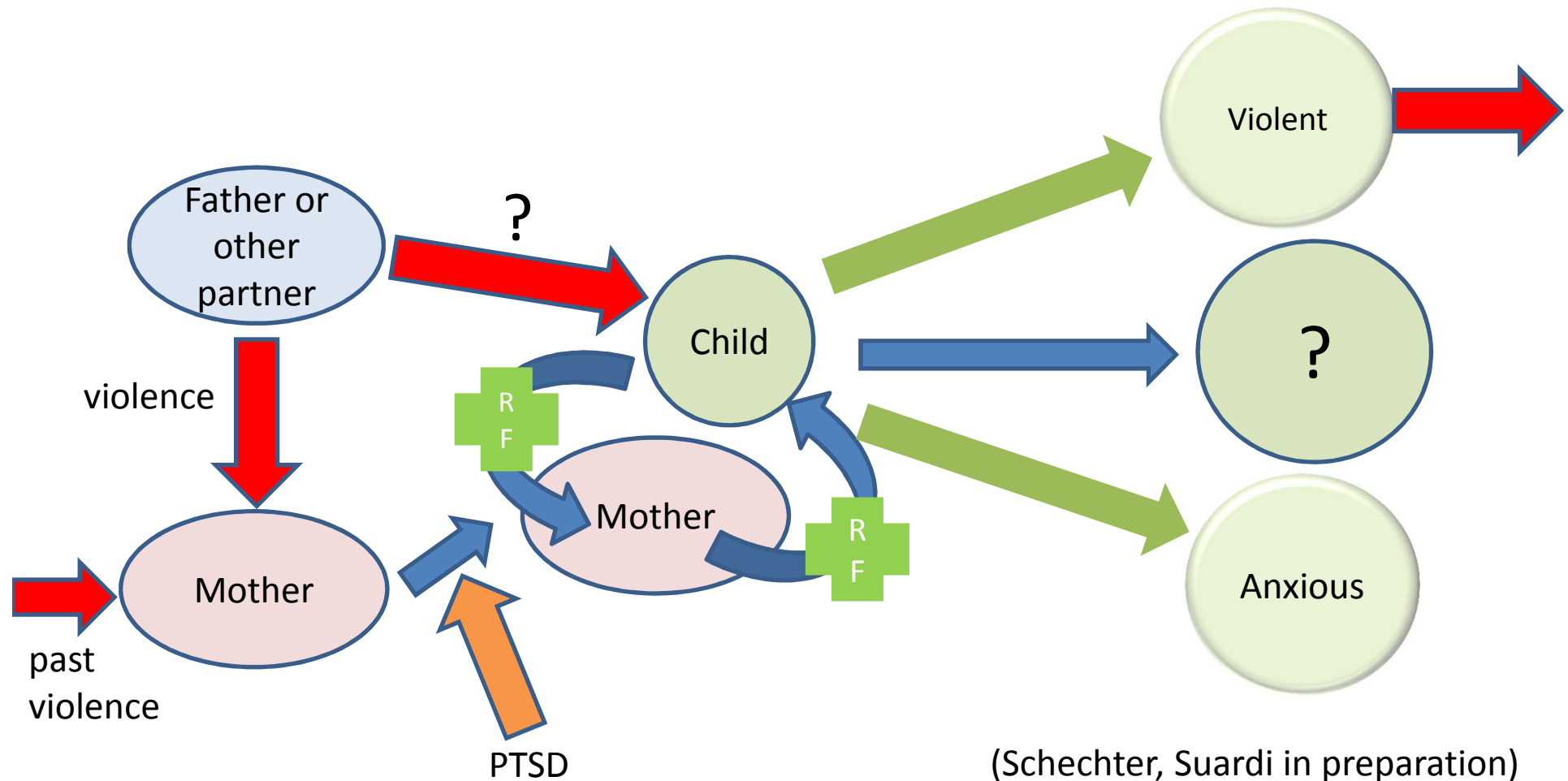


- Both become trapped in a vicious cycle of mutual dysregulation leading to risk for the child



Understanding mechanisms that underlie intergenerational transmission

How does this dysregulated parent-child relationship affect child developmental psychopathology?

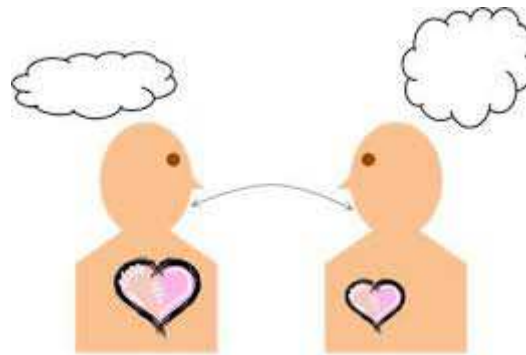


« RF » = « Reflective functioning », a marker for secure attachment as protective factor

Resilience factor in the context of child-parent attachment? Reflective Functioning (RF) an operationalization of mentalization

