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AFTER THE TRAUMA: PREVENTING PTSD

Exposure to violence

Recent national survey (Finkelhor, et.al., 2009) indicates that children and adolescents experienced or witnessed the following in the previous year:

- 60 % *at least* 1 victimization
- 46.3% experienced a physical assault
- 25.3% witnessed violence
- 9.8% witnessed intrafamily assault
- 10.2% child maltreatment
- 10.2% victimization-related injury
- 6.1% sexual victimization

Exposure and consequences

- Estimated 15.5 million children exposed to domestic violence each year in US; 7 million exposed to severe and chronic violence (MacDonald, et.al., 2006)
- Children who have been exposed to domestic violence are 158% more likely to be victimized by violence themselves than counterparts from non-violent households—the risk was 115% higher for boys and 229% higher for girls (Mitchell and Finkelhor, 2001)

Exposure rates

- Exposure to violence in early childhood is associated with higher risk for physical aggression, delinquency and violent behavior in adolescence (Jenkins & Bell, 1997; Thornberry, 1994; Shakoor & Chalmers, 1991)
- Significant traumatic childhood events documented in histories of 98.6% of juvenile delinquents (Carrion & Steiner, 2000)

Exposure and consequences

- Adverse Childhood Experiences (ACE) study of 13,000 health care patients history of traumatic childhood events (physical abuse; interpersonal violence; sexual abuse; psychiatric disorder in caregiver; caregiver incarceration; absence of one or both parent(s); neglect) Felitti, et.al., 1998
- Exposure to 4 or more of these factors=4- to 12- fold increase in likelihood of alcoholism, drug abuse and suicide attempts
- Traumatic events are most significant predictors of ischemic heart disease; cancer; chronic lung disease; skeletal fractures and liver disease
- Annual costs to US businesses in lost work time, increased health care costs, higher turnover and lower productivity is about \$5-10 billion (National Center for Injury Prevention and Control, 2003)
- The health-related costs of rape, physical assault, stalking and homicide committed by intimate partners exceed \$5.8 billion each year. Of that amount, nearly \$4.1 billion are for direct medical and mental health care services, and nearly \$1.8 billion are for the indirect costs of lost productivity or wages.

Traumatic Situation

- “...subject’s estimation of his own strength compared to the magnitude of the danger and in his admission of helplessness if the danger is real and psychical helplessness if it is instinctual...”
- “...endogenous dangers change with the period of life...all of these threats call for alterations in the individual’s relationship to the external world...in the traumatic situation, internal and external dangers, real dangers and instinctual ones converge...”

S. Freud

Psychological Trauma as Injury

Overwhelming, unanticipated danger that leads to:

- Subjective experience of helplessness, loss of control and terror
- Immobilization of usual methods for decreasing danger and anxiety (fight or flight)
- Neuro-physiological dysregulation that compromises affective, cognitive and behavioral responses to stimuli

Peri-traumatic Responses

- Sleep disturbances
- Separation anxiety
- Hyper-vigilance
- Physical complaints
- Irritability
- Re-experiencing/ Re-enactment of the event
- Nightmares
- Impulsivity and distractibility
- Regressive behaviors
- Blunted emotions
- Changes in social functioning
- Social avoidance
- Dissociation
- Emotional numbing
- Social avoidance
- Aggressive play/behaviors
- School

Long-term Consequences

- PTS reactions can be chronic
- If untreated, can persist for long periods of time and into adulthood
- Can result in a variety of emotional, behavioral, social and psychiatric consequences
- Examples of long-term sequelae:
 - ✓ Attachment problems
 - ✓ Eating disorders
 - ✓ Suicidal behavior
 - ✓ Anxiety
 - ✓ Mood disorders
 - ✓ Substance abuse
 - ✓ Violent/Abusive behaviors
 - ✓ Somatic problems
 - ✓ Personality disorders

Clinical interventions

- Acute/rapid response (mental health-law enforcement response on-scene)
- Brief treatment for child and family in the peri-traumatic period (clinic and home-based)
- Longer-term psychotherapy (e.g., TF-CBT, psychodynamic, etc.,--clinic-based)

