An Innovative Framework for Assessment and Intervention for Infants and Preschool Children

ElmTree Clinic
NURTURING YOUNG MINDS

Carole Anne Hapchyn, MD, FRCPC
Objectives

- Understand how to utilize the 3 steps of the Neurorelational Framework (NRF) to organize a holistic assessment
- Understand how applying the 3 steps of the NRF guides interventions
- Appreciate how NRF principles enhance interdisciplinary practice
The Neurorelational Framework:

Infant/Child Mental Health, Early Intervention, and Relationship-Based Therapies
A Neurorelational Framework for Interdisciplinary Practice

Connie Lillas and Janiece Turnbull

W.W. Norton, New York, 2009
Outline

- Description of the Neurorelational Framework
- 3 key concepts
- 3 key steps
- Triggers and Toolkits
- Assessment and Intervention Principles
What is the Neurorelational Framework?

A paradigm shift

- A new way to **hold complexity**
- A new way to help with decision making and targeting the right timing for interventions
- A clinical translation of neuroscience principles
- We collect the same information and use the same evidence-based interventions BUT organize by the 3 steps of the NRF
Evidence-based practice in early childhood:
“a decision-making process that integrates the best available research, evidence with family and professional wisdom and values” Buysee and Wesley, 2006
What is the Neurorelational Framework?

- Encompasses theories & approaches of all disciplines
- Provides relevant core knowledge
- Provides “part-to-whole view” for clinicians
What is the Neurorelational Framework?

● Interdisciplinary collaboration
● A shared language and
● A common understanding of neuroscience

… lead to …

*Integration* of assessment and evidence based interventions across systems of care
<table>
<thead>
<tr>
<th>Category</th>
<th>Historical Position</th>
<th>Future Directions</th>
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<tr>
<td>Clinical Practice</td>
<td>Simple problems, simple solutions</td>
<td>Complex (dynamic systems - for “messy” problems)</td>
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<td>Population Samples</td>
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<td>Non-linear, systems science</td>
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<td>Research Perspectives</td>
<td>Isolated laboratories, “cottage industries”</td>
<td>Translational, Interdisciplinary, &amp; Community-Based Participatory Research</td>
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What is the Neurorelational Framework?

The brain leads the way ...
3 Key Concepts, 3 Key Steps
Key Concept 1:

The quality of our relational experiences set up adaptive or toxic stress patterns…
Key Concept 2a:

Early brain networks develop through serve & return experiences
Key Concept 2b:

The quality of our serve & return experiences set up positive or negative lifelong expectations
Key concept 3:

Early brain architecture is built through lived experiences
3 Key Concepts 3 Key Steps

- Adaptive stress is healthy, toxic stress corrupts brain networks
- Positive or negative engagement influences lifelong expectations
- Brain networks develop with experience

- #1 Managing Stress
- #2 Quality of Relationships
- #3 Individual Differences
The Neurorelational Framework’s Three Clinical Steps

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

Top Down
- Executive - movement and adaptability
- Relevance - emotions and memory
- Sensory - all sensations
- Regulation - bodily processes

Bottom Up
- Parent - 3
- Parent - 2
- Parent - 1
- Child - 3
- Child - 2
- Child - 1

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

24 hr Sleep-Awake Cycle
- Deep or Fragile Roots
- Seed - Genetics

Lush or Pruned Branches
Thick or Thin Trunk

September 2015
Art by J Christensen PhD
Step 1: Adaptive vs Toxic Stress
Step 1: The Roots of the Tree

How deep or fragile are the roots?
Three Levels of Stress

**Positive**
Brief increases in heart rate, mild elevations in stress hormone levels.

**Tolerable**
Serious, temporary stress responses, buffered by supportive relationships.

**Toxic**
Prolonged activation of stress response systems in the absence of protective relationships.
Video

Three Core Concepts in Early Development

Toxic Stress Derails Healthy Development

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Adverse Childhood Experiences Scale (ACE)