(Fonagy et al., 1998; Slade, 2005)

- RF in this context refers to an individual's capacity to attribute mental states (thoughts & feelings) to others and to herself in an interpersonal context and in an effort to understand motivations for behavior (“holding others and oneself in mind”)

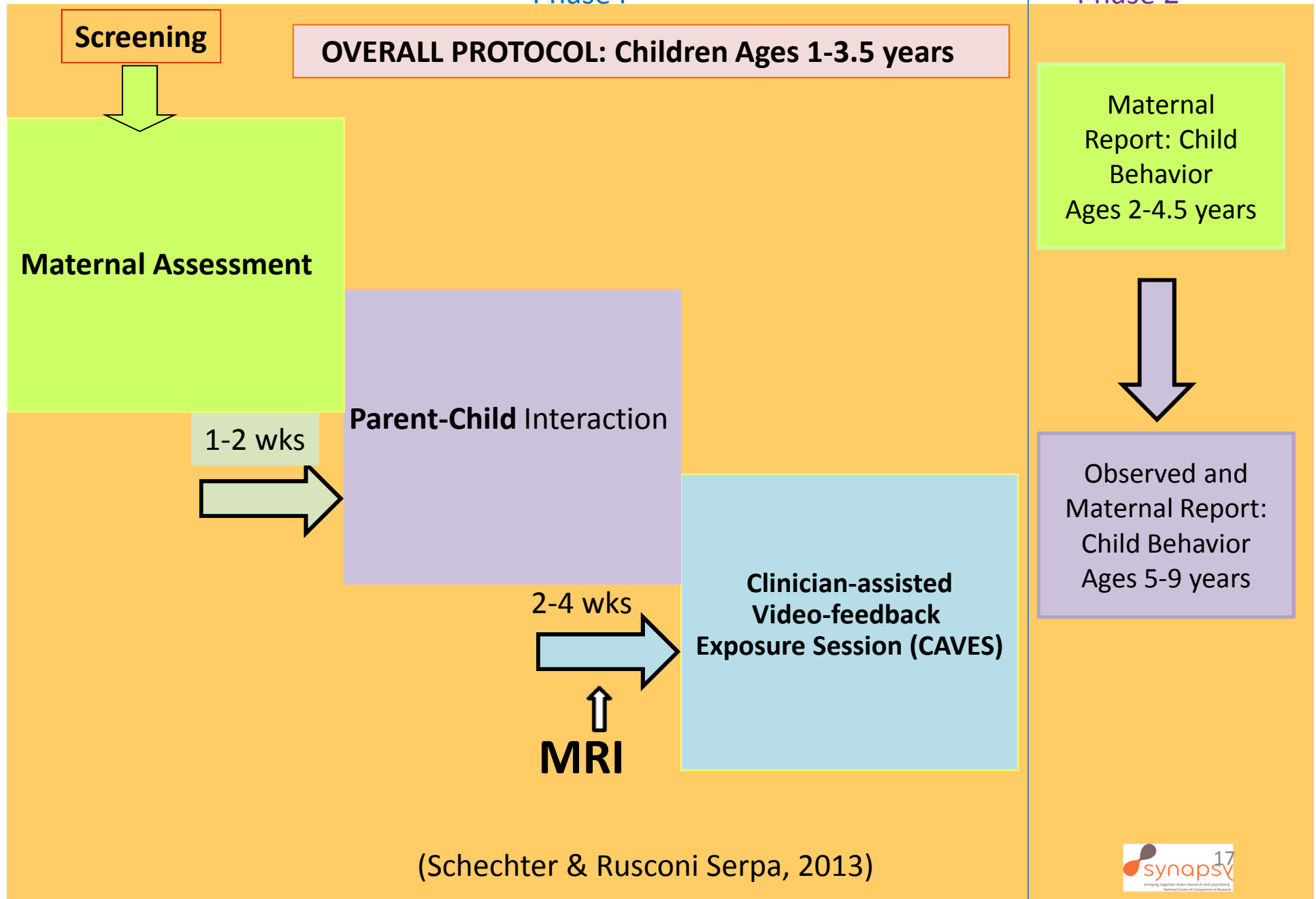


- Parental Reflective Functioning (PRF) (Slade, 2005) refers rather to an individual parent's capacity to attribute mental states to her child and in herself in an interpersonal context (“holding one's child and oneself in mind” see Coates SW, 1998)

