Practice Day:
Model Case, 
Your Case

Jessica Richards, MS, LSW, LCSW
IFECMHS and RFP II
www.the-nrf.com
Outline

- Sleep overview
- Model Case- background, Step 1
- Break (about 10:30)
- Model Case- Step 2 and 3
- Lunch
- Applying the NRF to your case
- Break
- Applying the NRF to your case
Integrating Cultural Competence with the NRF

I would like to know:

What are your Critical Questions that you need to know in order to proceed with your learning process through the day?

Lingering thoughts?
Things to be clarified?
Questions #1 & 2

1. Memories are based upon:
   a. Recall of the stories we can tell
   b. **Sensory fragments***

   *88 to 100%, +12%

2. Procedural enactments are:
   a. Verbal narratives
   b. **Non-verbal narratives***
   c. Acting older than one is
   d. Acting younger than one is

   *88 to 82%, -6%
Confidentiality Pledge

- We are honored to share a family’s struggles
- We respect the journey
- We commit to keeping privacy to this day, in this room, for these families
- We use the descriptive terms such as “the baby in the Blue Zone and the toddler in the Red Zone” to keep a collegial conversation alive
How Much Sleep?

• 0-4 months
  – 16-20 hours per 24 hour day
  – Feeding every 2-3 hours
  – Awake 1-3 hours
  – Sleep is about equally split day vs night until 3-4 months
  – 3-5 naps

• 4-6 Months
  – 14-16 hours total
  – By four months some babies may sleep 4-10 hours straight at night, and take 2-3 naps
  – 2-3 naps
How Much Sleep?

• 6-12 months
  – 14-15 hours total
  – 2 naps

• 12-18 months
  – 13-14 hours
  – 1-2 naps

• 18 months-2 years
  – 13-14 months
  – 1 nap

• 2-3 years
  – 12-14 hours
  – 1 nap

• 3-5 years
  – 11-13 hours
  – 1 nap (drop by 5)

http://www.parents.com/baby/sleep/basics/age-by-age-guide/
Stages of Sleep

• 0-6 months (divided half REM and half non-REM)
  – Stage 1: Drowsy falling asleep
  – Stage 2: REM or active sleep. Infant may move, twitch, move eyes or have irregular breathing
  – Stage 3: Light sleep, breathing more regular and movement stops
  – Stage 4 and 5: Deep sleep (non REM) quiet sleep with no movement and regular breathing

https://www.healthychildren.org/English/ages-stages/baby/sleep/Pages/Phases-of-Sleep.aspx
3 Key Concepts

• Toxic stress disrupts early brain networks

• Relational “serve and return” process builds strong circuits

• Brain architecture is built upon lived experiences

3 Key Steps

• #1 Reduce/eliminate toxic stress in relationships (roots)

• #2 Improve the quality of engagement (trunk)

• #3 Support individual differences & remediation of brain networks (branches)
The Neurorelational Framework's Three Clinical Steps

C. Lillas PhD (adapted from Lillas & Turnbull, 2009) with CA Hapehyn MD
Supported by Nathaniel Osgood PhD, University of Saskatchewan and the Interdisciplinary Training Institute

Top Down
- Executive - movement and adaptability
- Relevance - emotions and memory

Bottom Up
- Sensory - all sensations
- Regulation - bodily processes

Interactive Regulation - Levels of Engagement
- Narrow Green Zone
- Wide Green Zone
- Blue Zone
- Red Zone

24 hr Sleep-Awake Cycle
- Drowsy
- Deep or Active Sleep
- Red Zone

Seed - Genetics

September 2015
Art by J Christensen PhD
Dandelion or Orchid?
Step #1 Assessment Principle

- **Assessment is** Intervention and **Intervention is** Assessment
- The NRF is both an Assessment and an Intervention Process
- The NRF can be used both sequentially and non-sequentially
Four Brain Systems: Macro & Micro Levels

