



We Treat Kids Better

## Optimizing the use of PCIT in interdisciplinary medical settings to address medical traumatic stress

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# Objectives

Identify signs of medical traumatic stress (MTS) and risk factors for developing MTS

Obtain an overview on the development and management of MTS

Learn specific strategies to address MTS during different phases of PCIT treatment

# Health Status of Children in U.S.

- 84.8% of school-aged children ages 5-11 are in excellent or very good health
- 3.2% of school-aged children ages 5-11 missed 11 or more days of school in the past 12 months because of illness or injury: 3.2%
- Leading Causes of Death (National Health Interview Survey, 2015)
  - 1-4 years of age:
    - Accidents (unintentional injuries)
    - Congenital malformations, deformations and chromosomal abnormalities
    - Assault (Homicide)
  - 5-14 years of age
    - Accidents (unintentional injuries)
    - Cancer
    - Intentional self-harm (suicide)
- Respiratory diagnoses, such as pneumonia, acute bronchitis, and asthma; mood disorders; appendicitis; and epilepsy/convulsions were the most common specific conditions for which children were hospitalized (Witt, Weiss, & Elixhauser, 2014)

# Health Status of Children in U.S.

- 93% of children have had contact with a health care professional in the past year
- Mental health conditions are among the most common chronic childhood illnesses:
  - 7% attention-deficit/hyperactivity disorder (ADHD)
  - 3% anxiety
  - 2% depression.
- Fewer than half of US children with mental health conditions receive the care they need.
- Children with DDs were 4-32 times more likely than children without DDs to have one or more health impact (Boulet, Boyle, & Schieve, 2009)
- The American Academy of Pediatrics (AAP) encourage primary care providers (PCPs) to take a more active role in preventing, identifying, and managing mental health conditions (Anderson, Chen, & Van Cleave, 2015)

# Medical Traumatic Stress

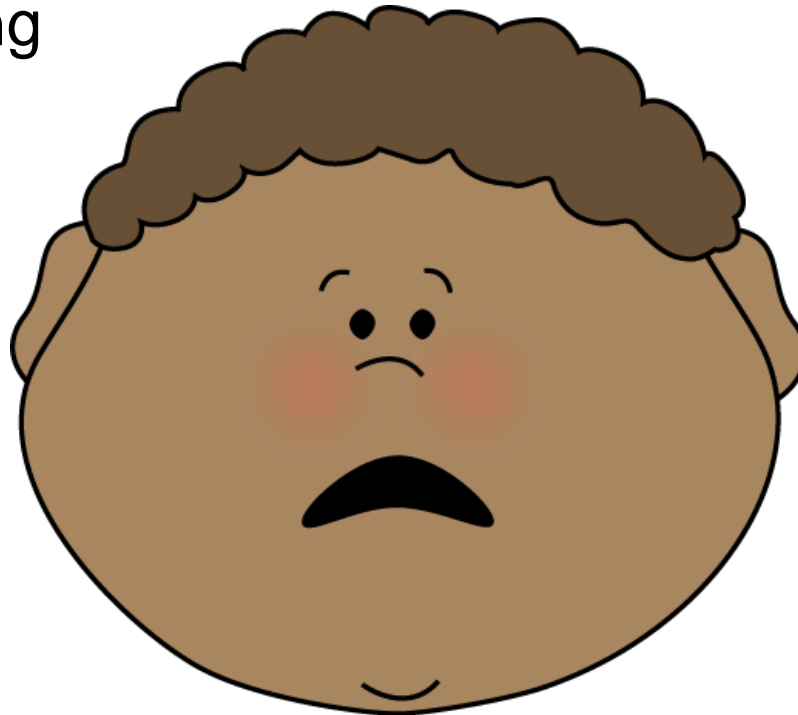
- “A set of psychological and physiological responses of children and their families to pain, injury, serious illness, medical procedures, and invasive or frightening treatment experiences” (NCTSN, 2017).
- 20-30% of parents and 15-25% of children and siblings experience persistent traumatic stress reactions that impair daily functioning (NCTSN, 2017).
- There is often a decline in symptoms over time.



