



**After the Injury:
Understanding Traumatic Stress &
Providing Support**

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Children's Hospital
of The King's Daughters



CHILDREN'S
SPECIALTY
GROUP

Objectives

- Define Traumatic Events

- Differentiate Acute Stress Disorder from Post Traumatic Stress Disorder

- Discuss ways to support resilience and recovery from traumatic events

No disclosures (financial or otherwise) to report.

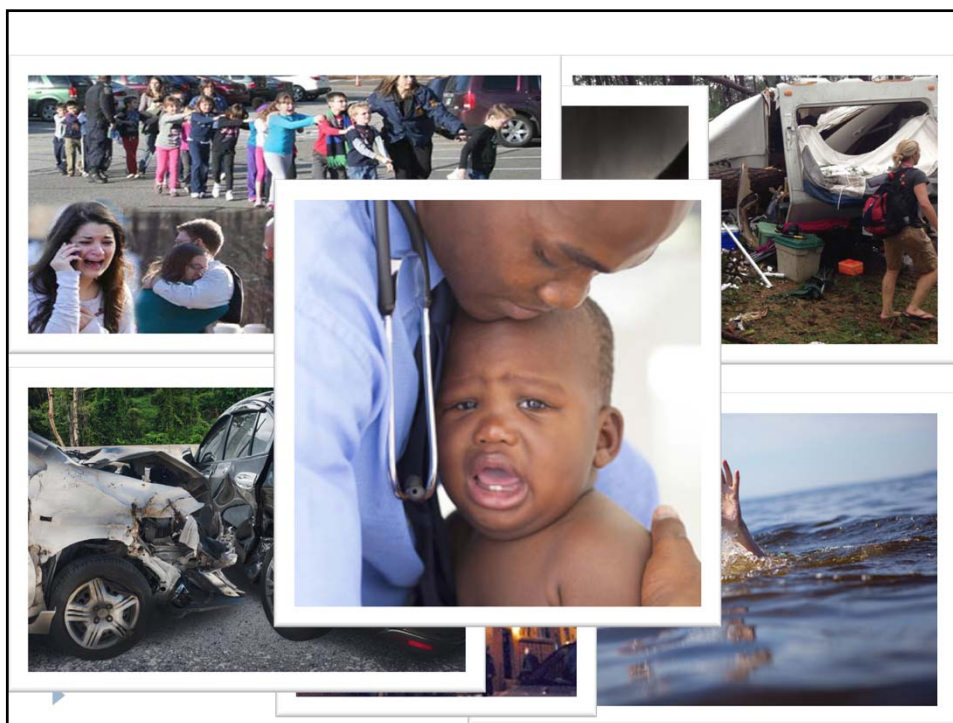
Traumatic Injury vs. Traumatic Events

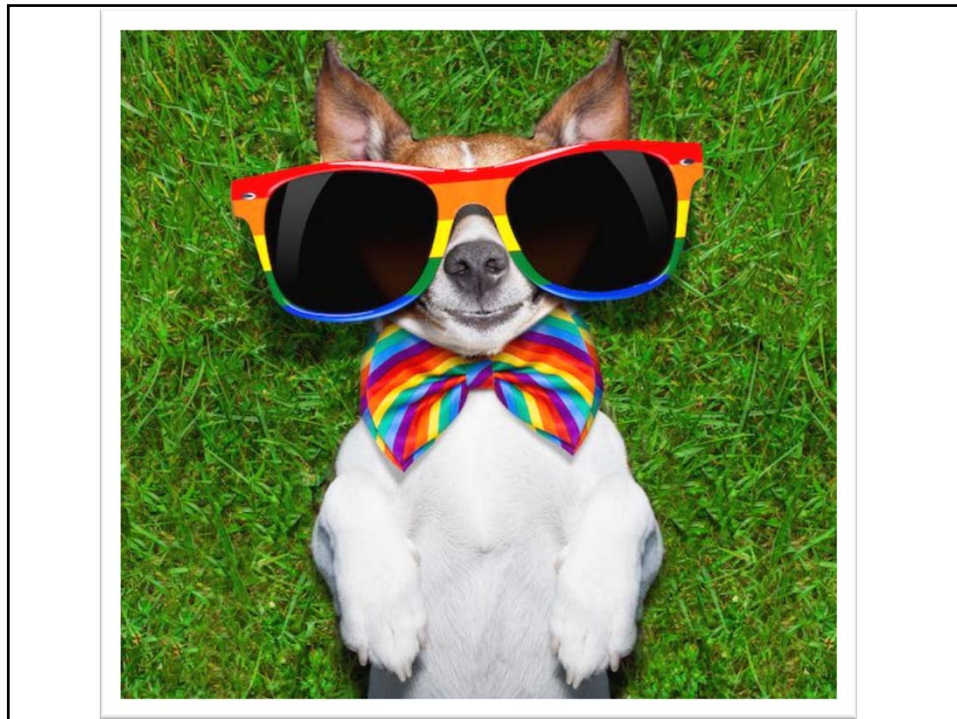
Traumatic Injury

- “Physical Injuries of sudden onset and severity which require immediate medical attention”

Traumatic Stress

- “exposure to actual or threatened death, serious injury, or sexual violation.”

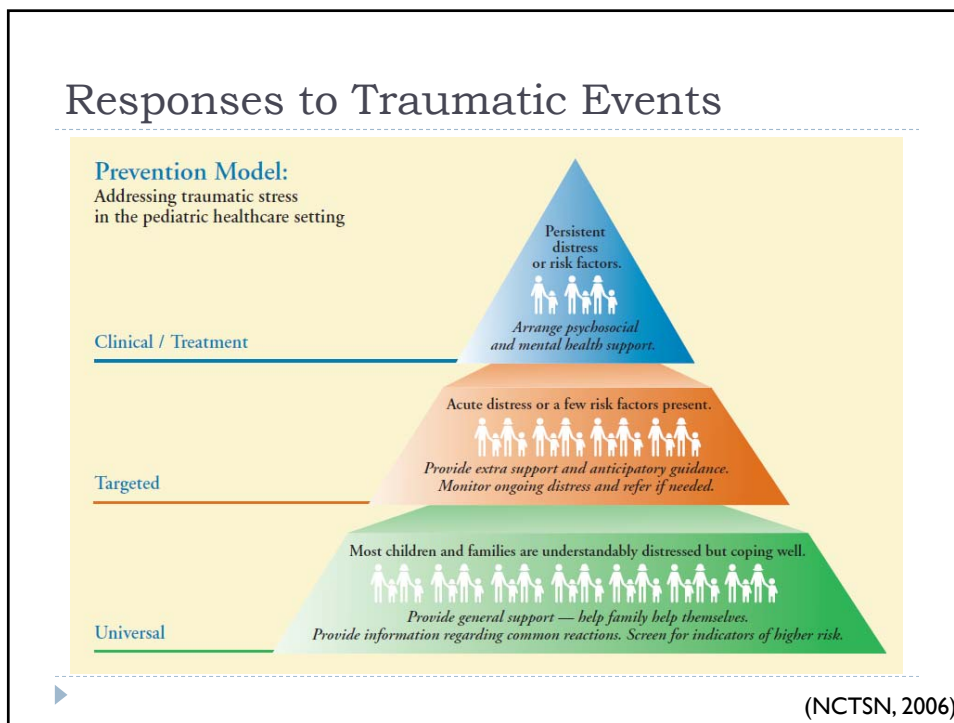
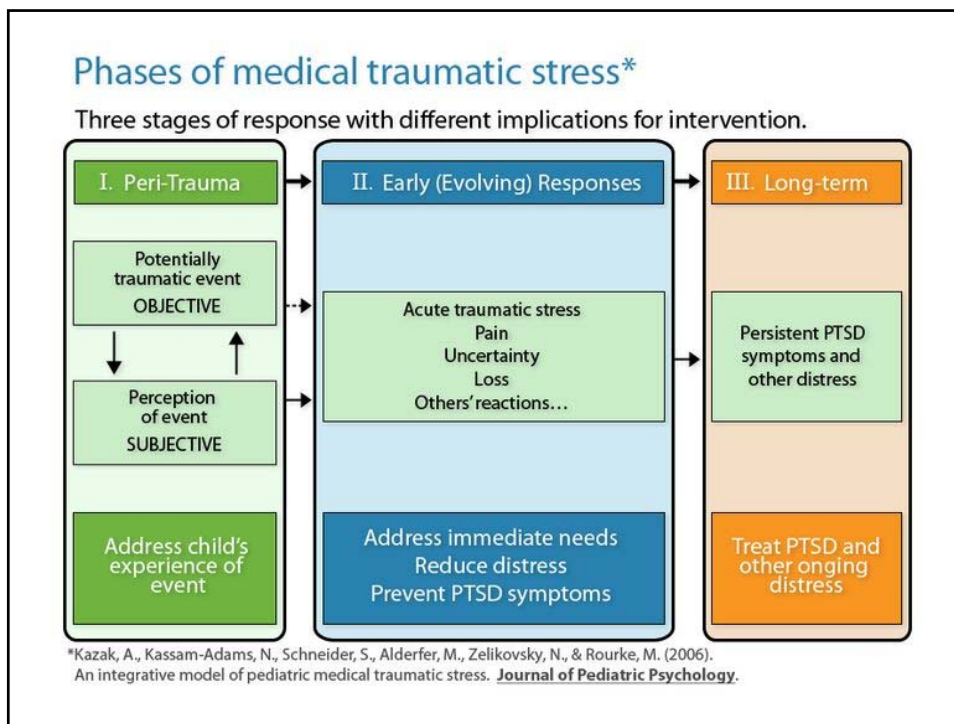




