

The Society for Clinical Child and Adolescent Psychology (SCCAP): Initiative for Dissemination of Evidence-based Treatments for Childhood and Adolescent Mental Health Problems

With additional support from Florida International University and The Children's Trust.



Keynote Overview

The Impact of Disasters on Youth: Risk, Resilience, and Interventions

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The Impact of Disasters on Youth: Risk, Resilience, and Interventions

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Hurricane Andrew: August 24, 1992

- Category 5 Hurricane (sustained winds exceeding 160 mph)
- Devastated 400 square miles
- Over 150,000 homes severely damaged or destroyed; 55 people died
- Rebuilding costs exceeded \$45 billion (2006 \$\$)
- Until Katrina, the most costly natural disaster in US history

Why Study Disasters?

- Disasters occur worldwide, affecting millions of youth and adults annually
- For children alone....
 - Disasters affect > 66.5 million children annually¹
 - This number is on the rise due to climate change
 - Estimates indicate that, in the next decade, 175 million children will be affected each year
 - 2011 was particularly devastating

¹ Bartlett, 2008; Peek, 2008 ² Penrose & Takaki, 2006

Why Study Disasters?



- Disasters occur worldwide, affecting millions of youth and adults annually
 - Children are a vulnerable population postdisaster¹
- “Equal opportunity” stressor

¹Norris et al. (2002) *Psychiatry*, 65, 207-239.

Overview of Presentation



- Nature of Disasters
- Children's Reactions/Outcomes
- Risk and Resilience Factors
- Implications

Overview of Presentation



- Nature of Disasters

Nature of Disasters



- Threaten one's personal safety and security and/or that of loved ones
- Frightening, and outside the realm of usual experiences
- Disrupt everyday life in the short-term and *often in the long-term*

Overview of Presentation



- Children's Reactions/Outcomes

Child/Youth Reactions to Disasters: Hurricanes and Bushfires

- *Study I* - 568 children, 8 - 12 yrs, 3 months after Hurricane Andrew
- *Study II* - 442 children, 8 - 12 yrs, followed 3, 7, 10 months post Andrew.
- *Study III*- 64 children from Study II followed 44 months after Hurricane
- *Study IV* - 96 children, 7 - 13 yrs, assessed 15 months before Hurricane Andrew and 3- and 7-months after.
- *Study V* - 368 children, 8 - 12 yrs, evaluated 9 and 21 months after Hurricane Charley (2004)
- *Study VI* – 80 youth 13-17 yrs, evaluated after Hurricane Katrina (2005)
- *Study VII* - 155 children, 8 - 18 yrs, evaluated 13-15 months after 2005 bushfires in lower Eyre Peninsula, South Australia
- *Study VIII* - 385 children, 8 - 12 years, evaluated 8 and 15 months after Hurricane Ike (2008)

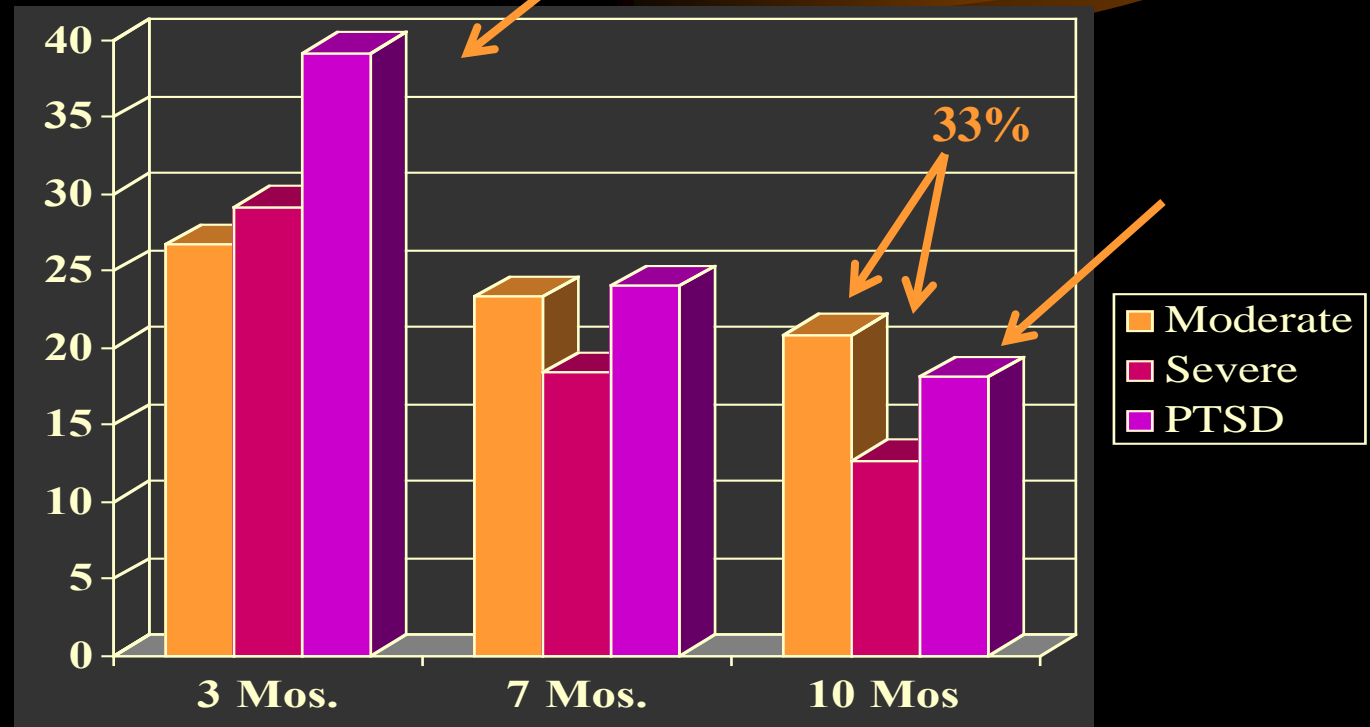
Most Commonly Studied Disaster Reactions

Symptoms of Posttraumatic Stress Disorder

- **Re-experiencing**
 - Recurrent thoughts or dreams about the event
- **Avoidance/Numbing**
 - Avoiding reminders of the event
 - Feeling emotionally distant from others
- **Hyperarousal**
 - Nervous, jittery
 - Trouble concentrating

Advances in Understanding the Effects of Disasters on Youth

- Hurricane Andrew (1992)
 - Significant % of youth who were exposed to the hurricane reported elevated PTSD symptoms



La Greca, Silverman, Vernberg & Prinstein, *J Consulting Clinical*, 1996

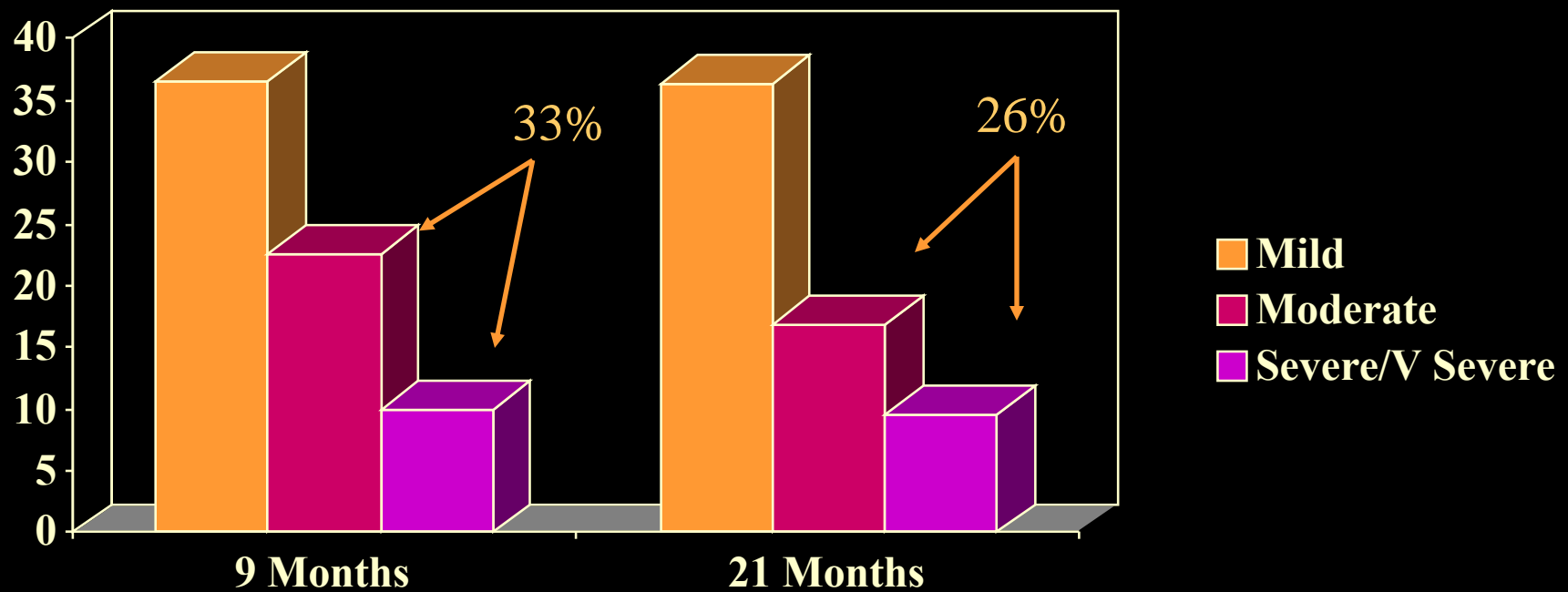
Hurricane Charley, August 2004

- Landfall in Charlotte County FL, Category 4 (145 mph winds)
- “Projected track” changed 2 hours before landfall
- Over 90% of the homes in Charlotte County sustained damaged
- 9 direct fatalities in FL; Damage exceeded \$16 billion (5th most costly)



