

# **Cognitive Behavioral Intervention for Trauma in Schools (CBITS): An Evidence- based Program for Students Exposed to Trauma**

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# Outline of presentation



- Brief overview of the effects of trauma on children
- The *Cognitive Behavioral Intervention for Trauma in Schools* (CBITS) program
  - Overview of CBITS and group sessions
- Description of study design
- Summary of preliminary results:
  - Trauma screening
  - Pre-post for outcome measures

# Defining Trauma

# What is trauma?

- Highly stressful event, such as:
  - Abuse
  - Bullying
  - Injury/hospital stay
  - Abandonment
  - Community violence
  - Loss of loved one
  - Accident
  - Homelessness
  - Natural disaster
  - Exposure to violence or abuse
- Characterized by unpredictability
- Threatens physical or mental well-being
- Evokes feelings of extreme fear or helplessness
- Overwhelms an individual's capacity to cope



# Prevalence of trauma and violence

- National Survey of Children's Exposure to Violence (2009): Survey of U.S. children under age of 17
  - More than 60% were victims or witnesses of violence
    - 25% witnessed a violent act
    - 10% saw one family member assault another
  - Nearly one-half (46%) were assaulted at least once in past year
    - 10% were injured in the assault
  - One-fourth (25%) were victims of robbery or vandalism
  - 10% were victims of child maltreatment (physical or emotional abuse, neglect, or family abduction)
  - 1 in 16 (6%) were victimized sexually

# Effects of Trauma on Children and Adolescents

# Effects of trauma on children

- Symptoms of trauma may include:
  - Isolation
  - Hyperactivity
  - Aggression
  - Anger
  - Sadness
  - Distraction
  - Fearfulness
  - Moodiness
- Children exposed to violence are more likely to have:
  - Behavior problems
  - Poor school performance
  - Problems with authority
  - Difficulty following directions
  - More school absences
  - Somatic complaints
  - Poor sleep and nightmares
  - Symptoms of depression
  - Fewer friends



# Exposure to trauma over time

- **Single** exposure to an event may cause
  - Jumpiness
  - Intrusive thoughts
  - Interrupted sleep
  - Nightmares
  - Anger
  - Moodiness
  - Social Withdrawal
  - Disorganized or agitated behavior

*Any of which can interfere with concentration and memory*
- **Chronic** exposure can:
  - Adversely affect attention, memory, and cognition
  - Reduce ability to focus organize and process information
  - Interfere with effective problem solving and/or planning
  - Result in overwhelming feelings of frustration and anxiety



# Trauma effects in the classroom

How might a traumatized student act in class?

- Fails to understand directions
- Over-reacts to:
  - Comments or criticism from teachers and peers
  - Noises (startles at bells, slamming doors)
  - Physical contact
  - Environmental cues (low lighting, sudden movements)
- Has difficulty with authority and redirection
- Misreads context; fails to connect cause with effect
- Clingy and worried about safety
- Distracted and unable to complete work/homework
- Irritable or angry
- Uncomfortable, in pain, or sick

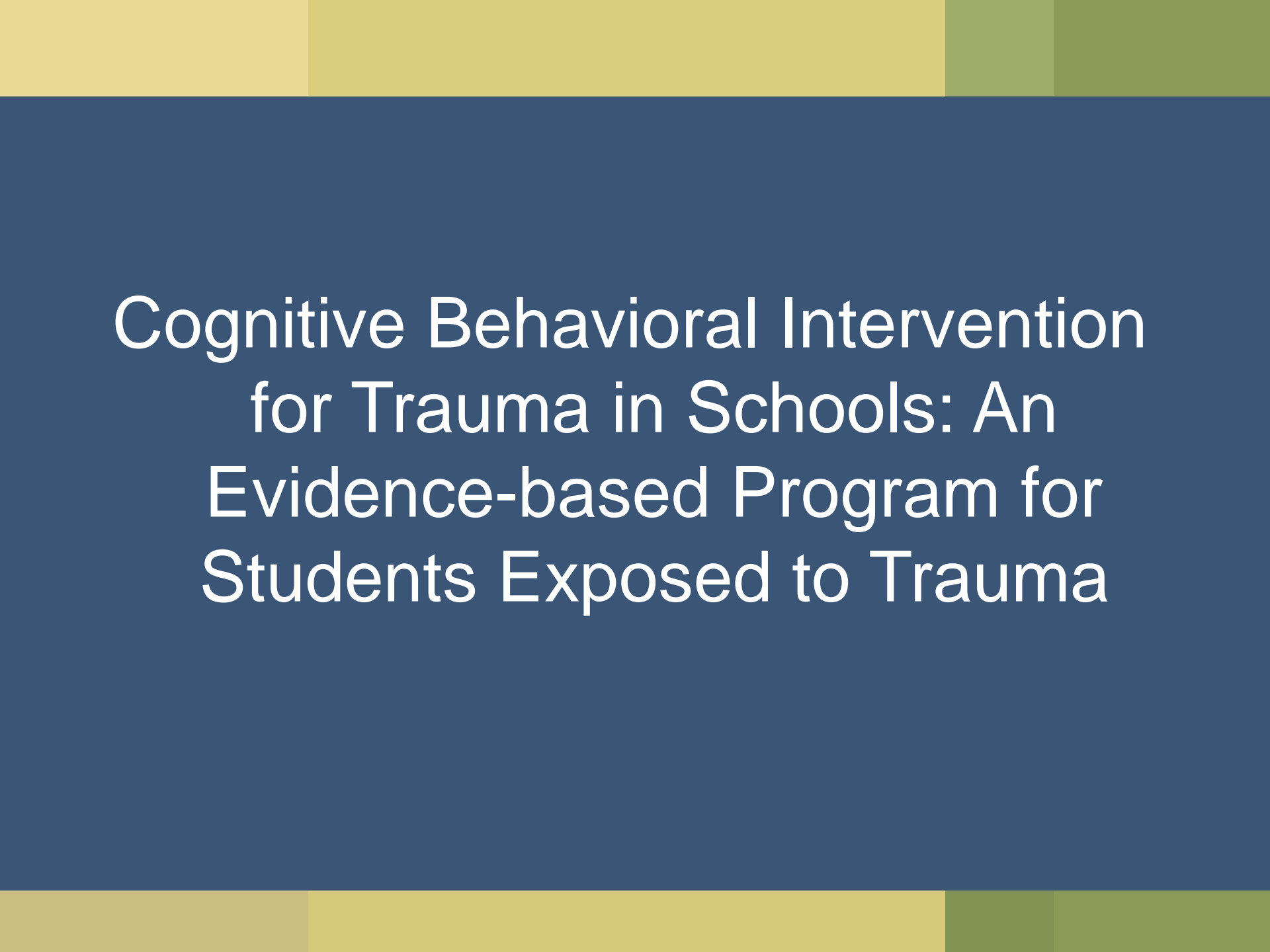


# Trauma effects on academic outcomes

- Trauma symptoms interfere with concentration, memory, and cognition, leading to:
  - Decreased IQ and reading ability (Delaney-Black et al., 2003)
  - Lower grade-point average (Hurt et al., 2001)
  - Decreased rates of high school graduation (Grogger, 1997)
  - Increased expulsions and suspensions (LAUSD Survey)



