A group-based psychotherapy to protect early childhood in the context of violence and displacement in Colombia

RESULTS OF AN IMPLEMENTATION PILOT
Agenda

1) Violence in Colombia
2) Evidence of the impact on the children
3) Semillas de Apego
4) The pilot: design and results
5) What’s next
Armed Conflict and exposure to violence in Colombia

- This internal conflict has lasted more than half a century (since 1948).
  - Approx. 8 million victims:
    - 17% less than 5 years old, 15% are 6-11 years old, 13% are 12-17 years old
  - 1985-2013: 220,000 deaths, 25,000 missing, 6,421 children recruited to illegal armies, almost 5 million forcefully displaced.

- ¿What are the consequences on early childhood development?
  - Toxic stress and child development
  - Adverse Childhood Experiences (ACE) literature
  - We have a time bomb in our hands…
Impact of violence on child development:
Evidence from Colombia

- At municipalities with a high incidence of landmines children have lower weights at birth, after controlling for relevant health determinants – Camacho et al. (2008).
- In rural areas, acute shocks of violence during sensible periods (0-5 years old) are associated with lower scores on a verbal proficiency test (TVIP) – Harker, Moya and Riveros (2016).
- In large urban areas, exposition to a homicide at the vicinity of the school has an impact on socio-emotional and cognitive development (children in fifth grade) – Molano, Harker and Cristancho (2016).
- National Mental Health Survey (2015):
  - 50% of the children growing up in forcefully displaced households live with frequent symptoms associated to post traumatic stress disorder PTSD.
  - 496,663 kids between 7 and 11 years old receive psychological assistance related to PTSD.
Good news: caregivers can foster resilience

- Child-Parent Psychotherapy – CPP (Lieberman and Van Horn, 2011), an intervention designed to promote a secure attachment has proven effectiveness on:
  - Children: stress symptoms, depression and anxiety, behavioral problems, emotional regulation, cognitive development.
  - Parents: stress levels, PTSD, depresión y ansiedad, empathy and caregiving skills.
- Parents who have strong bonds with their children are able to protect them from an adverse context (Blair, 2011; Blair et al., 2008; Evans et al., 2007)
  - This effect is not only emotional or psychological, it happens through biological and genetic channels (Dong Liu, et. al 1997; Weaver et al., 2004; Sapolsky, 2004; McGowan et al., 2009)
- There is good evidence of the long run impact of programs that promote caregiving or parenting skills:
  - Jamaica: Heckman et al., 2013; África: Widyck et al., 2013; Colombia: Attanasio et al., 2015
Bad news: parenting skills are eroded by adversity

- Alicia Lieberman (2014): “Often, the circumstances of a mother's life overwhelm her natural coping capacity […] When you are bombarded by poverty, uncertainty and fear, it takes a superhuman quality to provide the conditions for a secure attachment.”

- In Colombia: the probability of "total neglect" by the primary caregiver is associated to the level of violence (rate of homicides) at the municipality level - Cuartas, Harker y Moya (2015).
Semillas de Apego: Objectives

1. Strengthening secure attachment between primary caregiver and child
2. Increasing caregiving strategies
3. Strengthening the capacity to reflect on and understand the needs and internal processes of a child.
4. Restoring trust, reducing isolation and constructing a collective support network
5. Facilitating the process of finding a meaning for traumatic experiences
Semillas de Apego: Design overview

- A group-based psychotherapy to protect early childhood in the context of violence and displacement in Colombia
- Curriculum: 13 group sessions, focused on mothers (but children were welcomed).
- Theoretical framework:
  - Trauma theory: It is important to recognize the impacts of violence and displacement on the adult, child and their relationship.
  - Attachment theory: It is important to recognize the protective role played by relationships with secure attachment.
- Design based on the successful experience of the UCSF Child Trauma Program
  - CPP: 15 years of implementation, registered in the U.S. National Registry of Evidence-based Practices and Programs (NREPP).
  - Group-based version of CPP: 8 years
  - Curriculum for Colombia: Translation and adaptation process (2 years).
Semillas de Apego: Our team

- UCSF Child Trauma Research Program:
  - Alicia Lieberman, Vilma Reyes, Diana Sistiva, Patricia Rojas-Zambrano
- Universidad de los Andes:
  - Raquel Bernal, Andres Moya and Arturo Harker
- Funding:
  - Interamerican Development Bank IADB, Innovations for Poverty Action IPA, Universidad de los Andes, Colombian Ministry of Health and Social Protection MSPS
Project’s timeline

Curriculum development
(Nov. 2013-Jun. 2015)

