CBT for Youth with Co-Occurring Post Traumatic Stress Disorder and Substance Disorders

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Background & Motivation

Latino Youth

- Risk of a broad range of traumas
- Socio-cultural factors can multiply risks, as well as pathways to re-injury
- Barriers to mental health care.
- High rates of PTSD
PTSD and SUDs in Adolescents

- Adolescents more at risk for trauma exposure
- Commonly co-existing substance use disorders and other psychiatric disorders (Donnelly & Amaya-Jackson, 2002).
- PTSD mediating the relationship between victimization and risk for current substance use disorder and delinquent behavior. Kilpatrick et al. (2000)
# Latino Youth Trauma

## Type of Trauma

<table>
<thead>
<tr>
<th>Type of Trauma</th>
<th>Prevalence</th>
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<tbody>
<tr>
<td>Complex Trauma</td>
<td>72%</td>
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<tr>
<td>Exposure to Domestic Violence</td>
<td>53%</td>
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<tr>
<td>Impaired Caregiver</td>
<td>47%</td>
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<tr>
<td>Emotional Abuse</td>
<td>42%</td>
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<tr>
<td>Traumatic Loss</td>
<td>42%</td>
</tr>
<tr>
<td>Physical Abuse</td>
<td>33%</td>
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<tr>
<td>Sexual Abuse</td>
<td>29%</td>
</tr>
<tr>
<td>Neglect</td>
<td>27%</td>
</tr>
<tr>
<td>Community Violence</td>
<td>22%</td>
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</tbody>
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*Source: NCTSN National Survey (2005)*
Ecological-Cognitive Model of PTSD Presentation in Youth of Color

- Individual
- Family, Community & Culture
- Society Pressures and Supports
  - Resources
  - Discrimination
  - Racism
  - Adjustment
Cognitive Model of PTSD

Thoughts
Identity
Feelings
Past
Present
Future
Actions
CBT for PTSD Manual Modules (12-16 weeks)

- Cognitive Behavioral Therapy (12-16 weeks)
- Psycho-education on PTSD and Substance Use for youth and family
- Relaxation strategies
- Cognitive Restructuring
- Motivational Enhancement Strategies*
- Parent and Family Sessions (parent support and strategies)*
Target Group

- Adolescents ages 14-18 years of age
- Latino and Non-Latino
- Male and Female
- Urban and Rural Settings
- Co-existing PSTD and substance abuse
- High risk of recurrent traumatic exposures
- Treatment in front-line and community settings
Focus on Cognitive Restructuring

- No therapeutic exposure component included in our model (e.g. no writing of trauma narrative)
- Cognitive Restructuring is the focus
  - Hypothesis: reduces the risk of symptom relapse and treatment attrition
  - Organized into five sets of skills
  - Can be varied in pace and in sequence
  - It may be conducted within existing services
  - Can work with ongoing chronic stressors
CORE ELEMENT: COGNITIVE RESTRUCTURING

5 Steps of CR:
1. Situation – Ask yourself “What happened that made me upset?”
2. Feeling - Identify your strongest feeling
3. Thought – Ask yourself “What am I thinking that is leading me to feel this way?”
4. Challenge your thought – List “Evidence For” & “Evidence Against”; “Is there an alternative way of thinking about this situation?”
5. Outcome – Does the evidence support my thought or not?
   A) If NO, what is a more realistic thought?
   B) If YES, develop an action plan
Models for PTSD and Substance Abuse

Cognitive Behavioral Therapy

1. Relaxation
2. Psychoeducation
   - Including connection between substance abuse and PTSD
3. Cognitive Restructuring
   - Help with distress and behaviors
4. Parent Sessions (3)

Motivational Enhancement

- Motivational Techniques
- Assessing PTSD-SUD-connection
- Values Clarification and Decision Balance
- Recapitulation and Change Planning
## Example of Co-Occurring Trauma and Substance Abuse

<table>
<thead>
<tr>
<th>Situation</th>
<th>Related distressing feeling</th>
<th>Underlying thought</th>
</tr>
</thead>
<tbody>
<tr>
<td>My little sister saw me use drugs and looked very disappointed</td>
<td>Shame I felt awful, lower than low</td>
<td>I am no good I always screw up/ Must/Should/ Never</td>
</tr>
<tr>
<td>I did not save my friend who drowned</td>
<td>Angry Sad</td>
<td>I am to blame I need to be strong I failed I am like my dad—a loser</td>
</tr>
<tr>
<td>Adolescent Baseline Stage</td>
<td>Behavioral Goals</td>
<td>Intervention</td>
</tr>
<tr>
<td>---------------------------</td>
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</tr>
<tr>
<td>Engagement</td>
<td>Regular Contact with Clinician</td>
<td>Assertive Outreach; Practical Assistance; Social network approach</td>
</tr>
<tr>
<td>Persuasion</td>
<td>Knowledge of effects of PTSD on substance use</td>
<td>Education/information Assessment Listening to family</td>
</tr>
<tr>
<td>Persuasion &amp; Early Active Treatment</td>
<td>Efforts to reduce substance use -- overcoming Crisis of the day</td>
<td>Motivational Interviewing Strategies for relaxation or de-escalation.</td>
</tr>
<tr>
<td>Active Treatment</td>
<td>Recognition of high-risk situations, behaviors, and unhelpful thoughts; implementation of strategies</td>
<td>Cognitive-behavioral and motivational techniques</td>
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Study Aims