Geneva Early Childhood Stress Project within the NCCR-SYNAPSY

Phase I

Phase 2



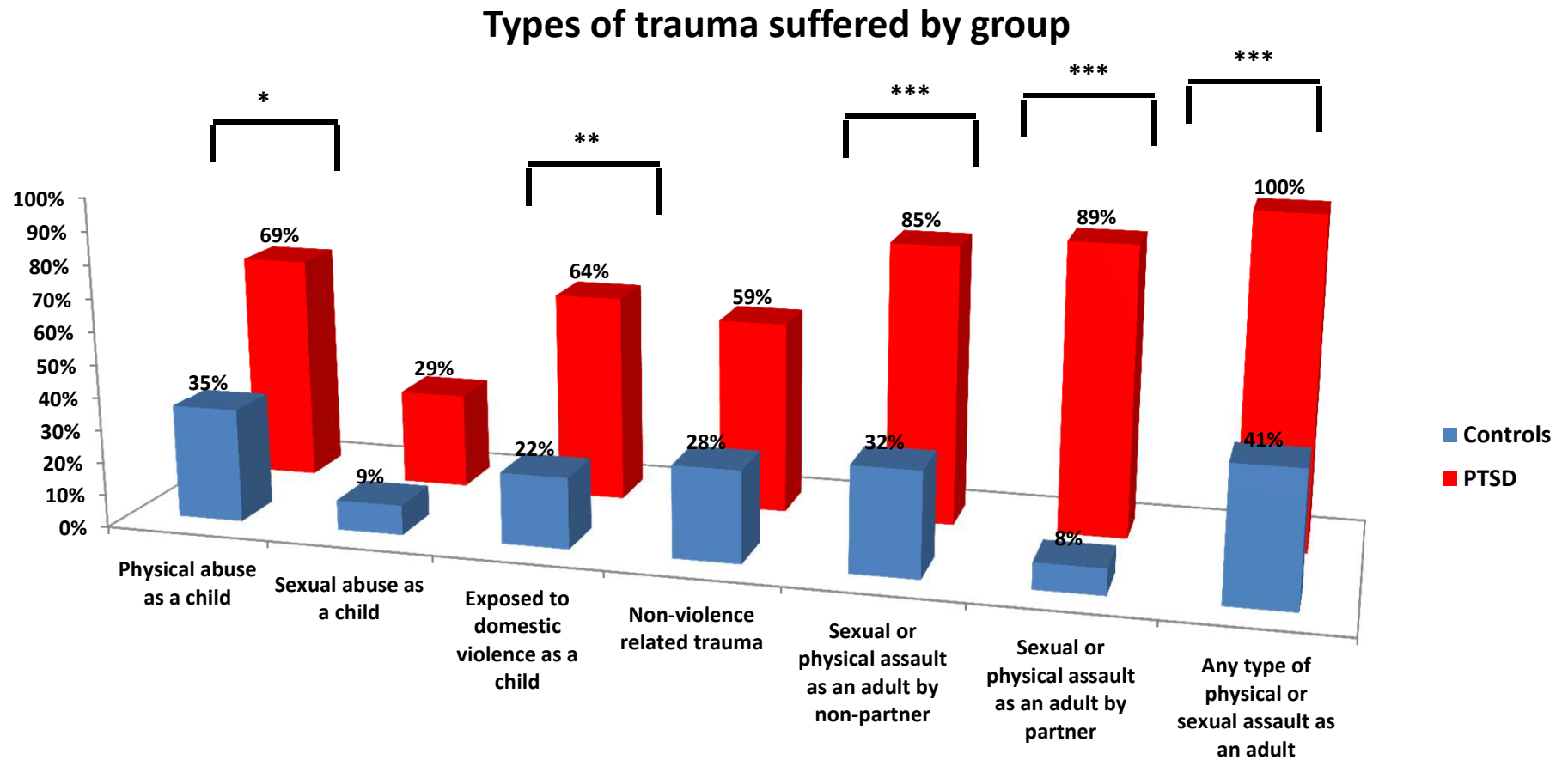


Sampling

- Flyers in community, hospitals and domestic violence agencies for over-sampling of violence-exposed mothers
- Adult French-speaking mothers, who were not actively substance abusing, psychotic, pregnant, and who could participate in study tasks
- Biological children ages 12-42 months, living with mother, who could participate in study tasks
- Fathers not interviewed for ethical reasons
- **Recruited 123 dyads, out of which 99 adult mothers with children mean age 26.9 months (SD 8.8) had complete data: 64 mothers with PTSD out of which 49 had IPV-PTSD and 35 mothers without PTSD (controls)**
- **No significant maternal & child age and gender group differences ($p > .3$) (Schechter et al., 2015)**

Maternal exposure to trauma

(Schechter et al., 2015 CHUD)



N=84 out of 99 subjects with complete data (excludes 15 mothers who had PTSD due to non-IPV events)

Can the young child trigger traumatic memory traces in mothers with IPV-PTSD?

[15-month-old girl and traumatized mother during separation](#)

Mother: «I can't stand it when babies cry... it means putting up with being helpless!»

There is likely a developmental window (i.e. sensitive period) specific to the effects of certain forms of parental psychopathology on children (Fuchs, Möhler, Resch, & Kaess, 2015)

Women with severe sexual and/or physical abuse were included in maltreatment group (n=58; MG) and compared with non-maltreated comparison group (n=61; CG).

