Safe Mothers, Safe Children
Enhancing parenting and preventing repeat maltreatment

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A Rainbow of Kids
Plan of the talk

- Learning from disaster about parent-child interaction
  - Trauma, parents, and preschool kids
- Keeping children safe
  - Costs of maltreatment
  - “Mothers as Perpetrators”
- Preventing repeat maltreatment-no effective approach
  - Parental PTSD and depression
  - PTSD and parenting
- Developing and testing Parenting STAIR treatment
  - Integrating trauma and parenting treatments
- Open trial results
- Implications for practice

Collaborators and Funders

- Collaborators
  - NYU
    - Claude Chemtob, Roni Avindav, Julie Chipman, Ana Gaviria, Rachel Tache
  - Administration for Children's Service
    - Liz Roberts, J. McKnight, J. Martin, Erika Tulberg
  - UC Davis
    - Anthony Urquiza, Susan Timmer, and Deana B
  - National Center for PTSD Palo Alto
    - Marylene Cloitre
- Funders
  - SAMSHA
  - Robin Hood Foundation
  - Annie E. Casey Foundation
Participants

- All exposed to WTC-attacks by virtue of being in Lower Manhattan on 9/11/01.
- 24% of children were exposed to 1 or more high-intensity WTC events, i.e.
  - Saw people jumping out of the building
  - Saw dead bodies
  - Saw injured people
  - Saw a tower collapse
  - Caught in debris or smoke
  - Saw a plane hit the tower
Synergistic effects of terrorism and other trauma exposure on clinically significant child behavioral problems

![Graph showing the percentage of children with various behavioral problems in the absence and presence of trauma exposure.]

Figure 2: Trimmed Model: Effect of Maternal PTSD and depression symptoms on child behavior

![Diagram showing the relationship between maternal PTSD and child behavior, including variables like Maternal Depressive symptoms, Maternal PTSD symptoms, and child exposure to WTC.]

X² = 37.35 (32); p = .24; CFI = .99; NFI = .95; RMSEA = .04

Notes: Variables are centered for presentation.
*p<.05; **p<.01; ***p<.001
Modified Parent-Child Relationship Assessment

- A standardized laboratory assessment procedure in which mother-child interactions are observed, videotaped, and coded
  - Crowell & Fleishman, 1993; Heller et al., 1999; Osofsky et al., 2003
- Seven key episodes: 1) free play, 2) clean up, 3) WTC attacks-related play*, 4) bubbles, 5) cognitive tasks, 6) separation, and 7) reunion.

Predictors of Maternal Characteristics in Dyadic Play With Their Child in Various Play Themes by Maternal PTSD Status

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Maternal characteristics</th>
<th>Free-play</th>
<th>Clean-up</th>
<th>WTC play</th>
<th>Bubble play</th>
<th>Task 1*</th>
<th>Task 2*</th>
<th>Reunion*</th>
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<tbody>
<tr>
<td>Maternal PTSD</td>
<td>Positive affect</td>
<td>-.22</td>
<td>-.70</td>
<td>-.63</td>
<td>-7.92**</td>
<td>-1.18</td>
<td>-.20</td>
<td>-.74</td>
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<tr>
<td></td>
<td>Depressed affect</td>
<td>2.23</td>
<td>.31</td>
<td>1.50</td>
<td>.74</td>
<td>2.65</td>
<td>.47</td>
<td>.23</td>
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<tr>
<td></td>
<td>Anxiety</td>
<td>.06</td>
<td>.31</td>
<td>1.64</td>
<td>1.27</td>
<td>.001</td>
<td>1.39</td>
<td>.47</td>
</tr>
<tr>
<td></td>
<td>Irritability</td>
<td>.01</td>
<td>.26</td>
<td>2.34</td>
<td>2.47</td>
<td>.40</td>
<td>2.78</td>
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<tr>
<td>Intrusiveness</td>
<td>.14</td>
<td>.07</td>
<td>4.72**</td>
<td>5.46*</td>
<td>.85</td>
<td>.59</td>
<td>--</td>
<td></td>
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<tr>
<td>Behavioral responsiveness</td>
<td>-1.57</td>
<td>.001</td>
<td>-.15</td>
<td>-2.47</td>
<td>-2.75</td>
<td>-3.21**</td>
<td>-.27</td>
<td></td>
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<tr>
<td>Emotional responsiveness</td>
<td>.04</td>
<td>.70</td>
<td>4.16**</td>
<td>8.18**</td>
<td>4.34</td>
<td>2.19</td>
<td>3.55**</td>
<td></td>
</tr>
</tbody>
</table>