**EXECUTIVE**
- Motor planning
- Plan & sequence
- Theory of mind
- Language

**SENSORY**
- Emotions
- Memories
- Meaning-making

**REGULATION**
- Nutrition
- Sleep/awake cycle
- Stress & Stress Recovery
- Sensations
- Processing & Modulation
- Speech

**RELEVANCE**
- Child Welfare

**Early Care & Education**

**Developmental Disabilities**

**Mental Health**

**Basic Needs/Medical**

Lillas & Turnbull, 2009
### Possible Regulation and Stress Response Correlates of Interpersonal Modes Across the Lifecycle

<table>
<thead>
<tr>
<th>Aroused State and Interpersonal Mode</th>
<th>Just Right/Alert Processing: Stability with Flexibility</th>
<th>Too Fast/Flooded: High Demand</th>
<th>Too Slow/Hypoalert: High Detach</th>
<th>Too Vigilant/Hyperalert: High Compliance or Control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EYE CONTACT</strong></td>
<td>Bright, shiny eyes looking directly at other/object — gleam!</td>
<td>Eyes may be open / squinted / closed</td>
<td>Glazed eyes, looking through rather than at the other/object</td>
<td>Eyes are wide open</td>
</tr>
<tr>
<td></td>
<td>Gaze aversions for modulation of intensity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Appears to actively process information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FACIAL EXPRESSION</strong></td>
<td>Joy, particularly smiles</td>
<td>Wide, open mouth</td>
<td>Raised eyebrows, especially with inside corners turned up</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Neutral</td>
<td>Anger, disgust</td>
<td>Trembling lips or mouth</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Can express a full range of emotions</td>
<td>Distress</td>
<td>Facial expressions of pain, grimace</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Modulation with all emotions</td>
<td>Grimace</td>
<td>Mouth wide open (starke)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TONE OF VOICE</strong></td>
<td>Melody and prosody</td>
<td>High-pitched cry</td>
<td>High-pitched nasal, “sing-song” voice</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Modulation of tone</td>
<td>Loud</td>
<td>Moaning or groaning to indicate pain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fluctuations of tone</td>
<td>Horrible</td>
<td>Elevated tone</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Laughing</td>
<td>Gruff</td>
<td>Quavers or fluctuates rapidly</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BODY POSTURE, MOVEMENT, AND GESTURES</strong></td>
<td>Relaxed with good muscle tone</td>
<td>Finger splaying, arching</td>
<td>Tense or rigid body postures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stability</td>
<td>Increased muscle tension in posture and in face</td>
<td>Cowing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Balance</td>
<td>Constant motion</td>
<td>Rapid, repetitive body movements (wringing hands, jiggling foot)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moves arms and legs into midline</td>
<td>Demands space by pushing, shoving, intruding on others</td>
<td>Trembling hands</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coordinated movements</td>
<td>Biting, hitting, kicking, jumping</td>
<td>Clinging</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Varies according to rhythmic cues and downsways</td>
<td>Poor balance; falls, trips a lot</td>
<td>Flailing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Body molds into other’s</td>
<td>Bumps into things</td>
<td>Grabbing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RHYTHM AND RATE</strong></td>
<td>Fluctuating up and down</td>
<td>Fast</td>
<td>Fast</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Midrange tempo</td>
<td>Impulsive</td>
<td>Jeeky</td>
<td></td>
</tr>
</tbody>
</table>
Quick review
"Just Right"
Bright, Shiny eyes
Alert

Tantrum
“Fit”

Rage/
Flooded

Anxious
MUTE
Panic

Adapted by Jessica Richards based on Lillas & Turnbull, 2009
Spacey
Tuned out
In own world
Frozen

Anxious
Fear
Panic

"Just Right"

Fussy
Upset
Tantrum
Rage/Flooded
Colored Zones are the background to Emotional Regulation

Possible Regulation and Stress Response Correlates of Interpersonal Modes Across the Lifecycle

**EYE CONTACT**
- **High**: Arms wide open, eyes bright, smiling, direct eye contact
- **Low**: Arms crossed, eyes closed, avoiding eye contact

