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

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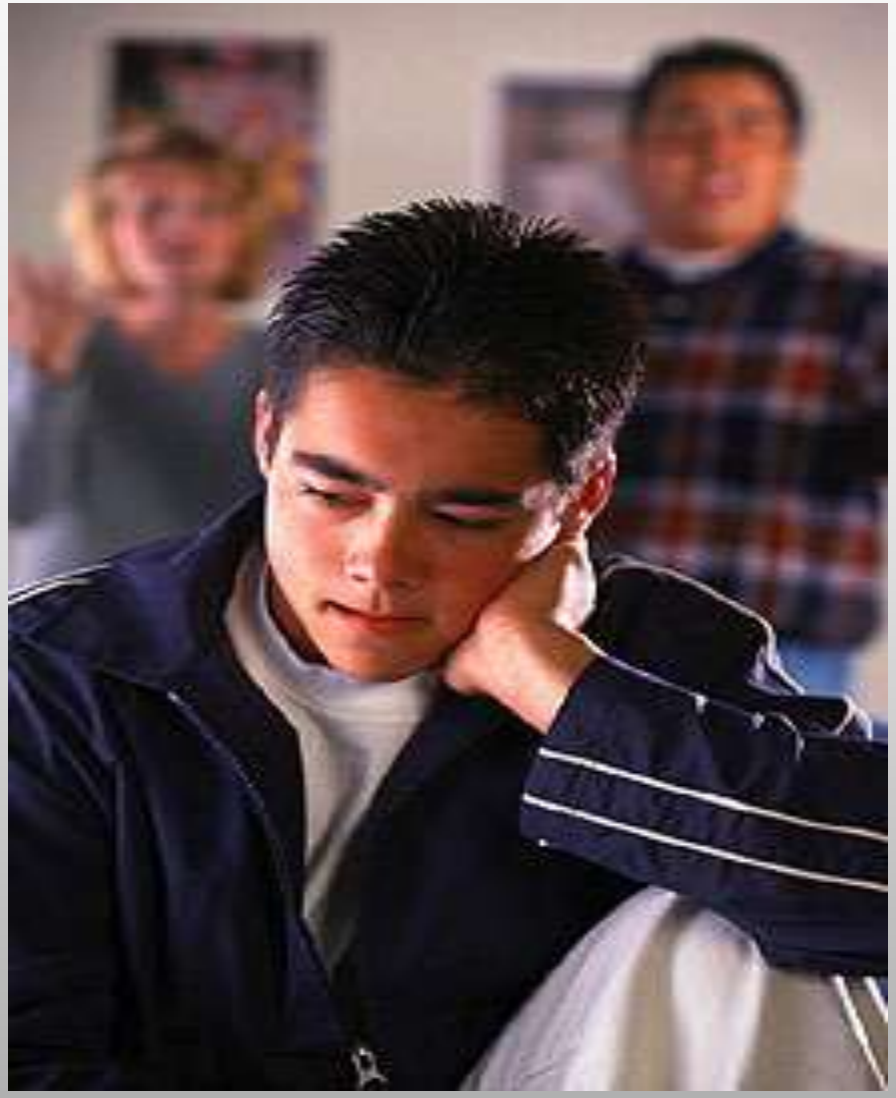
Background & Motivation