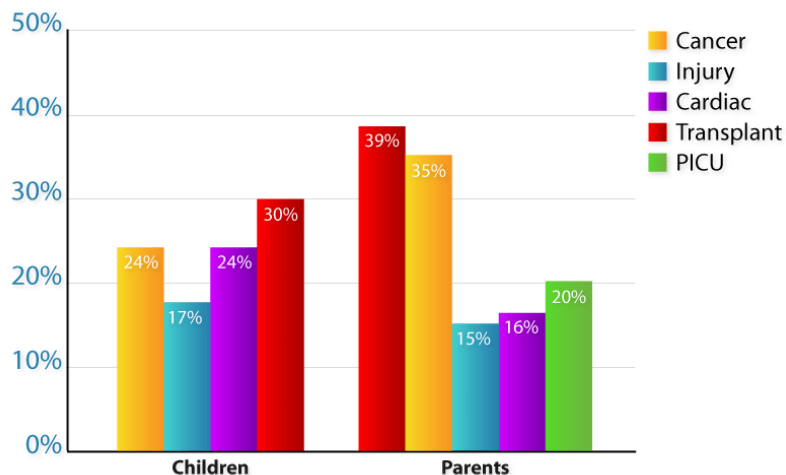
The Trauma isn't over yet

- ▶ Medical Traumatic Stress = responses of children & families to pain, injury, serious illness, medical procedures, and **invasive or frightening treatment experiences**... may occur as a response to a single or multiple medical events





Percent of children & parents with significant traumatic stress symptoms after medical events



Summary of research findings from The Children's Hospital of Philadelphia. Summarized from peer-reviewed research studies, 1999-2009. Note: Traumatic stress levels in children in pediatric intensive care has not yet been well-documented.