**FACE**:
- **High**: Smiling, open eyes
- **Low**: Staring, closed eyes, avoiding eye contact

**TONE OF VOICE**
- **High**: Loud, fast, high-pitched
- **Low**: Soft, slow, low-pitched

**BODY POSTURE, MOVEMENT, AND GESTURES**
- **High**: Open, relaxed, body in front of speaker
- **Low**: Hunched, defensive, body turned away

**RHYTHM AND RATE**
- **Fast**: Quick, rapid
- **Slow**: Slow, delayed

**Emotions Color Wheel**

- **Bored**: Cranky, agitated, frustrated, upset, irritable, upset
- **Disgusted**: Disgusted, repulsed, distasteful
- **Afraid**: Scared, frightened, nervous, anxious
- **Happy**: Enjoying, happy, enthusiastic, excited
- **Sad**: Depressed, sad, melancholy, sorrowful
- **Confused**: Confused, uncertain, puzzled, doubting
- **Surprised**: Surprised, amazed, astonished, amazed

Copyright © 2009 do2learn.com
How do we identify toxic stress?

Recognize stress responses that are too frequent, too quick / intense, too long

4 Toxic Load Stress Patterns
1. Stress responses that occur too frequently and too quickly
2. Inability to adapt to “normal” challenges and transitions
3. Prolonged stress responses that take too long to recover (more than 10 to 20 mins)
4. Inability to recover from stress response back to baseline health (healthy sleep cycle, healthy awake state)

McEwen
Once a toxic stress pattern is identified, start looking ahead at the treatment team goals! *(Steps are both sequential and non-sequential)*

To ensure Sleep and increase Green Zone (step #1)

To work on the first 3 levels of engagement when the relationship is Green (step #2)

To identify Triggers & Toolkits for Sleep and Green Zone (step #3)
NRF Intervention Principles

Step #1

• **Always start at the earliest point in the breakdown.**
  – If sleep is disrupted, begin with addressing this aspect.
  – If green zone is disrupted, begin with this goal as well.
  – When green, work on the first 3 levels of engagement

• This principle applies to all three steps. Step #1 is the First Level of Engagement and the First Brain System, Regulation.
Parenting/Intervention Guiding Principles

- Once one or both of you are in a stress response, the goal is not to have this be a teachable moment, the goal is to recover back to the green zone.
- If the family uses “time-outs” and the child is not recovering from his or her red zone behavior, this is usually a sign that the child cannot self-regulate and needs more co-regulation practice.
- Once you both are green, thought can be put into the logical consequence of an unacceptable behavior.
Assessment Principle

• Assess the Different Dimensions of Baseline Health Behavior According to:
  
  – **Duration**: the long and the short of the behavior
  – **Intensity**: the high and the low of the behavior
  – **Frequency**: the fast and the slow of the behavior

This is critical to establish at the beginning of your intake and early phase of treatment so you know if you are making any gains!

*Lillas & Turnbull, 2009, page 160*
<table>
<thead>
<tr>
<th>Heart Under Coordination</th>
<th>Hand Under Coordination</th>
<th>Head Under Coordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responding/Validating Engagers</td>
<td>Guiding/Directing Doers</td>
<td>Collaborating/Reflecting Thinkers</td>
</tr>
<tr>
<td><strong>Heart Under Stress</strong></td>
<td><strong>Hand Under Stress</strong></td>
<td><strong>Head Under Stress</strong></td>
</tr>
<tr>
<td>Give too much Over accommodate</td>
<td>Demand too much Dominate and control</td>
<td>Detach too much Dismiss and ignore</td>
</tr>
<tr>
<td><strong>Body Under Stress</strong></td>
<td><strong>Body Under Stress</strong></td>
<td><strong>Body Under Stress</strong></td>
</tr>
<tr>
<td>Hypervigilance Fear, Anxiety</td>
<td>Crying, Anger, Rage Hyperactivity, Mania</td>
<td>Shut Down, Glazed Depression, Dissociation</td>
</tr>
</tbody>
</table>