Emotional availability (EA) was investigated under experimental conditions when the children were 5 and 12 months of age

12-month-old children had more difficulty than 5-month-olds

These data indicate that the period when child locomotion develops might represent a critical time window for mothers with a history of abuse...

Consistent with recent studies: Maltreated mothers' depression had greater effect on mother-child interaction than PTSD during the first 6-months of life (Muzik et al., 2016)

PTSD had more of an effect on mother-child interaction than depression during 2nd and 3rd years of life (Schechter et al., 2010, 2015; Chemtob et al., 2013)

MAIN RESULTS: 3 TYPES OF PSYCHOBIOLOGICAL DYSREGULATION

**BEHAVIORAL/EMOTIONAL
PHYSIOLOGIC
NEURAL ACTIVITY**

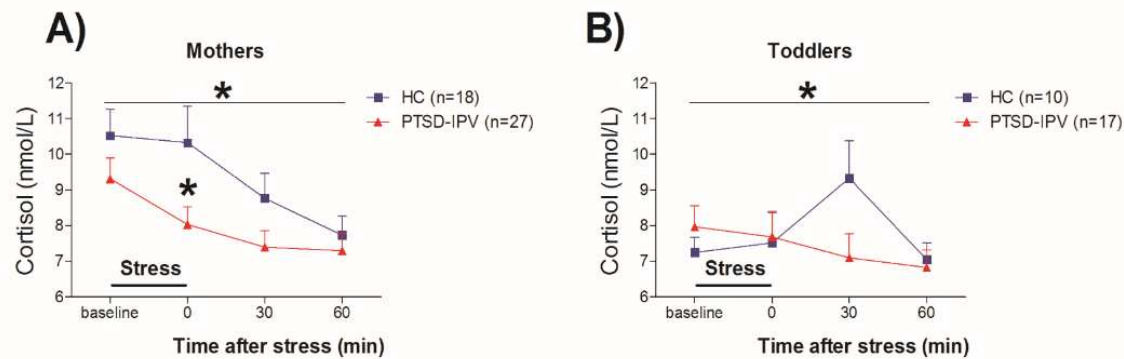


Physiological Dysregulation of the HPA-Axis among Mothers with IPV-PTSD

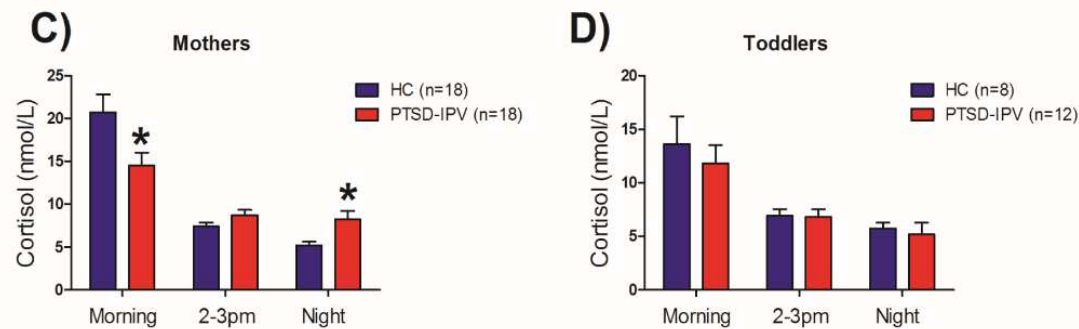
Salivary cortisol reactivity to separation stress and circadian rhythms (N=45) (Cordero et al., in revision)

Consistent with methylation results for glucocorticoid receptor NR3c1 (Schechter et al., 2015, *Frontiers*)