PTSD Symptoms 9 and 21 Months after Hurricane Charley

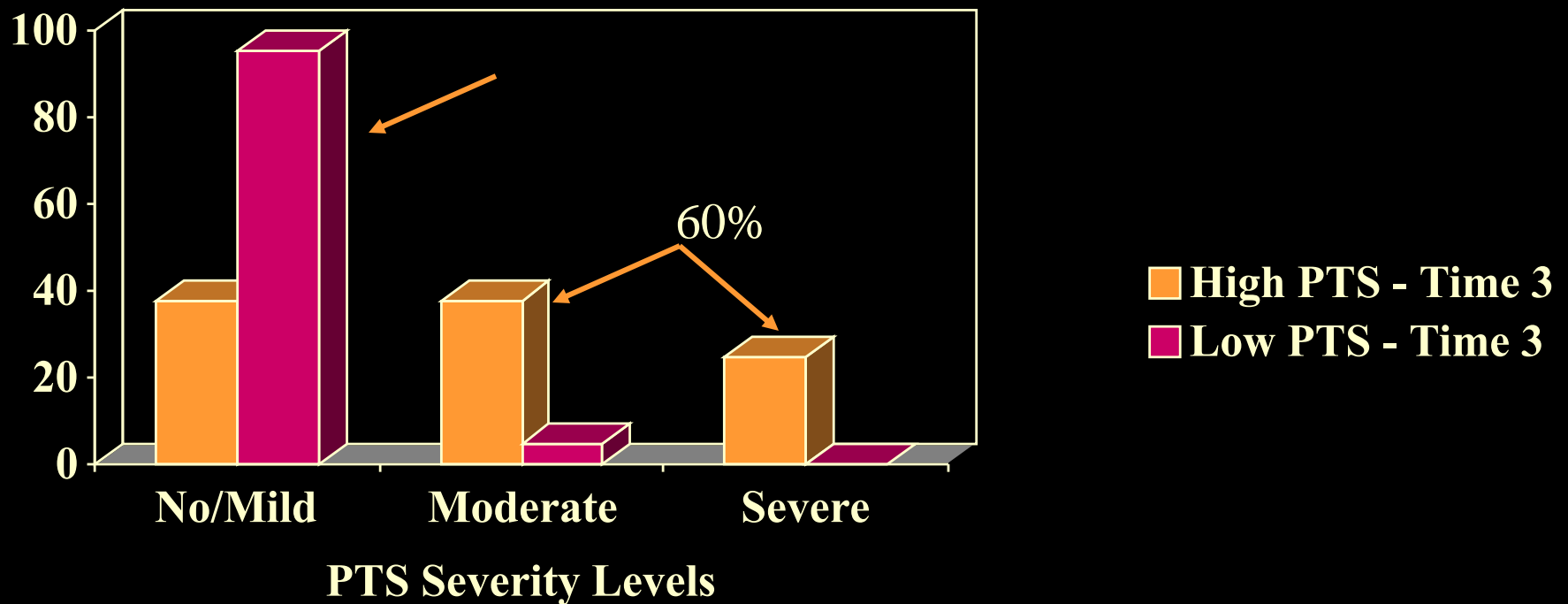
% of Children Reporting PTS Symptoms



La Greca, Silverman, Lai, & Jaccard, 2010,
Journal of Consulting and Clinical Psychology

Youths' Levels of PTS Symptoms: 44 Months Post Andrew (Time 4)

% of Youth Reporting PTS Symptoms



Other Common Anxiety-Related Reactions

- Generalized anxiety
- Specific fears and avoidant behavior
 - Fears of flying, buildings, storms, bombs, fires, etc.
- Sleep difficulties
- Separation anxiety
 - Fear of separation from parents or loved ones; school refusal

See Vernberg & Vogel, 1993, *J Clinical Child Psych*

Mental Health Problems in NYC School Children After WTC Attacks of 9/11/2001

Possible Diagnosis	Pre 9/11/2001	Post 9/11/2001
Posttraumatic Stress Disorder	2%	
Separation Anxiety Disorder	6%	
Panic	1%	
Agoraphobia (fear of open spaces)	5%	

*Data collected 6 months after 9/11 from children in grades 4 - 12
Compared with earlier community estimates.
Hoven and colleagues (2005), Archives of General Psychiatry*

Mental Health Problems in NYC School Children After WTC Attacks of 9/11/2001

Possible Diagnosis	Pre 9/11/2001	Post 9/11/2001
Posttraumatic Stress Disorder	2%	11%
Separation Anxiety Disorder	6%	12%
Panic	1%	9%
Agoraphobia (fear of open spaces)	5%	15%

*Data collected 6 months after 9/11 from children in grades 4 - 12
Compared with earlier community estimates.
Hoven and colleagues (2005), Archives of General Psychiatry*

Other Types of Reactions

- Depression
- Bereavement
- Anger
- Declines in Academic Performance/School
- Behavior Problems
- Security Concerns, Hypervigilance

See Vernberg & Vogel, 1993, *J Clinical Child Psych*

Recent Advances

- Comorbidity of Depression and PTSD
- Health issues
 - Somatic Complaints, Sleep
 - Diet/Exercise/Sedentary Behavior

Hurricane Ike: Galveston, Texas

- Category 2 Hurricane (September 13, 2008)
- Estimated \$16 billion in damages
 - Plunged the city under 7 feet of water
 - Closed Galveston schools for 1 month



Participants: Hurricane Ike Study

Time 1 = 8 months postdisaster

- 328 children
- Grades 2 – 4; *M* age = 8.72 years
- 52% girls; 72% ethnic minority

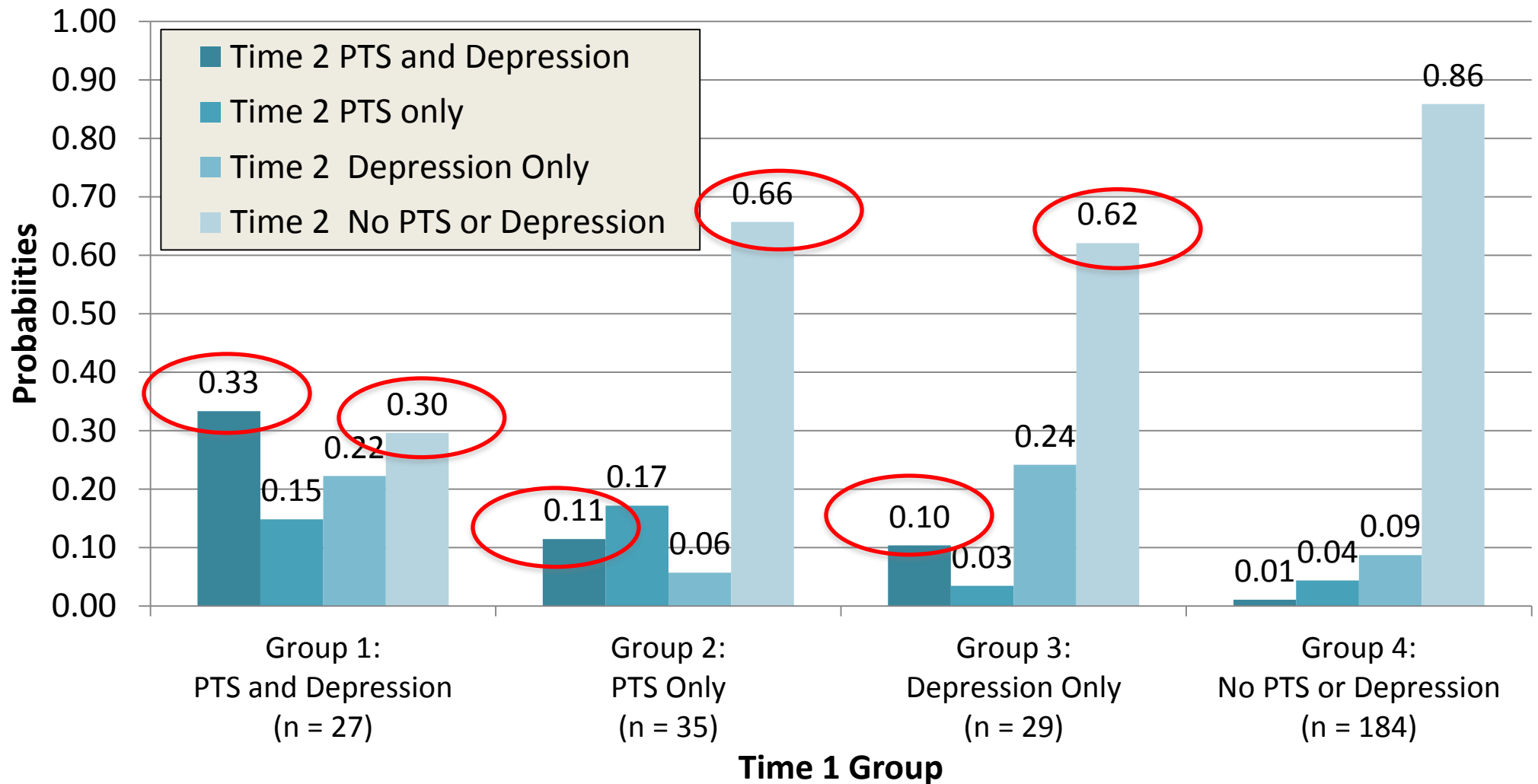
Time 2 = 15 months postdisaster

- 277 children (16% attrition); 52% girls
- No differences on demographic variables or outcomes (PTS symptoms, depressive symptoms)