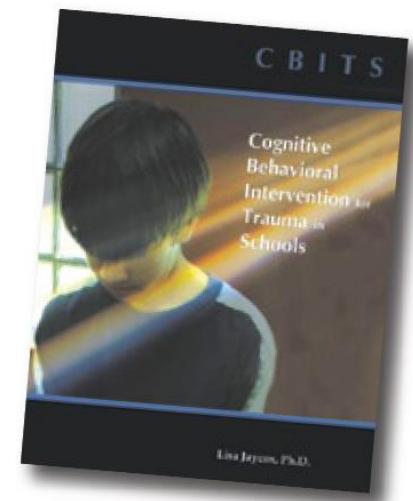
# Students and Trauma Video



# Cognitive Behavioral Intervention for Trauma in Schools: An Evidence-based Program for Students Exposed to Trauma

# CBITS program overview

- School-based intervention developed by UCLA, RAND, & LAUSD
  - Delivered to students experiencing significant distress due to trauma
    - Implementers = MSWs, licensed psychologists, or interns
  - Tailored for the school setting and diverse populations
  - 10 weekly student group sessions, 1-3 individual (1-on-1) sessions
    - Two parent education meetings
    - Teacher education
- Cognitive behavioral techniques
  - Education about common reactions to trauma
  - Relaxation training: imaginal exposure
  - Cognitive therapy: fear thermometer
  - Real life exposure: fear hierarchy and coping strategies
  - Stress or trauma memory: drawing/writing exercises
  - Social problem-solving: HOT seat



# Goals of CBITS

- Reduce symptoms of:
  - Post traumatic stress
  - General anxiety
  - Depression
  - Low self-esteem
  - Aggression and impulsivity
  - Other behavior problems
- Build resilience
  - Coping and decision making skills
  - Communication and social skills
  - Self care and self regulation
- Increase peer and parent support



# Ten CBITS group sessions

1. Introduction to the group
2. Education and relaxation
3. Introduction to cognitive therapy
4. Combatting negative thoughts
5. Introduction to real life exposure
6. Exposure to stress or trauma memory
7. Exposure to stress or trauma memory
8. Introduction to social problem-solving
9. Practice with social problem-solving
10. Relapse prevention and graduation

# How are students selected for CBITS group?

- Students who have experienced a significant trauma and have symptoms of PTSD or depression
- Universal screening in general school population
  - Use standardized scale
  - Screen for exposure AND for symptoms (PTSD, depression)
  - Follow up with short interview to validate, assess appropriateness for group



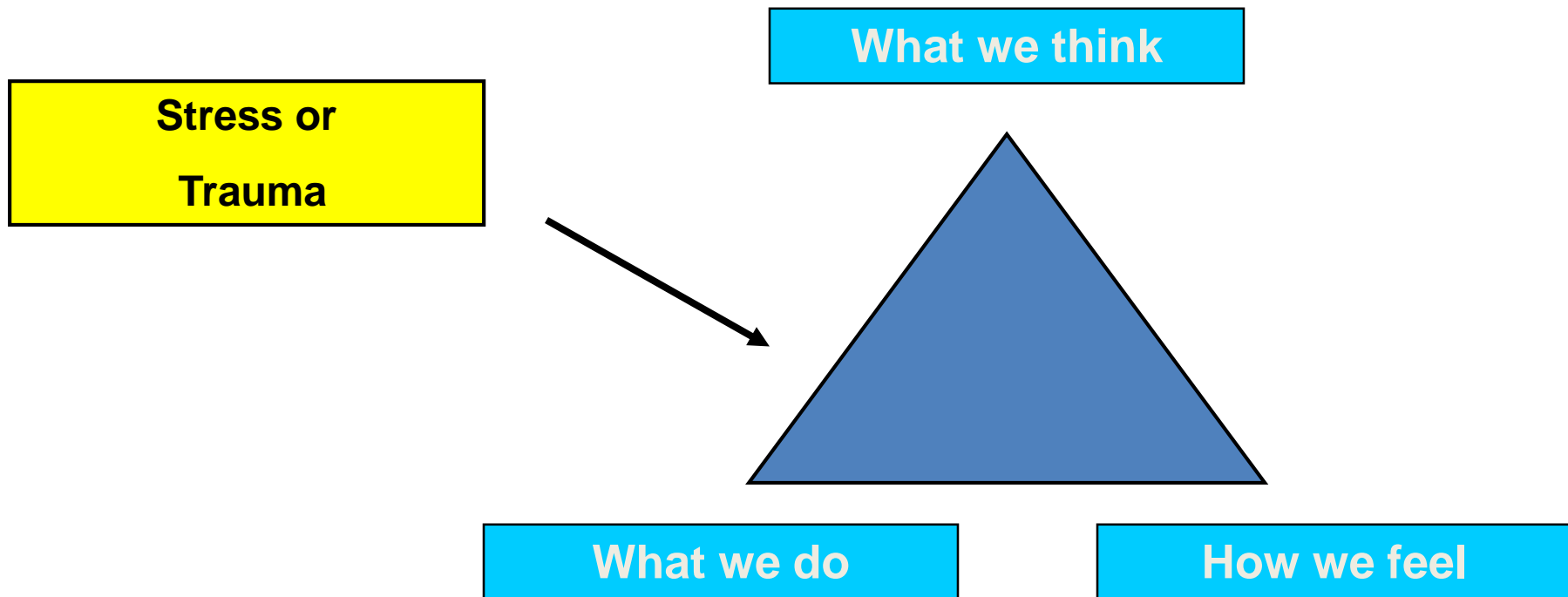
# Starting the group: Setting the tone

- Make it FUN
- “The Balance” = Follow the core concepts & be creative with language and examples
- Make examples relevant
- Put agenda on board - make it predictable
- Model good coping

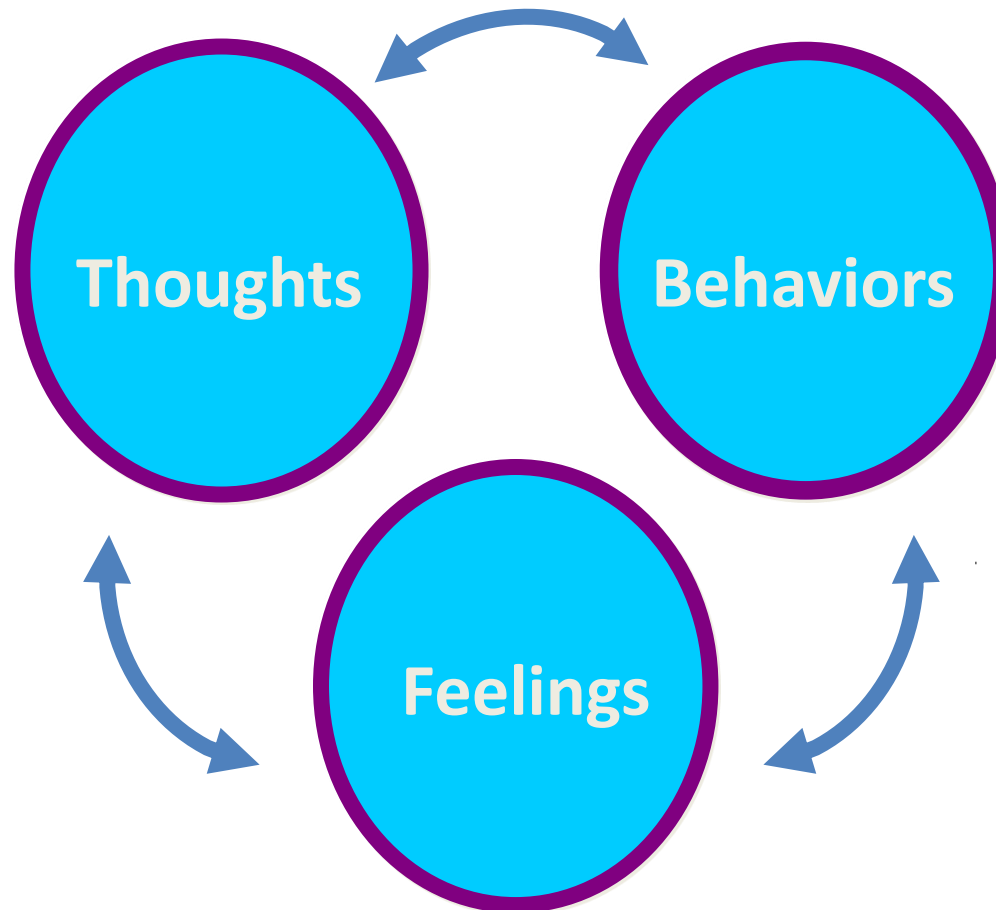
# Session 1: Introduction to the group

- Includes:
  - M&M game for warm-up (demonstrate)
  - Introduction to the group rationale
  - Discussion of confidentiality
  - Beginning of any group management techniques such as
    - Reward chart for good behavior
    - Group rules
- Goals Worksheet (HW)