1. Alliance with UCSF
2. Translation and adaptation
3. Theory of change
4. Socialization and feedback

Pilot
(Sept.-Dec. 2015)

1. Team
2. Experimental design: evaluation
3. Program implementation

Implementation evaluation & qualitative follow-up

1. Measurement instruments
2. Results
3. Cost analysis
4. Articulation with public policy
5. Lessons and next steps

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Content of the 13 sessions of Semillas de Apego

1. Constructing a solid base of trust and security
2. Strategies to cope with stress and overwhelming emotions.
3. Celebrating their strengths.
4. Reflecting about changes brought by displacement that the family has to deal with.
5. Recognizing that own childhood experiences have an impact on caregiving style.
6. Understanding the impact of forced displacement on the child and their relationship.
7. Understanding the need of breaking certain patterns.
8. Re-establishing the protective shield and the feeling of security in their children.
9. Empowering mothers about the relationship they aspire to have with their children.
10. Understanding that a child’s behavior is a way to communicate.
11. Understanding complex behavior.
12. Foster curiosity and openness towards the child’s emotional world and needs.
13. Strategies to deal with difficult behavior.

Explore concrete strategies to reestablish security and routines.
Promoting a support network.
Processing the impact of saying good-bye.
Promoting hope and celebrating the connection between them and their children.
Theory of Change

Understanding emotional processes of the child:
• Changes in how mother and child interact
• Changes in caregiving style and strategies

Reducing trauma symptoms on Mothers

Modulo I

Modulo II

Modulo III

6 month follow up
(Lieberman et al. 2006)

Stronger emotional bond and better parent-child relationship:
• Secure attachment

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The Pilot: selection process

- Potential beneficiary lists built by local government teams:
  - Government Assistance Centers in Bogota
- Random assignment to treatment and control group
- Inclusion criteria
  - Mothers at moderate clinical risk level.
- Exclusion criteria
  - Mothers at high clinical risk level.
  - Less than 6 months since migration: household has to fulfill basic needs (e.g. housing).
  - Planning to return soon to municipality of origin.
  - The family lives too far from where the program takes place.
The Pilot: participants

- Low income households: 1st national quintile of distribution
- Very low level of education: 7 years of formal education (on average)
- Low rate of participation in labor market (given SES of household): 63%
- Relatively low access to education and health services:
  - Only 15% of the mothers use daycare services.
  - Young children go to between 2 and 3 check-ups per year.
  - Only 20% have received humanitarian assistance.
## Measurement

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Descripción</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SCL-90-C</td>
<td>Scale to measure symptoms of anxiety, depression and PTSD. 20 to 30 minutes.</td>
</tr>
<tr>
<td>2. Parenting Stress Index</td>
<td>Measures stress in the mother, the child and in their relationship. Children 0 to 12 and has a duration of 20 minutes.</td>
</tr>
<tr>
<td>3. Trauma Symptom Checklist for Young Children in Spanish</td>
<td>Identifies trauma symptoms in the children. 20 minutes.</td>
</tr>
<tr>
<td>4. HOME Test</td>
<td>Measures the quality of the stimulation and affect received by the child (parenting quality).</td>
</tr>
<tr>
<td>5. Ages and Stages Questionnaires</td>
<td>Social and emotional skills of the child. 0 to 60 months of age. 20 to 30 minutos.</td>
</tr>
<tr>
<td>6. Executive functions</td>
<td>3 different games to measure behavioral regulation, information retention, persistence and attention span. 20 minutos.</td>
</tr>
</tbody>
</table>
Dispalcement  

First follow-up  

Second follow-up  

Negative Consequences  
+ Stress and trauma  
+ Development (Cognitive y SE)  

Impact (short term)  
- Trauma related symptoms  
+ Interaction between caregiver and child  
+ Consciousness about:  
  Child stress related symptoms  
  Stress in child-parent relationship.  

Impact (medium term)  
+ Better parenting quality  
+ Secure attachment  
- Stress related symp.  

Proper child development
### Results:

Less trauma related symptoms in Mothers

<table>
<thead>
<tr>
<th>SCL-90</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control</td>
<td>Tratamiento</td>
<td>Diferencia</td>
</tr>
<tr>
<td>Puntaje estandarizado</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depresión</td>
<td>0.253 [1.113]</td>
<td>-0.197 [0.866]</td>
<td>0.450* [1.94]</td>
</tr>
<tr>
<td>Asiedad</td>
<td>0.172 [1.018]</td>
<td>-0.134 [0.977]</td>
<td>0.306 [1.30]</td>
</tr>
<tr>
<td>Obsesión-compulsión</td>
<td>0.271 [0.950]</td>
<td>-0.211 [0.998]</td>
<td>0.482** [2.09]</td>
</tr>
<tr>
<td>Trastorno de estrés postraumático</td>
<td>0.177 [0.986]</td>
<td>-0.138 [1.001]</td>
<td>0.315 [1.34]</td>
</tr>
<tr>
<td>Índice de severidad global</td>
<td>0.210 [1.013]</td>
<td>-0.164 [0.971]</td>
<td>0.373 [1.60]</td>
</tr>
</tbody>
</table>

