Incorporating the Neurosequential Model of Therapeutics into a Children's Advocacy Model

The Center for Child Protection, a nationally accredited NMT site
2018 TRAVIS COUNTY CHILD PROTECTION TEAM

- Law Enforcement
  19 Jurisdictions
- Child Protective Services
- District Attorney’s Office
- Medical
- Children’s Advocacy Center
BRIEF MULTIDISCIPLINARY TEAM HISTORY

- **1989 – 1990:** 3 child fatalities
- **1989:** Applied for 501(c)3 status
- **1990:** Started with 5 agency partners
- **1991:** Law enforcement, CPS and a prosecutor moved into CPS offices
- **1992:** Provided first service (forensic interview) to a child via victim services
- **1994:** Hired first therapist
- **1995:** Hired first forensic interviewer
- **2007:** Started what became our Family Advocate Program
- **2008:** Moved into our new facility
• **1994:** Hired first therapist
• **1999:** Began to develop a clear clinical philosophy
• **2008:** Moved to our new facility; increasing therapy rooms from 2 rooms to 6 rooms and 2 group rooms
• **2009:** Miriam started training with Sidney
• **2010:** Sidney’s first appearance in court
• **2016:** Clinical staff more than doubled since 2008
• **2017:** Completed Neurosequential Model of Therapeutics Certification
• **2017:** Mickler joined the Center with
Center for Child Protection – A Children’s Advocacy Center

Our Core Service
- Forensic Interviews

Child Abuse Medical Evaluations
- Medical evaluations at the CCP medical clinic – conducted by the Dell Children’s Medical Center’s medical team that specializes in child abuse

Clinical Program
- Family Advocate Program
- Intake Program
- Therapy Program
- Clinical Intern Program
Developing a Clinical Foundation

• Expertise in Child Abuse
• Training in Trauma Informed Care
• Expertise in Trauma
• Community Need
The Neurosequential Model of Therapeutics (NMT) is a developmentally informed, biologically respectful approach to working with at risk clients. The NMT is not a specific therapeutic technique or intervention, it is a way to organize the client’s history and current functioning to optimally inform the therapeutic process.”

-Dr. Bruce Perry
NMT Certification: Is it for you?

- Cost
- Time Commitment
- On-going Training Requirements
Incorporating the Neurosequential Model of Therapeutics (NMT) at the Center for Child Protection, a nationally certified NMT site

- Dr. Bruce Perry is the Senior Fellow of the ChildTrauma Academy, a not-for-profit organization based in Houston, TX (www.ChildTrauma.org)
- Dr. Perry is the author, with Maia Szalavitz, of *The Boy Who Was Raised As a Dog.*
- Dr. Perry is an active teacher, clinician, and researcher in children’s mental health and neurosciences holding a variety of academic positions.
COMPONENTS OF THE NEUROSEQUENTIAL MODEL OF THERAPEUTICS
Brain organization and functioning
Neurodevelopment
Relationship and attachment
Stress, distress and trauma
6 R’s of engagement

The Core Concepts of NMT
## Brain Organization and Functioning

<table>
<thead>
<tr>
<th>Brain Region</th>
<th>Functions</th>
<th>Critical Period</th>
<th>Experiences needed</th>
<th>Functional Maturity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cortex</td>
<td>Thinking, Planning, Reasoning, Creativity, &amp; Sensory Integration</td>
<td>3 - 6 years</td>
<td>Complex conversations, social interactions, exploration, safe, fed, secure</td>
<td>Adult</td>
</tr>
<tr>
<td>Limbic</td>
<td>Emotion, Attachment, Memory, &amp; Sensory Integration</td>
<td>1 - 4 years</td>
<td>Complex movement, social experience, narrative</td>
<td>Puberty</td>
</tr>
<tr>
<td>Diencephalon</td>
<td>Sensory Motor &amp; Sensory Processing</td>
<td>6 months - 2 years</td>
<td>Complex rhythmic movement, simple narrative, affection</td>
<td>Childhood</td>
</tr>
<tr>
<td>Brain Stem</td>
<td>State Regulation &amp; Sensory Processing</td>
<td>In utero – 9 months</td>
<td>Rhythmic, patterned input, engaged caregiving</td>
<td>Infancy</td>
</tr>
</tbody>
</table>
# Key Principles of Brain Organization & Structure

<table>
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<tr>
<th>Abstract/ Cognition</th>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuroendocrine / Hypothalamic</td>
<td>Dissociative Continuum</td>
<td>Arousal Continuum</td>
<td>Primary Sensory Integration</td>
<td></td>
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<td>Fine Motor Skills</td>
<td>Feeding/ Appetite</td>
<td>Sleep</td>
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<td>Attention/ Tracking</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Temperature regulation/ Metabolism</td>
<td>Extraocular Eye Movements</td>
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<td></td>
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<tr>
<td>Cardiovascular</td>
<td>Autonomic/ Regulation</td>
<td></td>
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Neurodevelopment
**Relationship and Attachment**

- **Somatosensory cues**
  - Primary caregiver ↔ Decrease physiological distress
  - Sensation of pleasure and safety
  - Release of hormones and "calmer" regulation of key stress related neural systems

- **Fear and confusion**
  - Activation of key stress related neural systems

  **Somatosensory cues**
  - Primary caregiver → Increase physiological distress

  **LC NE**
The intimacy barrier

Early experiences that are positive, safe & nurturing promote engaging in interactions that range from casual to intimate and respond accordingly in relational context.