# Conceptual model for participants



# Bidirectional system



# Session 2: Education and relaxation

- Purpose of psychoeducation is to:
  - Reduce stigma about trauma-related symptoms
  - Build peer and parent support
  - Increase parent-child communication about problems
- This is accomplished by:
  - Structured group discussion about common reactions to stress or trauma
  - Handouts sent home about symptoms
  - Homework assignments to discuss with parents
- Keep tone educational, stress commonalities
  - Normalize
  - Provide hope for how group can help

# Session 2: Education and relaxation

- Purpose of relaxation training is to:
  - Enable child to reduce anxiety
  - Provide a tool to help students “calm their bodies down”
- This is accomplished by:
  - Exercise combining positive imagery, slow breathing, muscle relaxation
  - Have students practice at home

# Sessions 3 & 4: Introduction to cognitive therapy, combatting negative thoughts

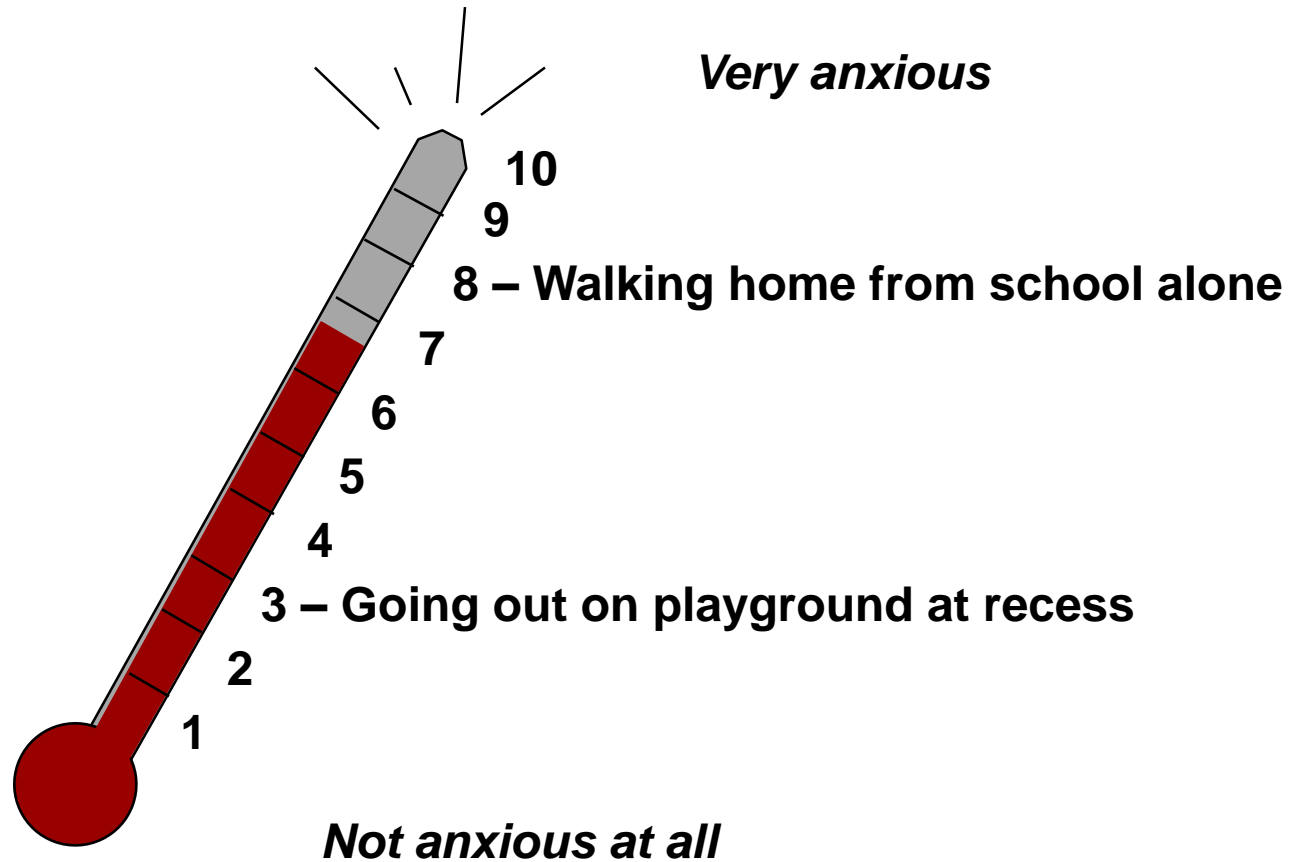
- Thoughts and feelings: the goal is to show that thoughts cause emotions
- Linkage between thoughts and feelings: the goal is to make sure that group members understand that thoughts and feelings are linked
- Combating negative thoughts: the goal is to teach members to challenge their negative thinking
  - Hot Seat exercise

# Sessions 3 & 4: Introduction to cognitive therapy, combatting negative thoughts

- Introduce the fear (or feelings) thermometer
  - To help students observe their own anxiety level
  - To introduce a common language in describing “fear” or “anxiety”



# The Feeling Thermometer



# HOT Seat Exercise (Helpful Other Thoughts): Combating negative thoughts

Questions to argue against negative thoughts. Other ways to think about it:

- Is there another way to look at this?
- Is there another reason why this would happen?

What will happen next:

- Even if this thought is true, what's the worst thing that can happen?
- Even if this thought is true, what's the best thing that can happen?
- What is the most likely thing to happen?

# Sessions 3 & 4: Cognitive therapy and combatting negative thoughts

- Cognitive restructuring should combat MALADAPTIVE thinking (inaccurate/unhelpful thoughts)
- For example: Child comes home and mom is drunk. Child thinks, “this is bad news/not safe.”
  - The thought is very likely to be accurate and adaptive. Thus, we don’t want to challenge or change this thought.
  - This is an example of a situation where we would want to be sure the child could use social problem solving to look at options for managing their thoughts and actions in the situation

# Sessions 3 & 4: Cognitive therapy and combatting negative thoughts

- Keep an eye out for the most common maladaptive thoughts related to trauma
- Continually normalize these kinds of thoughts, link them to traumatic event
- Do not shift to overly positive thoughts that may be equally unrealistic

Unrealistically (-)

Realistic

Unrealistically (+)



# Session 5: Introduction to real life exposure

- Help students approach anxiety-provoking situations
  - To teach them that anxiety does not last forever
  - To get them able to do all the things they want and need to do
  - To build confidence
- This is done by:
  - Identifying things children are avoiding related to the trauma, that are safe to do
  - Making a plan for decreasing that avoidance in gradual steps
  - Practicing approaching those situations and staying long enough for anxiety to decrease or go away

# Sessions 6 & 7: Exposure to stress or trauma memory

- Why?
  - To decrease anxiety when thinking about the trauma
  - To help child “process” or “digest” what happened to them
  - To build parent and peer support and reduce stigma
- How?
  - Having group sessions in which the child draws pictures or tells others about the trauma
  - Builds upon Individual Session Work
  - Encourage group members to talk about the trauma at home while the groups are running
- Imaginal, pictorial, and verbal exposures

# Sessions 8 & 9: Introduction to and practice with social problem-solving

- Why?
  - To decrease impulsive reactions and decisions
  - To improve real-life problems
  - To build skills in handling future problems
- How?
  - Teach children the link between thoughts and actions
  - Teach children to “brainstorm” solutions to a problem
  - Teach children to weigh the “pluses and minuses” or “pros and cons” for possible actions
  - Practice in group with real problems and worksheets at home

# Sessions 8 & 9: Introduction to and practice with social problem-solving

- Thoughts underly actions
  - Creating flexibility in the way one thinks about a situation increases the number of potential solutions to then select from
  - Example, Tom and Yolanda: Tom wants to ask Yolanda to the dance. He sees Yolanda talking to Jose.
    - What would he likely think?
    - What would he do?
    - What else could he think?
    - How would each thought link to an action?



