



CAC2
COALITION AGAINST
CHILDHOOD CANCER

CAC2 WEBINAR:

TRAUMA-INFORMED PAIN CARE DURING PEDIATRIC ONCOLOGY TREATMENT

Building the Toolbox & Shaping Future Research

Thursday, Aug 20, 2026 | 12:00 PM ET

FEATURING



DR. LAUREN AUSTIN
Pediatric Psychologist



HEATHER JONES
Childhood Cancer Advocate



Our Values

We put children and their families first in everything we do.



Respect

Enable the community while respecting our members' unique missions



Efficiency

Strive for cost effectiveness and efficiency with resources



Inclusiveness

Emphasize inclusiveness and collaboration towards our common goals



Amplify

Help give voice to the community and amplify it in a coordinated fashion



Drive

Stay action-oriented and flexible

Trauma-Informed Pain Care During Pediatric Oncology Treatment: Building the Toolbox and Shaping Future Research

Lauren Hayes Austin, PhD, HSP
Pediatric Psychologist and Psychological Researcher

Heather Jones

* * *



Learning Objectives

:At the conclusion of this presentation, attendees will be able to
Describe the relationship between pain, psychological distress, and
.medical trauma in pediatric cancer

Summarize evidence-based, non-pharmacological approaches that can
.help children and families manage pain during cancer treatment

Recognize how trauma-informed care can improve the experiences of
.children with cancer and their families

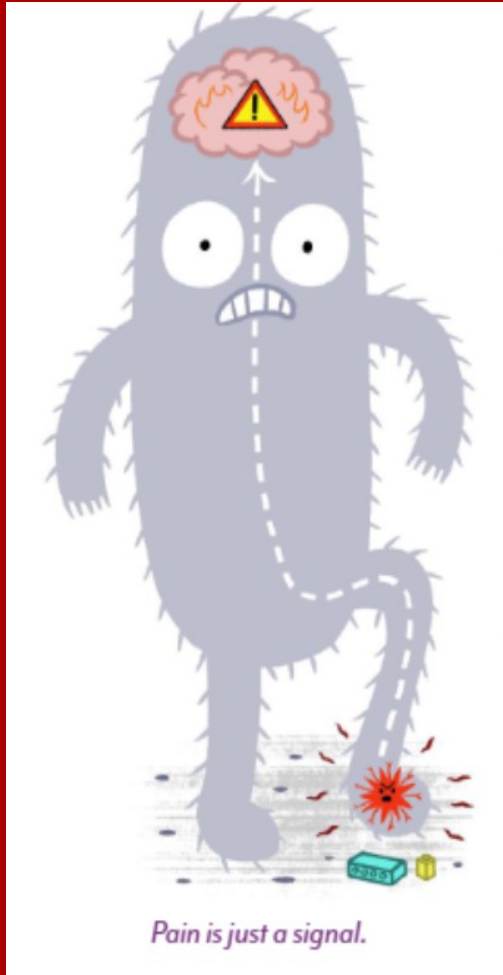
Identify opportunities for survivors, advocacy organizations, healthcare
professionals, and researchers to work together to advance equitable,
.family-centered pain care



Patient Experience



Pediatric Pain



Pain is an unpleasant sensory and emotional experience associated with “actual or potential tissue damage or described in terms of such damage.”- International Association for the Study of Pain (IASP), 1979, 1999

Pediatric pain often goes unaddressed in a pediatric setting. Specifically, children with cancer do not consistently gain access to evidence-based and well-established pain management and pain-related stress strategies

Undertreated pain can have a significant impact on the wellbeing of children and families

Higher risk for mood disorders

Increased risk for medical trauma

Decreased functioning and social engagement

Development of persistent or chronic pain

Uhl et al., 2020



Acute and Procedural Pain

A warning sign of injury

Time-limited, decreases as healing occurs

Cause usually known, identifiable

Acute: injury (broken bone, MVC), post-operative (limb resection, tumor resection), disease-related (migraine, mucositis)

Procedural: venipunctures, lumbar punctures, port access, vaccinations



Chronic Pain

Persists greater than 3 months or beyond expected time for healing

Mechanisms of chronic pain are multifactorial that result in changes to the pain processing system

:Children and adolescents with a history of cancer

Recent studies estimate 11- 43% of survivors have chronic pain, but some research estimates up to 75%

of survivors with chronic pain reporting functional impairment across 72% multiple life domains