Observaciones: 32 - 41

Coeficientes promedio; desviación estándar en corchetes, estadísticos t en paréntesis; * p<0.10, ** p<0.05, *** p<0.0
Results:  
More interactions between mother and child

<table>
<thead>
<tr>
<th>Característica</th>
<th>Grupo control</th>
<th>Grupo Tratamiento</th>
<th>Total</th>
<th>Diferencia de medias</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actividades que realizan con el niño:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Al niño le leen (si=1)</td>
<td>83.0%</td>
<td>91.8%</td>
<td>87.5%</td>
<td>-0.0886 (-1.31)</td>
</tr>
<tr>
<td>Al niño le conversan (si=1)</td>
<td>97.9%</td>
<td>87.8%</td>
<td>92.7%</td>
<td>0.101* (1.92)</td>
</tr>
<tr>
<td>Al niño le juegan (si=1)</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>0</td>
</tr>
<tr>
<td>Al niño le juegan afuera (si=1)</td>
<td>87.2%</td>
<td>93.9%</td>
<td>90.6%</td>
<td>-0.0664 (-1.11)</td>
</tr>
<tr>
<td>Al niño le ponen televisión (si=1)</td>
<td>89.4%</td>
<td>93.9%</td>
<td>91.7%</td>
<td>-0.0452 (-0.79)</td>
</tr>
<tr>
<td>Al niño le enseñan las vocales (si=1)</td>
<td>63.8%</td>
<td>71.4%</td>
<td>67.7%</td>
<td>-0.0760 (-0.79)</td>
</tr>
<tr>
<td>Al niño le cuentan cuentos (si=1)</td>
<td>80.9%</td>
<td>91.8%</td>
<td>86.5%</td>
<td>-0.110 (-1.58)</td>
</tr>
<tr>
<td>Al niño le enseñan a pintar (si=1)</td>
<td>44.7%</td>
<td>69.4%</td>
<td>57.3%</td>
<td>-0.247** (-2.50)</td>
</tr>
<tr>
<td>Al niño le cantan canciones (si=1)</td>
<td>93.6%</td>
<td>98.0%</td>
<td>95.8%</td>
<td>-0.0434 (-1.06)</td>
</tr>
<tr>
<td>Observaciones</td>
<td>47</td>
<td>49</td>
<td>96</td>
<td></td>
</tr>
</tbody>
</table>
Resultados:
More stress related symptoms in children: greater consciousness?

<table>
<thead>
<tr>
<th></th>
<th>TSCYC</th>
<th></th>
<th>Diferencia Medias</th>
</tr>
</thead>
<tbody>
<tr>
<td>Puntaje estandarizado</td>
<td>Control</td>
<td>Tratamiento</td>
<td></td>
</tr>
<tr>
<td>Depresión</td>
<td>-0.226 [1.057]</td>
<td>0.168 [0.936]</td>
<td>-0.394 (-1.54)</td>
</tr>
<tr>
<td>Ansiedad</td>
<td>-0.154 [1.009]</td>
<td>0.114 [0.992]</td>
<td>-0.268 (-1.04)</td>
</tr>
<tr>
<td>Rabia</td>
<td>-0.304 [1.086]</td>
<td>0.226 [0.880]</td>
<td>-0.530** (-2.10)</td>
</tr>
<tr>
<td>Estrés postraumático-total</td>
<td>-0.458 [1.120]</td>
<td>0.341 [0.750]</td>
<td>-0.799*** (-3.34)</td>
</tr>
</tbody>
</table>

Observaciones 26 35
Coeficientes promedio; desviación estándar en corchetes, estadísticos t en paréntesis ;* p<0.10, ** p<0.05, *** p<0.0
Qualitative follow-up: 6 months later

- Focus groups: body cartography
- Questions:
  - Before / After
  - Relationship with their children
  - Perception about children
  - Coping strategies before adverse experiences
  - Parenting and caregiving strategies
Qualitative follow-up: 6 months later

Before

After
Qualitative follow-up: 6 months later
What is next?

1. Consolidating what we learned in the pilot
2. Development of version 2.0 of the curriculum
3. Development of training manual for group therapists
4. We are looking for an ally to be in charge of operations
5. Fundraising
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