* Developmentally appropriate task was chosen.

b Developmentally advanced, more challenging task was chosen.

c In reunion, only positive affect, depressed affect, anxiety, and behavioral responsiveness were measured.
Study 2: Israel Study

Participants
Families of preschool children in Sderot, Israel. Study information was provided to all preschool directors in Sderot, and in the surrounding area.
* 381 children attending the preschools.
* 296 mother-child dyads (77.8%) indicated interest in participation.
* 270 dyads signed informed consent (70.9%).
* 255 dyads have complete information.
Maternal symptoms and child behavior (Israel)

- Maternal Exposure to trauma
- Maternal Intrusion symptoms
- Maternal Avoidance symptoms
- Maternal Arousal symptoms
- Maternal Depression

Child Exposure to trauma → Maternal Intrusion symptoms → Maternal Avoidance symptoms → Maternal Arousal symptoms → Maternal Depression

Emotionally Reactive
Anxious/Depressed
Somatic Problems
Withdrawn Behavior
Sleep disorders
Attention Problems
Aggression

Fit indices: $\chi^2(11)=11.80; p=.38; CFI=1.00; NFI=.99; RMSEA=.02$

***$p<.001$; **$p<.01$; *$p<.05$; Dotted lines show non significant paths

Paternal psychopathology and its effects

- Sub-sample of fathers ($n=51$) provided information on their psychological status (PTSD & depression)
  - 19.6% ($n=10$) of fathers had PTSD and 19.6% ($n=10$) had depression.
  - Among those who had PTSD, 70% also had depression.

- If father has PTSD, his mate has approximately a 9-fold increased likelihood of having depression ($p=.004$), but no notable evidence for an increased likelihood of having PTSD ($p=.66$)

- Father’s PTSD has devastating influence on children’s behavioral problems
The effects of maternal and paternal PTSD on child problems

Child maltreatment is a major public health problem

- Learning about child welfare......
  - Terrorism and disaster are collective trauma
  - Child trauma is an individual disaster
- Child maltreatment has many adverse consequences for children, including increased rates of mental health problems, increased likelihood of suicide and health problems (such as diabetes and cardiovascular illness), self-injurious behaviors, increased criminal behavior, and increased alcohol and drug problems.
- Child maltreatment has been estimated by the Center for Disease Control to have economic costs that exceed $126 billion dollars annually. This includes the costs of related health care, child welfare services, and lost productivity.
- These adverse child outcomes are substantially more severe and costly when children are exposed to repeated trauma.
- The investment in research on child abuse and neglect is a fraction of that for medical illnesses.
There is little evidence that existing interventions reduce repeat maltreatment

- Parent training programs are perhaps the most widely used in child welfare preventive services programs, but they do not appear to reduce child abuse recurrence or to "significantly change parenting practices".28

- Home visitation programs used to prevent child maltreatment are effective at preventing initial maltreatment for first-time mothers, but do not appear to prevent repeat child maltreatment.5

- Drawing on a rationale first articulated by Anthony Urquiza,36
  - Chaffin and colleagues conducted a randomized controlled trial (RCT) trial that found that only 19% of the clients receiving the motivational intervention combined with PCIT had repeat child maltreatment—much lower than the control condition (49%).
  - Chaffin subsequently conducted a dismantling study: the motivational intervention plus PCIT condition had a 29% recidivism rate compared to 37.5% for the control conditions not involving PCIT. PCIT without the motivational intervention had the highest recidivism rate (47%).

- In one study, SafeCare showed reduced recidivism (19%) compared with usual care (45%).

- A subsequent statewide effectiveness trial of SafeCare had much smaller effects that did not reach significance.
  - The reduction in recidivism was even smaller among those participants more likely to have mental health problems.37
  - Another RCT of SafeCare specifically recruited participants with mental health problem and/or exposure to domestic violence. SafeCare participants did not differ significantly from the usual care participants on recidivism.38

- Studies have largely failed to assess if mental health problems, particularly maternal trauma-related psychopathology, interfere with the efficacy of treatments to reduce maltreatment recidivism.