Stress Reactivity



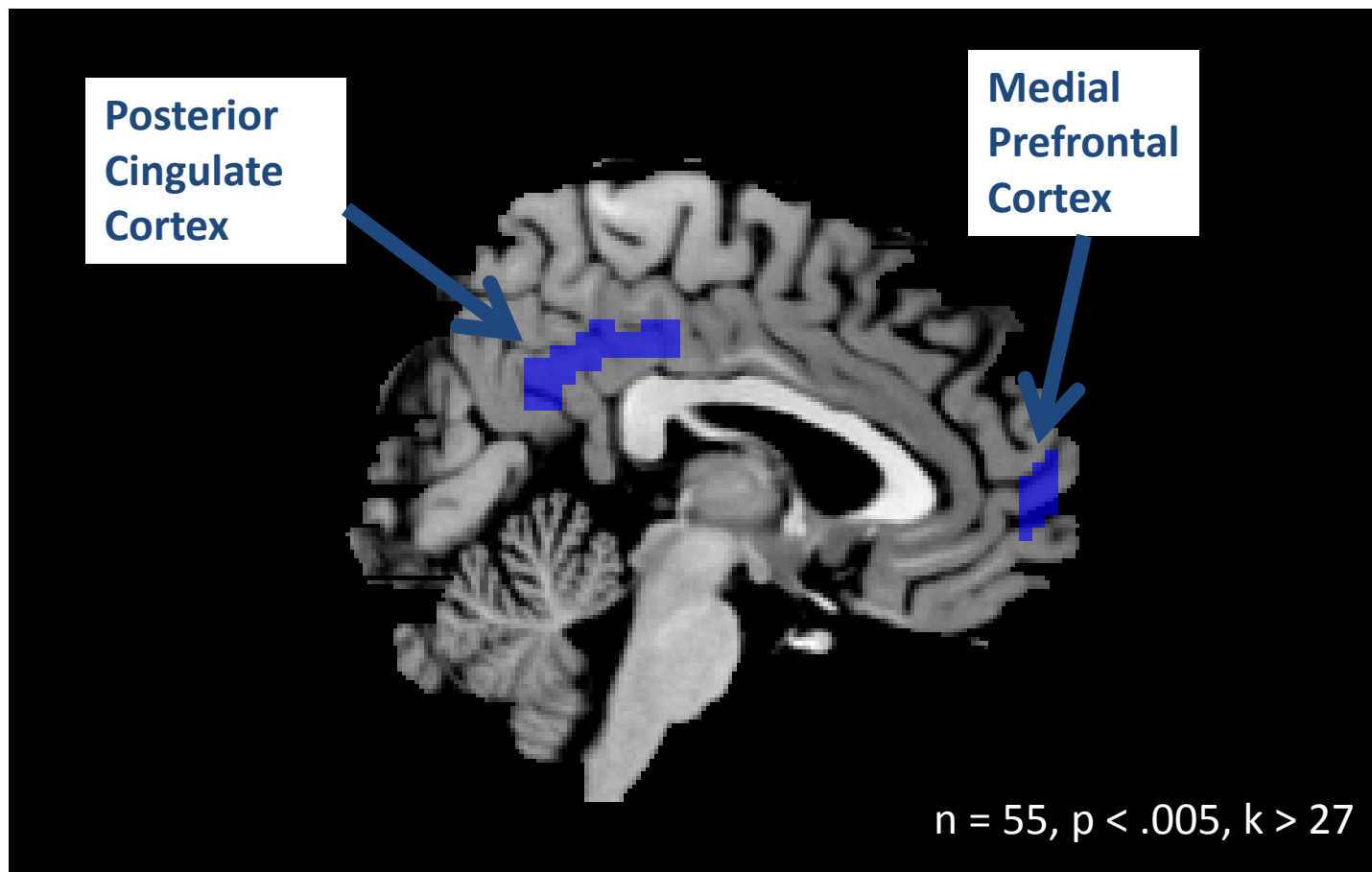
Basal levels at home



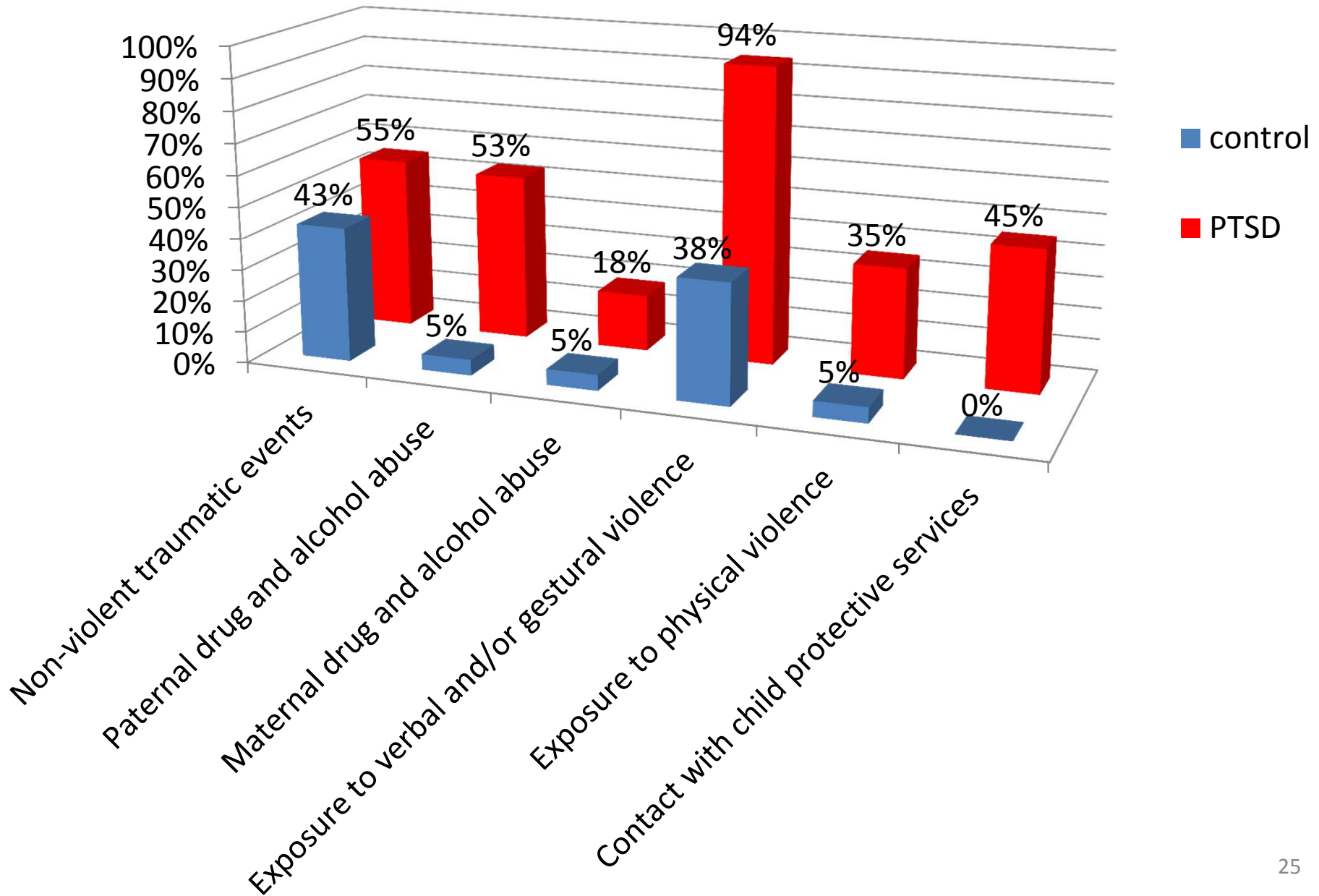
Cortico-limbic dysregulation when mothers see toddlers (own and unfamiliar) in separation vs play