Acute and early interventions

- Last year 720 referrals involving coordinated services for 2,282 children (65%) and caregivers (35%)
- 75% children seen acutely or within 72 hours of event and participate in follow-up (brief or extended treatment)
- 25% - 30% children seen sub-acutely continue in extended treatment (more than three hours)
- Domestic violence cases account for 25% - 30% of consultation service referrals

Secondary Prevention Following a Traumatic Event: Current Knowledge

- At present there is no evidence for intervention models prior to the development of PTSD
- One time interventions show no evidence of effectiveness
- No evidence that debriefing models are effective
- Concerns that group models have contamination effects

Individual Risk Factors

- Genetic vulnerabilities and capacities
- Prior history (i.e. consistent stress or one or more stressful life experience/s)
- History of psychiatric disorder/personality
- Familial physical and mental health
- Age/developmental level
- **Family and social support**

Social and Family Support

- **Social and Family Support** have been found to be the key protective factors for individuals after a Potentially Traumatic Event (PTE) (Wasserstein and La Greca, 1996; Hill, Levermore, Twaite, and Jones, 1996 Kocot and Goodman, 2003; Ozer, 2003)
- Support has also been shown to moderate the impact of maltreatment on children who are genetically vulnerable to Depression. (Kaufman et al., 2004).

Perceived Social and Family Support

- Poor support correlates with increased rates of PTSD, Depression and other poor outcomes
- Good support correlates with recovery
- In a study of children exposed to a PTE, Kliewer et al. (2002) found; “the quality of caregiver-child relationship, particularly felt acceptance from the caregiver, was the strongest protective factor in the study”.(Kliewer et al., 2002).

CFTSI: What Is It ?

- Secondary Prevention Model implemented within 4 weeks post PTE
- 4 Sessions
- 1-1.5 Hours each
- Provided in home or clinic

CFTSI: For Whom?

- Children aged 7-18
- Identified PTE
- Child has some AS or acute PTS symptoms when screened using PTSD Checklist for Children (Amaya-Jackson)

Primary Goal and Objective

- Primary Goal of CFTSI is to prevent PTSD and other poor psychiatric outcomes after exposure to a PTE (Secondary Prevention)
- Primary Objective of the CFTSI is to enhance Caregivers' natural desire to care for and support their children via improved communication

Secondary Goals

1. To increase the likelihood of children and family members' engagement and acceptance of on-going trauma focused treatment when indicated
2. To identify individuals in need of treatment due to pre-existing psychiatric disorders that may or may not complicate recovery from the PTE

How Support is Increased

- Uses discussion of symptom items on PTSD-RI and Mood and Feelings questionnaire (MFQ) to increase symptom recognition and communication about them
 - Recognition and communication are essential for providing and receiving support
 - Event is not focus of discussion
- Skills and Behavioral Interventions to address symptoms that are practiced at home by family
 - Skills provide tools for the child and caregivers so they have an alternative to avoidance as a coping mechanism

Communication

- Child is shown how to express their feelings and internal experience and parents are shown how to listen actively without recrimination
 - In general, children have fewer opportunities to naturally discuss and process their trauma,
 - Finding the words to describe their emotional experience is difficult for children especially when traumatized
 - Caregivers often believe that they are protecting their children from future distress by not talking about the trauma

Parental Attentiveness

- Improving parental attentiveness
 - Helping parents recognize signs of child's distress despite child's denial or seemingly unaffected presentation
 - Providing parents with tools to address child's difficulties so their attention to their child's distress results in a useful intervention or interaction.