(Children's Hospital of Philadelphia, 2018)

SEVERITY OF TRAUMATIC STRESS REACTIONS



(Children's Hospital of Philadelphia, 2018)

What is most traumatic?

Kids and parents see things differently.*

Child cancer survivors:	Moms of cancer survivors:
<ol style="list-style-type: none"> 1. Shots 2. Losing hair 3. Staying in the hospital 4. Pain 5. Bone marrow procedures 6. Know others that died 7. Scared about death 8. Worried about relapse 9. Feeling sad / scared 10. Diagnosis – Finding out 	<ol style="list-style-type: none"> 1. Worried about relapse 2. Pain 3. Scared about death 4. Diagnosis – Finding out 5. Know others that died 6. Feeling sad / scared 7. Staying in the hospital 8. Shots 9. Bone marrow procedures 10. Losing hair

*Findings from CHOP study funded by National Cancer Institute (CA63930)

Risk Factors

Pre-existing Trauma or mental health history	Early physiological/ psychological responses
Factors related to the hospitalization- Length of stay, parent involvement, invasive medical procedures	Maladaptive coping- Parent <u>or</u> Child

Psychological Diagnoses related to Trauma

Acute Stress Disorder

• 3-29 days after event

Post Traumatic Stress Disorder

• 30+ days after event

Preschool Children	Elementary School Children	Middle and High School Children
<ul style="list-style-type: none"> • Feel helpless and uncertain • Fear of being separated from their parent/caregiver • Cry and/or scream a lot • Eat poorly and lose weight • Return to bedwetting • Return to using baby talk • Develop new fears • Have nightmares • Recreate the trauma through play • Are not developing to the next growth stage • Have changes in behavior • Ask questions about death 	<ul style="list-style-type: none"> • Become anxious and fearful • Worry about their own or others' safety • Become clingy with a teacher or a parent • Feel guilt or shame • Tell others about the traumatic event again and again • Become upset if they get a small bump or bruise • Have a hard time concentrating • Experience numbness • Have fears that the event will happen again • Have difficulties sleeping • Show changes in school performance • Become easily startled 	<ul style="list-style-type: none"> • Feel depressed and alone • Discuss the traumatic events in detail • Develop eating disorders and self-harming behaviors such as cutting • Start using or abusing alcohol or drugs • Become sexually active • Feel like they're going crazy • Feel different from everyone else • Take too many risks • Have sleep disturbances • Don't want to go places that remind them of the event • Say they have no feeling about the event • Show changes in behavior