## Medical Traumatic Stress Reactions (NCTSN, 2017)

Re-experiencing

Avoidance



Other reactions

Hyperarousal

# Medical Traumatic Stress Reactions in Parents

- Avoidance symptoms: Suppression of conversations/communication within the family about the child's illness/condition, evading medical procedures, skipping doctors' visits, not asking questions
- Arousal symptoms: May induce parents to restrict their children's activities therefore compromising normal child development (Santacroce, 2002)
- Hypervigilant parents may request frequent doctors' visits or request inordinate number of tests and services resulting in overburdening the health system and leading to increased costs
- Potentially impair parents' ability/capacity to understand medical guidelines or transmit information to health professionals
- Parents are at elevated risk of distress reactions, involving symptoms of acute stress disorder, depression, anxiety, and substance abuse.
- Traumatic responses are often more related to the person's subjective experience of the medical event rather than its objective severity (Muscara et al., 2015)



## Impact of Parental Responses on Children's Recovery



- Parent responses have consistently been found to be associated with children's posttrauma psychological recovery (Daviss et al., 2000; Meiser-Stedman, Yule, Dalgleish, Smith, & Glucksman, 2006).
- Parents' own responses impact their perceptions of child reactions (Kassam-Adams, Garcia-Espana, Miller, & Winston, 2006) and interact with children's reactions (including acute physiological responses) in determining the course of children's psychological recovery after trauma (Nugent, Ostrowski, Christopher, & Delahanty, 2007).
- Meta-analysis of studies on the correlation between parents' PTSD symptom severity and children's psychological status indicate importance of considering the family context of trauma survivors (Cabrizuca et al., 2009).
- Increased loneliness, isolation, and fear in child and siblings (Bechtold, 2000).



## Supporting Families of Children with Medical Conditions

### *Adjustment*

- Unpredictable course of medical conditions
- Uncertain prognosis
- Burden of participating in multiple services



### *Loss and grief*

- Time & resources
- Missed events & social opportunities
- Delayed milestones
- Normal family life becomes "medicalized" by child's chronic needs
- Isolation from support systems & loss of relationships
- Changes in child's abilities & functioning
- Ongoing special care needs
- Parental expectations & hopes for the child's development
- Integration of palliative care

*Coordination of care* with medical staff and mental health treatment teams; schools (504 plan or IEP); DCFS (treatment adherence, neglect); Regional Center

# Risk Factors for Persistent Traumatic Stress Reactions

(NCTSN, 2017)

## Child

- Severe early traumatic stress reactions
- Experience more severe levels of pain
- Exposed to scary sights and sounds in the hospital
- Separated from parents or caregivers
- Previous traumatic experiences
- Prior behavioral or emotional problems



## Parent

- Severe early traumatic stress reactions
- Previous traumatic experiences
- Prior emotional or mental health problems
- Experiencing other life stressors or disruption
- Lacks positive social support

# Medical Traumatic Stress Model



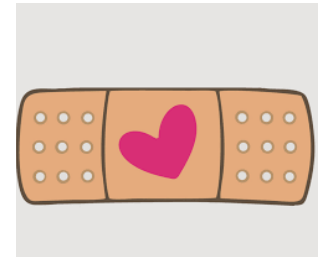
Peritrauma

Early, Ongoing  
and Evolving  
Responses

Longer Term  
MTS

# MTS Assumptions (Kazak et al., 2006; Price et al., 2016)

- Potentially traumatic medical events have commonalities that cut across illness or injury groups
- There is a range of normative reactions to medical traumatic events
  - 4 trajectories
    - Resilient (57-72%)
    - Recovery (18-33%)
    - Chronic (8-10%)
    - Delayed onset (2%)
- Patients and families have a range of preexisting psychological functioning that influences risk for MTS
- A developmental lens on trauma is essential
- A social ecological or contextual approach is optimal for intervention
- MTS affects health outcomes



# D-E-F Protocol for Assessing and Treating MTS (NCTSN, 2017)

Distress

Emotional  
Support

Family



# Why PCIT with MTS Population

- Parents can utilize responsive parenting styles to support child's recovery (Alisic et al., 2012)
- Parental distress regarding their child's medical status/issues impacts their parenting approach/skills
- Suppressed communication within families can impact parent-child relationship and child's mental health functioning
- Generalization of compliance in medical settings
- Supportive family environment is protective against MTS and additional stress

# Medical Traumatic Stress: Intake/Assessment

- Provide rationale for addressing child's medical issues as part of intake process
- Inquire about child and family's medical history, including timeline of diagnosis, hospitalizations, type of treatments received, and child and family's response to treatment
- Gather information regarding child's daily routine and treatment regimen, medical symptoms, and pain levels
- Assess impact of child's medical illness on parenting style
- Explore how parent supports and assists child in coping with their medical condition
- Assess family's sources of support, financial resources, and access to community resources
- Inquire about special dietary restrictions and physical limitations
- Ask about previous trauma history for both parent and child

# Adapting CDI to MTS Population

- Use toys to increase comfort with medical settings
- Parent models appropriate behaviors necessary for medical procedures
- Praise child for showing positive “medical behaviors” during play
- Helping parent avoid questions and criticisms that often accompany noncompliance during medical procedures
- Repeat concepts child is ready to learn
- Assist parents identifying appropriate toys that can be used in the medical setting





# CDI Coaching Blurbs for MTS

## Parental Avoidance

I know it can be uncomfortable when he/she brings up reminders of the surgery. But when you respond to him, you're letting him know it safe to talk about this.