# Session 10: Relapse prevention and graduation

- Certificates
- Celebration of progress
- Special activity/party
- Troubleshooting and applying CBITS skills to future stressors

# Self care is important

- Seek support/consultation if:
  - You are dreaming about students' traumas, or can't stop thinking about them
  - You are having trouble concentrating, sleeping, or are feeling more irritable
  - You feel numb or detached



# CBITS evidence

- Cited as recommended practice by:
  - U.S. Dept of Justice (OJJDP) (Exemplary Program)
  - Promising Practices Network (Proven Program)
  - White House's Helping America's Youth (Highest Quality Evidence)
  - CDC Prevention Research Center (Effective Program)
  - SAMHSA's National Registry (3.8/4.0 Dissemination Rating)
  - National Child Traumatic Stress Network
  - Blueprints Promising Program
- Previous research findings include:
  - Increased coping skills
  - Reduced trauma (PTSD) symptoms
  - Reduced depression symptoms
  - Reduced psychosocial dysfunction

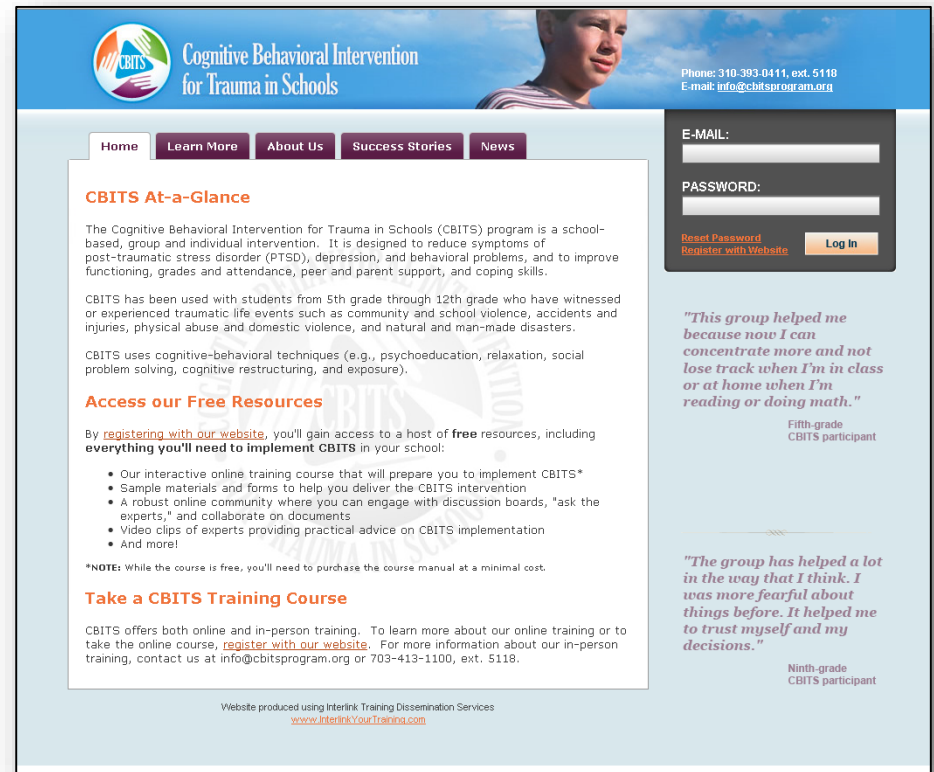


# Relevant research studies

- Stein, B. D., Jaycox, L. H., Kataoka, S. H., Wong, M., Tu, W., Elliott, M. N., et al. (2003). A mental health intervention for schoolchildren exposed to violence: A randomized controlled trial. *Journal of the American Medical Association*, 290(5), 603-611.
- Kataoka, S. H., Stein, B. D., Jaycox, L. H., Wong, M., Escudero, P., Tu, W., et al. (2003). A school-based mental health program for traumatized Latino immigrant children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 42(3), 311-318.
- Jaycox, L. H., Cohen, J. A., Mannarino, A. P., Walker, D. W., Langley, A. K., Gegenheimer, K. L., et al. (2010). Children's mental health care following Hurricane Katrina: A field trial of trauma-focused psychotherapies. *Journal of Traumatic Stress*, 23(2), 223-231.
- Jaycox, L. H., Stein, B., Kataoka, S., Wong, M., Fink, A., Escudera, P., et al. (2002). Violence exposure, posttraumatic stress disorder, and depressive symptoms among recent immigrant schoolchildren. *Journal of the American Academy of Child and Adolescent Psychiatry*, 41(9), 1104-1110.

# CBITS website

- [www.cbitsprogram.org](http://www.cbitsprogram.org)
- Registration is **free** for:
  - On-line training
  - Sample materials and forms
  - Implementation assistance
  - Video clips
  - On-line community of experts and colleagues
    - Advice, networking, sharing materials



### What can be done at school to help a traumatized child?

- Maintain usual routines. A return to “normalcy” will communicate the message that the child is safe and life will go on.
- Give children choices. Often traumatic events involve loss of control and/or chaos, so you can help children feel safe by providing them with some choices or control when appropriate.
- Increase the level of support and encouragement given to the traumatized child. Designate an adult who can provide additional support if needed.
- Set clear, firm limits for inappropriate behavior and develop logical—rather than punitive—consequences.
- Recognize that behavioral problems may be transient and related to trauma. Remember that even the most disruptive behaviors can be driven by trauma-related anxiety.
- Provide a safe place for the child to talk about what happened. Set aside a designated time and place for sharing to help the child know it is okay to talk about what happened.
- Give simple and realistic answers to the child's questions about traumatic events. Clarify distortions and misconceptions. If it isn't an appropriate time, be sure to give the child a time and place to talk and ask questions.
- Be sensitive to the cues in the environment that may cause a reaction in the traumatized child. For example, victims of natural storm-related disasters might react very badly to threatening weather or storm warnings. Children may increase problem behaviors near an anniversary of a traumatic event.
- Anticipate difficult times and provide additional support. Many kinds of situations may be reminders. If you are able to identify reminders, you can help by preparing the child for the situation. For instance, for the child who doesn't like being alone, provide a partner to accompany him or her to the restroom.
- Warn children if you will be doing something out of the ordinary, such as turning off the lights or making a sudden loud noise.
- Be aware of other children's reactions to the traumatized child and to the information they share. Protect the traumatized child from peers' curiosity and protect classmates from the details of a child's trauma.
- Understand that children cope by re-enacting trauma through play or through their interactions with others. Resist their efforts to draw you into a negative repetition of the trauma. For instance, some children will provoke teachers in order to replay abusive situations at home.
- Although not all children have religious beliefs, be attentive if the child experiences severe feelings of anger, guilt, shame, or punishment attributed to a higher power. Do not engage in theological discussion. Rather, refer the child to appropriate support.