Hurricane Ike: Comorbidity Rates

	Clinically Elevated Symptoms	Time 1 8 months	Time 2 15 Months
Group 1	PTS & Depression	27 (10%)	18 (7%)
Group 2	PTS Only	35 (13%)	19 (7%)
Group 3	Depression Only	29 (11%)	31 (11%)
Group 4	No PTS or Depression	184 (67%)	209 (76%)

Is Comorbidity Associated with Poorer Recovery?



Summary of Key Findings on Child Disaster Outcomes

1. PTS reactions are common the first months postdisaster
2. Over time, PTS reactions dissipate in most youth, but remain high in a significant minority
3. Youth who have not recovered by 9 – 10 months postdisaster are at risk for chronic PTS
4. Multiple reactions may occur among affected youth
 - Comorbidity of PTS with depressive symptoms is related to more persistent mental health problems
 - Health problems (poor sleep, sedentary behavior) also occur

Overview of Presentation

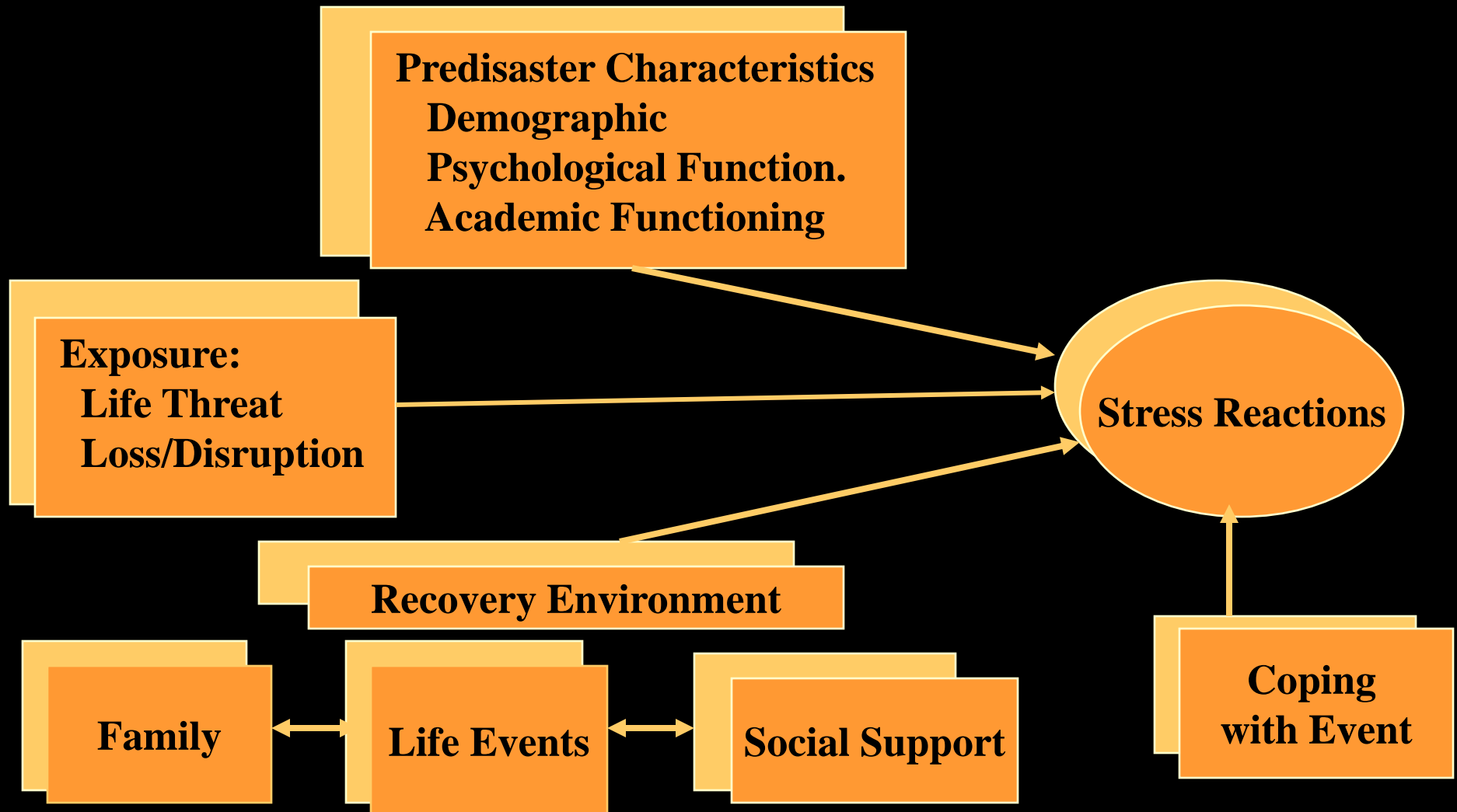


- Risk and resilience factors

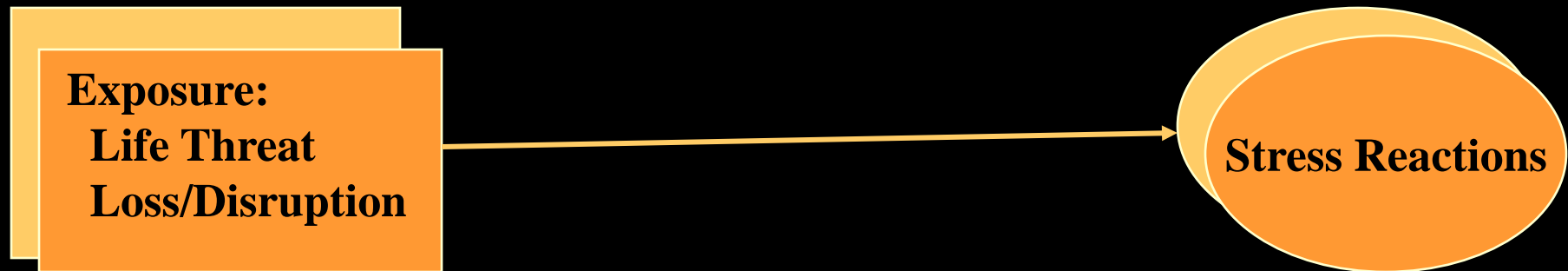
Developing a Conceptual Model

- Most studies only examined “outcomes”
 - Scant evidence in child disaster literature for predictors of risk and resilience
 - No prospective studies
- Understanding factors predicting risk and resilience important for developing interventions
 - Enhance resilience
 - Reduce risk

Risk and Protective Factors



Risk and Protective Factors



Elements of Exposure: Life Threat and Loss/Disruption

- **Life Threat**
 - Perception that one's life is in danger
 - Injury to self or loved one
 - Death of loved one
- **Loss and Disruption of Everyday Life**
 - Loss of “way of life”
 - Loss of homes, jobs, personal property, friendships, pets, leisure time
 - Life disruption further complicated by loss of life (family, friends, loved ones)

Life Threat: Hurricane Andrew



- 60% of Children¹ *Thought They Might Die During the Storm*
- 8% of Children¹ *Were Hurt or Saw Someone Get Hurt*

Loss of Life Is Not Necessary for Children to *Perceive* Their Lives are Threatened

¹ Vernberg, La Greca et al., 1996, *Journal of Abnormal Psychology*

Loss and Disruption: Hurricane Andrew

- *568 Children*

61% = Home badly damaged or destroyed

55% = Clothes or toys ruined

44% = Hard to see friends because of moving

37% = Trouble getting food or water

26% = Had to move to a new place

26% = Had to go to a new school

Vernberg, La Greca, Silverman & Prinstein, 1996, *J of Abnormal Psychology*

1. The worst things that happened to me because of the hurricane were:

- a. I had to move away
- b. My uncle lost his house
- c. my turtle died of a heart attack