Palermo, 2019; Hayes et al., 2025



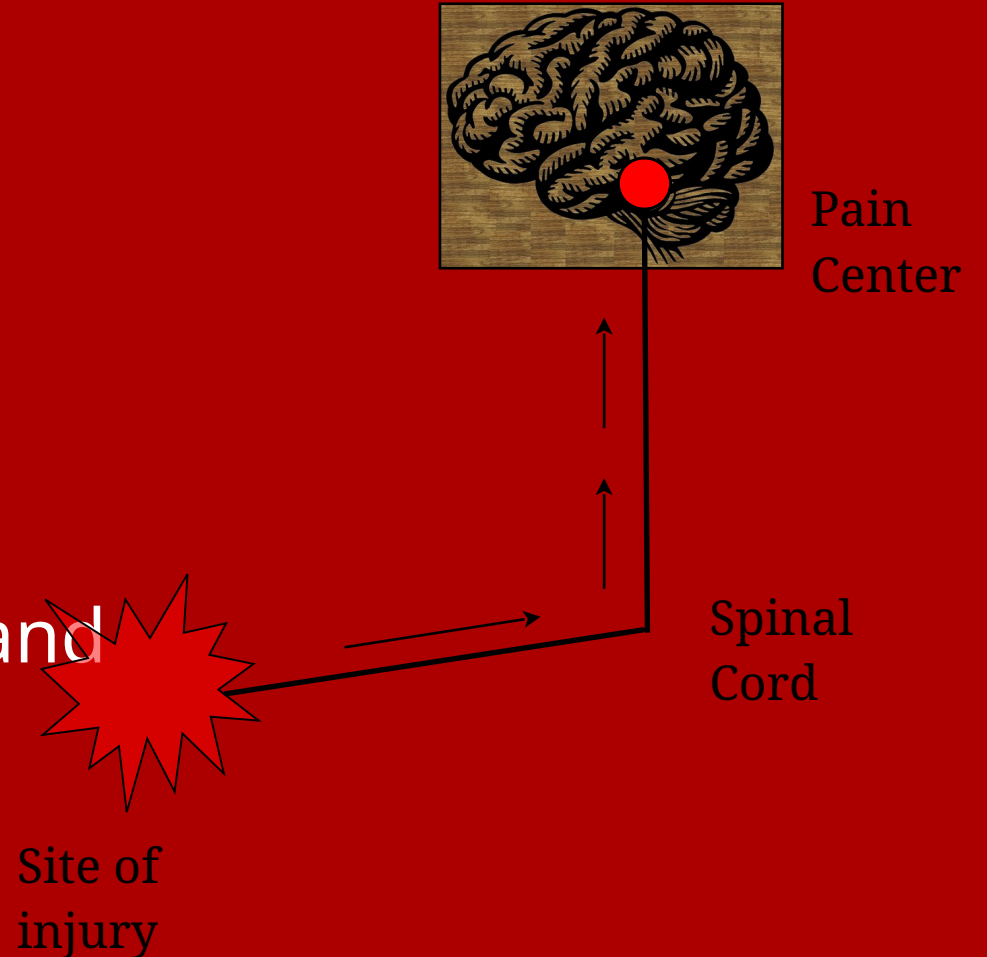
Specificity Theory

Oldest theory of pain

Pain intensity = degree of physical pathology

No additional influences on pain perception

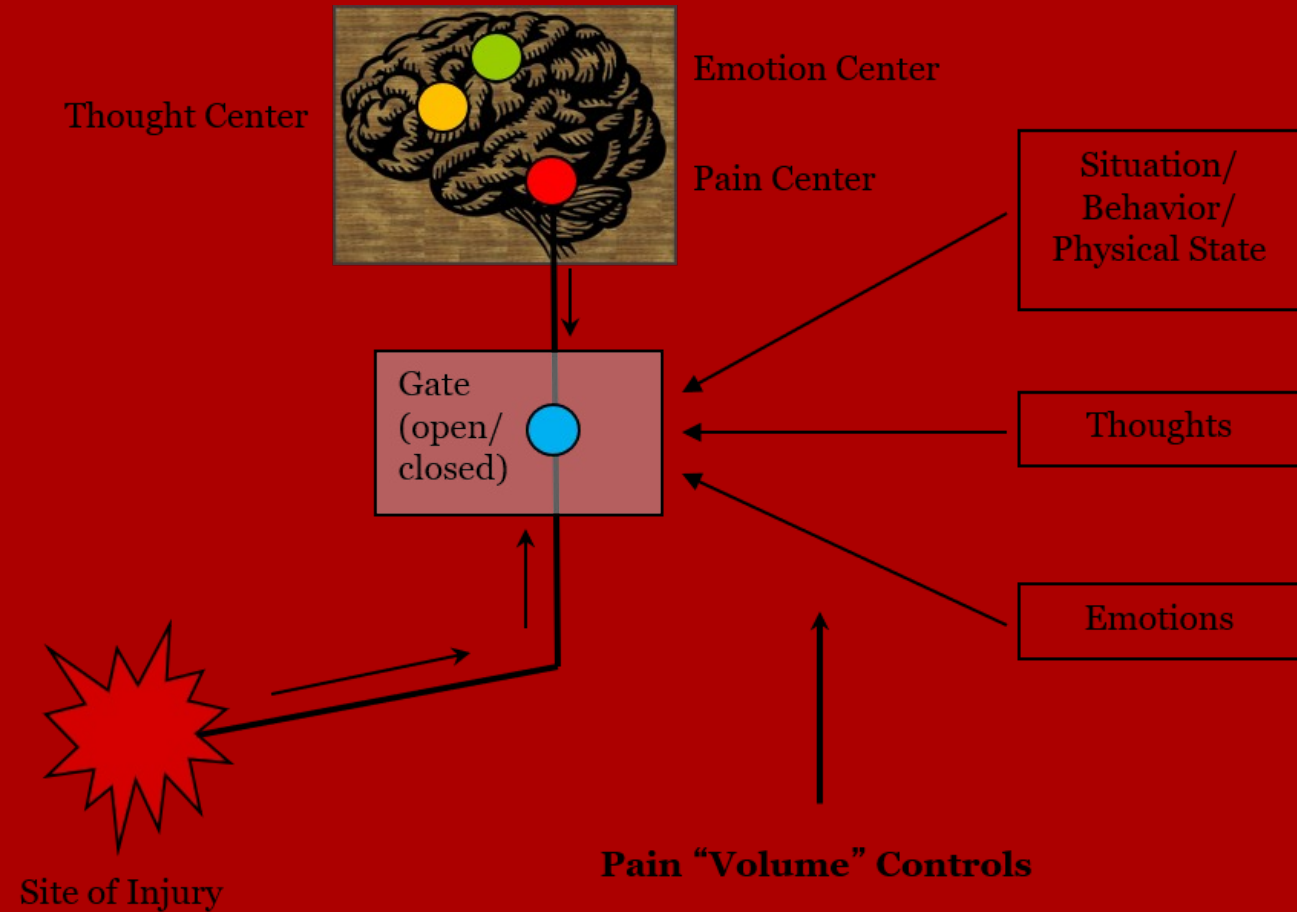
Still the most widely held by patients and .providers



Gate Control Theory

Pain perception - a function of sensory input from the body (**ascending pathways**) and perceptions from the brain (**descending pathways**)
Gate" located within the spinal" cord (dorsal horn) can open and close

Factors that open the gate increase pain, factors that close the gate decrease pain



Medical Trauma

A set of psychological and physiological responses of children and their families in response to pain, injury, serious illness, medical .procedures, and invasive or frightening treatment experiences