## Parent Fear or Anxiety

Medical trauma can make us feel on edge or keyed up. When you slow down your play, you help show (Child) that this is a safe place.

It's ok to take a minute to breathe if you having memories of the accident.

## Child Trauma Play

Tell her that you're glad she is talking about the hospital. Pretend that you are the doctor and tell her you are going to take care of her. Say "The girl is hurt but the adults are going to take care of her and help her feel better."

## Child Hyperarousal

After experiencing stress, kids can be more irritable and have a hard time managing their feelings. When you praise him for being calm and using his words, it helps him learn new ways to deal with those feelings.

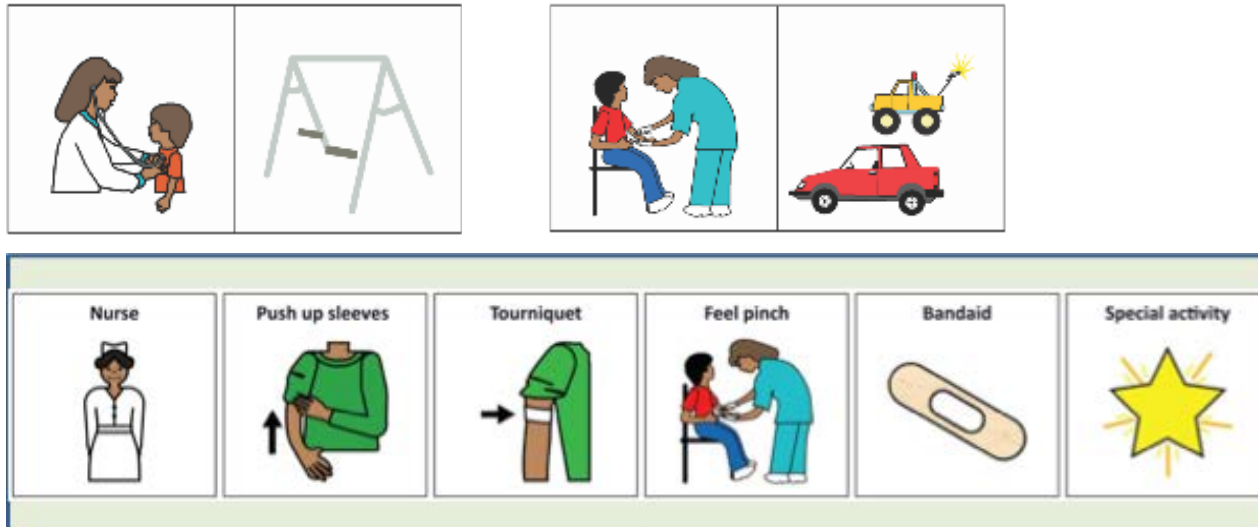
She really calmed down when she heard your soothing voice!

# Skills to Manage Behavior in Medical Settings

- Talk with child's providers/treatment team prior to visit
- Help parent talk to the child in a way that builds trust (e.g., resist urge to lie)

<p><b>When-then or If-then Statements</b></p>	<ul style="list-style-type: none"> <li>• Provides prompt to child on what the expected behavior is and what will happen upon compliance.</li> </ul>	<ul style="list-style-type: none"> <li>• Prior to medical appointments and procedures, discuss what will happen using words and pictures the child will understand.</li> <li>• Use visual aides, visual schedules, or social stories to explain what will happen.</li> <li>• "When we are done with the check-up, then we will go to the playground."</li> </ul>
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- When-then Boards



# Skills to Manage Behavior in Medical Settings

<p><b>Calming</b></p>	<ul style="list-style-type: none"> <li>• Gives the parents the opportunity to model skills and calm themselves</li> <li>• Gives child some skills in learning how to calm</li> </ul>	<ul style="list-style-type: none"> <li>• Explain how medical traumatic stress can make families feel keyed up, tense, and on edge.</li> <li>• When parents do special playtime with their child, and model calming skills, they show the child that they are safe and can slow down.</li> <li>• Avoid focusing on the most unpleasant/painful aspects before the visit if it will make child more anxious</li> <li>• "I feel nervous. I'm going to do some belly breathing to relax."</li> </ul>
<p><b>Redirect</b></p>	<ul style="list-style-type: none"> <li>• Gets child to focus on another toy, behavior, or activity without use of strict discipline</li> <li>• Provides opportunity to praise good behavior and create positive interaction</li> </ul>	<ul style="list-style-type: none"> <li>• Help parent to prepare to bring toys to help child remain calm and happy during medical appointments and procedures</li> <li>• If child has difficulty staying still during procedures or wants to touch medical equipment they need to leave alone, bring out a particularly fun toy for them to play with.</li> <li>• "Cool, I have a magic dragon. It's so much fun making my dragon fly in the sky."</li> </ul>