Developmental Issues

- Helping parents recognize how to respond to children at the appropriate developmental level
 - Language, modes of communicating
 - Levels of thought and representation
 - Development specific concerns as related to PTE
- Recognize behaviors consonant with developmental level that may be related to PTE

External Stressors

- Case management and care coordination are essential model ingredients
 - Decrease external stresses that interfere with parents ability to attend to and support child
 - Link to services that may provide support to adults and other family members

Session 1

- Meeting with Parent
 - Explaining process
 - Assessing parent's status
 - PCL
 - Using measures as clinical tools
 - Parent's assessment of child
 - Developmental History
 - Symptoms

Child Symptoms (Parent Report)

- Modified PTSD-RI and Mood and Feelings Questionnaire
 - SXs are reported since the event
 - Modifications: Ask parents how they arrived at response? Did the child tell them? They observed?
- Questions may be explained and discussed
 - while a measure, clinical utility is primary

Session II, part A

(preferably the next day)

- Meeting with child
 - Using measures as clinical tools
 - Trauma History
 - PTSD Symptoms
 - Mood & Feelings questionnaire
- Same method as with parents
 - Clinical tools with modification: Did you tell anyone about symptom?
- Giving Child Control
 - Explaining process
 - Issues child doesn't want to discuss with parents
 - Developmental considerations

Session II, part B

- **Family Meeting: *Key part of intervention***
 - Normalize “shutting down” following trauma
 - Support attempts at communication
 - Use responses to enhance communication
 - Help parents be aware of themselves and children
 - Guide appropriate attention – symptom clusters
 - Provide skills to enhance parental competence

Session II, Part B

- Discrepancies between reports
- Child reports more than parent
 - Child not telling
 - Parent not listening
 - Child told another parent/somebody else
- Parent reports more than child
 - Child minimizing
 - Parent reporting their own symptoms
- Improving communication
 - How to let parent know?
 - What can parent do?
- Individual Meetings

Modules

- Parents and Child are given information about typical reactions to trauma and basic intervention measures
 - Safety, Security, & Control
 - Developmental differences
 - Sad/withdrawn/clingy
 - Irritable/angry
 - PTSD reactions
 - Disruptions in daily functioning
- General suggestions
 - Awareness of parent's own feelings
 - Remind child of symptom connections
 - Communication
 - Routines
- Using the Log

Specific Modules

- Sleep
- Depressive Withdrawal and Avoidance
- Intrusive Thoughts
- Anxiety/Panic, Hyperarousal
- Oppositionality, Aggression, Tantrums

Sleep Module

- Fears around sleeping
- Helping parents remain calm
- Helping child calm him/her self
- Communication about fears
- Lights/Comforting toys
- Cognitive strategies
- Retaining routines

Depressive Withdrawal

- Stick with routines & activities
- Maintain social interaction
- Get outside
- Talk about withdrawal when it happens
- Communicate about thoughts & feelings

Intrusive Thoughts Module

- Triggers/reminders
- Substituting positive thoughts
- Relaxation exercises
- Sensory input – familiar touch, smell, taste

Anxiety Module

- Discuss trauma-anxiety connections
- Maintain routines (school avoidance)
- Communicate about anxiety
- Reinforce safety & security
- Deep breathing/Muscle relaxation

Session III

- Parent/s and child together
- Discussing past week
- Support communication attempts
- Use measures to look for discrepancies
- Reviewing module(s)
- What has been tried/worked/not worked
- Practice modules - support efforts

Session IV

- Repeat of Session III plus
- Next steps
 - Again family decides, clinician facilitates

RTC: Preliminary Results

- CFTSI versus 4 session psychoeducation/supportive comparison condition
- N=87
- Subjects recruited from:
 - Forensic Sexual Abuse Program
 - Pediatric Emergency Department
 - New Haven Department of Police Service
- Funded by SAMHSA

Procedures

- Participants recruited by phone within 4 weeks of PTE
- Baseline interview completed with parent and child separately
- 4 sessions of intervention (CFTSI or Comp)
- Post interview
- 3 month follow-up post intervention

Measures

- Child Self-Report

- PTSD-RI
- TSCC
- BASC-2
- Parent Behavior Inventory
- Multidimensional scale of perceived social support

- Parent Report

- PCL-self report
- PTSD-RI
- CBCL
- Parent Behavior Inventory

Pilot Group Demographics (N=87)

Intervention

- N=44
 - 21 Boys
 - 24 Girls
 - Mean Age=12; SD=2.8
 - Mean # Traumas=6.1; SD=2.7