Adapted from Lillas & Turnbull, © 2009
<table>
<thead>
<tr>
<th>Heart 1s</th>
<th>Under Coordination</th>
<th>Under Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm Empathic Connect Repair</td>
<td>Functional helper Share info. Make contact Cross-sector communication</td>
<td>Overly accommodating Overly controlling Anxious to fix things Dysfunctional rescuing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hand 2s</th>
<th>Under Coordination</th>
<th>Under Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assertive Directive, action oriented</td>
<td>Take the lead Confront Stand up Notice and share differences</td>
<td>Overly demanding Hostile attack Blaming the victim Blaming the system</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Head 3s</th>
<th>Under Coordination</th>
<th>Under Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral Reflective Problem-solve Dr. Connie Lillas</td>
<td>Take responsibility Learn, ask, &amp; notice the impact</td>
<td>Overly detached Overly dismissive Passive-aggressive anger Denial Denial of differences across domains Passive avoidance Antagonistic avoidance</td>
</tr>
</tbody>
</table>

Dr. Valerie Batts

Dr. Connie Lillas
NRF Guiding Principles

• **During assessment in Step #1, map out the Duration, Intensity, and Rhythm (DIR) of the stress zones during the awake cycle.** This establishes your baseline so that you know if you are making any progress or not. Revisit your baseline parameters at least every three months.

• **Always start at the earliest point in the breakdown.** If sleep is disrupted, begin with addressing this aspect. If green zone is disrupted, begin with this goal as well. This principle applies to all three steps. Step #1 is the First Level of Engagement and the First Brain System, Regulation.
NRF Guiding Principles

• *In the regulation system guiding priorities are intervention for sleep, feeding, and other physical health issues that must be addressed while moving forward.*
Parallel Process

• Important information about how this family impacts my stress levels (step #1)

• How does this child/parent impact my relational style?
  – Brings out my Heart/Hand/Head at my best
  – Can stimulate my Heart/Hand/Head at my worst
Parallel Process

• My tendency Combo zone
• Easy family to engage with largely Green
• Pulled toward combo if client was SM in session
• Family brings out my warm, empathic heart
• A’s age and parents’ anxiety and urgency pulls out my structured hand
• When client and parents are under stress I am prone to Combo if I don’t utilize my toolkit
Step #2 Levels of Engagement

“Serve and Return” on All Levels
Step 2: Levels of Engagement

**Levels of Engagement**

**Level 7.** When sharing feelings, able to make-sense and solve problems together (by 36 to 48 months)

**Level 6.** When reading cues, able to share feelings with others through pretend play and/or by talking (by 24 to 36 months)

**Level 5.** When in a flow, able to expand and read non-verbal emotional & gestural cues (by 13 to 18 months)

**Level 4.** When sharing joy, able to create a continuous back and forth flow of communication ("circles") (by 9 months)

**Level 3.** When making comforting contact, able to share joy & fall in love (by 5 months)

**Level 2.** When calm, able to make visual contact (eye contact/look at faces), or auditory contact (vocalize or sing together), or movement contact (rock together), or tactile contact (cuddle together), or olfactory contact (smell together) that you both find comforting & connecting (by 3 months)

**Level 1.** Getting Calm (Green Zone) Together (by 3 months)

Adapted SE Milestones by C Lillas, 2014

From Greenspan, 1985; Greenspan & Wieder, 1998; Axis V from the Diagnostic Classification (R): 0-3 (2005)
Assessment & Intervention
Guiding Principles – Step #2

• Is there enough stress recovery (green zone) and joy in your dyad so that you can quickly recover?
  – Green zone and joy provide resilience to get through the tough moments and to get back on track.
  – If not, then the more chances you are in a ramping-up, opposing, or chaotic challenging pattern.

• Always match the developmental age of your child, not the chronological age!