# Adapting PDI to MTS Population

- Use visual cues with commands
- Therapist can provide reassurance and encouragement to address parent's concerns about safety and physical well-being
- Including siblings in later sessions
- Plan ahead for identifying a time out space in the doctor's office or hospital room



# PDI Coaching Blurbs for PMTS

## Child Fear/Anxiety

I know it feels hard to discipline her after she has been through so much. But now more than ever, she needs to have a sense of predictability in her life. You are doing this by showing her that whenever she breaks the rules, someone will help her learn to follow them.

Great job staying calm during time out! He is learning that consequences for not following the rules are not scary.

## Parent Fear/Anxiety

Raise your hand if you are feeling anxious right now. Take some deep breaths and say to yourself "I love her too much to let her grow up without learning these lessons."

You seem frozen right now. This can happen to parents who have had their child go through medical procedures. I am right there with you. Name 3 things in the room to yourself. Take a deep breath and then start counting.

## Parent Avoidance

It might seem easier to avoid time out, but we want him to understand that there are consequences when he behaves this way.

He is like a little scientist who is experimenting with limits. He will learn where they are through experience.

# References

- Alisic, E., Boeije, H.R., Jongsmans, M.J., & Kleber, R.J. (2012) Supporting children after single-indicent trauma: Parents' views. *Clinical Pediatrics*, 51(3), 274-282.
- Anderson, L.E., Chen, M.L., Perrin, J.M., & Van Cleave, J. (2015). Outpatient visits and medication prescribing for U.S. Children with Mental Health Conditions. *Pediatrics*, 136(5), 1178-1185.
- Bagner, D.M. & Eyberg, S.M. (2007). Parent-Child Interaction Therapy for disruptive behavior in children with mental retardation: A randomized controlled trial. *Journal of Clinical Child and Adolescent Psychology*, 36 (3), 418-429.
- Bagner, D.M., Fernandez, M.A., & Eyberg, S.M. (2004). Parent-Child Interaction Therapy and chronic illness: A case study. *Journal of Clinical Psychology in Medical Settings*, 11(1), 1-6.
- Bagner, D.M., Sheinkopf, S.J., Miller-Loncar, C.L., Vohr, B.R., Hinckley, M., Eyberg, S.M., & Lester, B.M. (2009). Parent-Child Interaction Therapy for children born premature: A case study and illustration of vagal tone as a physiological measure of treatment outcome. *Cognitive Behavioral Practice*, 16(4), 468-477.
- Boulet, S.L., Boyle, C.A., & Schieve, L.A. (2009). Health care use and health and functional impact of developmental disabilities among U.S. children, 1997-20015. *Archives of Pediatrics and Adolescent Medicine*, 163(1), 19-26.
- Cohen, M.L., Shelley, C.H., Ginn, N., & Eyberg, S.M. (2012). Parent-Child Interaction Therapy as a family-oriented approach to behavioral management following pediatric traumatic brain injury. *Journal of Pediatric Psychology*, 37 (3), 251-261.
- Kazak, A.E., Kassam-Adams, N., Scheider, S., Zalikovsky, N., Alderfer, M.A., & Rourke, M. (2006). An integrative model of pediatric medical traumatic stress. *Journal of Pediatric Psychology*, 31 (4), 343-355.
- National Center for Health Statistics. (2015). *Summary Health Statistics Tables for U.S. Children: National Health Interview Survey, 2015*. Retrieved from <https://www.cdc.gov/nchs/fastats/child-health.htm>
- National Child Traumatic Stress Network. (2017). *Medical Trauma*. Retrieved from <http://www.nctsn.org/trauma-types/medical-trauma>
- National Child Traumatic Stress Network (2017). *Pediatric Medical Traumatic Stress: A Comprehensive Guide*. Retrieved from <http://www.nctsn.org/sites/default/files/assets/acp/hospital/brochures/GuideBrochure.pdf>
- Pride, J., Kassam-Adams, N., Alderfer, M.A., Christofferson, J., & Kazak, A.E. (2016). Systematic review: A reevaluation and update of the Integrative (Trajectory) Model of pediatric medical traumatic stress. *Journal of Pediatric Psychology*, 41 (1), 86-97.
- Witt, W.P., Weiss, A.J., & Elixhauser, A. (2014). *Overview of hospital stays for children in the United States*. Retrieved from <https://www.hcup-us.ahrq.gov/reports/statbriefs/sb187-Hospital-Stays-Children-2012.pdf>