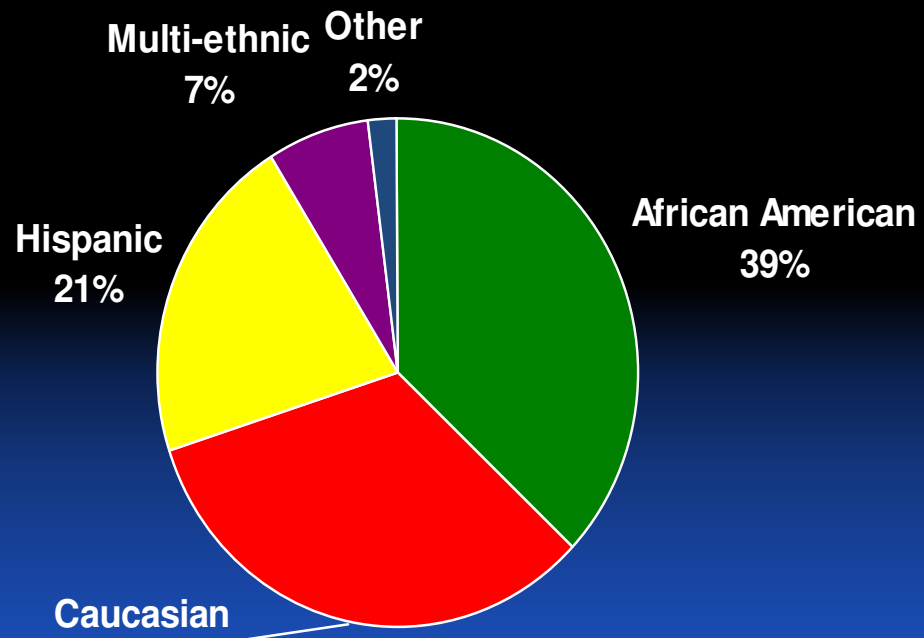
Comparison

- N=43
 - 19 Boys
 - 24 Girls
 - Mean Age=12; SD=2.7
 - Mean # Traumas=6.6; SD=2.4