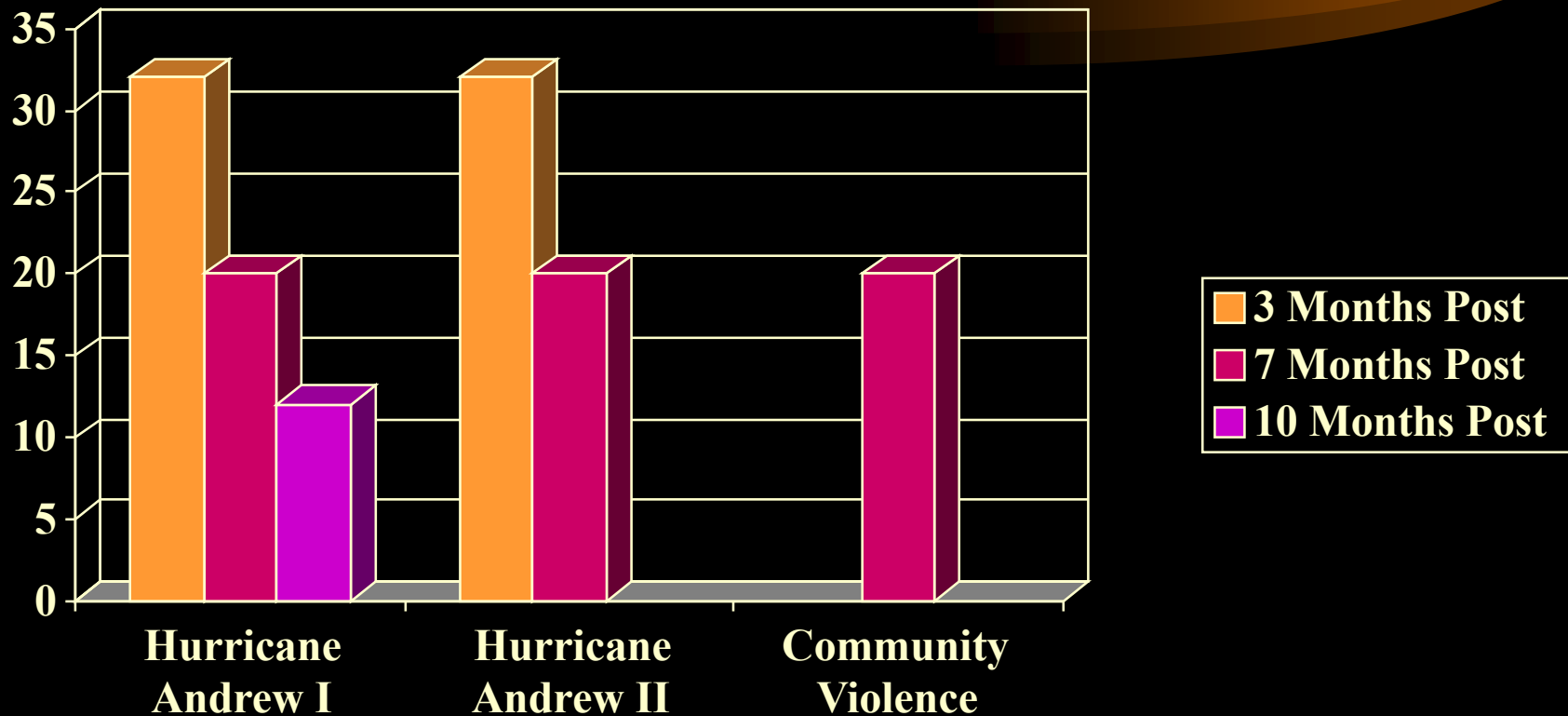
1. The worst things that happened to me because of the hurricane were:

- a. the ceiling fell on me,
- b. I had to go to a new school,
- c. I lost a lot of toys,

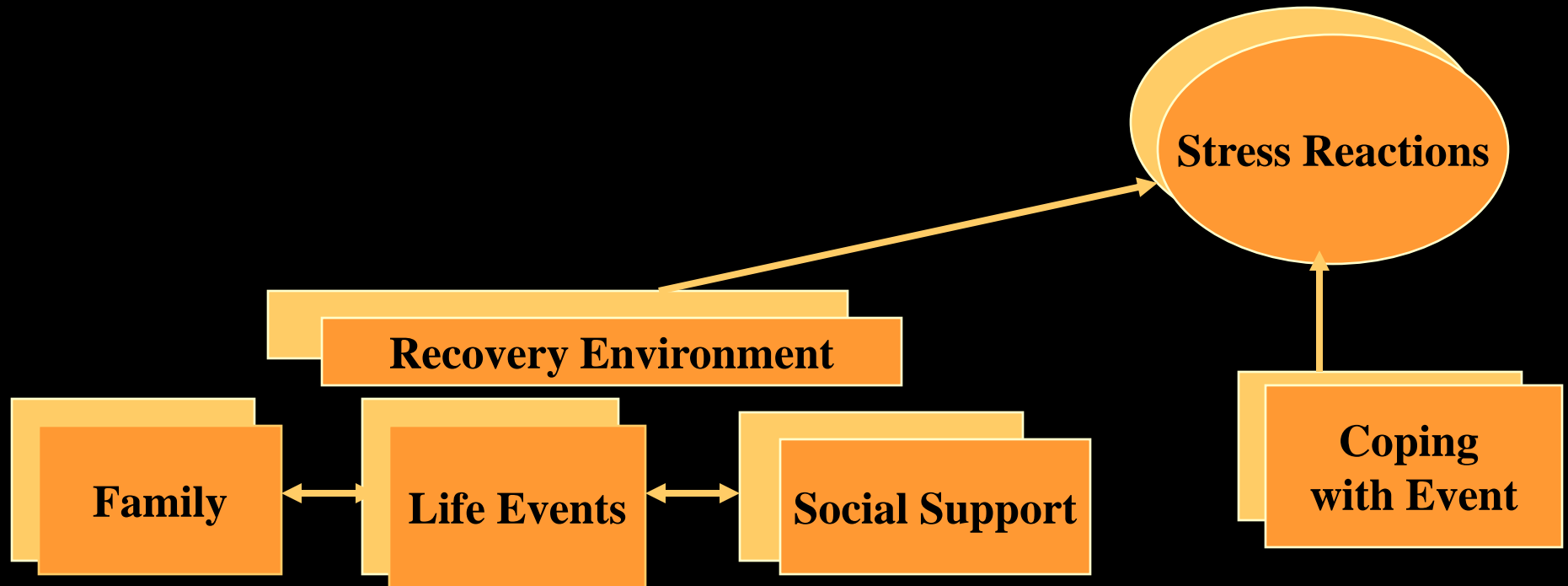
1. The worst things that happened to me because of the hurricane were:

- a. That I lost everything.
- b. That we lost our home.
- c. And that we had to leave my Mom
& dad about 3 or 4 months.

% Variance in PTS Symptoms Predicted by Exposure Across Samples



Risk and Protective Factors



Aspects of the Recovery Environment



- **Intervening Life Events**
 - Parental separation or divorce; illness in family, etc.
- **Availability of Social Support**
 - Family, friends, teachers, classmates
- **Family Functioning**
 - Parental adjustment; family conflict; cohesion
- **Child's Ability to Cope with Events**
 - Emotion regulation strategies

Prospective Predictors of PTSD Sx: 10 Months After Hurricane Andrew

Exposure R^2 change = .12, $p < .001$

Demographics R^2 change = .03, $p < .05$

– **Black, Hispanic** (B 's = .11, .16)