**ACE List**

1. Recurrent physical abuse
2. Recurrent emotional abuse
3. Contact sexual abuse
4. An alcohol and/or drug abuser in the household
5. An incarcerated household member
6. Someone who is chronically depressed, mentally ill, institutionalized, or suicidal
7. Violence between adults in the home
8. Parental separation or divorce
9. Emotional neglect
10. Physical neglect

**Resources**

- [http://acestudy.org/home](http://acestudy.org/home)
- [http://wichildrenstrustfund.org/files/WisconsinACEs.pdf](http://wichildrenstrustfund.org/files/WisconsinACEs.pdf)
ACE Score Higher Than 4

Score 4 or more

- Twice as likely to smoke
- Twice as likely to have heart disease
- Twice as likely to be diagnosed with cancer
- Four times as likely to have emphysema or chronic bronchitis
- Six times as likely to have sex before age 15
- Seven times as likely to be alcoholics

Score 4 or more compared to 0

- Twelve times as likely to have attempted suicide

Men with a score of 6 or more compared to 0

- Forty-six times as likely to have injected drugs
Stress Patterns &
Associated Health Issues:

Disease does not begin at the onset of symptoms.

In fact, maladaptive stress related conditions are implicated in all of the following:

**Toxic Stress Patterns #1 to 3**
- Increase in heart attack & hypertension
- Melancholic depression
- Obsessive compulsive disorder
- Panic disorder
- Alcoholism
- Lowered immune system
- Decrease in memory functions
- Diabetes
- Malnutrition
- Hyperthyroidism
- Functional gastrointestinal disease

**Toxic Stress Pattern #4**
- Allergies
- Asthma
- Autoimmune diseases
- Chronic fatigue syndrome
- Rashes
- Rheumatoid arthritis
- Post Traumatic Stress Disorder

McEwen 2002
The Ripple Effect: Trauma-Informed Shift

- Shift from, “What’s wrong with you?” (bad behavior)
- To a curious and kind attitude, “What happened to you?”  
Step 1:
How do we identify stress & stress recovery?

A. Recognize what stress recovery looks like and who we are at our Best!
B. Recognize 3 primary stress responses and who we are at our Worst!
C. Recognize 4 toxic stress patterns
Step 1A: How do we identify stress recovery?

Recognize what stress recovery looks like:

- Deep sleep
- Green zone
Deep sleep is restorative…
Determining the Quality of Sleep

- Can you get to sleep?
- Can you stay asleep?
- Do you get enough total sleep?
- Do you wake up feeling refreshed?
- Do you wake up feeling tired and cranky?
- Do you snore?
Green Zone is ‘just right’… for learning and relationships

UCB, C. Lillas, © 2014
Green Zone
Green Zone
Our Nervous System Under Safety and Threat

States During Sleep-Wake Cycles

- Green Zone
- "Just Right" Calm
- Red Zone Agitated
- Blue/Red Combo Zone
  - Brake & Gas
  - Anxious
- Blue Zone
  - Withdrawn
- Drowsy
- Active Sleep
- Deep Sleep

Brake

Gas
Step 1B: How do we identify Stress Responses?

<table>
<thead>
<tr>
<th>Zone</th>
<th>States</th>
<th>Stress Responses</th>
<th>Step #1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GREEN ZONE</strong></td>
<td>Just Right/Aware</td>
<td>Bright, shiny eyes</td>
<td>Relaxed with good muscle tone</td>
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<td></td>
<td></td>
<td>Looks directly at people, objects</td>
<td>Stable, balanced and coordinated movements</td>
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<td>Looks away for breaks, then returns to eye contact</td>
<td>Moves arms and legs toward center of the body</td>
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<td>Seems alert, takes in information</td>
<td>Molds body into a caring adult when held</td>
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<td>Voice</td>
<td>Laughing</td>
<td>Moves faster or slower depending on environment</td>
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<td></td>
<td></td>
<td>Tone changes</td>
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</tr>
</tbody>
</table>

**FACE**

- Smiles, shows joy
- Neutral
- Can express all emotions

**BODY**

- Fingers spread out
- Arched back; tense body position
- Constant motion
- Demands space by pushing, shoving, and getting into others' space
- Biting, hitting, kicking, jumping, throwing
- Bumps into things, falls
- Threatening gestures (shakes finger or flat)