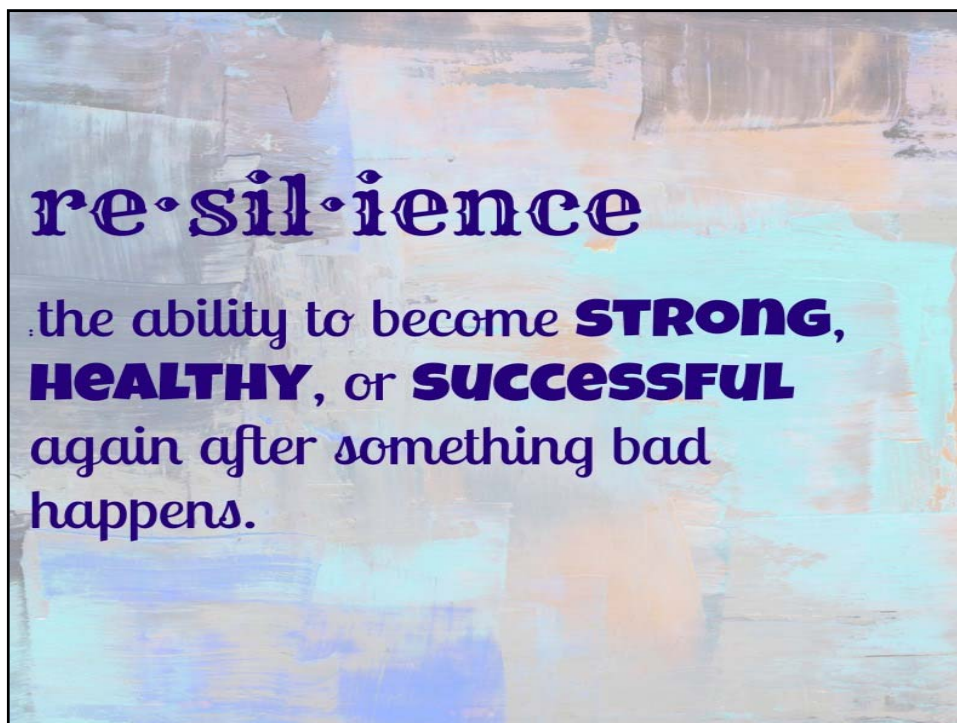
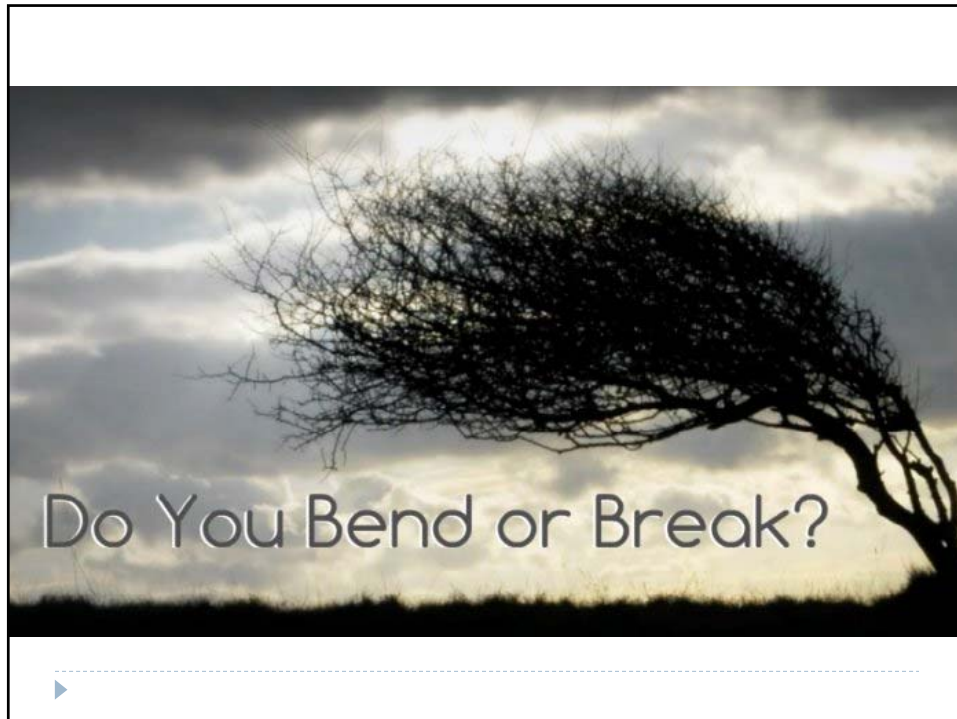
Trauma Presentations in the Hospital

- ▶ Refusal to participate in treatment
- ▶ Sleep difficulties
- ▶ Fear of “minor” procedures
- ▶ Regression in toileting
- ▶ Rough/violent play or drawings
- ▶ Difficulties with appropriate boundaries
- ▶ Hyper arousal

You can spend a
lifetime trying to
forget a few minutes
of your childhood.



How to Help in the Hospital



**Healthcare Providers' Guide to
Traumatic Stress in Ill or Injured Children**
...AFTER THE ABCs, CONSIDER THE DEFs

D	DISTRESS	<ul style="list-style-type: none">• Assess and manage pain.• Ask about fears and worries.• Consider grief and loss.
E	EMOTIONAL SUPPORT	<ul style="list-style-type: none">• Who and what does the patient need now?• Barriers to mobilizing existing supports?
F	FAMILY	<ul style="list-style-type: none">• Assess parents' or siblings' and others' distress.• Gauge family stressors and resources.• Address other needs (beyond medical).