• If you are mismatching the ages your expectations will not match your child’s abilities, and it will fuel the challenging stress patterns in your home!
## PARENT-CHILD RELATIONSHIP MILESTONES

**Child:** ______________  **Caregiver:** ______________  **Examiner:** ______________  **Date:** ________  **Diagnosis:** ______________

<table>
<thead>
<tr>
<th>Place an X in the box that matches the milestone and achievement levels</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age appropriate under all conditions, including stress, with a full range of emotions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age appropriate but vulnerable to stress and/or constricted range of emotions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has capacity but not at age appropriate level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inconsistent/needs sensorimotor support and structure to function at this capacity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barely evidences capacity even with support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has not reached this level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Functional Capacities

#### BOTTOM-UP

<table>
<thead>
<tr>
<th>Level 1. Getting Calm (Green Zone) Together (by 3 months)</th>
<th></th>
<th></th>
<th></th>
<th>X</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>These functions are built upon the capacity to be calm together</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level 2. When calm, able to make visual contact (eye contact/look at faces), or auditory contact (vocalize or sing together), or movement contact (rock together), or tactile contact (cuddle together), or olfactory contact (smelling together) that you both find comforting &amp; connecting (by 3 months)</th>
<th></th>
<th></th>
<th>X</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Level 3. When making comforting contact, able to share joy &amp; fall in love (by 3 months)</th>
<th></th>
<th></th>
<th></th>
<th>X</th>
<th></th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Level 4. When sharing joy, able to create a continuous back and forth flow of communication (“circles”) (by 9 months)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>X</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Level 5. When in a flow, able to expand and read non-verbal emotional &amp; gestural cues (by 13 to 18 months)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>X</th>
</tr>
</thead>
</table>

#### TOP-DOWN

<table>
<thead>
<tr>
<th>Level 6. When reading cues, able to share feelings with others through pretend play and/or by talking (by 24 to 36 months)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>X</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Level 7. When sharing feelings, able to make-sense and solve problems together (by 36 to 48 months)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>X</th>
</tr>
</thead>
</table>

DIR® Institute adapted from the DMIC, ICDL Press

Original functional levels from ICDL’s FEDL; adapted language & organization by Connie Lillas
Parallel Process

• Important information about how this family impacts my levels of engagement (step #2)
  – During collateral sessions, up to level 7
  – With clt, up to level 6 initially with support

• How far up the levels of engagement ladder can you get with the parent? The child?
Rody licks- quiet and loud
Intervention Guiding Principles
Step #1, Bottom-up

- Often, talking during a stress response (a top-down strategy) only makes it “worse” increasing the intensity and the duration of the stress response

- Bottom-up strategies use your child’s and your own individualized sensory preferences for stress recovery back to green

- Bottom-up strategies experiment with giving the right “dose” of a sensory preference in terms of duration, intensity, and frequency
Sensory motor strategies

Acute: simple and immediate that can be done with very little effort

• Body squeeze (wrap arms around, squeeze) with or without...rocking (turtle)

• Rocking

• Heavy or weighted blanket placed over body

• Music ear buds; have favorite song ready to go

• Vial of favorite aromatherapy oil in purse/pocket

• Favorite chewing gum in pocket

• Walking
Sensory motor strategies

Daily rhythms: am, afternoon, pm
- Deep breathing throughout the day (e.g., balloon, pretzel, star)
- Calm music playing during transitions; music signals transitions
- Certain routines during recess that embody sensory preferences (e.g., swings, monkey bars, sand box)
- Riding bike after school
- Warm bath; warm milk
- Being read to at night while tucked in
- Hugging lovey – e.g., lavender scented plush toy that can be heated up and hugged
- Soft nightlight
Sensory motor strategies

Weekly rhythms:
- Yoga/meditation class
- Sensorimotor therapy with an OT
- Playing a team sport
- Working out (e.g., swimming, gym)
- Neurofeedback twice a week
- Cranial-sacral therapy
- Massage
- Drumming
- Dancing
Bouncing on Rody
Mommy is Rody
Elephant kissie
Snake is going to get you
Big Yell! Aggressor/victim
Missing Rody
Grumpy and disappointed
Intervention Guiding Principles
Step #1, Top Down