**RHYTHM/RATE OF MOVEMENT**

- Changes smoothly to respond to the environment
- Movements not too fast or too slow

**RED ZONE**

- Too Fast/On Pedal

**FACE**

- Wide, open mouth
- Anger, disgust
- Frown
- Fake/forced smile
- Clenched jaw or teeth

**VOICE**

- High-pitched crying, yelling or screaming
- Loud
- Hostile or grumpy

**BLUE ZONE**

- Too Slow/Brake

**FACE**

- Flat/blank
- Mouth turned down, sad
- No smiles or hints of smiles
- Few emotions shown

**VOICE**

- Flat
- Makes few to no sounds
- Sounds cold, soft, sad, too quiet

**COMBO ZONE**

- Fast & Lenient/Slow & Brake

**FACE**

- Wide open eyes
- Looks around as if worried or scared
- Stares at things
- Rolling of the eyes

**BODY**

- Moves or groans in pain
- Whimpers
- Wobbly/quivering voice or fast changes

**RHYTHM/RATE OF MOVEMENT**

- Changes smoothly to respond to the environment
- Movements not too fast or too slow

---

“Just Right”
Bright, Shiny eyes
Alert

Spacey
Tuned out
In own world

Frozen
Anxious
Fear
Panic

Flitting
Upset
“Tantrum”
Rage/Flooded

Adapted by Jessica Richards based on Lillas & Turnbull, 2009
Reading Non-Verbal Cues: Red Zone

A Baby’s Flooded State:
Irritable, Angry Responses and/or Patterns:

Reading Non-Verbal Cues: Red Zone
Red Zone
Red Zone
video
Reading Non-Verbal Cues: Blue Zone

A Baby’s Shut-Down State
Shut-Down Responses and/or Patterns:

Blue Zone

Reading Non-Verbal Cues:
Blue Zone
video
Reading Non-Verbal Cues: Combo Zone

A Baby’s Vigilant State:
Combo Zone
Reading Non-Verbal Cues: Combo Zone

Vigilant Patterns:
Video
Arousal Zones Across the Lifecycle

- Green
  - Calm, alert

- Red
  - Hyperarousal
  - Flooded

- Blue
  - Hypoarousal
  - Dissociate

- Combo (red/blue)
  - Hypervigilant
  - May look calm outside, but anxious inside

& Deep Sleep Cycling
**Step 1C:** How do we identify toxic stress?

- **Allostatic load** = the wear and tear on the body
  - Pattern where the rubber band is either too tight or too loose
  - Loss of coordination with **too much rigidity** or **too much chaos**
Step #1C: How do we identify toxic stress patterns?

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

4 Toxic Stress Patterns
1. Overreactivity: Stress responses that occur too frequently and too quickly
2. Repeated reactivity: Can’t adapt to “normal” challenges and transitions
3. Extended reactivity: Prolonged stress responses that take too long to recover (more than 10 to 20 mins)
4. Dampened recovery: Can’t recover from stress response back to baseline health (healthy sleep cycle, healthy awake state)
Spacey
Tuned out
In own world
Frozen
Anxious
Fear
Panic
“Just Right”
Flitting
Upset
“Tantrum”
Rage/Flooded

Adapted by Jessica Richards based on Lillas & Turnbull, 2009
How Deep are the Roots of the Tree?
Deep, Fragile, or Uprooted…
Green Zone Grows!

UCB, C. Lillas, © 2014
Step Two: Levels of Engagement

“serve & return”
How thin or thick is the relational trunk?
Step 2: How do we identify high-quality relationships and positive procedural memories?