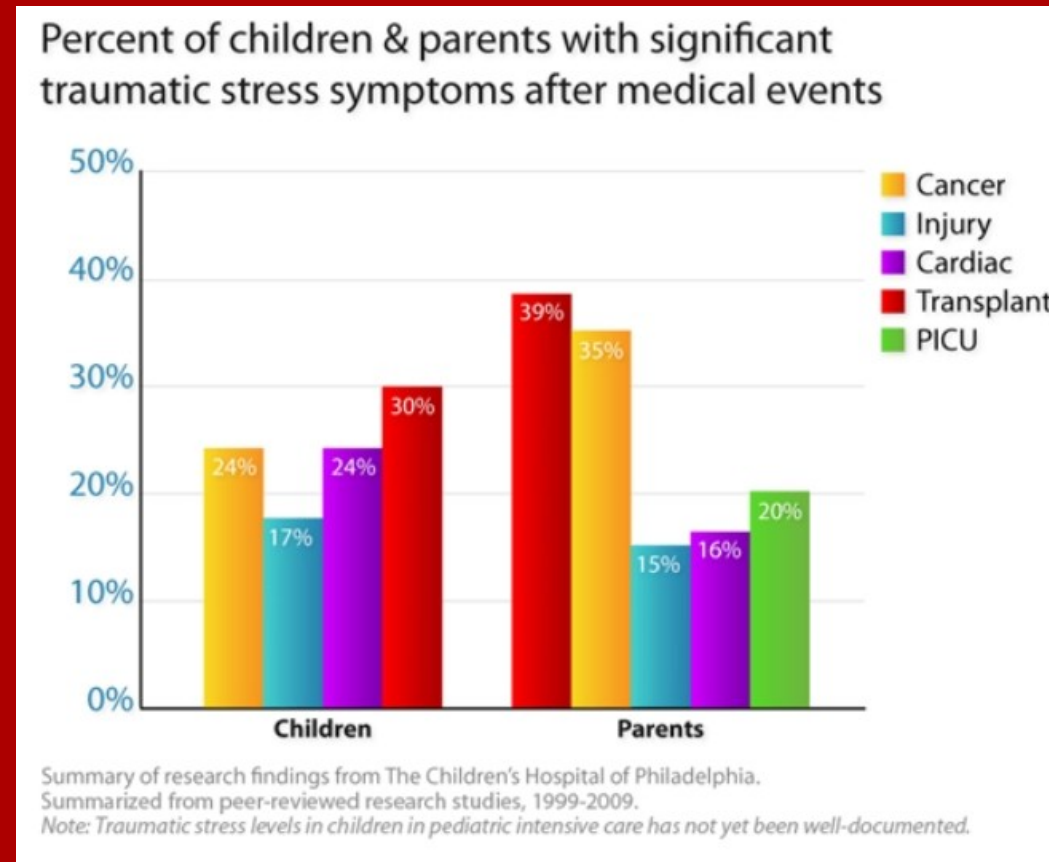
:In other words

Emotional reactions to scary medical stuff

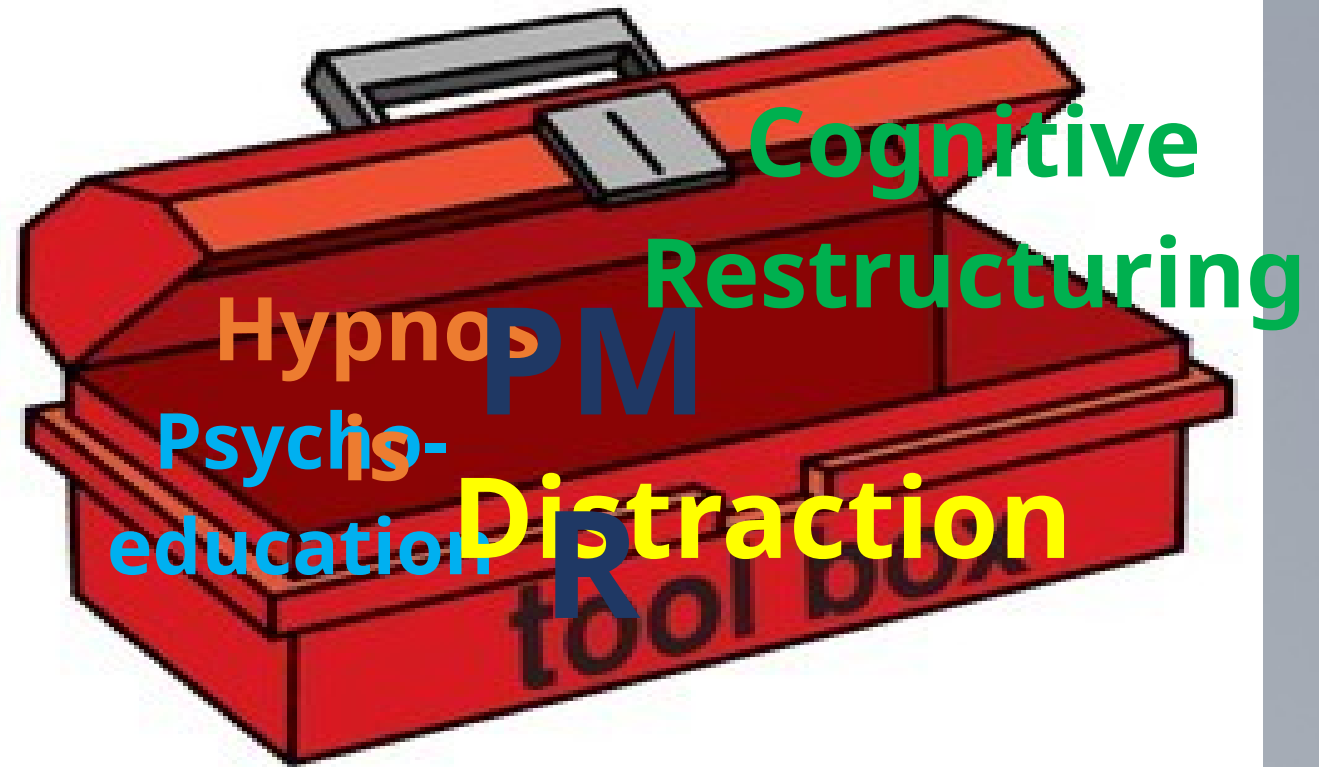
National Child Traumatic Stress Network. Medical Trauma. <https://www.nctsn.org/what-is-child-trauma/trauma-types/medical-trauma>. Accessed May 11, 2020