- For parents and therapists
- Once back to solid green, if there are top-down capacities, there can be a conversation if you are calm and curious enough about what your child’s trigger was and can reflect on your own trigger(s)

- When having a “conversation”
  - Be curious about your child’s trigger(s)
  - First, validate your child’s experience even if you don’t agree with it (heart)
  - Summarize your child’s experience in terms of his/her needs (head)
  - Express your own (adult – therapist/parent/grandma) experience in terms of your feelings and needs (own heart)
  - Collaborate in problem solving (head)
NRF Guiding Principles

• When working “bottom-up” for zone (arousal) regulation begin with finding the child’s individual sensory preferences and triggers.

• For treatment, match the sensory preference with the Duration, Intensity, and Rhythm (DIR) for the child’s nervous system that promotes sleep, the green zone, and stress recovery.
NRF Guiding Principles

• Sensory thresholds vary with each child and with each context. Matching or countering the child’s zones of arousal are guided over time, with experimentation, and by watching the effect on the child’s ability to regulate to sleep and to the green zone.

• The child’s arousal patterns and procedural history are your guide, not the particular “treatment” or EBT you are using. Individual neurodevelopment that is trauma informed trumps the EBT. Practice flexibility with stability.

• Change does not occur in a straight line. Always leave the door open for a family to return to you.
## Matching or Countering the Sensory Modality

<table>
<thead>
<tr>
<th>Low Intensity, Slow Rhythm</th>
<th>High Intensity, Fast Rhythm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Match</strong></td>
<td><strong>Match</strong></td>
</tr>
<tr>
<td>Lower lights and sounds</td>
<td>Increase lights and sounds</td>
</tr>
<tr>
<td>Lower tone of voice</td>
<td>High pitched tone of voice</td>
</tr>
<tr>
<td>Slow down vocal rhythm</td>
<td>Rapid vocal rhythms</td>
</tr>
<tr>
<td>Slow down facial expression</td>
<td>Bright facial expressions</td>
</tr>
<tr>
<td>Slow movement</td>
<td>Fast movement</td>
</tr>
<tr>
<td><strong>Counter</strong></td>
<td><strong>Counter</strong></td>
</tr>
<tr>
<td>Increase lights and sounds</td>
<td>Lower lights and sounds</td>
</tr>
<tr>
<td>High pitched tone of voice</td>
<td>Lower tone of voice</td>
</tr>
<tr>
<td>Rapid vocal rhythms</td>
<td>Slow down vocal rhythm</td>
</tr>
<tr>
<td>Bright facial expressions</td>
<td>Slow down facial expression</td>
</tr>
<tr>
<td>Fast movement</td>
<td>Slow movement</td>
</tr>
</tbody>
</table>
Four Brain Systems

Vulnerability of 4 Brain Systems

- Regulation
- Sensory
- Relevance
- Executive

# OF RISK FACTORS

BRAIN SYSTEM

- Mom
- Child
Parallel Process

- Important information about how this family impacts my brain systems (step #3)

- What brain systems are you using easily (automatically) when working with this dyad?

- What brain systems are you using by exerting conscious control (deliberately) when working with this dyad?
Redefining Behavior Through the Lens of Multiple Triggers (and Toolkits) – Step #3

(Step #3)

Branches to the tree grow with understanding the strengths and vulnerabilities across multiple brain networks as to the multiple meanings of your child’s behavior:

Are you referring to your child as “oppositional” when the lens you have is too narrow in understanding the meaning of your child’s behavior – such as behavior either being “complaint or non-complaint” and “rewards and punishments” are your only tools?