(Schechter et al., 2015, Frontiers)

Blue areas show negative correlations of neural activity and IPV-PTSD severity



Violence Exposure among the Children of Mothers *with* versus *without* IPV-PTSD (N=59)



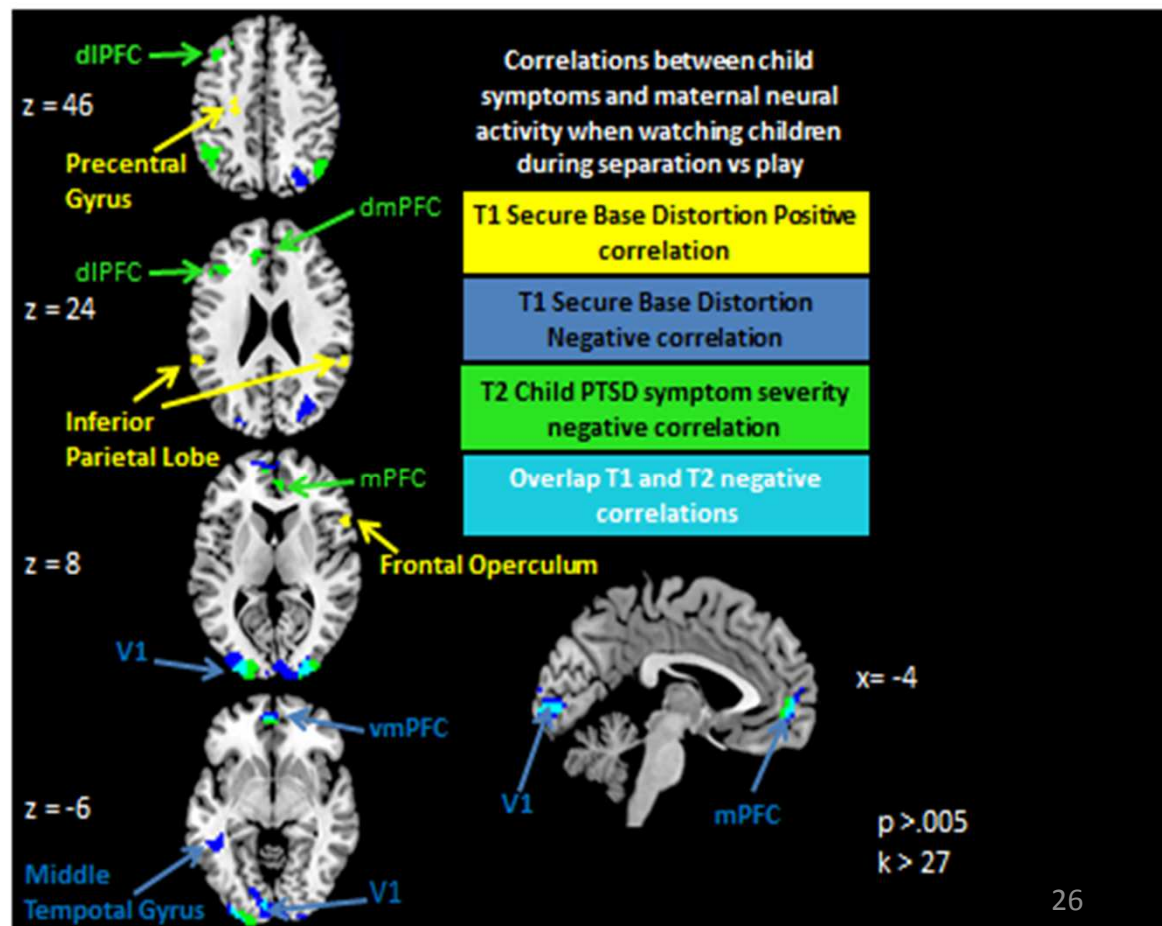
Child symptoms as predicted and mediated by maternal neural activity in response to seeing separation vs play scenes