Life Events R^2 change = .02, $p < .001$

Social Support R^2 change = .04, $p < .01$

Coping (blame, anger) R^2 change = .03, $p < .01$

La Greca et al., *J Consulting and Clinical Psychology*, 1996

Hurricane Charley: Complex Changes Over Time

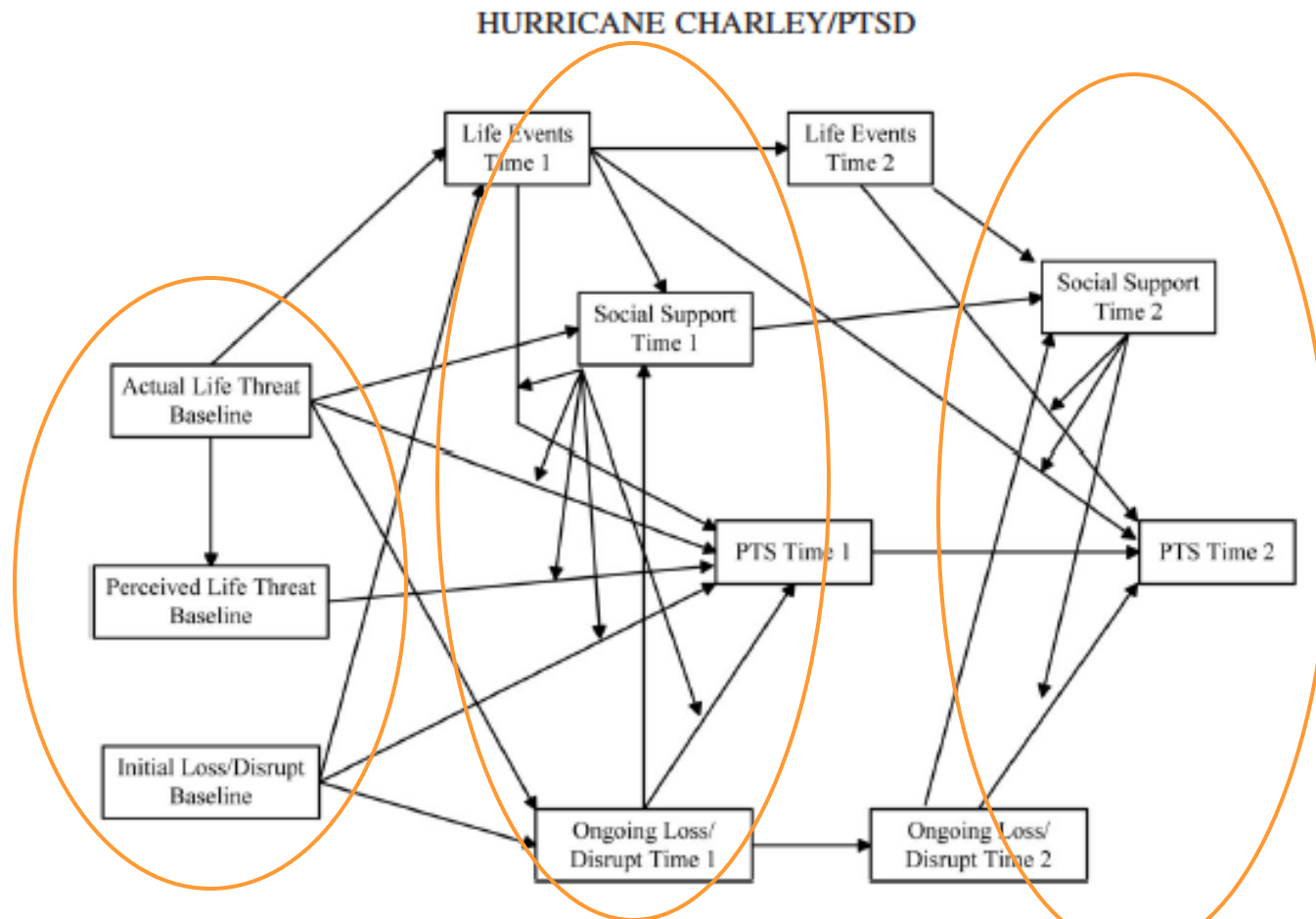
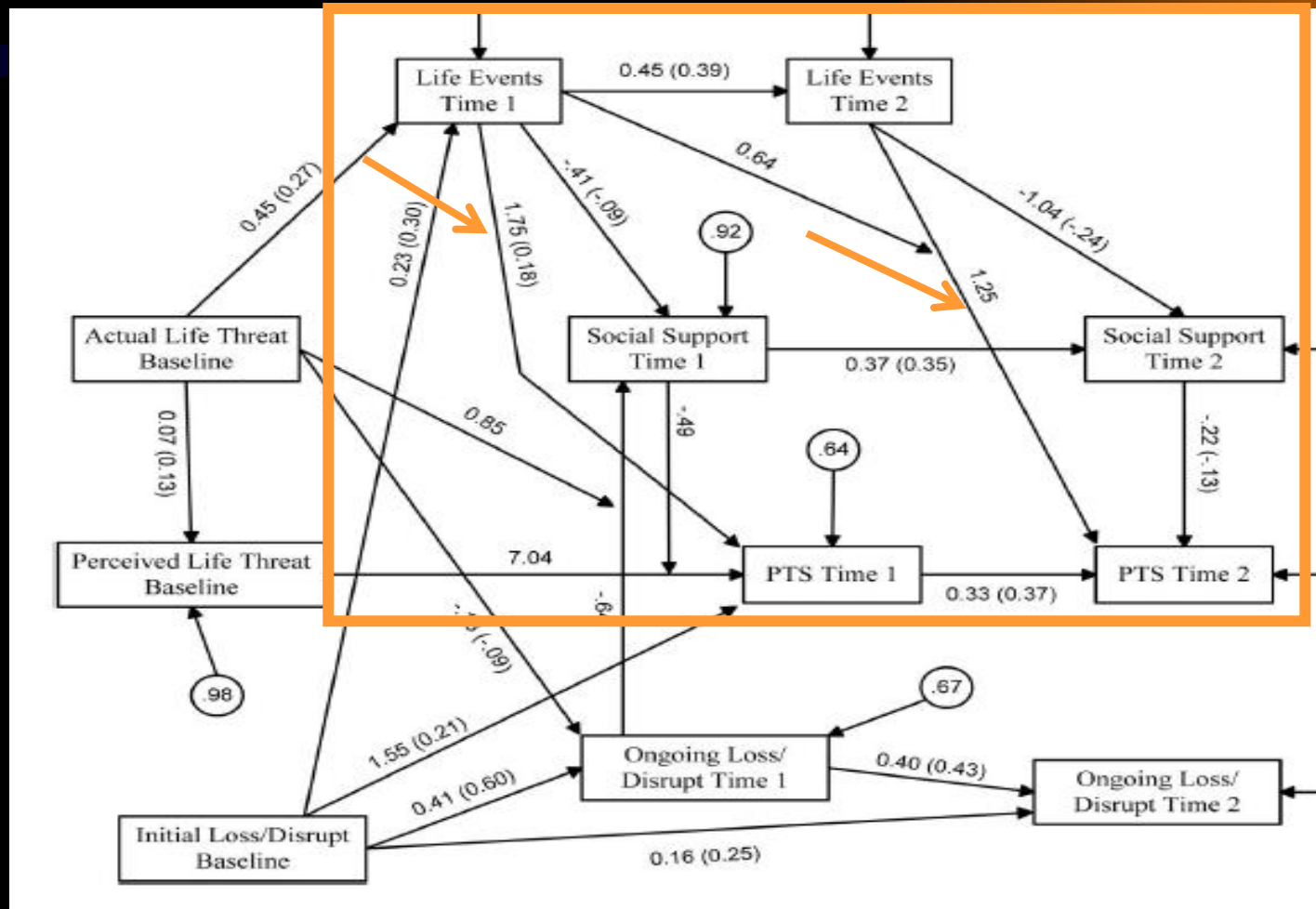
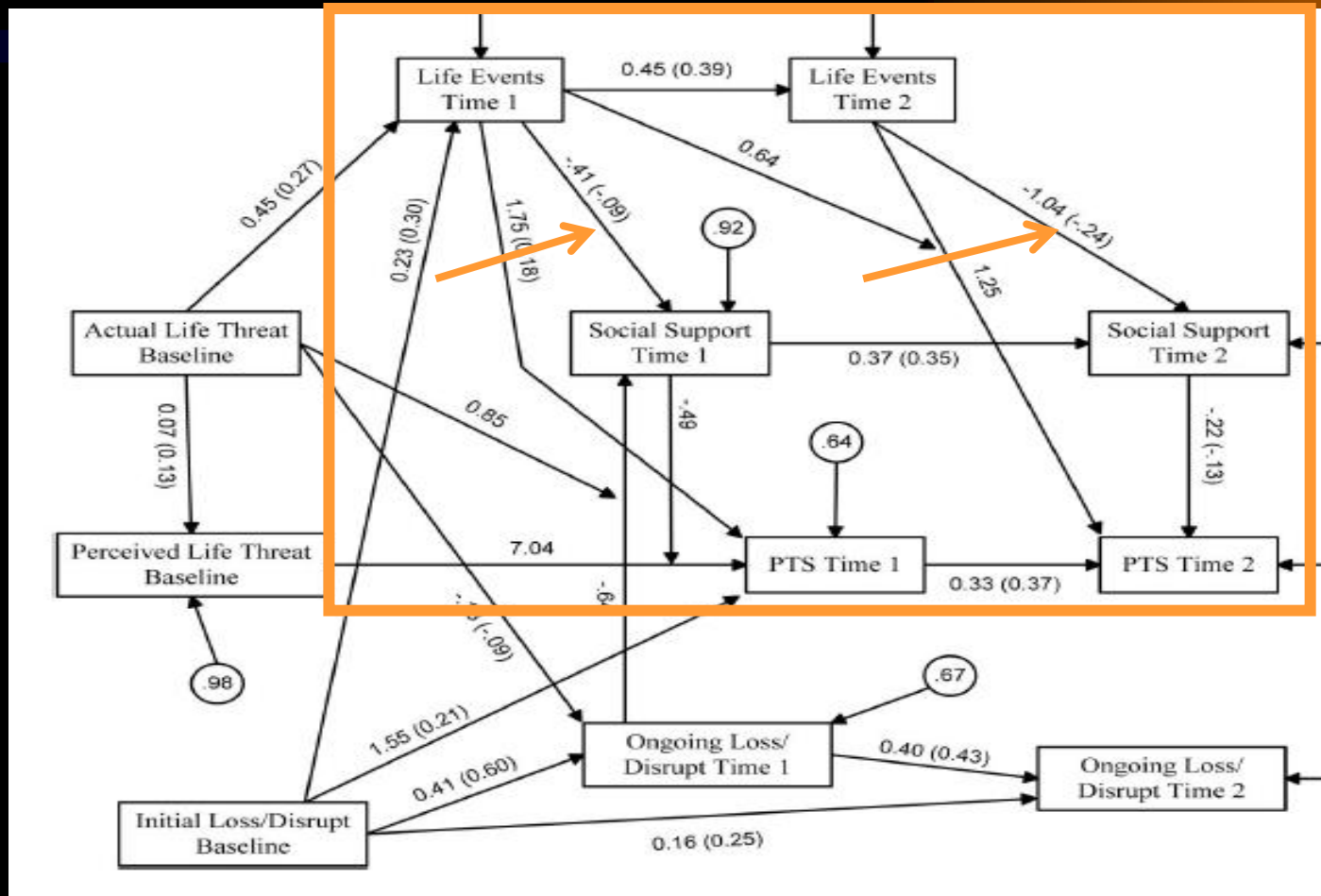


Figure 1. Study's theoretical model of persistent posttraumatic stress (PTS) symptoms.