- Using the framework of the Onken et al (1997) Stage Model of Behavioral Therapy Development,
  - Stage One: involves cultural, SUD and developmental modifications
  - Stage Two: involves a Pilot Trial of the modified intervention compared to treatment as usual on three outcome measures: PTSD, SUD and Attrition
Focus Groups for Therapy Development

Family and Youth

- Focus groups & post treatment interviews
- Two youth focus groups
- Two parent focus groups

Questions

- Frameworks for understanding PTSD and Substance Use Disorders
- Acceptability of proposed treatment model and delivery protocol
# Latino Parents Focus Group Themes

<table>
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<tr>
<th>Themes</th>
<th>Therapy Considerations</th>
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| **Difficult Parent-Child Communication** | • Psycho-education  
• Shared learning of cognitive model                                                    |
| Parenting                       | • Cultural Relevant Parenting Strategies                                                 |
| Parental Trauma                 | • Psycho-education, motivations and referrals                                            |
| Community Safety                | • Encouragement of parent support groups and initiatives                                 |
| Addressing School Issues        | • Support, advocacy and parental education                                               |
| Social Stressors                | • Collaboration with community agency care partners                                       |
Latino Youth Focus Group Themes

- Difficult communication with parents
- School stress and peer stress
- Dealing with the consequences of anger
- Violence in neighborhood
- Anxiety and hope about future plans
- Challenges in parents’ understanding and mutuality
- Substances as self medication
## Themes for Both Parents and Youth

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<td><strong>Difficult Communication</strong></td>
<td>• Psycho-education and shared learning of cognitive model</td>
</tr>
<tr>
<td></td>
<td>• Parenting Strategies</td>
</tr>
<tr>
<td><strong>Dealing with School Issues</strong></td>
<td>• Support, advocacy and parental education</td>
</tr>
<tr>
<td><strong>Ongoing Stressful Situations</strong></td>
<td>• Collaboration with community agency care partners</td>
</tr>
<tr>
<td></td>
<td>• Cognitive Model</td>
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Assessment (English and Spanish)

- Upsetting Events
- SOCRATES (Assesses for Readiness for Change)
- PTSD Symptom Scale
- Beck Depression
- Beck Anxiety
- Child PTSD Symptom Scale/PDS
- Timeline-Follow-back
- Child Behavior Checklist
- Teen Addiction Severity Index /Personal Experiences Inventory
- Acculturation Scale
Analysis

- Examination of symptom severity (PTSD and Depression) across three measurement intervals (baseline, end of treatment and 3 month post-treatment)
- SAS PROC MIXED (Singer & Willett, 2003) was used to estimate individual growth trajectories and to test change over time in PTSD symptoms and depression
- Paired t-tests were used to test for significant change in depression and posttraumatic stress symptoms
- We are currently analyzing change in severity and motivation for change in substance use
Results: Sample and Retention

- 20 adolescents (between the ages of 14–18 years who meet criteria for PTSD and SUD, mean age of 16 years.
- Most common substances: alcohol, cannabis, nicotine
- The number of types of traumas reported:
  - Range = 1-13
  - Mean = 6.5
- Most common traumas reported include witnessing domestic violence, being beaten by someone known to participant, threatened, molested
- Retention was 60%, as defined by completing 10 sessions or more.
Results: Demographics

Gender

Site/Urbanicity

Race/Ethnicity

- Boys
- Girls

- MA urban
- NH rural

- White
- Latino
- American Indian
- Other
Addressing Attrition

- Trusted individual involved
- Transportation
- Stability of housing and placement
- Collaboration with agencies
- Motivational work at start of treatment
- Training and supervision on motivation, readiness for change for both PTSD and SUD
Results: Paired t-tests

- **BDI**
  - Mean baseline: 31.00
  - Mean follow up: 8.82
  - There was a significant reduction in BDI scores from baseline to follow up, \( t = 5.85, p < .0002 \)

- **CPSS**
  - Mean baseline: 29.27
  - Mean follow up: 11.64
  - There was a significant reduction in CPSS scores from baseline to follow up, \( t = 9.57, p < .0001 \)
Results: Growth Modeling

- SAS PROC MIXED (Singer & Willett, 2003) was used to estimate individual growth trajectories and to test change over time.
  - There was a significant reduction in BDI scores (mean estimated baseline level = 40.86, mean rate of change = -10.92; t = -7.87, p < .0001)
  - There was a significant reduction in CPSS scores (mean estimated baseline level = 37.21, mean rate of change = -9.03; t = -6.31, p < 0001)
Estimated Growth Trajectories for Beck Depression Inventory
Estimated Growth Trajectories for Child Posttraumatic Symptom Scale
Cultural Adaptations

Need to consider structural and socio-cultural constructs that impact accessibility and validity of the model:

- Multiple and ongoing stressors
- Parental support including acculturation and family conflict issues
- Psycho-education and conflict resolution
- Language
Conclusions

• Results suggest the feasibility of implementing a manualized cognitive restructuring program to treat PTSD and SUD in multi-ethnic adolescent populations.

• Clinically meaningful improvements in PTSD and depression (pre, post) and retention of improvement at 3 months post-treatment

• All participants rated themselves as improved and very satisfied at both post-treatment and 3 month follow-up.

• Finalization of manual and randomized pilot study in process
Acknowledgements

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