(Schechter, Moser et al., in revision)

(N-T1=59, N-T2=48)

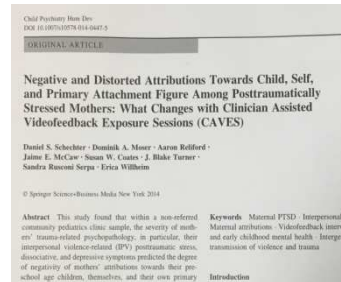
Maternal IPV-PTSD is associated with:

- Attachment Disorder (Secure Base Distortion) at 12-24 months (T1) $p \leq .005$
- Child PTSD symptoms at 24-54 months (T2) $p \leq .01$



Implications for treatment

(Schechter & Rusconi Serpa, 2013; Schechter et al., 2015)



- Top-down cortico-limbic regulation dysfunction when IPV-PTSD mothers are exposed to child helpless states (i.e. distress, separation anxiety, tantrums), should be targeted, and avoidance sensitively confronted (Schechter & Rusconi Serpa, 2013; Moser, Schechter et al., 2015)
- We have developed a brief manualized psychotherapy Clinician Assisted Videofeedback Exposure-Approach Therapy or « CAVEAT » to target this empirically supported mechanism (Schechter, Rusconi Serpa, Horst, Willheim & Suardi, in preparation)
- Having developed a therapeutic alliance with the traumatized mother, we expose mothers to filmed interactions that they might otherwise avoid, in joint attention with a *co-regulating, reflective* therapist (Schechter & Rusconi Serpa, 2013)

Addressing Maternal Alexithymic Errors and Parenting Stress: Clinician Assisted Videofeedback Exposure Sessions or “CAVES”

(Schechter et al, 2006; 2015)

FOCUS OF INTERVENTION

- Reflective clinician supports the mother’s ability to tolerate and integrate the negative, trauma-associate emotions stirred up by routine stresses such as separation and tantrums.

TECHNIQUE OF INTERVENTION

- The clinician states that we are going to focus on what happened during the mother-child interactions that were filmed during the previous visit
- The clinician asks what the mother remembers most from those interactions, what she remembers as the most fun moment and as the most difficult moment for her and for her child
- The clinician then proposes to show four 30-second excerpts from Visit 2 for joint parent-clinician review in the following order :
 - an **optimal moment** (joy, joint attention, mutuality, etc);
 - a moment of **separation** (when mother is not in the playroom);
 - a moment of **reunion** (when mother returns);
 - novel stimuli** (clown and scary toys)

**CAVES Technique to support and model parental curiosity
(PRF): « The Mantra »
...deliberately repetitive**

- Following each excerpt, the clinician poses to the mother a series of questions and probes in order to stimulate maternal RF :

Examples of probes (“Mantra”)

Tell me what happened here

What do you think was going in your child mind ?

In your mind ?

What were you feeling then ?

Does the moment we watched remind you of any other moments in your own life? If so, tell me about that.

What are you feeling as you are watching that moment with me ?

Why do you think I chose this moment for us to watch ?

Mothers with PTSD have a significantly higher degree of negativity at baseline towards child, self, and maternal primary attachment figure (M-PAF)