What are the multiple triggers (and toolkits) you have in understanding the meaning of your child’s stress behaviors?
Four Brain Systems: Macro & Micro Levels

Early Care & Education

Executive Relevance
- Motor planning
- Plan & sequence
- Theory of mind
- Language

Regulation
- Nutrition
- Sleep/awake cycle
- Stress & Stress Recovery

Sensory
- Emotions
- Memories
- Meaning-making
- Sensations
- Processing & Modulation
- Speech

Mental Health

Basic Needs/Medical

Developmental Disabilities

Child Welfare

Lillas & Turnbull, 2009
NRF Guiding Play Principles

• Always work with developmental age, not the chronological age

• When moving up the developmental ladder, consider procedural enactments as part of the emergence of emotional memories that are not always symbolized through symbolic play or with a verbal narrative

• “Pretend” play can hold procedural memories that are not yet verbalized into a “verbal narrative” yet embody a “body narrative”
NRF Guiding Play Principles

- Procedural memories that are not yet verbalized can help us understand traumatic memories that are lodged in the body.
- These are now “sensory fragments” (this is what memories are) lodged in the “relevance” system that shape our meaning-making experiences.
- While useful, one does not always have to “know” the history of the child to work with the child. “The brain is a historical organ.” (B Perry)
NRF Guiding Play Principles

• While following the child’s lead and their interests, in general, work with expanding their emotional range from the constrictions they have.

• Use the color wheel to see how expansive or how constricted their emotional range is, linked with colored zones.

• With trauma link the aggressor with the victim (old) with a protector (new).

• Many times young children take on the role of the aggressor (red zone) as a “one size fits all”
On a **MACRO** level use the four brain systems for:

- Orienting a family to all of the services the child will need and why
- Guiding which treatment team providers are needed across sectors
- Organizing a treatment team triage as to which services are a priority when there are limited resources (e.g., go with more bottom-up/top-down?)
NRF Assessment Guiding Principles, Step #3

On a MICRO level use the four brain systems for:

- Developing multiple ways in which you understand your child’s triggers across brain networks from bottom-up to top-down
- And similarly, developing bottom-up and top-down toolkits that you have available to use for co-regulation and self-regulation
- Continue to develop multiple co-regulation & self-regulation strategies
- If you only have the typical “behavioral” lens in which to understand your child, it may be fueling the fires of challenging stress in your home!
### Behaviors Observed

<table>
<thead>
<tr>
<th>Possible Underlying Explanations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequent combo zone</td>
</tr>
<tr>
<td>• No procedural memories of green zone in new settings</td>
</tr>
<tr>
<td>• Biologically “primed” for anxiety</td>
</tr>
<tr>
<td>• Cross over with sensory</td>
</tr>
</tbody>
</table>
**Sensory System**

- **Triggers**

<table>
<thead>
<tr>
<th>Behaviors Observed</th>
<th>Possible Underlying Explanations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over reactive to pain</td>
<td>• Acute sensitivity</td>
</tr>
<tr>
<td></td>
<td>• Few soothing resources</td>
</tr>
<tr>
<td></td>
<td>• Gets “stuck”</td>
</tr>
<tr>
<td>Sensitivity to certain vocal qualities</td>
<td>• On a sensory level triggers a stress response</td>
</tr>
</tbody>
</table>
## Relevance System

### Triggers

<table>
<thead>
<tr>
<th>Behaviors Observed</th>
<th>Possible Underlying Explanations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss and longing for brother</td>
<td>• Procedural memories of joy fuel longing…brother was a better player?</td>
</tr>
<tr>
<td>Resistant to boundaries</td>
<td>• Limits are a denial-blocked goal but also require fast “shifting” to comply (Executive challenge)</td>
</tr>
<tr>
<td>Perfectionistic</td>
<td>• Wants it “right” seeks control, difficulty shifting</td>
</tr>
<tr>
<td>Behaviors Observed</td>
<td>Possible Underlying Explanations</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Rigid with routines</td>
<td>• Challenges with shifting, routines decrease anxiety and are comforting</td>
</tr>
<tr>
<td>Lacks willingness to try new things</td>
<td>• Poor or few positive procedural memories of new experiences</td>
</tr>
<tr>
<td>Very slow transitions</td>
<td>• Gets “stuck”, current task is familiar/comforting</td>
</tr>
</tbody>
</table>
Soccer role play with Daddy
Linking role play to peers
Prep for mad
Your Case
Thank You!