A. Recognize what high-quality “bottom-up” relationships looks like

B. Recognize what high-quality “top-down” relationships looks like

Link high-quality relationships with positive procedural memories
“Couple” = any two people

Parent & child

Parent & parent
Step #2

- Assess the levels of engagement (dyadic engagement) through socio-emotional milestones.
Step 2A: Recognize “Bottom-up” Levels
Greenspan, 1985, 1992; Greenspan & Lourie, 1981; ZERO TO THREE, 1994, 2005

Bottom-Up (non-verbal capacities)

**Level 1** Getting calm (green) together

**Level 2** When *calm* able to make visual, auditory, tactile, movement or olfactory contact that both partners find comforting and connecting

**Level 3** When making *comforting contact*, able to share joy & fall in love

**Level 4** When sharing *joy*, able to create a continuous back-and-forth flow of communication (“circles”)

**Level 5** When in a *flow*, able to expand and read non-verbal emotional and gestural cues

SE Milestone Language Adapted by Connie Lillas
“Bottom-Up” Processes

Bottom-up = Any behavior that is…

- Automatic & Habitual
- Things we do without thinking
- Often does not involve the use of words
- Begins at birth
- Dominates the early years
- Not easy to change; can last a lifetime
“Bottom Up” Processes

“We learn by example and by direct experience because there are real limits to the adequacy of verbal instruction.”
Malcolm Gladwell

“Habit is Stronger Than Reason.”
George Santayana
Step 2B: Recognize “Top-down” Levels

Top-Down (verbal capacities)

**Level 6** When *reading cues*, able to share feelings with others in pretend play and by talking

**Level 7** When *sharing feelings*, able to make-sense and to solve problems together
“Top-Down” Processes

Top-down = Any behavior that is…

- Conscious & Effortful
- Things we do with thinking
- Often does involve the use of words
“Top Down” Processes

“The mind is everything, what we think, we become…”

Gautama Buddha

“There are two primary choices in life: to accept conditions as they exist, or accept the responsibility for changing them.”

Dennis Waitley
Serve and Return

Three Core Concepts in Early Development

Serve & Return Interaction Shapes Brain Circuitry

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Step Two: Engagement with Others

Positive procedural memories?

Negative procedural memories?
Video: Green Zone
The Importance of The First 3 Years
Experiences Lay Down Reactions to Stress

3-Year-Old Children

Normal

Extreme Neglect

Child Trauma Academy, Bruce Perry, 1997
**PARENT-CHILD RELATIONSHIP – 7 LEVELS OF ENGAGEMENT**

Current Relationship with __________

<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>
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<tbody>
<tr>
<td>Relationship reached this level, without support, including under stress, with a full range of feelings (positive and negative)</td>
<td>Relationship reached this level, without support, yet quickly loses this level under stress and/or present with a constricted range of feelings</td>
<td>Relationship has reached this level with support from yourself as parent, but not at age appropriate level</td>
<td>Relationship inconsistently reaches this level; needs sensorimotor support, structure, and support person present to function at this capacity</td>
<td>Barely able to get to this level, even with support person’s help</td>
<td>Relationship has not reached this level, with or without support</td>
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**Functional Capacities**

**BOTTOM-UP**

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

These functions are built upon the capacity to be calm together

Level 2. When calm, able to make eye contact & look at faces (by 3 months)

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

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

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

**TOP-DOWN**

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

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

DIR® Institute adapted from the DMIC, ICDL Press

Original functional levels from ICDL’s FEDL, adapted language & organization by Connie Lillas
Joy Lights up the Tree!
Step 3: Mapping Individual Differences in Brain Architecture

http://developingchild.harvard.edu/index.php/resources/multimedia/videos/three_core_concepts
Brain Architecture

Three Core Concepts in Early Development

Experiences Build Brain Architecture

NATIONAL SCIENTIFIC COUNCIL ON THE DEVELOPING CHILD
Center on the Developing Child
HARVARD UNIVERSITY
Step #3: Assess for Sources of Vulnerability and Resilience Across Four Brain Systems

Guiding Principles

- There is no one-size fits all
- Assess on a “Macro” level the links with service delivery and diagnosis
- Assess on a “Micro” level functional needs that help guide the what is needed
- Distinguish between developmental age and chronological age
Functional behaviors representing brain systems
Lillas & Turnbull, © 2009

- **Regulation**
  - *when the body is calm inside*
  - States of Arousal, sleep-awake cycle
- **Sensory**
  - *take-in info from the outside world*
  - Reactions to all sources of sensory information (including vestibular, proprioception, pain, temperature)
- **Relevance**
  - *these sensations get organized into an inside world*
  - Emotions, memories, & meanings
- **Executive**
  - *read the context, adapt to the outside world*
  - Ability to *initiate* and *shift* as well as *inhibit* and *sustain* motor (includes attention) activity and behavior according to the context
Regulation:
How does the body feel inside?