Means (SD) by ANOVA

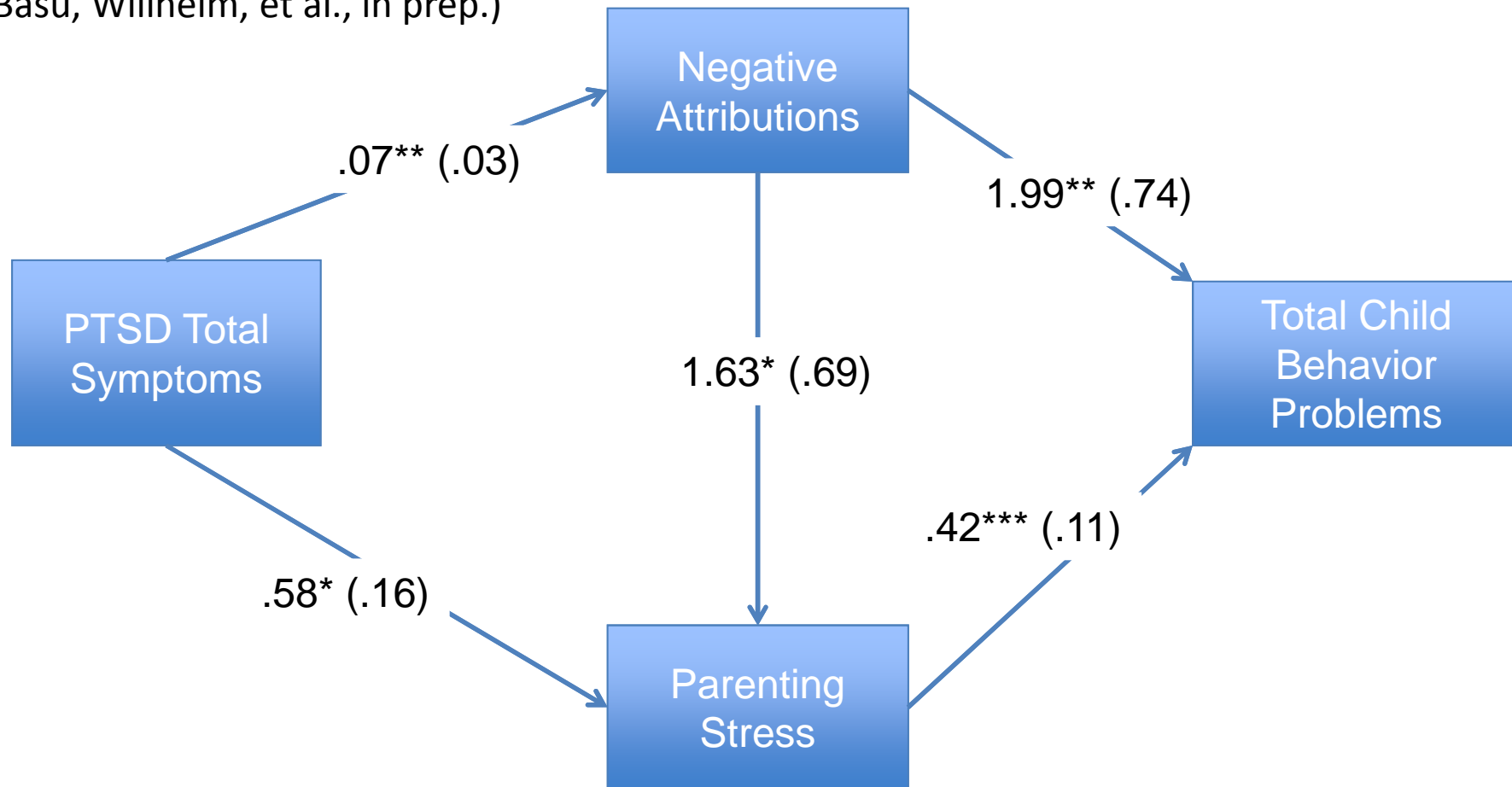
	PTSD (Case)	Subthreshold	Control	F-test (df 2,56)
<u>Towards child</u>				
V1	14.53 (4.31)	12.15 (3.49)	10.84 (3.05)	6.77**
V3	11.28 (4.04)	10.46 (3.18)	10.17 (2.39)	0.56
<u>Towards self</u>				
V1	14.83 (3.56)	10.64 (2.91)	10.89 (2.60)	8.86***
V3	14.26 (3.62)	11.64 (2.76)	10.61 (3.47)	5.67***
<u>Towards M-PAF</u>				
V1	16.12 (4.99)	13.68 (4.96)	12.24 (3.96)	4.41*
V3	15.58 (5.37)	12.96 (4.29)	11.79 (5.10)	2.76+

Significance (p) "+" $\leq .1$; "*" = $\leq .05$; "***" = $\leq .01$; "****" = $\leq .005$

Schechter et al. (2015), *Child Psychiatry and Human Development*

Negativity of Attributions Predicts Disrupted Communication in the P-C Relationships

(Basu, Wilhelm, et al., in prep.)



* $p < .05$ ** $p < .01$ *** $p < .001$

The Case of Mme V and « K »

(Schechter, 2003, September 11: Trauma and Human Bonds)

- « K », a 3 year-old boy brought to the infant mental health clinic for « controlling, oppositional behavior »
- Clinicians found separation anxiety so severe that Ms. V could not go to the bathroom alone at home nor leave K in a daycare/kindergarten so she could work.
- Ms. V., a 35 year-old mother of 5 who experienced severe interpersonal violence from an early age on
- Adult relationships, including with K's father were violent
- Ms. V. used same words to describe K's personality that she used to describe her physically abusive mother:
“K is just like her...they are both controlling...”

VIDEO OF Mme V and « K » in the CAVES
(Schechter, 2003, September 11: Trauma and Human Bonds)

What helped Ms. V change her mind about K?: **Angry** to **Afraid**



So we have in some small way allowed Ms. V to give something better to her son than what she had.
...And we have informed our intervention with both clinical observation and developmental neuroscience

Thanks! Merci pour votre attention!

Danke für Ihre Aufmerksamkeit!

Geneva Early Childhood Stress Project Team

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