- Could treating trauma-related disorders reduce repeat maltreatment?
Maternal history of child maltreatment

- Although not all parents victimized as children go on to abuse their children, a childhood abuse history is predictive of an increased risk of perpetrating child abuse.53-57
- Being maltreated as a child is associated with lower parenting competence, greater parenting stress, more aggression, and less parenting skills.
- Childhood abuse is predictive of harsh parenting, 45 is associated with more physical punishment of young children, and a greater likelihood of being reported for child maltreatment.46
- Women exposed to child maltreatment are at greater risk of experiencing domestic violence as adults.
  - Domestic violence exposure increases child maltreatment risk, controlling for maternal depression and stress,64 and doubles the risk of being re-reported to child protective services.

Maternal PTSD is a risk factor for repeat abuse

- Mothers receiving child welfare preventive services have very high rates of probable PTSD (54.3%) and of probable depression (61.7%). Nearly half (48.8%) met criteria for probable co-morbid PTSD and depression. (Chemtob et al, 2011 Child Welfare)
- PTSD is associated with insensitive and hostile parent-child interactions, reduced parenting satisfaction, disciplinary tactics characterized by hostility, anger, and greater physical aggression.
- Maternal PTSD is a predictor of poor self-regulation in children.
- Children of mothers with PTSD have greater difficulty recovering from distress and are more distressed by novelty.
- The children of mothers with co-morbid PTSD and depression, and the children of mothers with PTSD only, experience a larger number and more types of traumatic events than the children of mothers with depression only, or the children of mothers with neither disorder (Chemtob et al. 2013, JAMA Pediatrics).
- Co-morbid maternal PTSD and depression are associated with increased behavioral problems among preschool children and maternal PTSD contributes more to this association than does depression.
Maternal depression is also a recidivism risk factor

- Depressed parents were three times more likely to report physically abuse of their children than parents who were not depressed.
- 25% of adults entering the child welfare system met diagnostic criteria for a major depressive episode in the preceding 12 months.
- Depressed mothers are more critical toward their children, show greater disengagement from their children, and have less confidence in their parenting abilities.
- Depressed mothers have more negative interactions and fewer positive interactions with children.
- Depressed mothers discipline their children more frequently, and more severely, than non-depressed mothers.

Treatment rationale (1)

- Many symptoms associated with PTSD, and with depression, manifest as harsh parenting, poor emotion regulation, and reduced investment in the well-being of one’s children.
- Increased irritability and lowered threshold for anger/aggression
  - Increased readiness to get angry and lash out at kids
- Traumatic reminders
  - A child who physically resembles his father who was violent can be a trauma reminder for his mother triggering avoidance and rejection of the child
- Poor emotion regulation
  - Greater difficulty staying calm when children misbehave
  - Reduced ability to establish boundaries and provide positive discipline
  - Mothers report alternating between being irritable and angry and withdrawn and unavailable
  - Increased parenting stress
- Focus on the negative
  - Negative attributions interfere with stable parent-child bond
  - Difficulty recognizing and praising positive aspects of the child
Treatment rationale (2)

- People with PTSD (co-morbid with depression or not) have an impaired ability to discriminate between safety and danger cues
  - Choices expose parent and child to more adverse experiences
- PTSD patients have impaired reward processing, and dysfunctional reward processing is a hallmark of depression
  - Parenting is not experienced as a rewarding and enjoyable experience
- Mothers who experience childhood trauma have reduced opportunities to experience positive parenting
  - Fewer opportunities to learn parenting skills through modeling
  - Greater exposure to trauma interferes with development of emotional regulation competence
- Poverty, racism, and lack of social support increases allostatic load
  - Contributes to developmental burdens
  - Strains adult capacities for positive adaptation
  - Interacts with trauma-related deficits to make current adaptation far harder

Development of Parenting STAIR

- Collaboration with Administration for Children’s Services
- Collaboration with Preventive Services agencies
- Multi-pronged treatment approach
  - Case detection through screening
  - Training of case planners on trauma recognition and management
  - Co-location of treatment provision in child welfare preventive services agencies
  - Redefinition of confidentiality
    - Integrated team services
    - Clinician participation elevated risk conferences
  - Ongoing technical assistance
Skills Training in Affective and Interpersonal Regulation (STAIR) is a two-phase PTSD treatment developed by Cloitre to treat child abuse related PTSD
- Phase I focuses on developing skills in emotion and relationship regulation including the capacity for forming a treatment alliance
- Phase II focuses on trauma resolution
- Less attrition and better outcomes than PE