The brain system that manages the inside world of the body tells us if we are:

- thirsty or not thirsty
- hungry or full
- hot or cold
- in pain or comfy
- sick or well
Regulation:
How does the body feel inside?

- bladder/bowel is full or empty
- bowel is moving and passing gas
- heart beat is fast or slow, or steady or jerky
- breathing is fast or slow, deep or shallow
- voice is loud or soft
- body is upside down or right side up
- body is moving or still
- muscles are tense or relaxed
Sensory: How does the outside world feel?

- Sensory processing happens when the nervous system receives energy from the environment around us and changes it into sensations like:
  - Hearing sounds
  - Vision
  - Touch – light touch and deep pressure
  - Taste and Smell
  - Awareness of body in space (proprioception)
  - Balance (vestibular)
  - Pain
Sensory:
How does the outside world feel?

- Sensory modulation happens when the brain balances sensory signals in an appropriate way.
- Sensory modulation helps us sort out if information coming into our bodies is too much or too little, too long or too short or too fast or too slow.
Relevance:
What meaning is made of emotions?

- Early in development babies are sorting out their inside bodily feelings and outside world sensations to figure out what is important to them and what they will pay attention to over time.
- We develop positive and negative emotions, then we blend emotions and the memories of these emotions help us learn.
What meaning is made of emotions?

- What are my emotions? Happy, sad, angry, disgusted, surprised, afraid?
- How are others feeling?
- Are we feeling the same or different feelings?
- What does this emotion and experience mean to me and what does this mean to you?
- Is this emotion going to motivate me or not? Is it important to me?
Executive: Adaptation to the outside world

- The executive system integrates information from all the other systems.
- It depends on the quality of information it receives from the rest of the brain and body.
- All this work happens to make sure we achieve our goals and have appropriate social behaviours.
- This part of the brain takes the longest to develop (early twenties).
Executive:
Adaptation to the outside world

- The executive system in the brain is like the air traffic control centre at a busy airport. It makes real-time, real-world flexible and adaptive actions; what to do, how to do it and when to do it.

- The executive system guides our bodies through complex movements, focuses our attention, organizes our ideas, creates interesting ideas, and manages our emotions.
Step #3: Organizing Individual Differences

How strong or weak are the branches of the tree?

• Assess for Individual Differences & Multiple Causes
• Map out all of the needs across systems of care on a “macro” level
• Map out the individual differences from each brain system on a “micro” level
Step #3

- What are the resilience and protective factors?
- What are the risk factors and needs?

Tools:
- History Worksheet
- Current Capacities Worksheet
- Triggers and Toolkits Worksheet
Step #3

Four Brain Systems - History Checklist

Child/Youth Risk Factors
That Increase Children’s Need for Adult Support

Regulation
- Prenatal maternal stress
- No or poor prenatal care
- Intrauterine growth retardation or fetal malnutrition
- Spina bifida
- Premature birth
- Genetic disorder(s)
- Infant medical condition(s)
- Chronic allergies
- Feeding problems
- Poor suck, swallow, and breathe coordination
- Poor nutrition
- Sleep difficulties
- Rigid or chaotic pattern of arousal energy, that is entrenched (hyperalert, hyperalert, flooded)
- Physical abuse
- Physical neglect
- Sexual abuse

Global Questions
- Are stress responses adaptive? That is, does a person show adequate recovery?
- Is the person’s use of energy efficient and flexible or rigid and chaotic?
- How does the person conserve energy?
- How quickly and efficiently does the child/adult process sensory information?
- How reactive is the child/adult to sensory information from relationships?
- Is the child/adult learning toward types of sensory information that are considered safe as opposed to those that are threatening?