Early experiences that are fearful and threatening have the goal of safety, which restricts the risk they are willing to take in relationships.
Stress

- Unpredictable
  - Severe
  - Prolonged

- Predictable
  - Moderate
  - Controlled

Vulnerability  Resilience

ACUTE RESPONSE TO TRAUMA

- Terror
- Fear
- Alarm
- Vigilance
- Calm

Dissociation or Resilient

Vulnerable with supports
Vulnerable few supports
Normal with supports

Traumatic Event

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WHERE A CLIENT IS

Calm  Alert  Alarm  Fear  Terror
## How States Become Traits

<table>
<thead>
<tr>
<th>Increasing Threat</th>
<th>Adaptive Response</th>
<th>Hyperarousal Continuum</th>
<th>Dissociative Continuum</th>
<th>Brain Areas</th>
<th>Cognition</th>
<th>Mental State</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Rest</td>
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<td>Neocortex</td>
<td>Abstract</td>
<td>CALM</td>
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<tr>
<td></td>
<td>Vigilance</td>
<td>Crying</td>
<td>Avoidance</td>
<td>Subcortex</td>
<td>Concrete</td>
<td>AROUSAL</td>
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<tr>
<td></td>
<td>Freeze</td>
<td>Resistance</td>
<td>Compliance</td>
<td>Limbic</td>
<td>Emotional</td>
<td>ALARM</td>
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<tr>
<td></td>
<td>Flight</td>
<td>Defiance</td>
<td>Numbing</td>
<td>Midbrain</td>
<td>Reactive</td>
<td>FEAR</td>
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<td></td>
<td>Fight</td>
<td>Aggression</td>
<td>Fainting</td>
<td>Brainstem</td>
<td>Reflexive</td>
<td>TERROR</td>
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**Stress, Distress and Trauma: States become Traits**
THE 6 R'S OF ENGAGEMENT

- Relational (safe)
- Relevant (developmentally matched)
- Repetitive (patterned)
- Rewarding (pleasurable)
- Rhythmic (resonant with neural patterns)
- Respectful (child, family, culture)
**Typical neuron:**
many connections

**Neuron damaged by toxic stress:**
fewer connections

**THE METRIC REPORT**
**WHERE the client has been...**
A history of the client that includes the client’s adverse experiences and relational health from intrauterine and beyond.

**WHERE the client is...**
Review of the client’s current functioning. The functional brain map allows the therapist to visually see where the client’s deficits are as well as identify where the client’s strengths are.

**WHERE the client is going...**
Process of determining the sequence of appropriate interventions that will best meet the unique needs of the client.
WHERE A CLIENT HAS BEEN

"…for the developing child, safe, predictable, nurturing and repetitive experiences can help express a full range of genetic potentials. Unfortunately, however, it is also when the organizing brain is most vulnerable to the destructive impact of threat, neglect and trauma."

- Dr. Bruce Perry
WHERE A CLIENT HAS BEEN:
The Metric Report – Developmental History

- Intrauterine and beyond
- Adverse experiences by history + Relational health by history = An estimate of the timing and severity of developmental risk

**Developmental History**

- Relational Health
- Adverse Experiences

**Developmental Risk**

- High Risk
- Moderate Risk
- Low Risk
WHERE A CLIENT IS

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| Suck/Swallow/Gag           | Attention/Tracking     |
| Temperature regulation/Metabolism | Extraocular Eye Movements |
| Cardiovascular             | Autonomic/Regulation   |

WHERE A CLIENT IS: Metric Report – Brain Map
WHERE A CLIENT IS:
Metric Report – Brain Map

Current Relational Health

- Enriched
- Adequate
- Impoverished

Current: 33
HYPERAROUSAL AND DISSOCIATION

1) NOREPINEPHRINE
   locus coeruleus
2) DOPAMINE
   nigrostriatal/mesolimbic
3) GABA
4) SEROTONIN

1) OPIOID PEPTIDES
2) SEROTONIN
3) DOPAMINE
   mesolimbic/mesocortical

Threat
(real or perceived)

Arousal Continuum

Dissociative Continuum

ADAPTATION
AROUSAL AND DISSOCIATION
Alcohol and Substance Abuse
Depressive & affective symptoms
Trauma core symptoms
Attachment
Motor Coordination
Sexual Behavior
Empathy & Feelings
Appetite
Sleep
Blood Pressure
Heart Rate
Body Temperature
Reasoning
Guilt & Shame
Reflecting
Thinking
Cortical
Limbic
Diencephalon/Cerebellum
Brainstem
WHERE A CLIENT IS

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The research on the most effective treatments to help child trauma victims might be accurately summed up this way: what works best is anything that increases the quality and number of relationships in the child's life.

- Dr. Bruce Perry
RECOMMENDATIONS
Where a client is going
WHERE A CLIENT IS GOING:

1. Sensory Integration
2. Self Regulation
3. Relational
4. Cognitive
5. Cortical Modulation Ratio
WHERE A CLIENT IS GOING

4 DOMAINS OF RECOMMENDATIONS:

1. Sensory Integration
2. Self Regulation
3. Relational
4. Cognitive

July 2016
WHERE A CLIENT IS

Biologically respectful assessment of current functioning
Seeds to plant…

Repetitive, rhythmic, patterned behavior

Trauma is not a one size fits all.

Think outside the box.

Utilize developmentally appropriate interventions

Sensory based bottom up regulation

With every interaction, you plant a seed of what could be.

Patient, Parallel, Present, Attuned

Present is filtered through the past

States become traits

Regulate, Relate, Reason
HOPE

IT'S NOT ABOUT WHAT IT IS, IT'S ABOUT WHAT IT CAN BECOME.

Dr. Seuss, The Lorax
Questions? Contact us!

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