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

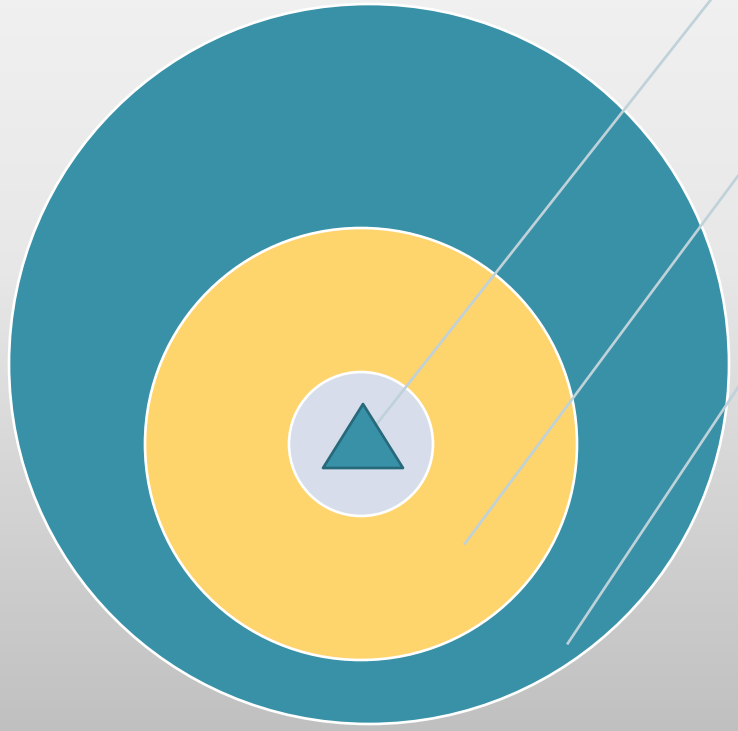
- Adolescents more at risk for trauma exposure
- Commonly co-existing substance use disorders and other psychiatric disorders (Donnelly & Amaya-Jackson, 2002).
- PTSD mediating the relationship between victimization and risk for current substance use disorder and delinquent behavior. Kilpatrick et al.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

Latino Youth Trauma

Type of Trauma	Prevalence
Complex Trauma	72%
Exposure to Domestic Violence	53%
Impaired Caregiver	47%
Emotional Abuse	42%
Traumatic Loss	42%
Physical Abuse	33%
Sexual Abuse	29%
Neglect	27%
Community Violence	22%

NCTSN National Survey (2005)

Ecological-Cognitive Model of PTSD Presentation in Youth of Color



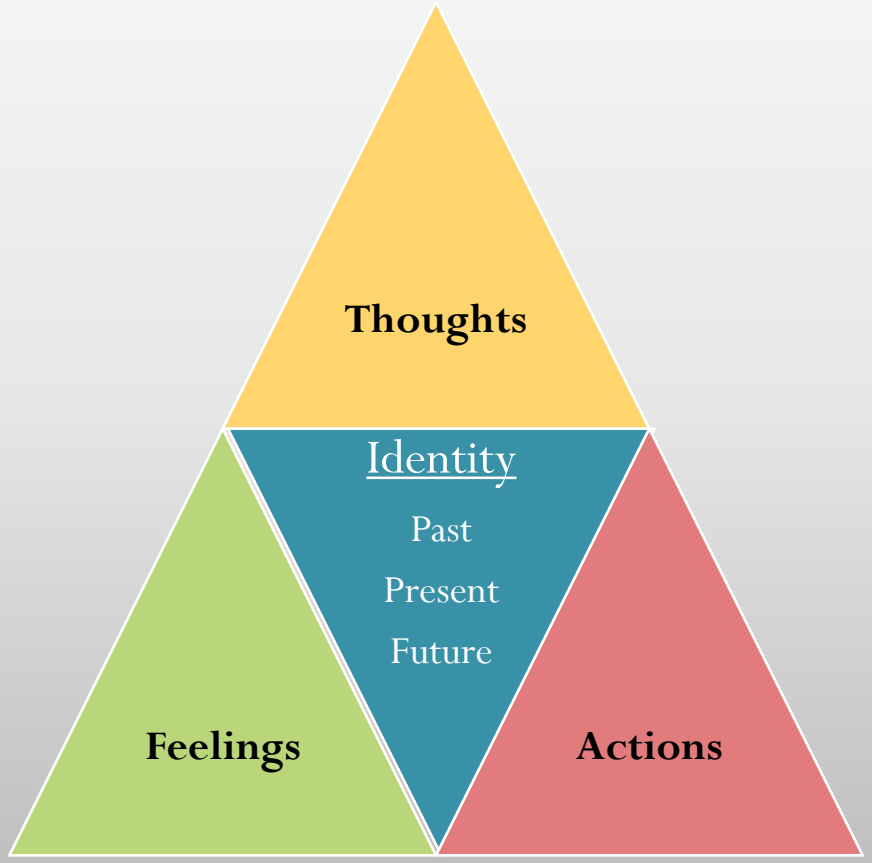
Individual

Family, Community & Culture

Society Pressures and Supports

- **Resources**
- **Discrimination**
- **Racism**
- **Adjustment**

Cognitive Model of PTSD



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) IfYES, 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