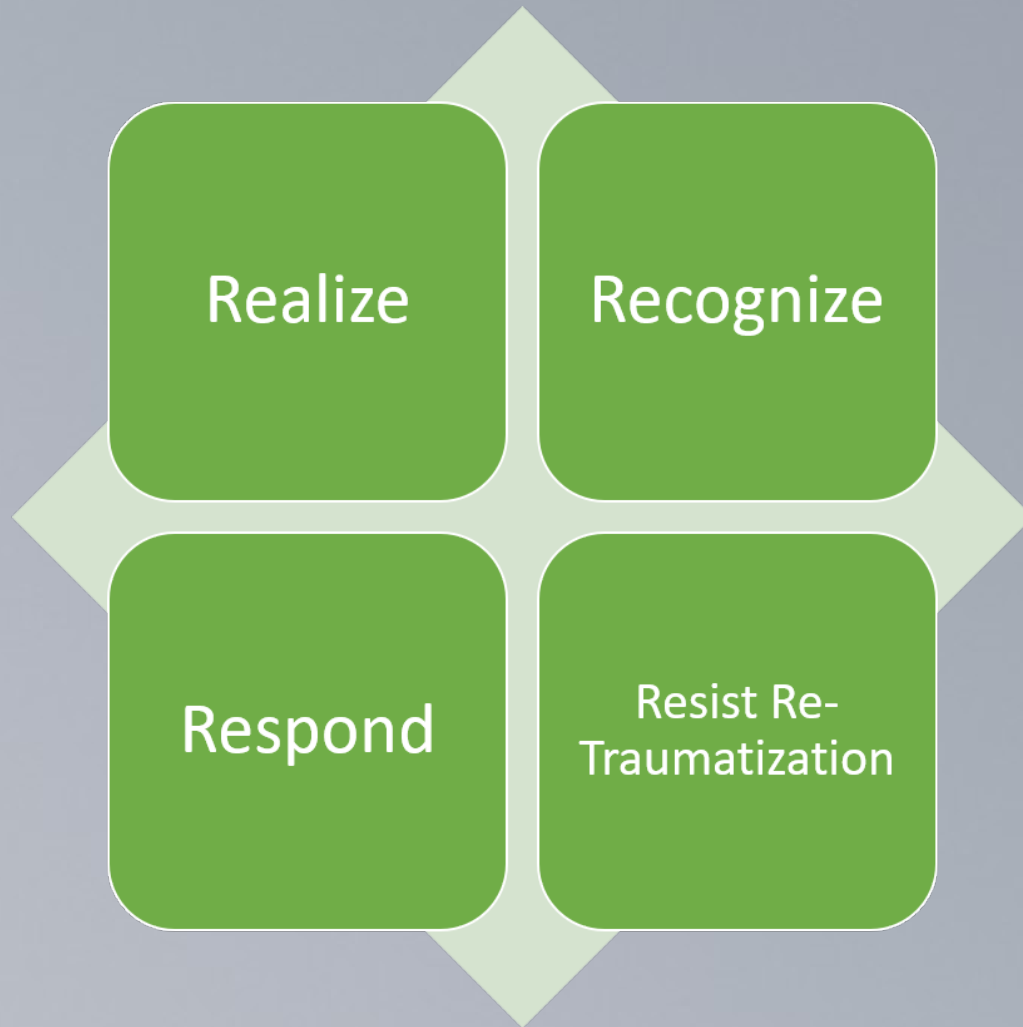
Prevalence of Medical Trauma



Pain Toolbox



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Trauma-Informed Pain Care

Program, organization, or system level

Realize the widespread impact of trauma and understands potential paths for recovery