# National Child Traumatic Stress Network

- Educators' toolkit in English and Spanish
  - Trauma facts
  - Resources for parents
- [www.NCTSN.org](http://www.NCTSN.org)



# CBITS Study in San Francisco Unified School District

# Funders and partners



- Funders
  - Department of Education, IES, NCSER (Goal 3 RCT)
- Partners:
  - Local School District: School Social Workers (SSWs)
  - UCLA: training, technical assistance, and fidelity rating
  - Stanford University: weekly clinical supervision



Sheryl Kataoka



Audra Langley



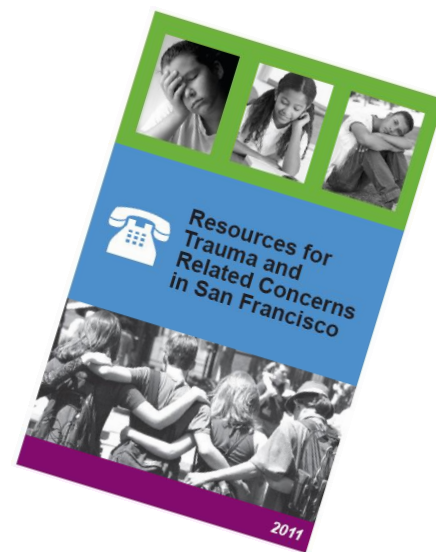
Shashank Joshi



# School participation

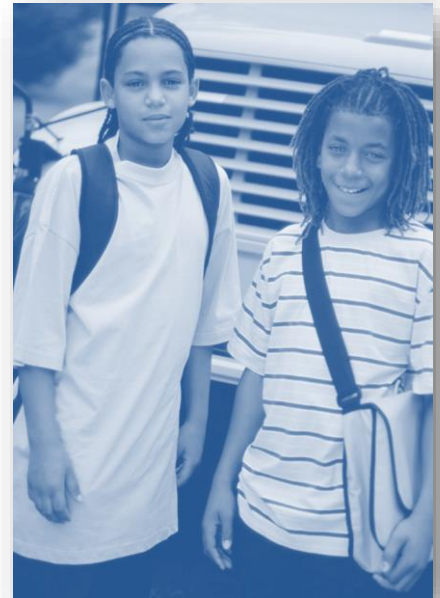


- Selected **12 middle schools** in neighborhoods with elevated violence, crime, and poverty rates
- Each school has at least 1 SSW, a certified clinician
- Each participating school receives:
  - **Resources** and **support** to implement CBITS
  - Yearly **stipends** (\$1,000 per school)
  - Ongoing **staff education** and consultation
    - Training for *all* SSWs (including non-participating)
    - Weekly clinical supervision
  - Local **Resource Guide** for trauma services
  - **Data** to support applications for potential funding

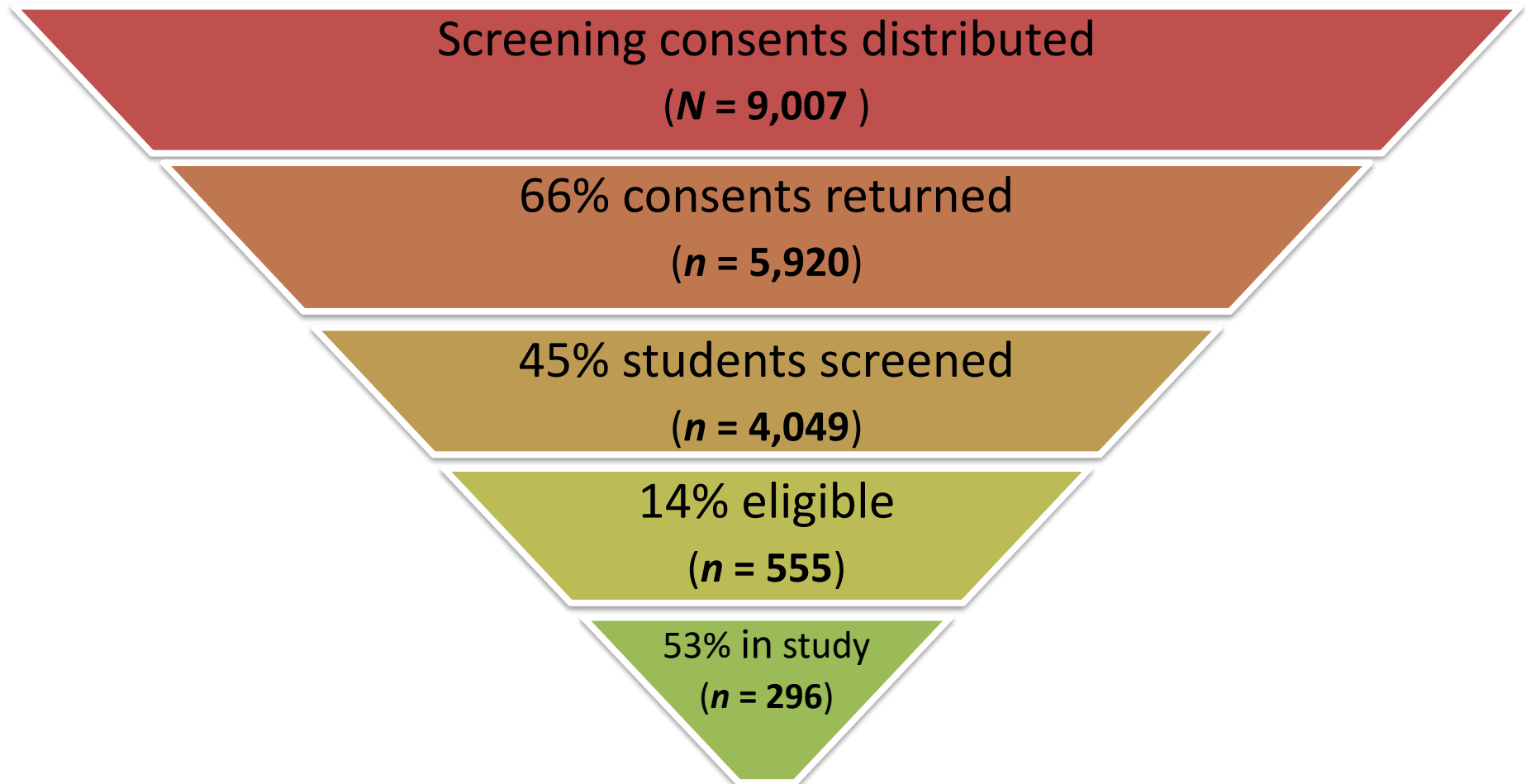


# Screening and recruitment process

- **Active consent** for all incoming 6<sup>th</sup> grade students
  - Trauma Symptom Checklist for Children, PTS subscale (Briere, 1996)
  - Traumatic Events Screening Inventory (Ford & Rogers, 1997)
- **Eligibility** criteria:
  - 80<sup>th</sup> percentile on TSCC-PTS (*T score 58+*)
  - Endorsement of 1+ trauma event on TESI
  - Parent consent, student assent
- **Randomization** (*after consent*) to:
  - CBITS group *or*
  - *Business-as-usual* comparison group
    - Both received *Trauma Resource Guide*



# Participants

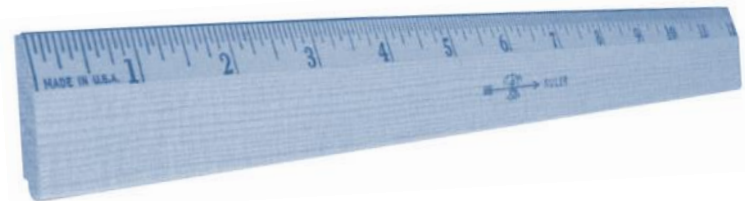


# Data collection

Instrument	Purpose	Respondent
TSCC (Briere, 1996)	Trauma symptoms	Student (self report)
CRI-Y (Moos, 1993)	Coping responses	Student (self report)
SACA (Stiffman et al., 2001)	Services outside CBITS	Student (self report)
PSQI (Buysse et al., 1989)	Sleep duration/quality	Student (self report)
YSR (Achenbach & Rescorla, 2001)	Behavior	Student (self report)
WJ3 Brief Battery (Woodcock et al., 2006)	Reading and math achievement	Student (direct assessment)
AET (Walker & Severson, 1990)	Academic engagement	Classroom observation
TRF	Classroom behavior	Teacher