Situation	Related distressing feeling	Underlying thought
My little sister saw me use drugs and looked very disappointed	Shame I felt awful, lower than low	I am no good I always screw up/ Must/Should/ Never
I did not save my friend who drowned	Angry Sad	I am to blame I need to be strong I failed I am like my dad—a loser

15 Year old African American Male, Baltimore, MD

Adolescent Baseline Stage	Behavioral Goals	Intervention
Engagement	Regular Contact with Clinician	Assertive Outreach; Practical Assistance; Social network approach
Persuasion	Knowledge of effects of PTSD on substance use	Education/information Assessment Listening to family
Persuasion & Early Active Treatment	Efforts to reduce substance use -- overcoming Crisis of the day	Motivational Interviewing Strategies for relaxation or de-escalation.
Active Treatment	Recognition of high-risk situations, behaviors, and unhelpful thoughts; implementation of strategies	Cognitive-behavioral and motivational techniques

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

Themes	Therapy Considerations
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

Themes	Therapy Considerations
Difficult Communication	•Psycho-education and shared learning of cognitive model •Parenting Strategies
Dealing with School Issues	•Support, advocacy and parental education
Ongoing Stressful Situations	•Collaboration with community agency care partners •Cognitive Model

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

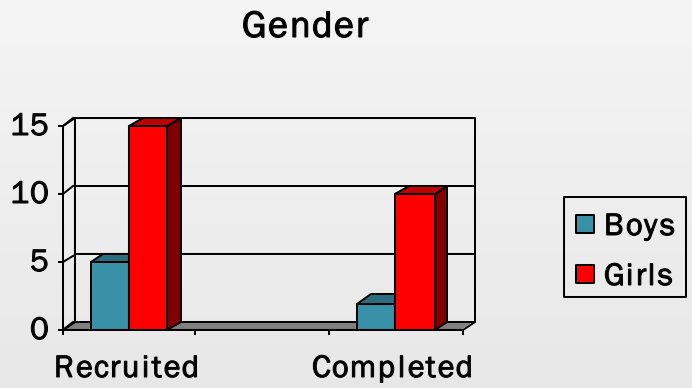
Analysis

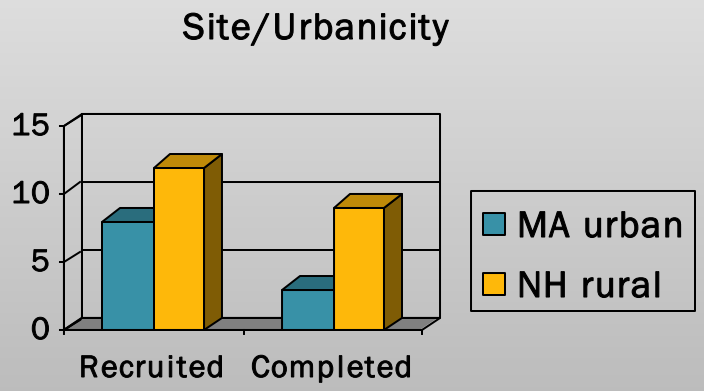
- Examination of symptom severity (PTSD and Depression) across three measurement intervals (baseline, end of treatment and 3 month post-treatment)
- SAS PROC MIXED (Singer & Willett, 2003) was used to estimate individual growth trajectories and to test change over time in PTSD symptoms and depression
- 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