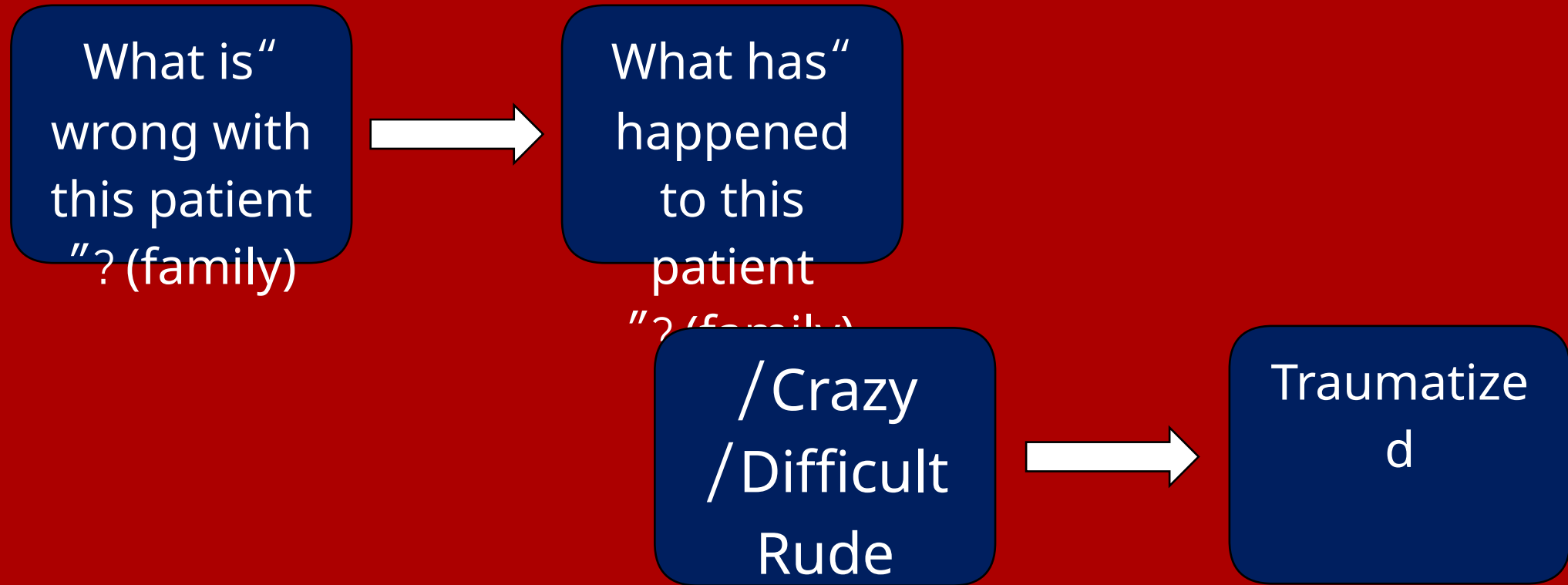
Recognize the signs and symptoms of trauma in clients, families, staff, and others involved with the system

Respond by fully integrating knowledge about trauma into policies, procedures, and practices

Seek to actively **resist re-traumatization**

Assessing and treating pediatric pain IS !providing trauma-informed care

Trauma-Informed Pain Care



Assessment of Pain

:Pain domains to assess

Intensity (worst, least, average, current) – numerical scale, faces

Frequency – persistent, most days, only with needle pokes

Duration – when pain began – hours, days, months, years

Location – head, stomach, legs, chest

Pain characteristics – stabbing, aching, throbbing, radiating

Pain-related impact – are there things pain gets in the way of?
? walk? talk

Trends in pain – What makes your pain worse? When is your pain the most
? manageable

Reaction to pain – worries, fear, externalizing bx, tears, hopelessness, helplessness, withdrawal



Assessment Tools

Essential that children, parents, and providers are all using the same language to talk about pain during oncology treatment