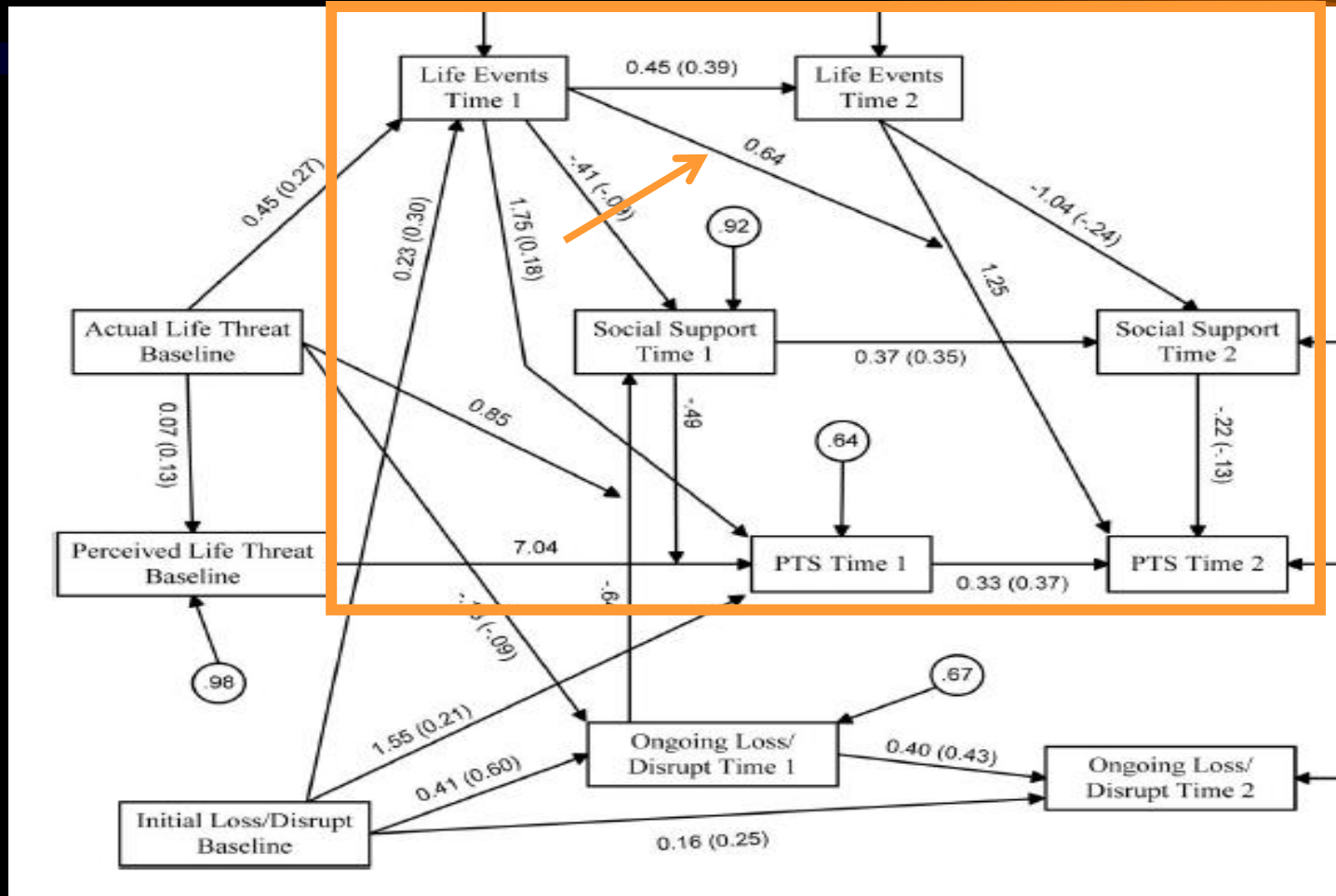
1. Major Life Stressors Contribute to Persistent PTS Symptoms



2. Stressors Lead to Deteriorations in Children's Social Support



3. Stressors Occurring Early in the Recovery Period Magnify the Impact of Later Stressors



Risk and Protective Factors



Pre-disaster Risk Factors

- **Demographic Variables**
 - Gender - Girls report more PTS, anxiety
 - Minorities - More stress reactions in some studies
 - Age – Younger children report more PTS symptoms
- **Prior History of Trauma***
- **Prior Psychological Characteristics***
 - Higher anxiety - More severe reactions
 - Poorer psychological and family functioning

***Difficult to study**

Pre-disaster Predictors of PTS: 7 Months Post Andrew

Exposure R^2 change = .20, $p < .01$

Demographics R^2 change = .06, ns

– African American ($B = .27$, $p < .05$)

*Anxiety Levels** R^2 change = .12, $p < .01$ ←

Inattention* R^2 change = .01, ns

Academic Problems* R^2 change = .01, ns

***Measured 15 months pre-disaster**

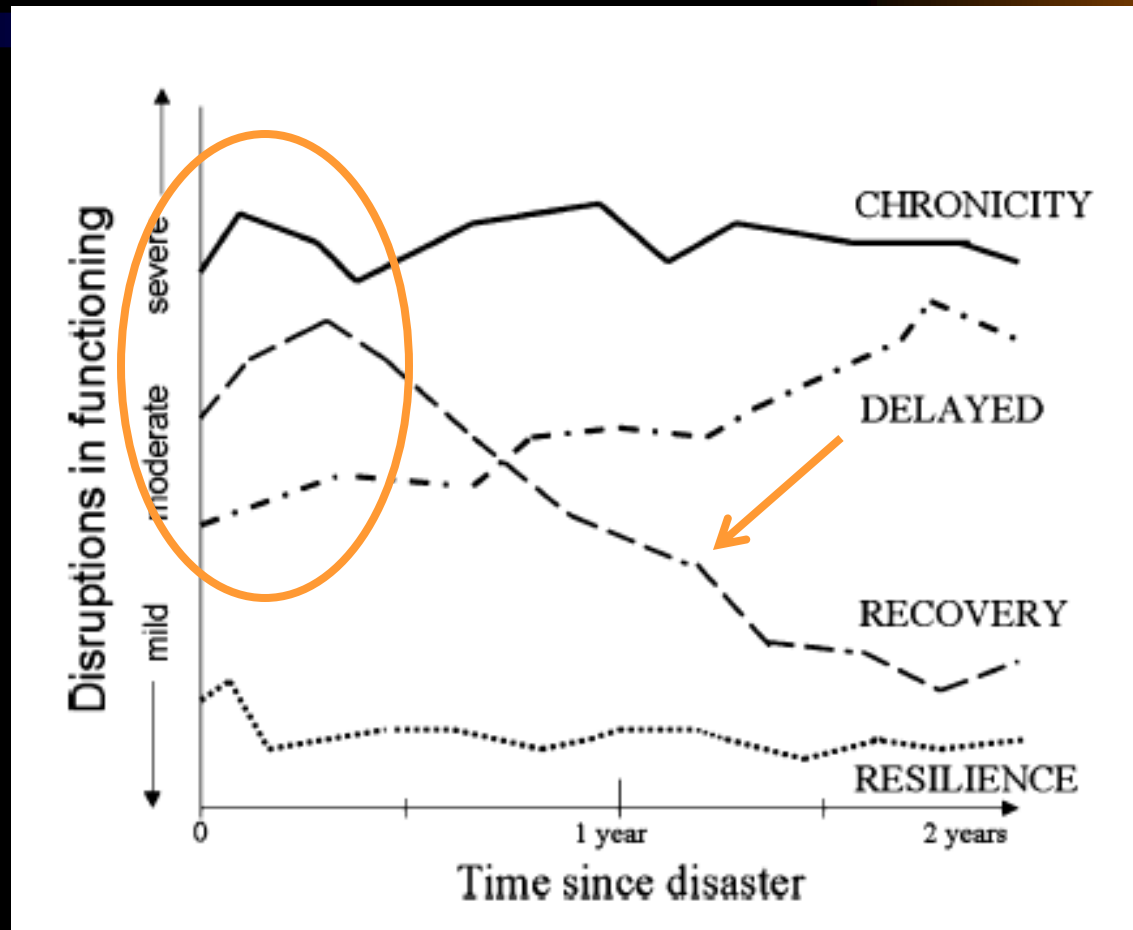
La Greca, Silverman, & Wasserstein, *J Consult Clinical Psy*, 1998

Recent Advances: Patterns of Risk and Resilience



- Examining *trajectories* of recovery and their predictors
 - Person-centered versus a variable-centered approach
 - Look at children's patterns of recovery over time
 - Examine risk and resilience variables that *predict the patterns*