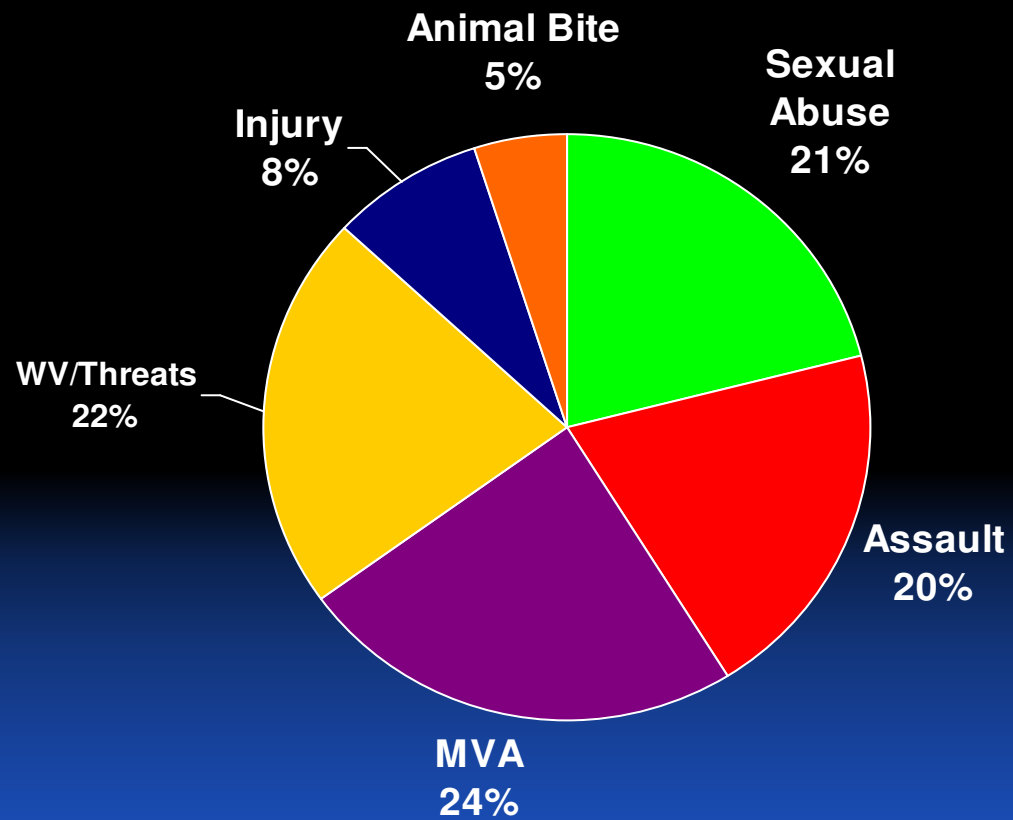
CFTSI Full Sample Demographics

No Significant Group Differences

Ethnicity



Nature of Trauma



Mean CBCL and BASC-2 Baseline Data

	Scale	Intervention	Comparison
CBCL T-Scores	Internalizing Score	59.6	58.5
	Externalizing Score	57.0	55.9
	Total Score	58.9	57.8
BASC-SR T-Scores	School Problems	49.9	50.3
	Emotional Symptoms	48.3	50.8
	Personal Adjustment	53.5	51.3

No statistically significant differences between groups ($p < .05$)

Baseline Data

Scale T Scores	Intervention	Comparison
anxiety	52.0	50.1
depression	45.0	46.3
anger	45.5	45.6
post-traumatic stress	53.7	51.5
dissociation	47.5	48.6
PTSD Severity	23.5	25