Parent Child Interaction Therapy (PCIT)
- A structured in vivo coaching approach to teaching parenting skills with a focus on reducing negative parenting and increasing positive parenting

Our adaptation of STAIR into Parenting STAIR focuses treatment on PTSD and depression's impairment of the parenting life domain both in terms of skills and trauma resolution

Our adaptation of PCIT for Parenting STAIR integrates recognition of how PTSD symptoms can make it harder to learn parenting skills and uses PCIT to integrate emotion regulation skills and parenting skills in vivo

Description of Parenting STAIR (23 sessions)

Sessions begin with an emotional check-in and review of between-modules assignments, and end with assessing client's safety and review of possible barriers to attending the next session, including avoidance related to the treatment

Sessions 1-10 focus on increasing emotional regulation skills
- **Session 1.** Reviews mother's childhood and current trauma history, and discusses how PTSD symptoms affect her relationship with her children
- **Session 2.** Reviews and practices the PCIT relationship enhancement skills. These include the PRIDE skills (praise, reflect, imitate, describe, enthusiasm). The therapist also introduces skills to discourage child inappropriate behavior such as the use of “ignore, avoid, and active ignore”.
- **Session 3.** Teaches identification and labeling of feeling states in the context of her relationship with her child.
- **Session 4.** Focuses on negative mood regulation skills and consists of identifying current adaptive coping mechanisms and introducing new skills to enhance her ability to regulate her responses to her child.
- **Session 5.** Mother is provided with training to increase distress tolerance when her child misbehaves, or other concerns intrude. The session includes a focus on increasing pleasure/positive emotions in mother-child interaction. PCIT “Skills to Manage Behaviors” are introduced and role-played.
Parenting STAIR description (2)

- Session 6. Introduces the interpersonal schema and distinguishing between feelings from the past and current interpersonal goals to avoid repetition of maladaptive schemas.
- Sessions 7-9. Uses role-play and modeling to identify more adaptive ways of providing limits, disciplining the child, while maintaining a positive connection to the child and on increasing flexibility and adaptability.
- Session 10. Prepares the mother for the modified prolonged exposure component and helps her identify the most distressing memories that she would like to work on. The emotion regulation skills she can use to help her process her traumatic memories are reviewed.

The modified exposure narrative phase consists of sessions 11 through 15.
- Mothers rate the level of distress provoked by the memory using the SUDS. The therapist helps the mother gain perspective on her traumatic past.
- Session 16. Reviews the parenting skills the client has been practicing and prepares the mother for the dyadic sessions.

The PCIT dyadic sessions 17-22 include the preschool child
The therapist helps the client practice the parenting skills via “live coaching” and uses modeling and practice. The impact of trauma-related symptoms on skills is identified. Emotion regulation skills are integrated with practice of parenting skills.

Specific treatment goals

- Reduce repeat maltreatment (new allegations of maltreatment, confirmed allegations of maltreatment, and fewer removals to foster)
- Reduce maternal PTSD and depression symptoms severity (evaluate number of cases no longer meeting PTSD criteria, % of remitted cases)
- Significantly reduce observed negative parenting behaviors and increase positive parenting behavior (using DPICS behavior coding)
- Reduce children’s symptoms significantly among children who score at the clinical level on the Strengths and Difficulties scale (SDQ)
- Increase emotion regulation competence and evaluate whether increased emotion regulation is a candidate mechanism for change
Description of population in open trial

- Clients comprise 31.9% African Americans, 59.3% Hispanic, and 8.3% Caucasian and “other”.
- 13.7% live with a partner, 4.3% are married, and the rest (82.1%) are single.
- All clients meet diagnostic criteria for both PTSD and depression using the CAPS and SCID depression module.
- 85.8% co-morbid PTSD and depression.
- Mothers reported experiencing a mean of five types of trauma:
  - child sexual abuse (69.2%), physical abuse (59%), or domestic violence exposure (70.5%). More than one type of 68.1%, and all three abuses were experienced by 42.3%.
  - Most reported experiencing past domestic violence as children (80.3%) and 83% experienced DV as adults.
- About 20% of our clients have experienced significant peritraumatic events.
- Mean mother age is 30.2 years. Mean age of child in treatment is 3.9 years.
- Most (64%) report making less than $10,000 per year, while only 2.6% make $30,000 or more.
- 33% of our participants currently live in domestic violence shelters.