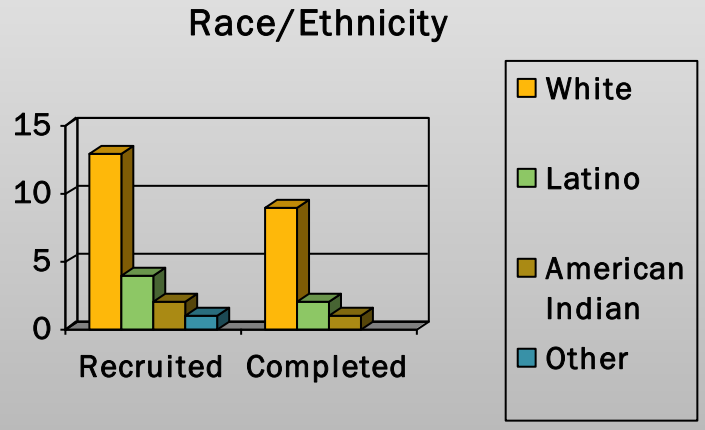
Results: Sample and Retention

- 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







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

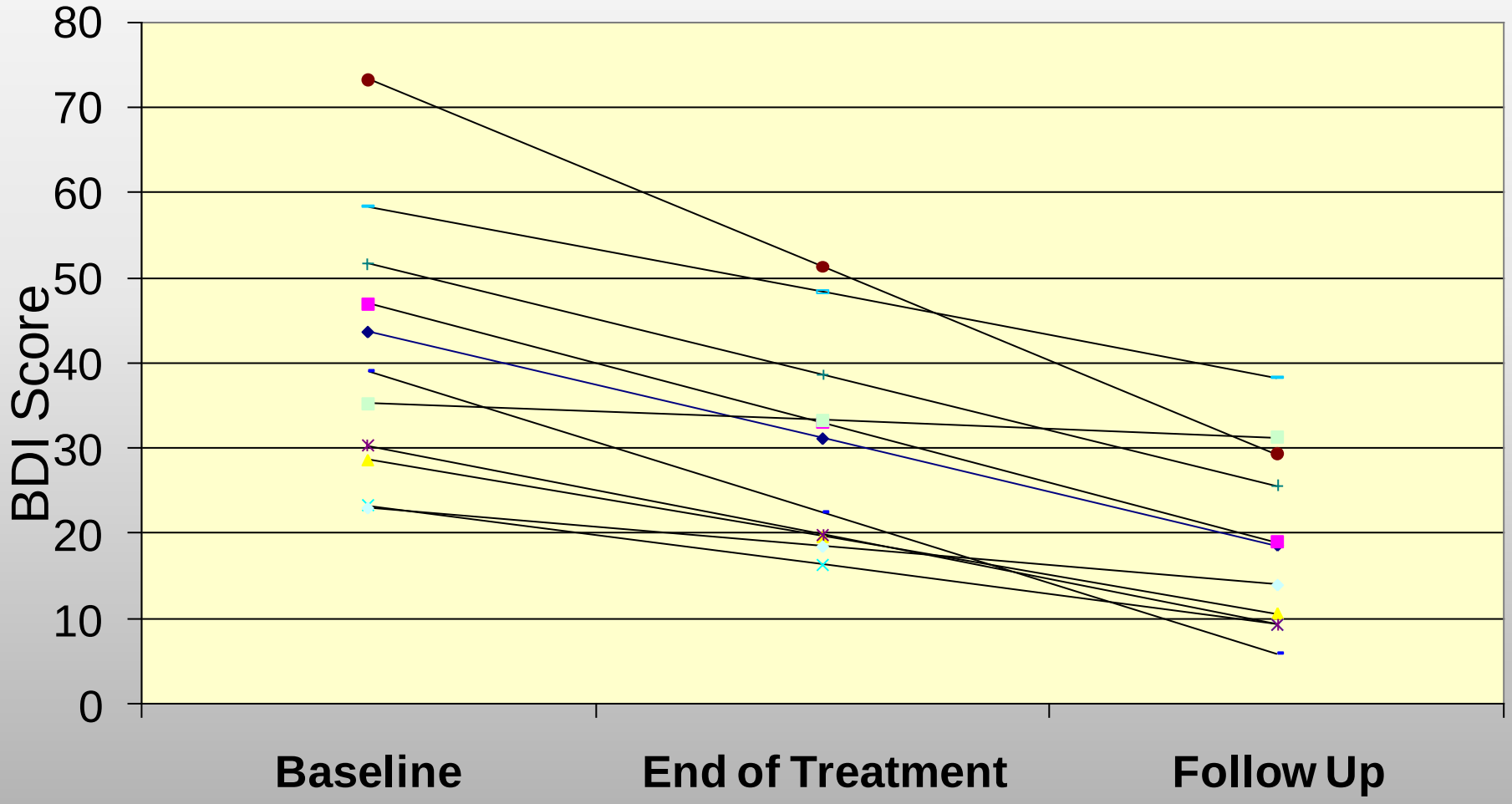
Results: Paired t-tests

- 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, ($t = 9.57$, $p<0001$)