Relevance
- Male preterm infant
- A survivor, participant in, or witness to domestic violence
- Emotional abuse
- Emotional neglect
- Exposure to domestic violence
- Traumatic memories
- Lack of emotional care due to foster care or orphanage placement
- Chronically depressed or anxious
- Rapid swings into high-intensity emotions, no frustration tolerance
- Lack of empathy for self and others
- Lack of eye contact, absence of interest in others and/or lack of social referencing (poorly attached)
- Highly demanding of others
- Over accommodating to others
- Lacks one person in the family who is strongly committed to child and who provides loving care
- Discrepancies exist between words, actions, or non-verbal communication
- Learning disruptions
- Separation or loss of a parent
- Parental criminality
- Inability to ask for help when necessary

ACE Score

Sensory
- Loss of hearing, vision
- Inaccurate processing of information
- Slow processing of information
- Speech delay
- Learning disorder(s)
- Overactive, to sensory information
- Underactive to sensory information
- Both overactive and underreactive to sensory information
- Institutional care or neglect without adequate sensory information
- Sensory seeker

Executive
- Motorically clumsy, awkward, or lethargic
- Lacks developmentally appropriate use of gestures to communicate needs and wants
- Lacks developmentally appropriate use of words to problem solve
- High distractibility
- High impulsivity
- Unable to delay gratification
- Lacks developmentally appropriate abilities to sequence activities of daily living
- Adheres to rigid routines and habits, avoiding novelty
- Lacks a willingness to incorporate a new way to understand own or other’s behavior (e.g., mental rigidity)
- Is unaware of, or inaccurately judges, own strengths and weaknesses
- Difficulty using hindsight, insight, and foresight for self-reflection and problem solving
- Lacks cause-effect reasoning
- Unable to hold self and others in mind at the same time
- Unable to consider the past in relation to the whole

Ellis & Turnbull, © 2008
Step #3
Four Brain Systems - History Checklist

Parental Risk Factors
That Can Compromise Parents’ Ability to Offer Their Child Support

Global Questions

- Are stress responses adaptive? That is, does a person show adequate recovery?
- Is the person's use of energy efficient and flexible or rigid and chaotic?
- How does the person conserve energy?

Sensory
- How quickly and efficiently does the child/adult process sensory information?
- How reactive is the child/adult to sensory information from relationships?
- Is the child/adult leaning towards types of sensory information that are considered safe as opposed to those that are threatening?

Relevance
- Is the individual able to express a range of positive and negative emotions flexibly?
- How do experiences influence memories and appraisals?
- Are emotionally loving, significant, and long-term relationships present?
- Does the individual tend to attribute positive or negative meanings to experiences?

Executive
- Does child/adult show purposeful movement that is both adaptive and flexible?
- Can child/adult see the big picture?
- Can the child/adult stay on track in expressing a thought, emotion, or narrative?
- Can the child/adult complete tasks in a relatively smooth fashion?

ACE Score

Liska & Tumblin, © 2008
### Brain Systems: Stress Triggers and Recovery Toolkits

#### Stress Triggers

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<th>Regulation (Body)</th>
<th>Self</th>
<th>With Other</th>
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#### Sensations (Sensory)

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#### Feelings (Relevance)

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#### Thoughts/Planning (Executive)

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<th>Thoughts/Planning (Executive)</th>
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**Connie Lillas, PhD, MFT, RN**  

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What Are Your Triggers?

4 Trigger Points:

- Body
- Sensing
- Feeling
- Thinking/Planning
What Are Your Toolkits?

4 Prevention/Recovery Toolkits:

• Body
• Sensing
• Feeling
• Thinking/Planning
Facilitate Recovery in Self

Put Your Oxygen Mask on First, Then Help Others
Conclusion
Parallel Processes...

Integrating…from micro to macro

- Personal
- Interpersonal
- Institutional
- Cultural

Simultaneously, similar dynamics occurring on multiple levels
NRF Guiding Principles

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
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 Guiding Principles
Step #1

- Always start at the earliest point in the breakdown.