Proposed Trajectories of Post Disaster Responses



Bonanno, 2004, *American Psychologist*

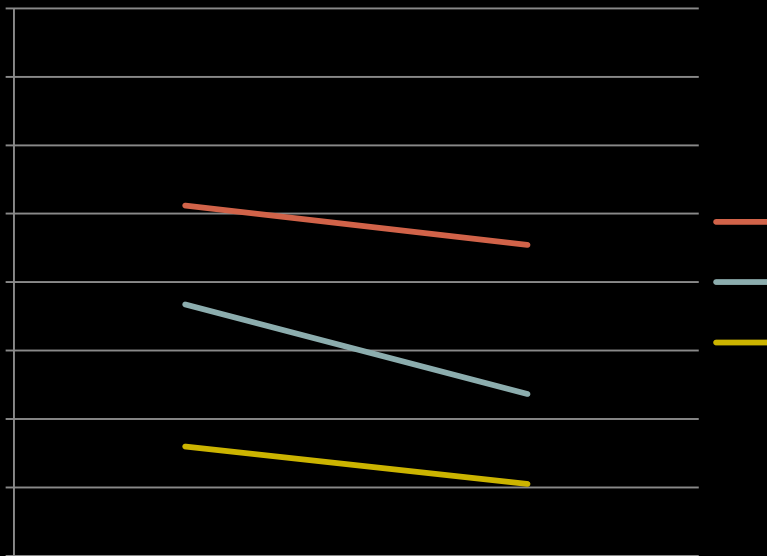
Children's Postdisaster Trajectories

- No studies of children's postdisaster functioning using a trajectory approach
 - crucial for informing early intervention and screening
- Recent re-analysis of Hurricane Andrew cohort
 - Included all youth
 - Some new variables

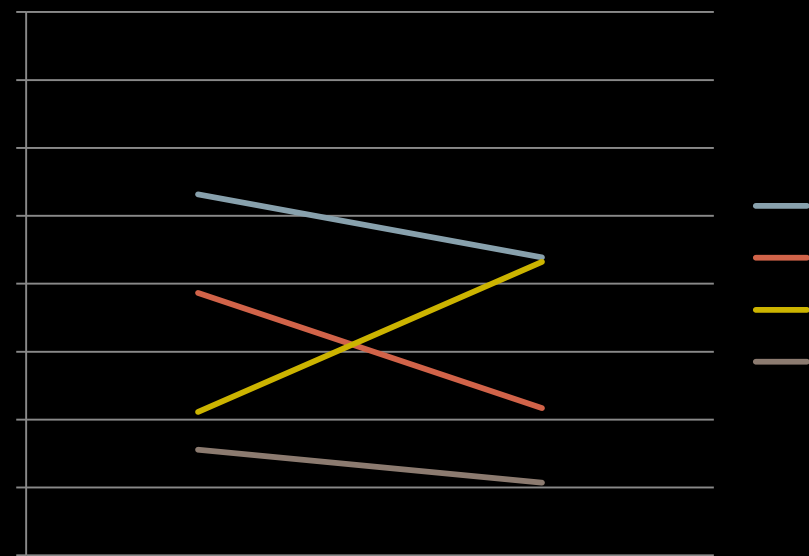
Comparing Trajectory Models

3 Trajectory Model

4 Trajectory Model



Chronic = 12.7%
Recovering = 43.0%
Resilient = 44.4%



Chronic = 13.4%
Recovering = 38.2%
Delayed = 3.7%
Resilient = 44.7%



Predictors of PTS Trajectories: Hurricane Andrew

Comparison Group	Resilient	
	Recovering (95% CI)	Chronic (95% CI)
Female Gender	3.25* (1.21 – 8.74)	6.61* (1.63 – 26.78)
Perceived Life Threat Loss/Disruption	1.63 (0.52 – 5.08)	2.86 (0.62 – 13.16)
	1.82 ^t (0.97 – 3.42)	1.95 ^t (0.92 – 4.12)
Blame/Anger Coping Social Support	5.77*(2.41 – 13.83)	7.79* (2.93 – 20.72)
	1.95 (0.50 – 7.61)	0.83 (0.17- 4.01)
Major Life Events	1.11 (0.68 – 1.82)	1.56 ^t (0.92 – 2.63)
General Anxiety	1.46* (1.19 – 1.79)	1.89* (1.42 – 2.51)

Summary

Risk and resilience model identified factors that contribute to children's PTS reactions

1. *Disaster exposure* a strong predictor of PTS early on, but less potent over time (as many youth recover)
2. *Life stress during the recovery period* predicts persistent PTS, undermines children's support, and magnifies later stressors
3. *Children's support and coping* also differentiate those who recover vs those who remain chronically distressed
4. *Anxious youth* are vulnerable in the aftermath of disasters

Conceptual Model: Areas for Further Study

- Better understanding of *pre-existing risk factors*
 - Maternal/child/family history of anxiety, depression, PTSD
 - Prior trauma exposure
 - Genetic/biological vulnerability
- Better understanding of *recovery environment*
 - Social support (and changes over time)
 - Parental functioning
- Better understanding of *trauma exposure*
 - Second hand exposure
 - Evacuation experiences
- Evaluating more complex pathways that unfold over time
 - How are children's trajectories related to parent trajectories

Overview of Presentation



- Implications

Clinical Implications: Assessment

- Assess postdisaster symptoms/reactions broadly
 - PTS but also anxiety, depression
 - Importance of sleep and other health behaviors
 - Track what is going on during the recovery period, especially major stressors that occur
- Assess symptoms from the child's perspective
 - Parents not good informants of children's postdisaster functioning

Clinical Implications: Screening & Identifying Distressed Youth

- Early on many children report distress, but most recover
 - Screen too early -> includes youth who recover on their own
 - 9 – 10 months postdisaster -> those with elevations are likely to be chronically distressed
- Focus intensive interventions on youth with
 - Co-morbid PTS and depression
 - Major life events and stressors during the recovery period
 - Anxious youth

Clinical Implications: Interventions

- Interventions needed for 6 to 18 mos postdisaster
 - Chronic/persistent distress becomes evident
 - Most interventions developed for immediate aftermath
 - Psychological First Aid, Tip Sheets
 - or begin 18 to 24 months postdisaster

Evidence Based Interventions

- Limited empirical data are available
 - Unpredictable nature of disasters
 - IRB delays and complexities
 - Funding issues
 - Chaos
 - Lack of control (e.g., ethics of withholding Rx)
 - Government agencies slow to respond (FEMA)

How to Deliver Interventions Postdisasters?

- Contextual factors (schools, homes, field settings)
- Who is the focus (child, parent, teacher, counselor)
- Training of professionals/paraprofessionals
- Type of intervention
 - Universal; Selected; Targeted
 - Stepped Care
- Time frame postdisaster
 - Immediate; Early Recovery; Long Term Recovery

Phase I. Immediate Post-Impact (Event through first few weeks)

Most affected youth show stress reactions

- Attention to safety/security issues
- Attention to food, shelter, basic needs
- Psychological interventions
 - Brief, present-focused
 - To prevent long-term problems



Phase I: Interventions

- *Psychological First Aid* - (www.nctsn.org)
- Psychoeducational - fact sheets, brochures, websites
 - National Child Traumatic Stress Network (www.nctsn.org)
 - National Center for Posttraumatic Stress Disorder (www.ncptsd.va.gov)
 - NIMH (www.nimh.nih.gov/publicat/violence.cfm)
 - American Academy of Child and Adolescent Psychiatry (www.aacap.org)

Psychological First Aid

Table of Contents

Chapter 1 Introduction and Overview

Chapter 2 Preparing to Deliver Psychological First Aid

Chapter 3 Core Actions

1. Contact and Engagement

2. Safety and Comfort

3. Stabilization

4. Information Gathering: Current Needs and Concerns

5. Practical Assistance

6. Connection with Social Supports

7. Information on Coping

8. Linkage with Collaborative Services

Appendices for Psychological First Aid Manual

[Overview of PFA \(PDF 134k\)](#)

[Service Delivery Sites and Settings \(PDF 111k\)](#)

[Psychological First Aid: Provider Care \(PDF 178k\)](#)

[Provider Worksheets \(PDF 170k\)](#)

[Handouts for Survivors \(PDF 484k\)](#)

1. Connecting with Others: Seeking Social Support (For adults and adolescents)

2. Connecting with Others: Giving Social Support (For adults and adolescents)

3. When Terrible Things Happen (For adults and adolescents)

4. Parent Tips for Helping Infants and Toddlers (For parents/caregivers)

5. Parent Tips for Helping Preschool-Age Children (For parents/caregivers)

6. Parent Tips for Helping School-Age Children (For parents/caregivers)

7. Parent Tips for Helping Adolescents (For parents/caregivers)

8. Tips for Adults (For adult survivors)

9. Basic Relaxation Techniques (For adults, adolescents and children)

10. Alcohol and Drug Use after Disasters (For adults and adolescents)

<http://www.ncptsd.va.gov>

<http://www.nctsn.org/>

AFTERMATH OF TRAUMA: HELPING KIDS COPE

In their roles as clinicians, scientists, teachers, and community members, mental health professionals can make a difference in the way our society responds to child trauma. Because child trauma exposure is so pervasive, it is important for all mental health professionals to have basic knowledge of its nature, effects, and appropriate initial responses.