•No statistically significant differences existed between groups

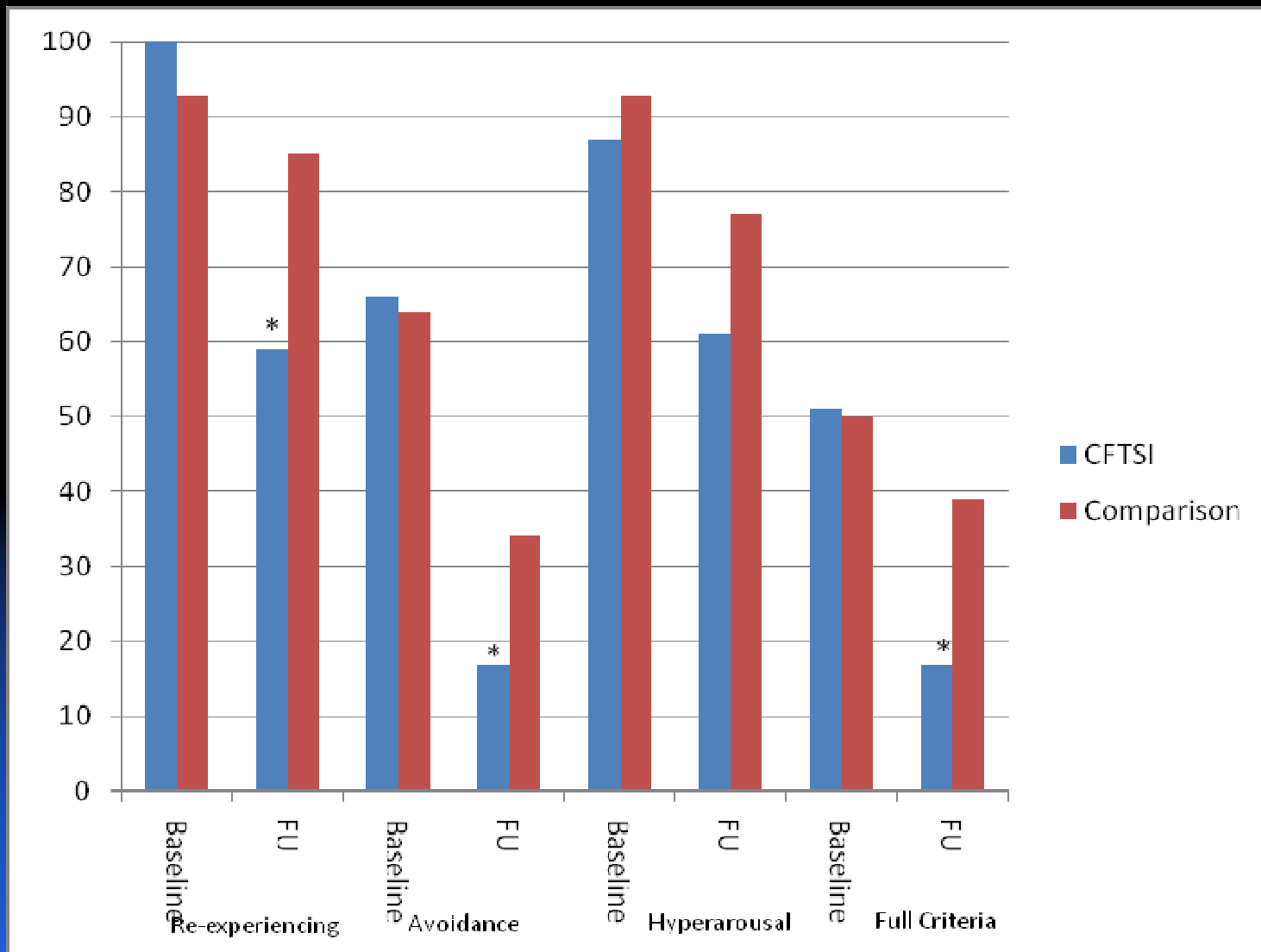
Logistic Regression Models PTSD

- Logistic Regression Models for PTSD Full Diagnosis and Full or Partial Diagnosis at 3 Month Follow-up (N=106)

Effect	3-Month Follow-up	B (SE)	Odds Ratio
<u>Full Diagnosis</u>			
	Total Traumas	192(.142)	1.21
	Intervention	-1.06(.534)	.345*
<u>Full or Partial Diagnosis</u>			
	Total Traumas	373(.178)	1.45*
	Intervention	-1.36(.499)	.268**