- This principle applies to all three steps. Step #1 is the first Level of Engagement and the first Brain System, Regulation.
In general, you cannot solve bottom-up problems with top-down solutions!
NRF Guiding Principles, Step #3

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?)
Assessment Principles
Step #3

On a MICRO level use the four brain systems for:

- Developing multiple ways in which you understand the child’s triggers from bottom-up to top-down
- Developing bottom-up and top-down toolkits for co-regulation and self-regulation
- If you only have the typical “behavioral” lens in which to understand the child, it may be fueling the fires of challenging stress responses!
“This growing knowledge base suggests 4 shifts in thinking about policy and practice:

(1) early experiences affect lifelong health, not just learning;

(2) healthy brain development requires protection from toxic stress, not just enrichment;

(3) achieving breakthrough outcomes for young children facing adversity requires supporting the adults who care for them to transform their own lives; and

(4) more effective interventions are needed in the prenatal period and first 3 years after birth for the most disadvantaged children and families.”
Neurorelational Framework: Clinical Practice

- It is essential that assessment and intervention accommodate complexity
- Value and relevance can be found in all our clinical approaches
- Interdisciplinary collaboration takes knowledge sharing to a level that requires reciprocity

pages 496-497
Neurorelational Framework: Clinical Practice

In an ideal world ...

- the absence of an interdisciplinary approach would be substandard
- there would be more syntheses from diverse collaborations
- developmental research would continue to reflect increasing degrees of complexity
- interdisciplinary competencies would positively affect training, service delivery and public policy
Questions and Comments

? ? ? ?
Contact Us

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Coming soon: NRF Global Communities
www.nrfgc.com
Other Learning Opportunities

Webinars:

- FASD Network, 90 min, CAH and Dr. Gail Andrew, July, 2016
- IMHP 6 hour webinar, CAH, archived (Infant Mental Health Promotion, Toronto, April, 2016)

- http://www.iacapap2016.org Sept 21, 2016, Calgary, Dr. Lillas, Keynote
References

- www.frameworksinstitute.org
- www.albertafamilywellness.org
- www.developingchild.harvard.edu
- www.child-encyclopedia.com
- www.circleofsecurity.net
- www.healthybabyhealthybrain.ca
- www.childtrauma.org
Finding Your ACE Score

While you were growing up, during your first 18 years of life:

1. **Emotional Abuse:** Did a parent or other adult in the household often or very often...
   
   Swear at you, insult you, put you down, or humiliate you? ...or
   
   Act in a way that made you afraid that you might be physically hurt? [Yes No] If yes enter 1

2. **Physical Abuse:** Did a parent or other adult in the household often or very often...
   
   Push, grab, slap, or throw something at you? or
   
   Ever hit you so hard that you had marks or were injured? [Yes No] If yes enter 1

3. **Sexual Abuse:** Did an adult or person at least 5 years older than you ever...
   
   Touch or fondle you or have you touch their body in a sexual way? ...or
   
   Attempt or actually have oral, anal, or vaginal intercourse with you? [Yes No] If yes enter 1

4. **Emotional Neglect:** Did you often or very often feel that...
   
   No one in your family loved you or thought you were important or special? ...or
   
   Your family didn't look out for each other, feel close to each other, or support each other? [Yes No] If yes enter 1

5. **Physical Neglect:** Did you often or very often feel that...
   
   You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you? [Yes No] If yes enter 1
   
   Your parents were too drunk or high to take care of you or take you to the doctor if you needed it? [Yes No] If yes, enter 1

6. **Parental Separation:** Were your parents ever separated or divorced? [Yes No] If yes enter 1

7. **Caretakers – Inter Partner Violence:** Was your mother or stepmother:
   
   Often or very often pushed, grabbed, slapped, or had something thrown at her?
   
   Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard?
   
   Ever repeatedly hit at least a few minutes or threatened with a gun or knife? [Yes No] If yes enter 1

8. **Alcoholism:** Did you live with anyone who was a problem drinker or alcoholic or who used street drugs? [Yes No] If yes enter 1

9. **Mental Illness:** Was a household member depressed or mentally ill, or did a household member attempt suicide? [Yes No] If yes enter 1

10. **Prison:** Did a household member go to prison? [Yes No] If yes enter 1

**Now add up your "Yes" answers:**

This is your ACE Score.

Adverse Childhood Experiences Study, Fellitti et al.