# Other measures

- Student Record data
  - Attendance, grades, and services (e.g., special education)
- Social Validity surveys (students and SSWs)
  - Assess satisfaction with program content, materials, and impact
- Alliance surveys (students and SSWs)
  - Assess satisfaction with relationship
- Fidelity measures
  - Ratings of audiotaped sessions by external (UCLA) staff
  - Random sample: 20% of all sessions



# Data collection timeline

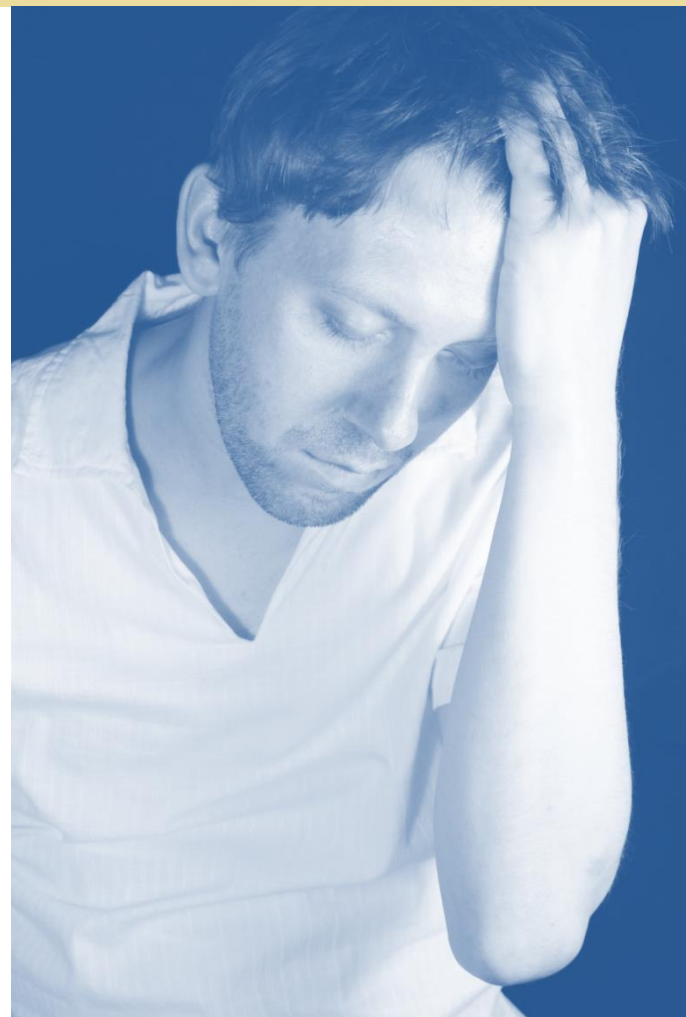
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Year 1	Cohort 1 (C1) Screening and Consent		C1 Baseline	C1 Treatment			C1 Posttest			
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Year 2	Cohort 2 (C2) Screening and Consent		C2 Baseline	C2 Treatment			C2 Posttest C1 Follow-up			
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Year 3	Cohort 3 (C3) Screening and Consent		C3 Baseline	C3 Treatment			C3 Posttest C2 Follow-up			
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Year 4							C3 Follow-up			
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June

# Preliminary Results:

## Participant Descriptives

# Student screening: Total sample ( $N = 4,049$ )

- Overall prevalence of elevated trauma = 14%
  - Prevalence ranged from 7% to 21% by school
- Prevalence by gender:
  - 13.4% of females
  - 14.3% of males





# Traumatic Events: Participants with elevated scores, lifetime events (n=550)

Traumatic Event	% Students
Been in serious accident	37%
Witnessed serious accident	48%
Natural disaster	30%
Relative sick/injured	73%
Been seriously ill/injured	55%
Relative died	58%
Separated from family	34%
Attacked by animal	31%
Threatened with harm	54%
Slapped, punched, or hit	67%
Witnessed someone slapped or hit	71%
Witnessed attack with weapon	15%