:Recommended assessment tools

(Pain Interference ;Pain Quality ;Pain Behavior) PROMIS Pain Measures

Wong-Baker FACES Pain Rating Scale

Pain Scale FLACC

Numerical Pain Rating Scale

Pain Catastrophizing Scale



	Scoring		
Categories	0	1	2
Face	No particular expression or smile.	Occasional grimace or frown, withdrawn, disinterested	Frequent to constant frown, quivering chin, clenched jaw
Legs	Normal position or relaxed	Uneasy, restless, tense	Kicking or legs drawn up
Activity	Lying quietly, normal position, moves easily	Squirming, shifting back and forth, tense	Arched, rigid, or jerking
Cry	No cry (awake or asleep)	Moans or whimpers; occasional complaint	Crying steadily, screams or sobs, frequent complaints
Consolability	Content, relaxed	Reassured by occasional touching, hugging, or being talked to; distractable	Difficult to console or comfort

Note: Each of the five categories Face (F), Legs (L), Activity (A), Cry (C), and Consolability (C) is scored from 0-2, which results in a total score between 0 and 10. From Merkel, Voepel-Lewis, Shayevitz, & Malviya (1997). The FLACC: A behavioral scale for scoring postoperative pain in young children. *Pediatric Nursing*, 23 (3) 293-297.

Face, Leg, Activity, Cry,
Consolability Scale -
FLACC

Wong-Baker FACES Pain
Rating Scale

Wong-Baker FACES® Pain Rating Scale



0

No Hurt



2

Hurts Little Bit



4

Hurts Little More



6

Hurts Even More



8

Hurts Whole Lot



10

Hurts Worst

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Instructions for Usage

Explain to the person that each face represents a person who has no pain (hurt), or some, or a lot of pain.

Face 0 doesn't hurt at all. Face 2 hurts just a little bit. Face 4 hurts a little bit more. Face 6 hurts even more. Face 8 hurt a whole lot. Face 10 hurts as much as you can imagine, although you don't have to be crying to have this worst pain.

Ask the person to choose the face that best depicts the pain they are experiencing.

Pain Treatment

!Not all pain is created equal or treated the same

Chronic pain – improve functioning, increase engagement in valued activities, improve quality of life

Acute and procedural pain – improve response to pain signals so as to not amplify signals and worsen pain, decrease pain experience
Best treated with a combined pharmacological and psychological approach



Cognitive-Behavioral Interventions

Psychoeducation

- Pain gate theory
- Biopsychosocial model

Cognitive reframing - identify unhelpful cognitions about pain and :reframe

- "There is nothing I can do to make my pain better"*
- "This pain will never end"*

Behavior modification/Skills training

- Distraction – active versus passive
- Relaxation skills
- PMR, diaphragmatic breathing, guided imagery



Hypnosis



Use of imagination and focus to reduce pain sensation and anxiety for children

Research supports the use of hypnosis for both procedural pain and chronic pain in children

Dr. Leora Kuttner – The Magic Glove Technique

Best for children 3 to 12 years old, (a fearful 14 year-old may also be responsive) with language adjusted to the developmental age of the child

Use with topical anesthetics such as EMLA . Apply the glove once the topical anesthetics has taken effect i.e. for EMLA, after 75 min

Geagea et al, 2023



Poke Plan

Structured tool that helps children and teens manage anxiety and pain during needle procedures by choosing coping strategies and creating a personalized plan

Complete this collaboratively

Support child/family in discussing with their medical team

If there is a choice, which arm, leg, or other body part would you like to use?

- ☐ Left arm ☐ Left leg
☐ Right arm ☐ Right leg
☐ Other: _____

Sitting in a comfortable position with people we trust really helps! What position do you want?

- ☐ On _____'s lap
☐ Next to _____
☐ Laying down ☐ Sitting up
☐ Something else: _____



There are a bunch of ways we can stop the ouch of a poke before it starts! If they are available, what would you like to use?

- ☐ Numbing cream
☐ Vibration
☐ Shotblocker



You already know how good you are at blocking out the world when you are focused on something you really like. It's like a superpower! What would you like to focus on before and during?

- ☐ Video: which one? _____
☐ Book
☐ Toy
☐ Music
☐ Talking to _____
☐ Something else: _____

Breathing is a great way to turn down pain signals and anxious feelings. As you take those good, deep breaths, do you want...

- ☐ Someone to breathe with you?
Who? _____
☐ To watch a breathing guide video?
☐ Nothing...I'll do it myself!



Some kids like to watch the poke and others like to pretend it isn't happening. Which works better for you?

- ☐ I want to watch
☐ I want to focus on something else: _____

Do you want to be told what is going on before and /or during the poke?

- ☐ Yes, before
☐ Yes, during
☐ No...I'd rather just pay attention to something else: _____

If you do want to be told when the needle goes in, what words do you want used to let you know?