(NCTSN, 2006)

Physicians & Staff involved in
Procedures

Minimize the hurt

Acute Stress Disorder Following Ventilation

RICHARD J. SHAW, M.B., B.S.

J Clin Child Psychol. 1999 Jun;28(2):232-43.

Posttraumatic stress symptoms in children following orthopedic or traumatic brain injury.

Levi RB¹, Drotar D, Yeates KO, Taylor HG.

⊕ Author information

Abstract
Examined posttraumatic stress (PTS) symptoms in children with orthopedic injury (OI; n = 59) and traumatic brain injury (TBI; n = 81) and orthopedic injury (OI; n = 59) who reported higher levels of child PTS symptoms than children with severe TBI than by those with moderate TBI. Group differences in child-reported PTS symptoms were higher in the severe TBI group than in the moderate TBI group even after taking ethnicity, social class, and symptoms were related to family socioeconomic status. Pediatric TBI are discussed.

Posttraumatic distress in children and families after intubation. (PMID:9220513)

Abstract Citations Related Articles Data BioEntities External Links

[Gavin LA, Roessler TA](#)

[Pediatric Emergency Care](#) [01 Jun 1997, 13(3):222-224]

Type: Journal Article, Case Reports

Abstract

BACKGROUND: Posttraumatic stress disorder symptoms are seen in children who have experienced significant trauma. Respiratory arrest with subsequent intubation can be associated with terror, helplessness, and the threat of death. METHODS: Three case reports are presented where emergency intubation was followed by symptoms of psychologic distress in the intubated child and his or her family members. RESULTS: Although the medical literature documents posttraumatic distress symptoms after other medical procedures, this is the first account of symptoms following intubation. Children and other family members were found to have symptoms of reexperiencing the traumatic event, avoidance of thoughts or feelings related to the intubation, and hyperarousal. Issues around diagnosis and treatment are discussed. CONCLUSIONS: Children with a history of emergency intubation should be evaluated for possible

Babies feel & REMEMBER Pain Too

Development of pain mechanisms

M Fitzgerald

British Medical Bulletin
<https://doi.org/10.1093/bmb/45.2.233>
Published: 01 July 1994

“ Cite Permissions

Abstract
Interest in the neonatal period in newborn infants has increased since the survival of premature infants that there are now more newborns necessarily extended. It is becoming clear that newborns do not feel or remember a mixture of misconceptions about the infant's ability to feel, remember, and express pain contribute to this long-standing problem. These misconceptions include beliefs that infants are unable to feel pain like adults or to remember it. This article describes the embryology of pain and includes a discussion of emerging evidence that infants do remember pain and consequently react differently to subsequent painful experiences. In addition, the adverse long-term effects of pain on the developing infant are identified and discussed. Permanent structural and function changes in the brain and spinal cord occur with repeated painful experiences, and adverse outcomes are

The reality of neonatal pain. (PMID:12881937)

Abstract Citations Related Articles Data BioEntities External Links

[Puchalski M, Hummel P](#)

[Advances in Neonatal Care : Official Journal of the National Association of Neonatal Nurses](#) [01 Oct 2002, 2(5):233-44; quiz 245-7]

Type: Review, Journal Article
DOI: [10.1016/S1536-0903\(02\)80059-5](https://doi.org/10.1016/S1536-0903(02)80059-5)

Abstract

Pain has been unrecognized and undertreated throughout the history of neonatal care. Misconceptions about the infant's ability to feel, remember, and express pain contribute to this long-standing problem. These misconceptions include beliefs that infants are unable to feel pain like adults or to remember it. This article describes the embryology of pain and includes a discussion of emerging evidence that infants do remember pain and consequently react differently to subsequent painful experiences. In addition, the adverse long-term effects of pain on the developing infant are identified and discussed. Permanent structural and function changes in the brain and spinal cord occur with repeated painful experiences, and adverse outcomes are