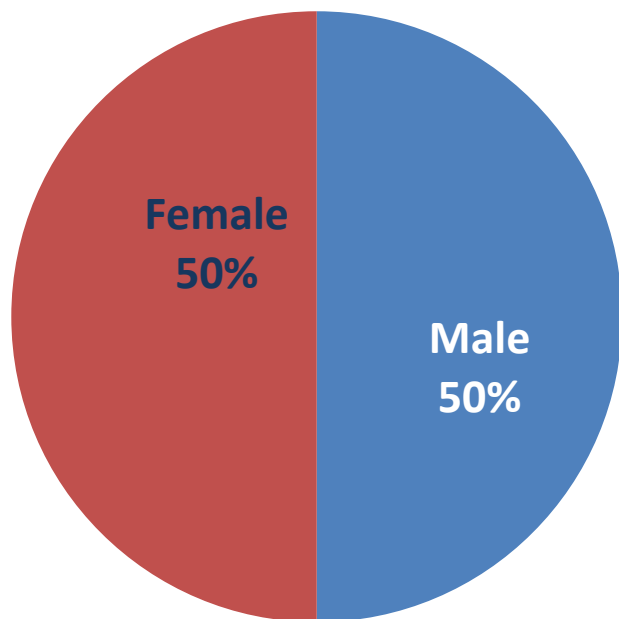
Mean Events  
endorsed

6.3

# Events	% Students
1–2	3%
3–4	14%
5–6	29%
7–8	30%
9–11	23%

# Participant demographics ( $n=293$ )

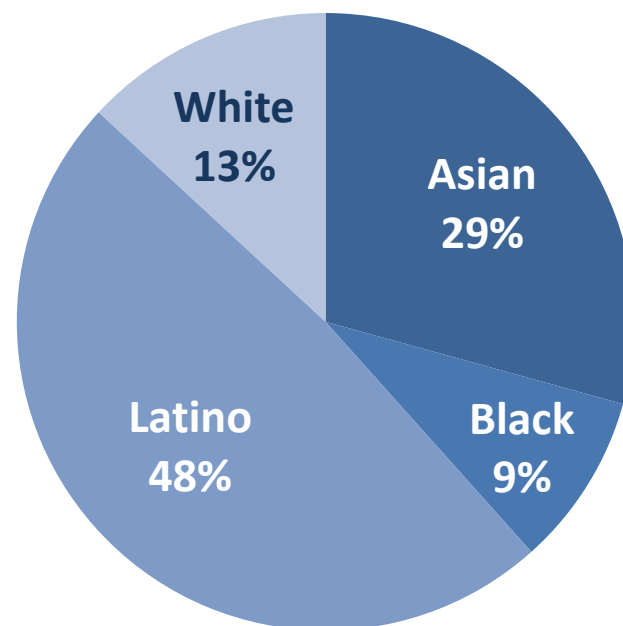
**Gender**



**Mean Age**

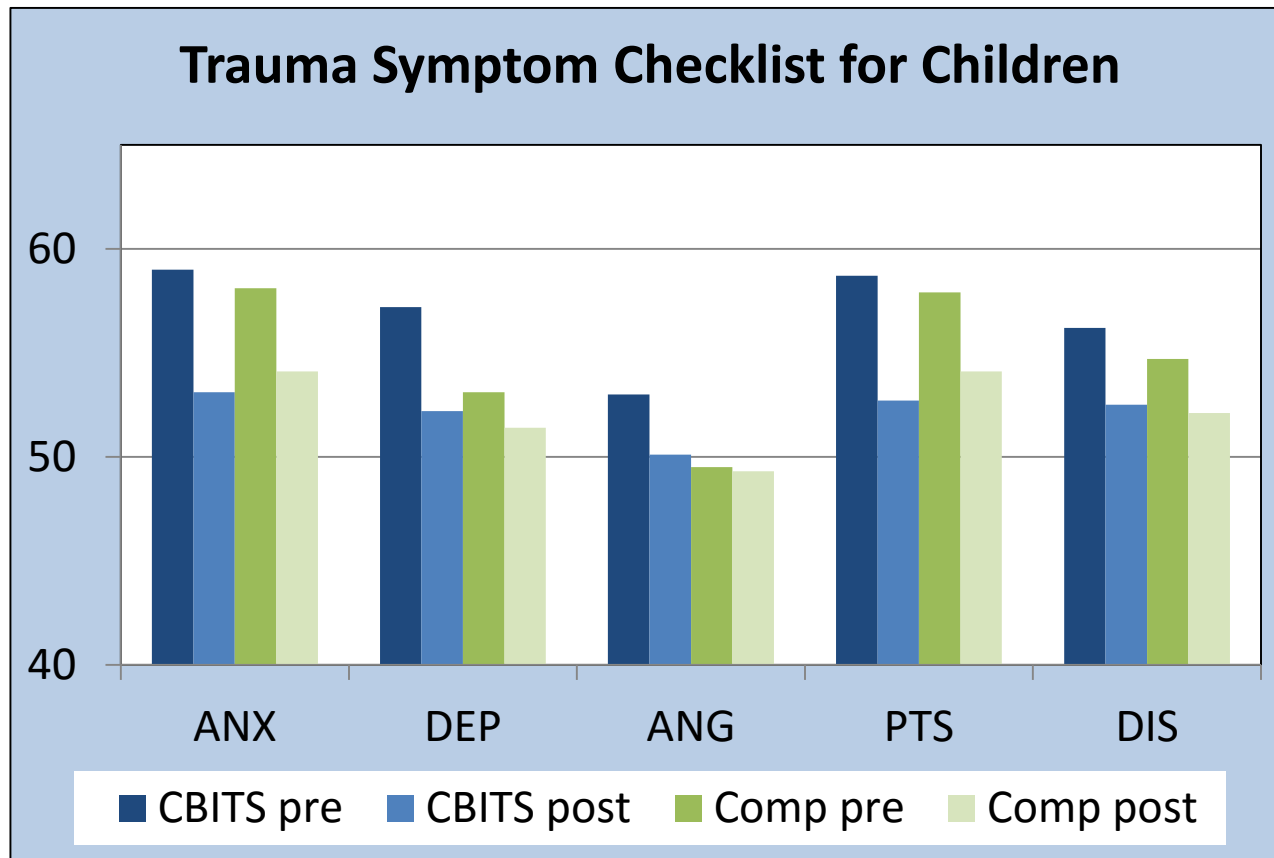
11.5 years

**Ethnicity**



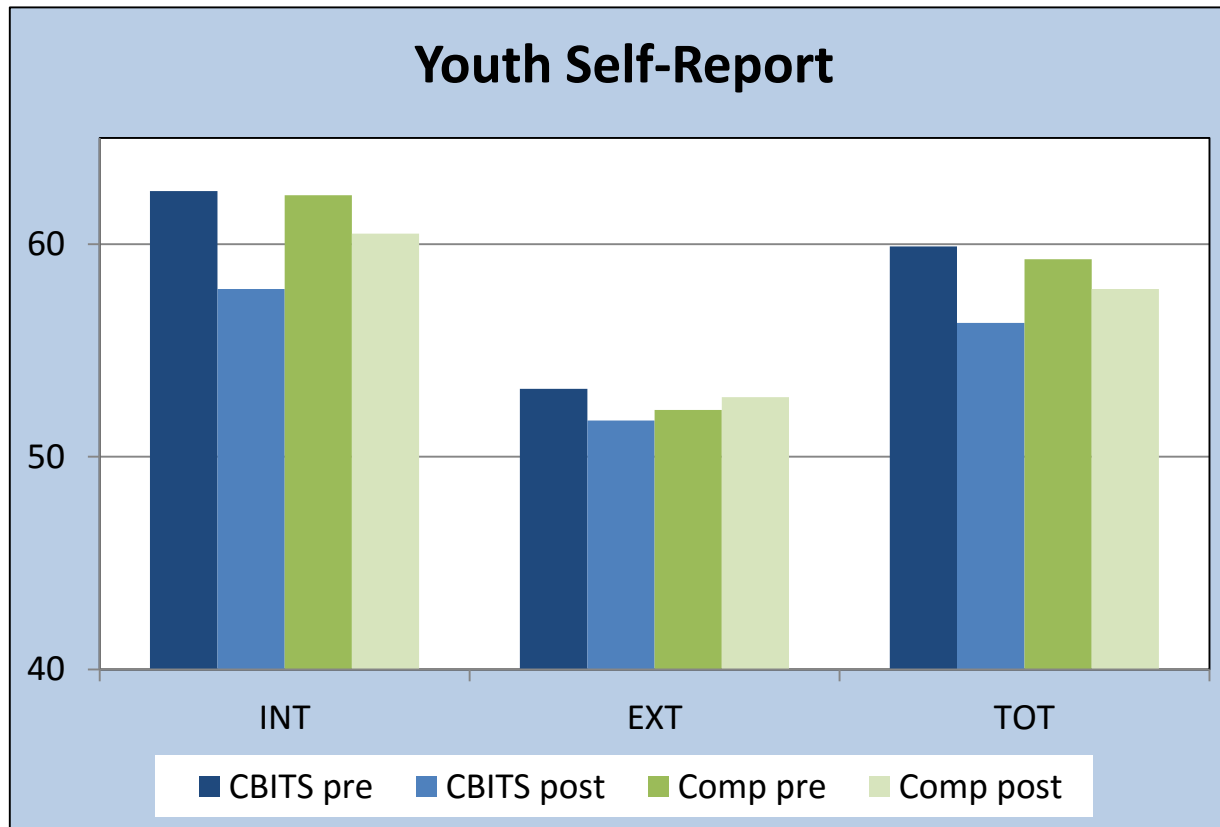
# RCT Preliminary Results: Pre-Post and Follow-Up Effects

# Trauma symptom outcomes at posttest



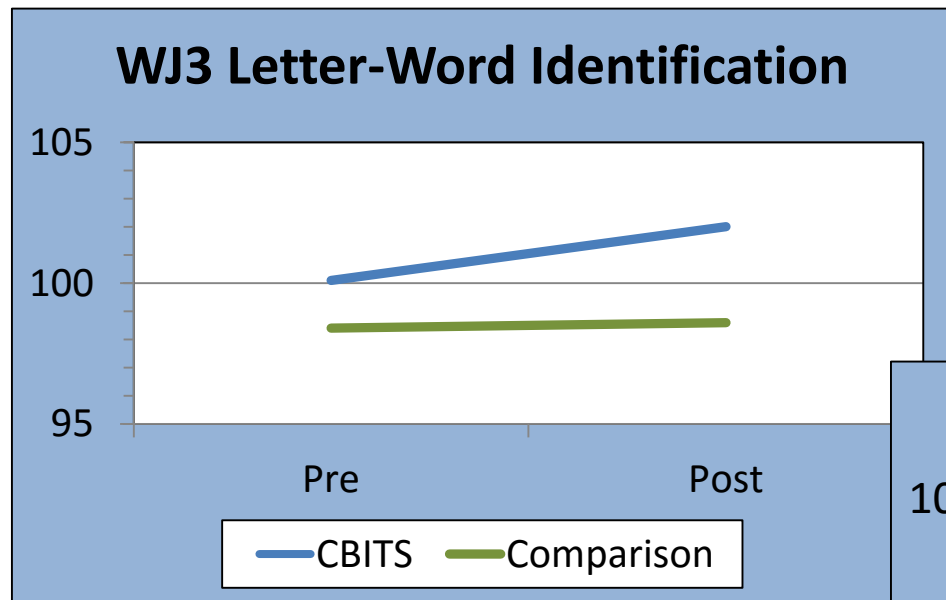
\*Overall differential intervention effects + subgroup effects (presenting issues, gender, and race/ethnicity) on **ANX** and **PTS** with moderate to large effect sizes (-0.25 to -0.63)