Reducing repeat maltreatment

The Administration for Children’s Services maintains an electronic registry of maltreatment reports and foster care placements.

- We compared repeat maltreatment over a six-month period using the ACS registry for 72 cases in treatment for six months to the population of preventive services clients (6593 cases) during the equivalent period.
- 8.3% of our participants had new ACS reports of possible maltreatment compared to 32.4% of the overall ACS population. The confirmed new maltreatment rate for our participants was 2.7%, compared to 18.6% for the preventive services population overall.
- Chaffin found that 19% of clients receiving the motivational intervention (MI) with PCIT had repeat child maltreatment compared to 49% in the control condition.
- In his dismantling study, Chaffin found that MI plus PCIT condition had a 29% recidivism rate compared to 37.5% for the control conditions not involving PCIT. PCIT without MI had a 47% repeat maltreatment rate.
Reduction of maternal PTSD and depression symptoms severity

Table 1. Treatment results for PTSD and depression measures

<table>
<thead>
<tr>
<th></th>
<th>Pre M(SD)</th>
<th>Post M(SD)</th>
<th>t</th>
<th>P</th>
<th>Cohen's d</th>
</tr>
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<tr>
<td>CAPS</td>
<td>61.6 (16.9)</td>
<td>30 (20.3)</td>
<td>12.9</td>
<td>.0001</td>
<td>1.7</td>
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<tr>
<td>PDS</td>
<td>27.4 (8.9)</td>
<td>12.8 (10.3)</td>
<td>9.8</td>
<td>.0001</td>
<td>1.5</td>
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<tr>
<td>CESD</td>
<td>31.1 (12.5)</td>
<td>15.5 (10.9)</td>
<td>8.8</td>
<td>.0001</td>
<td>1.3</td>
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</tbody>
</table>

Clinical Significance

- At post-treatment, 87% of cases no longer met criteria for PTSD.
- At follow-up, 89.4% of cases no longer met criteria for PTSD.
- Corresponding rates for Cloitre
  - STAIR/Exposure (61%),
  - STAIR/Support (47%),
  - Support/Exposure (33%)
- One measure of full remission is the percent of cases with a score below 20 on the CAPS.
  - At post-treatment, 39.6% of our cases had scores below 20,
  - At follow-up, 38.2% of cases had scores below 20.
  - Corresponding Cloitre study remission rates
    - Post 27%
    - Follow-up 24%.
Reduce negative parenting behaviors and increase positive parenting behaviors

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<tr>
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<th>Pre</th>
<th>Post</th>
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<th>Cohen d</th>
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<tr>
<td><strong>Positive parenting</strong></td>
<td>9.7 (6.1)</td>
<td>16 (12.6)</td>
<td>4.2</td>
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<td><strong>Negative parenting</strong></td>
<td>24.9 (13.5)</td>
<td>12.8 (8.1)</td>
<td>6.0</td>
<td>.0001</td>
<td>1.0</td>
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Reduce children’s symptoms significantly among children who score at the clinical level.

![Graph showing treatment changes in child symptoms.](Figure 4)

**PTSD, depression, parenting**

- Cases that participated in the PCIT dyadic component (N=51) were split into four groups—high-low PTSD and high-low depression symptom change groups (measured just before PCIT).

- A repeated measure ANOVA showed a significant interaction indicating larger reductions in negative parenting for the group in the low symptom categories. To illustrate, the low-PTSD-low depression group who had the greatest symptom change at the in-treatment assessment (before starting the PCIT component) had a 67% reduction in negative parenting scores compared to a 19% reduction for the high PTSD-high depression group.
Emotion regulation and maltreatment

- We also used repeated measures ANOVA to examine the interaction of emotional regulation (using the Difficulties in Emotional Regulation Scale, DERS) with child maltreatment change.
- Significant treatment change in the CTS-PC total score and the CTS-PC neglect subscale occurred mostly among mothers with the poorest emotional regulation at pre-treatment.
- Conversely, mothers who showed the greatest degree of change in emotional regulation (we split participants into three change categories) showed dramatically greater change in maltreatment behavior as indexed by the CTS total score (F=4.9, p=.01 main effect; F=2.9, p=.03 for the interaction).
- From pre to post-treatment, the mean score of the group with the most improvement in emotion regulation increased by 14 points. In contrast, for the other two groups the mean increase was 1.5 points.