Participate in Care Conferences



Be Aware of Implications for Rapid Discharges Home

- ▶ Arranging medical appointments
- ▶ Arranging supervision and sibling care
- ▶ Managing altering work schedule
- ▶ Home modifications
- ▶ Caregiver perceptions of their preparedness to return home
- ▶ Transportation needs
- ▶ Caregiver Acute Stress



Tips for Bedside Staff & Therapy Services

Be Aware of Trauma Reminders

- ▶ Trauma Reminders = aversive sight, sounds, smells, tastes, touches associated with trauma
 - ▶ Patient may or may not be aware of the associate
 - ▶ Will cause an immediate reaction/change in behavior
 - ▶ Document “outbursts” to help identify patterns



Don't Facilitate Processing



- ▶ Analyzed 11 studies of single session “psychological debriefing”
- ▶ All participants were within one month of traumatic event
- ▶ Results
 - ▶ ZERO studies demonstrated benefit in the reduction of PTSD symptoms
 - ▶ 1 study demonstrated an **INCREASE** in traumatic stress over time

(Rose, Bisson, Churchill, & Wessely, 2002)

No Need to Make a Silver Lining


RARELY DOES AN EMPATHETIC
RESPONSE BEGIN WITH "AT LEAST."

SOMEONE JUST SHARED
SOMETHING WITH US THAT'S
INCREDIBLY PAINFUL, AND WE'RE
TRYING TO PUT THE
SILVER LINING AROUND IT.

- Brené Brown -

Maintain a Schedule & Set Boundaries



Give Choices When Possible



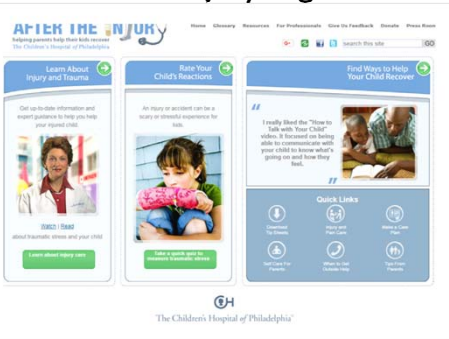
1 Toolkit



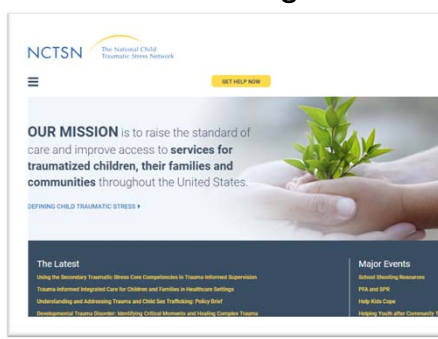
(NCTSN, 2006)

Two Websites

▶ AftertheInjury.org



▶ Nctsn.org



Selected References

- ▶ Children's Hospital of Philadelphia. (2018). Healthcare Toolbox: Your guide to helping children and families cope with illness and injury. www.healthcaretoolbox.org
- ▶ Kazak, A.E., Kassam-Adams, N., Schneider, S., Zelikovsky, N., Alderfer, M.A., and Rourke, M. (2006). An integrative model of pediatric medical traumatic stress. *Journal of Pediatric Psychology*, 31, 14, p. 343-355.
- ▶ NCTSN. (2006). The Medical Traumatic Stress Toolkit. www.nctsn.org
- ▶ Rose, S. C., Bisson, J., Churchill, R., and Wessely, S. (2002). Psychological debriefing for preventing post traumatic stress disorder (PTSD). *Cochrane Database of Systematic Reviews*, 2.



Thanks for your time & attention!
Questions?

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