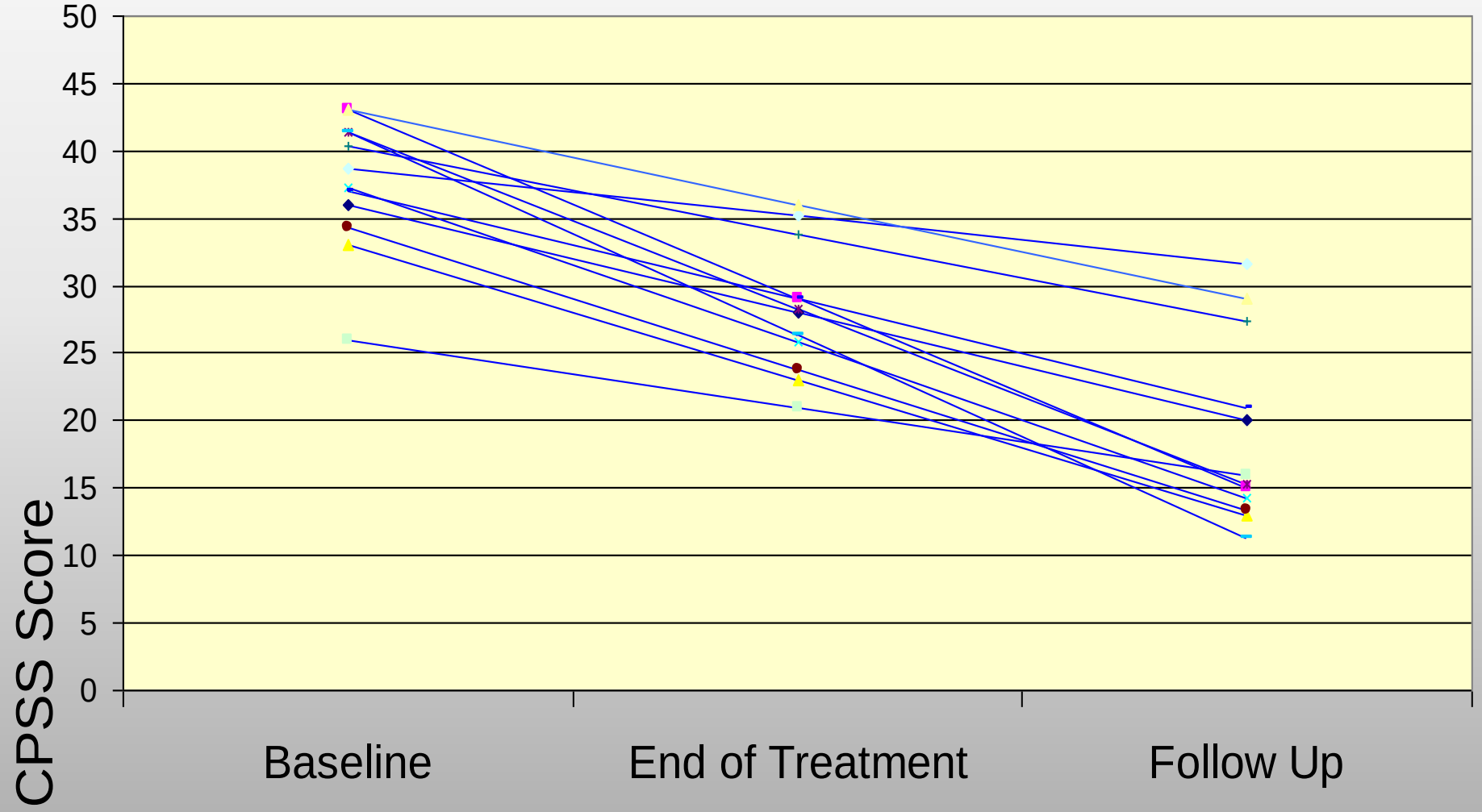
Results: Growth Modeling

- 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

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