- +p < .10
- * p < .05
- ** p < .01

Differences in PTSD Criteria



Repeated Measures Mixed Models

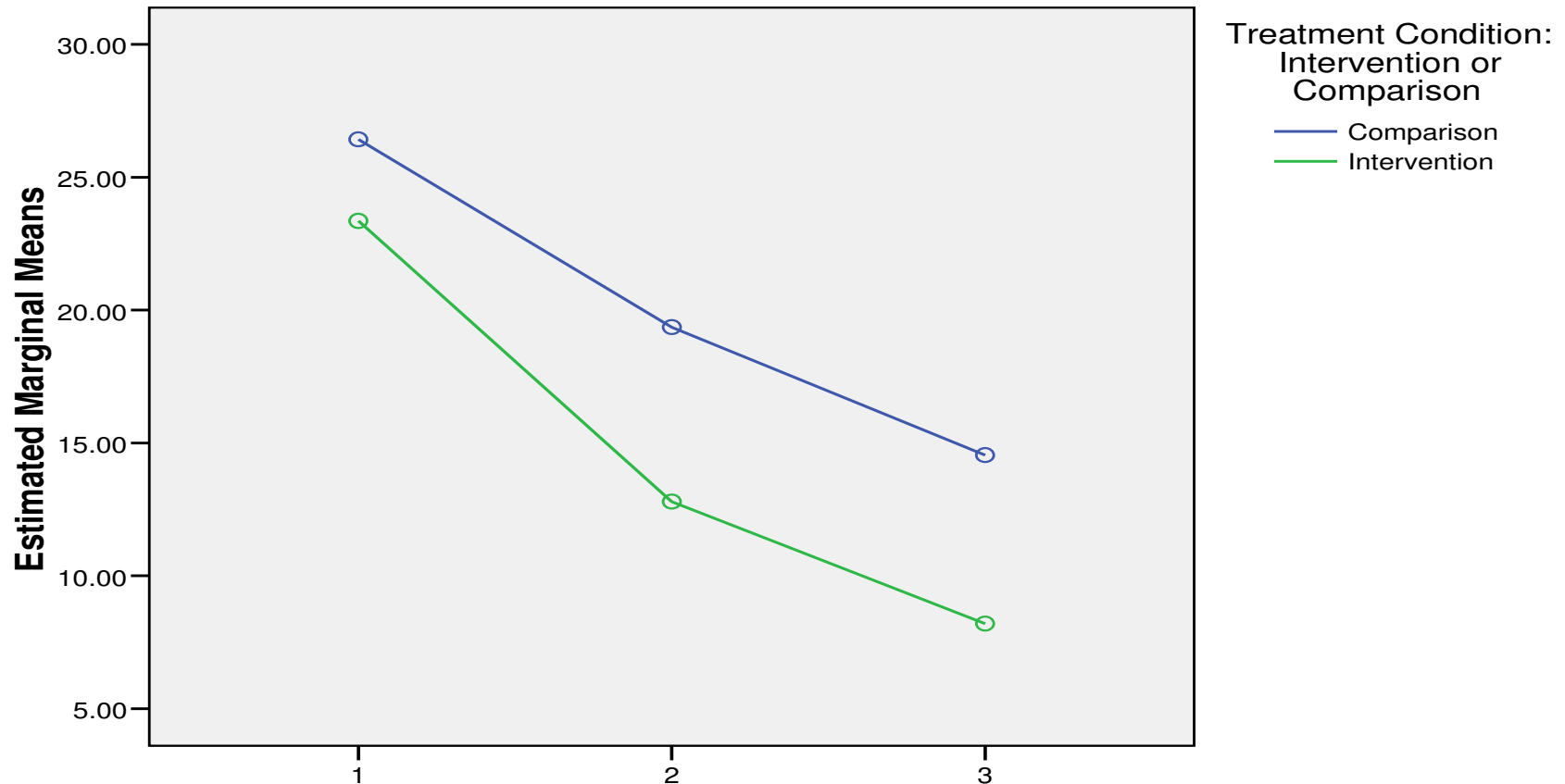
Outcome Measure	LSMean (SE)	LSMean (SE)	LSMean (SE)	df	F (Group x Time) ^a	p
	Baseline	Post	3 Mos			
PTS				163	3.25*	.04
CFTSI	53.30(1.34)	42.97(1.37)+	39.74(1.38)			
Comparison	51.74(1.29)	46.12 (1.33)	42.22(1.37)			
Dissociation				163	1.28	.28
CFTSI	47.64(1.12)	42.26(1.12)+	41.02(1.13.)			
Comparison	48.23(1.07)	45.12(1.09)	43.54(1.12)			
Anxiety				163	4.89 **	.009
CFTSI	51.34(1.33)	40.86(1.36)*	39.64(1.37)			
Comparison	50.45(1.29)	45.49(1.31)	41.82(1.35)			

Change in TSCC Symptoms from Baseline to Follow-up

- Repeated Measures Models were used to determine group differences in PTSD severity and TSCC Index scores
- CFTSI group showed significantly lower PTSD and Anxiety severity scores both post-tx and follow-up

Change in PTSD-Severity Means by Group Over Time

Estimated Marginal Means of Rlseverity



Future Plans

1. Modifications to protocol (explications) based on current clinical experiences
2. Multi-site trial (have begun implementation of CFTSI in several Child Advocacy Centers and plan to evaluate)

Future Plans

- Next study:
 - Investigate active ingredients
 - Parents/Child Communication
 - Perceived Parental Support
 - Use of skills
 - For whom is it most effective
 - Is it a useful engagement strategy

Possible Uses Suggested by Others

- Intake sessions for children with PTSD prior to Trauma focused treatment
- Brief intervention in Family Domestic Violence Shelters
- Early method of informing Foster Parent's of child's experience and reactions
 - Attempt to decrease placement failures

NATIONAL CENTER FOR CHILDREN EXPOSED TO VIOLENCE

AT THE
YALE CHILD STUDY CENTER

▪ www.nccev.org

NCTSN

The National Child
Traumatic Stress Network