[Download PDF](#) (163KB) 

WHAT EVERY MENTAL HEALTH PROFESSIONAL SHOULD KNOW

Many children are exposed to traumatic life events.

About half of all American children experience a traumatic event (such as physical or sexual abuse, family or community violence, terrorism, disasters, traumatic loss), and many experience more than one such event. Some children live with chronic trauma, with no time for healing between events.

Almost all children experience acute distress immediately after exposure to a traumatic life event.

Children's reactions will depend on their age and maturity. Children living with chronic trauma may become numb and appear unresponsive to further events. Most children will have some acute reactions but will return to their prior levels of functioning with time and with the support of family and trusted adults.

Parents and families are affected by trauma, and their responses affect children's trauma reactions.

Family members may react very differently to the same traumatic experience, and their responses affect each other's responses. In addition, children's perceptions of trauma, their resources for coping, and their interactions with parents can vary by developmental level and culture.

Most children with trauma-related distress do not receive psychological treatment.

A substantial minority of trauma-exposed children develop psychological symptoms that warrant clinical attention, yet few receive services. Fewer still receive treatments that can be effective, such as cognitive-behavioral therapy.

2008 APA Task Force



*Tip Sheet for Mental Health Professionals
Children and Trauma Update (booklet)
Policy Briefing Sheet*

<http://www.apa.org/pi/cyf/child-trauma/>

Evidence for Phase I Interventions

- *Evidence* - not well studied.
- *Possible Concerns*
 - Fact Sheets: Quality of information is variable
 - Fact Sheets: May/may not be evidence-informed
 - Possible iatrogenic effects (e.g., re-traumatizing children)
 - Requires sophistication to adapt to current circumstances (but may be useful to MH professionals)
 - Computer/internet needed for some materials
 - PFA requires training to implement

Phase II: Short Term Recovery and Reconstruction



Child surveys home damage

(first few weeks/months postdisaster)

Phase II. Short Term Recovery

Persistent/chronic stress reactions begin to emerge

Ongoing life stressors interfere with recovery

- Relocation; Disruption of school, routines, and social ties

- Goal of Intervention

- Improve adaptive functioning

- Reduce/prevent persistent problems

- Identify children with more severe stress/problems for Rx

- When to identify?

Community-Based Interventions



- Delivered to children in the most affected areas
- Designed for wide distribution
- Typically school-based; some parent/home-based

A guide to help *parents and children* cope with hurricanes and their aftermath

- www.7-dippity.com



After the Storm

A guide to help children cope with the psychological affects of a hurricane.

After the Storm

- Evidence-informed
- Designed for use in a supportive setting (child and caring adult)
- Intended to reduce stress reactions and promote adaptive coping
- Individual copies freely available from www.7-dippity.com
- Used after Katrina and Rita in State of Louisiana
- Japanese translation

After the Storm



Things that Help Most Children

- Focus on positive/avoid unhelpful coping
- Maintain normal roles and routines
- Keep healthy and fit (diet, exercise, sleep)
- Reduce/limit TV and media exposure

Some Positive Coping Strategies

- Maintain normal routines.
- Talk with friends/family/coworkers.
- Take up a new hobby.
- Exercise/stay physically healthy.
- Get some R&R/take time off/vacation.
- Reduce exposure to media.
- Write about thoughts and experiences.
- Listen to soothing, calming music.
- Volunteer in the community/help others.
- Look at the positive side of things.
- Talk to a counselor/join a support group.

*Focus on helpful/
avoid unhelpful coping*

Adult Activity: Identifying How Your Child Copes

While your child is completing their activity on the next page, think about how he or she usually copes with bad events. On a separate sheet of paper, write in the positive and negative ways your child copes. When you are both finished, go over your answers together.

Positive Ways My Child Copes

Negative Ways My Child Copes

After the Storm

Coping with Special Situations or Reactions

- Dealing with Change
- Fears and Worries
- Intrusive Thoughts and Dreams
- Anger
- Sadness and Loss

Preparedness (Family Disaster Plan)

Psychoeducational: After the Storm

- *Evidence:* Not well studied as yet
- *Pros:*
 - Evidence-informed
 - Easy to use; non stigmatizing; engaging materials
- *Possible Concerns*
 - Requires computer/internet connections to download
 - 8th grade reading level
 - May need adaptation to fit the specifics of a particular disaster or for use by different professionals

III. Long-term Recovery Period (year or more postdisaster)

- Most children will have recovered but a significant minority will have persistent/chronic stress reactions
- Youths' reactions complicated by secondary stressors
- *Best Evidence*
 - CBT-based interventions that target the most distressed youth
 - Trauma-focused CBT



Individual and Small Group Interventions

- Exposure Based - Cognitive Behavior Therapy (CBT)
 - Multimodal Trauma Treatment (March et al., 1998)
 - Manualized school-based (Chemtob et al., 2002)
- Trauma/Grief Focused Psychotherapy
 - School-based psychotherapy (Goenjian et al. (1997)
- Trauma-Focused CBT - **Free Online Training** tfcbt.musc.edu
 - Good evidence with sexually abused youth (Cohen et al., 2004)
 - Project Fleur-de-Lis after Hurricane Katrina (Cohen et al., 2009)

Trauma-Focused CBT

- 12 sessions - individual or conjoint (child and parent)
- Delivered in clinic settings for youth with PTSD
- Multiple randomized trials demonstrate improvements in PTSD among children experiencing sexual abuse and/or multiple traumas
- Recent work suggests it is effective in the aftermath of 9/11 among clinic-referred children.
 - Developed by J. Cohen, A. Mannarino, E. Deblinger
 - *J of the American Academy Child and Adol Psychiatry*, 2004, 43, 393-402.

CBITS: Cognitive Behavioral Intervention for Trauma in Schools

- Adaptation of TF-CBT for use in schools (group format)
- 10 group sessions, 1 - 3 individual sessions
- Successfully implemented with children from diverse cultural groups who have suffered multiple traumas.
 - Developed by L. Jaycox, S.Kataoka and others
 - *J Amer Academy Child & Adol Psychiatry*, 2003, 42, 311-318.
- Recently adapted for use post-disasters - Project Fleur-de-lis (Cohen et al., 2009).

Project Fleur-de-lis: Post Katrina

- Field trial 15 months postdisaster in 195 children:
 - Randomized to TF-CBT (clinic) or CBITS (school)
- Better participation in school (98%) vs clinic (37%)
- Both Tx led to reductions in PTSD (10 mos post B)
 - 65% (CBITS) and 43% (TF-CBT) still in clinical range
- Outcome predictors for CBITS:
 - More family support, less depressive sx, less additional trauma/stress exposure

Summary of Phase III Interventions

- Few studies; small samples
- Targeted interventions for persistent PTSD, complex reactions
- Trauma-Focused CBT most promising

Where to go from here?

- Interventions for short- and long-term recovery period
 - Stepped-Care Model:
 - School-based preventive services, with screening and referral for severe problems/reactions
 - When do you screen?
- Evaluation of Psychoeducational Materials
- Internet-delivered interventions
- Family-based Interventions
- Evaluation of preparedness/resilience model for youth in “high risk” areas

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For more information, please go to the main website and browse for workshops on this topic or check out our additional resources.

Additional Resources

Online resources:

1. Society of Clinical Child and Adolescent Psychology website: <http://effectivechildtherapy.com>
2. After the Storm: www.7-dippity.com
3. National Child Traumatic Stress Network: www.nctsn.org

Books:

Cohen, J.A., Mannarino, A.P., & Deblinger, E. (2010). Trauma-focused cognitive-behavioral therapy for traumatized children. In J. R. Weisz & A. E., Kazdin (Eds.), *Evidence-Based Psychotherapies for Children and Adolescents* (pp. 295- 11). New York: Guilford Press.

Peer-reviewed Journal Articles:

1. Cohen, J. A., Jaycox, L. H., Walker, D. W., Mannarino, A. P., Langley, A. K., & DuClos, J. L. (2009). Treating traumatized children after Hurricane Katrina: Project Fleur-de lis™. *Clinical Child and Family Psychology Review*, 12(1), 55-64.
2. La Greca, A. M., Silverman, W. K., Lai, B., & Jaccard, J. (2010). Hurricane-related exposure experiences and stressors, other life events, and social support: Concurrent and prospective impact on children's persistent posttraumatic stress symptoms. *Journal of Consulting and Clinical Psychology*, 78(6), 794-805.
3. La Greca, A. M., Silverman, W. K., & Wasserstein, S. B. (1998). Children's predisaster functioning as a predictor of posttraumatic stress following Hurricane Andrew. *Journal of Consulting and Clinical Psychology*, 66, 883– 892.
4. Lai, B. S., La Greca, A. M., Auslander, B. A., & Short, M. B. (2013). Children's symptoms of posttraumatic stress and depression after a natural disaster: Comorbidity and risk factors. *Journal of Affective Disorders*, 146(1), 71-78.
5. Silverman, W. K., Ortiz, C. D., Viswesvaran, C., Burns, B. J., Kolko, D. J., Putnam, F. W., & Amaya-Jackson, L. (2008). Evidence-based psychosocial treatments for children and adolescents exposed to traumatic events. *Journal of Clinical Child & Adolescent Psychology*, 37(1), 156-183.