- ☐ 1-2-3 count
☐ "Here it comes..."
☐ Something else: _____

Too many voices can feel overwhelming. Who do you want to talk, if anyone? Who would you like to be quiet?

People who talk: _____
People who stay quiet: _____

Your trusted adults are great supports! What would you like them to do to help you feel more calm and comfortable?

- ☐ Talk and distract me
☐ Rub my back ☐ Hold my hand
☐ Hold up a video to watch
☐ Something else: _____

Having something to look forward to really helps! What would you like to do / have after the poke? _____

And remember to remind everyone that it helps you if the adults

KEEP CALM :)

Working with Parents to Address Pediatric Pain

Parent coaching and co-regulation skills
Parent accommodation of pain behaviors, maladaptive coping
Modeling and reinforcement of relaxation and adaptive pain coping skills

Teaching advocacy skills

Tell your child's doctors and nurses when and where your child is experiencing pain, and encourage your child to do the same

Share with your child's medical team about their previous experiences with pain, as well as their pain plan



Trauma-Informed Pediatric Pain Intervention (TIPPI-R)

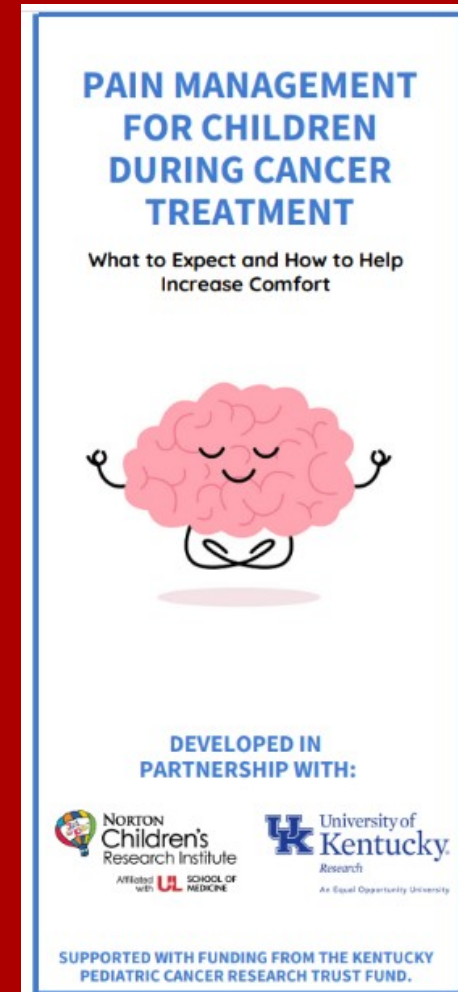
A standardized psychological intervention to teach foundational pain education and coping skills to mitigate traumatic stress associated with pain during oncology treatment

Developed using psychological pain theories and research related to pediatric pain management, in addition to feedback from content experts

Intended to be delivered at the beginning of oncology treatment to mitigate traumatic stress and poor pain coping

Protocol includes a patient and family pamphlet, a script for professionals working with children and families, resources for further practice of skills

Hayes et al., 2025



TIPPI-R Findings – Education about Pain and !!Pain Coping Strategies Works

TIPPI-R trailed in a multi-site, pilot RCT with 39 pediatric oncology patients and one of their caregivers

**Caregivers who received the TIPPI-R intervention reported
:greater use of pain management strategies with their child**

Total pain-management strategy use: PE 3.16 (95% CI 0.70, 5.61), $p=.013$

Psychological/physical strategy use: PE 2.49 (95% CI 0.38, 4.59), $p=.022$

Pharmacological strategy use: PE 0.63 (95% CI 0.11, 1.16), $p=.020$

Confidence in pain management, pain catastrophizing, and distress were not significantly improved with TIPPI-R



Next Steps in Tackling Pediatric Pain



- **Acknowledge** the areas for growth related to assessment and treatment of pediatric pain.



- **Ongoing research** to tailor and test feasible and evidence-based pain treatments for children with cancer and their families.



- **Advocacy for funding** to not only cure pediatric cancer, but to improve quality of life for these children and their families!



Please reach out with questions:
Lauren Hayes Austin lauren.hayes@louisville.edu
***** Heather Jones**

Pediatric Pain Resources



NCTSN

The National Child
Traumatic Stress Network

THE COMFORT ABILITY®



Meg Foundation



solutions for kids in pain
pour la douleur chez les enfants



DALHOUSIE
UNIVERSITY

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