# Behavior outcomes at posttest

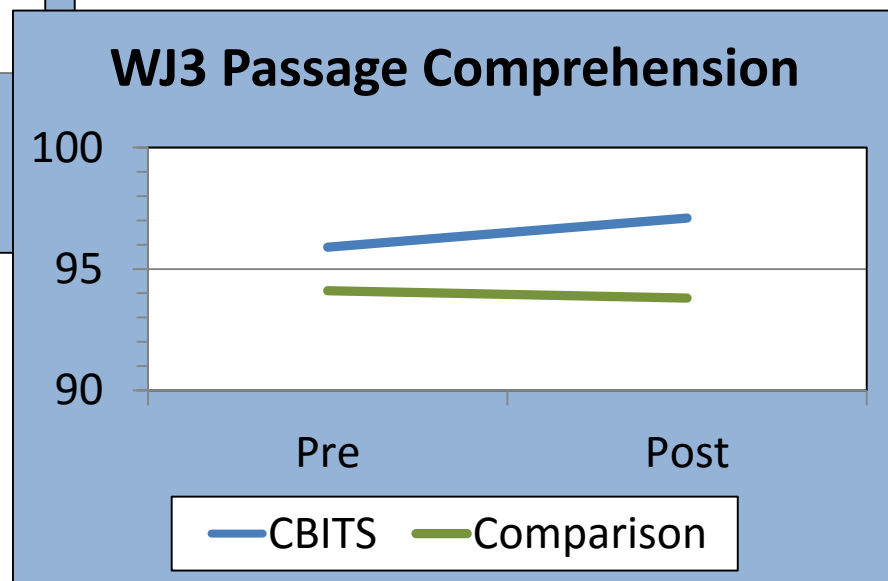


\*Overall differential intervention effects + subgroup effects (presenting issues, gender, and race/ethnicity) on **INT**, **EXT**, and **TOT** with moderate to large effect sizes (-0.22 to -1.35)

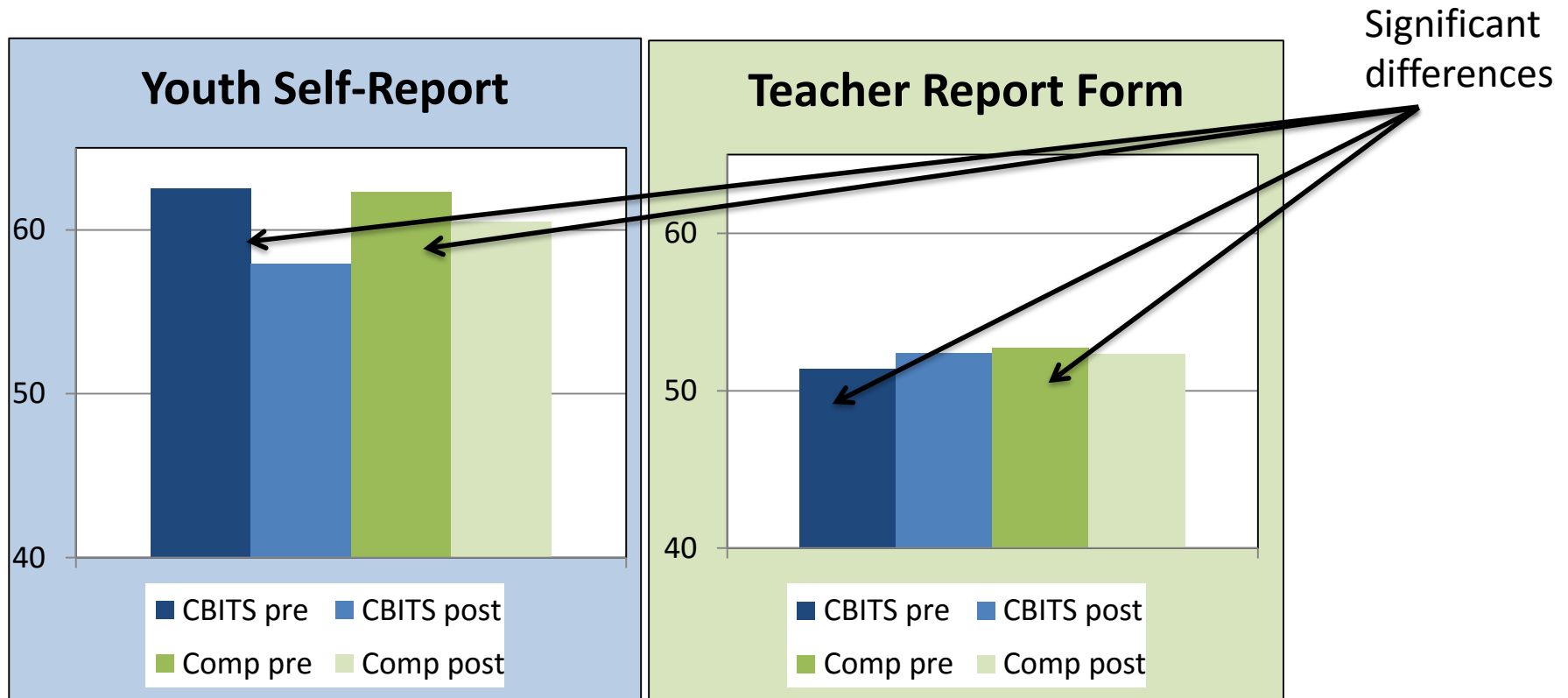
# Academic outcomes at posttest



\*Differential intervention effects by subgroups (gender and race/ethnicity) with large effect sizes (0.67 to 1.38)



# Internalizing distress/behaviors: Student and teacher report differences



# Outcomes at one-year follow-up

## Trauma symptoms:

- **Male Asian** CBITS participants reported significantly reduced posttraumatic stress (on TSCC) after one year. (e.s.= -0.66)
- **Male non-Hispanic** CBITS participants reported significantly reduced posttraumatic stress (on TSCC) after one year. (e.s.= -0.49)

## Academics:

- **Female Hispanic** CBITS participants demonstrated significantly higher scores on a direct math assessment (WJ Applied Probs) (e.s.= 0.63)

## Behavior:

- **Male Hispanic** CBITS participants reported significantly **increased** externalizing and total problems on YSR (e.s.= 0.58, 0.55, respectively)



# Summary

- **Universal screening** identified 14% of students suffering effects of exposure to trauma and in need of services.
  - Teachers' reports alone may not be reliable.
- Implementation of **evidence-based practice** in schools is a viable option for students exposed to trauma.
- Significant findings from CBITS study in SFUSD:
  - Reductions in trauma and behavior problems; **increases in language and literacy assessment scores** at posttest.
    - Overall differential intervention effects and subgroup effects (presenting issues, gender, and race/ethnicity) with moderate to large effect sizes.
  - Interesting subgroup one-year follow-up outcomes related to trauma, behavior, and academic assessment scores.

# Next Steps

- Analyze main effect data using HLM.
- Complete/submit manuscripts
  - Screening data\*
  - Main effects
- Collect 1 year follow-up data for cohort 4.
- Analyze long term academic and behavioral outcomes.
- Conduct moderator and mediator analyses.

\*Recently published screening results: Woodbridge, M. W., Sumi, W. C., Thornton, S. P., Fabrikant, N., Rouspil, K. M., Langley, A. K., & Kataoka, S. H. (2015). Screening for trauma in early adolescence: Findings from a diverse school district. *School Mental Health*, 8, 89-105.

# Questions?



CBITS website: [www.cbitsprogram.org](http://www.cbitsprogram.org)

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