

NRF Step #1 Adaptive vs. Toxic Stress: In Ourselves, Our Relationships, Our Clients



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www.the-nrf.com

National Shifts & NRF

Category	Historical Position	Future Directions
Clinical Practice	Simple problems, simple solutions	Complex (dynamic systems - for “messy” problems)
Population Samples	Laboratory	Real-world
Category	Categorical Diagnoses	Dimensional Underpinnings
Research Methodologies	Linear	Non-linear
Research Perspectives	Isolated laboratories, “cottage industries”	Translational, Interdisciplinary, & Community-Based Participatory Research

National Research Context

The pressure for Evidence-Based Treatments forced organizing treatment models around ONE Diagnosis



In one extensive literature review, 99% of the evidence-based treatments were done in laboratory settings, with laboratory research clinicians, with subclinical populations based on a singular diagnosis...

Weisz, J. R., Doss, A. J., & Hawley, K. M. (2005). Youth psychotherapy outcome research: A review and critique of the evidence base. *Annual Review of Psychology*, 56, 337-63. Doi: 10.1146/annurev.psych.55.090302.141449

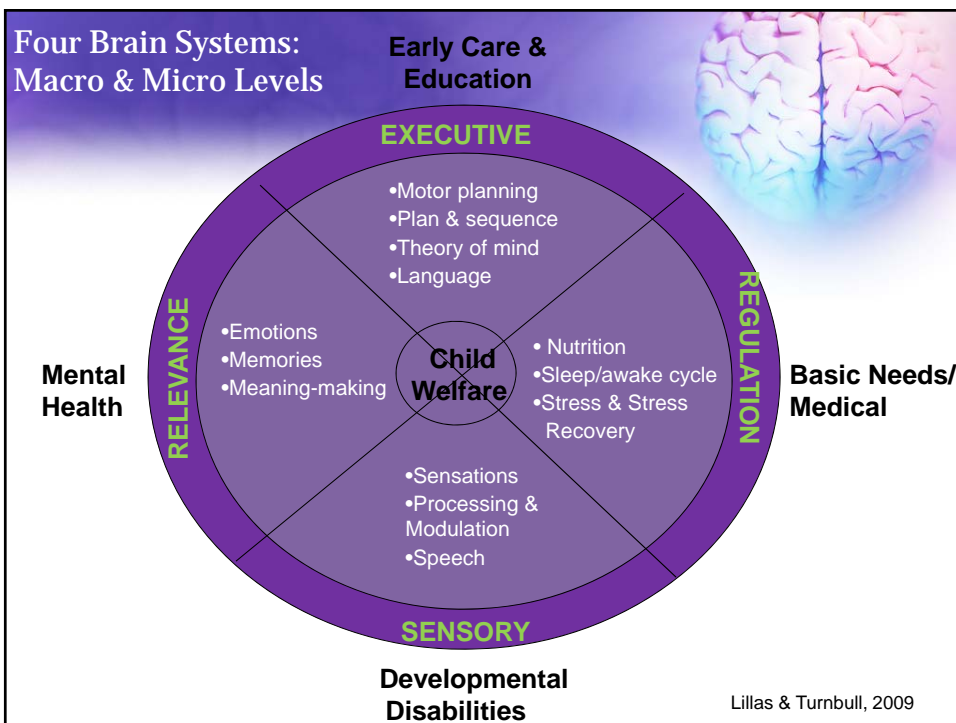
Evidence Based Treatments (EBT) are being equated with EB-Practice

- Evidence-Based Practice (EBP) is:
 - A decision making *process* that holds the tension between:
 - The best available clinical research (EBTs)
 - Professional wisdom based in sound theory and practice
 - Cultural and family values (with informed choice)
 - » Buysee and Wesley, 2006
 - » Institute of Medicine

NRF is planted in...

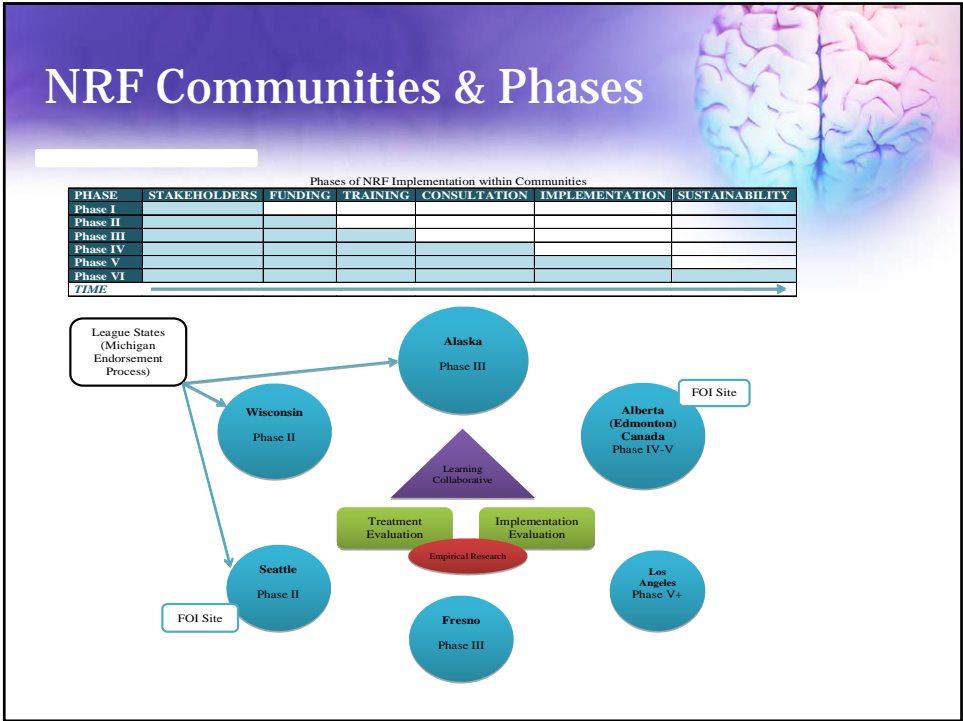


- Non-linear dynamic systems theory
- Taking 3 key concepts from translated brain science and translating that further into 3 key clinical steps
- Building NRF cross-sectored communities dedicated to community systems change
- Moving out of the laboratory into a community-based participatory research paradigm
- Using systems science models for building an evidence based treatment framework within the context of public health



NRF Step #1

Adaptive vs. Toxic Stress



The Core Story

Harvard Child Development & The FrameWorks Institute

The Three Core Concepts

(more moving parts to The Core Story)

1. The brain builds upon the brain, from the bottom up –and all regions are interconnected
2. The “serve and return” process of engagement “fires and wires” the brain networks
3. Adaptive stress is healthy; toxic stress can corrupt the brain architecture

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

Our early years....
set the stage for...



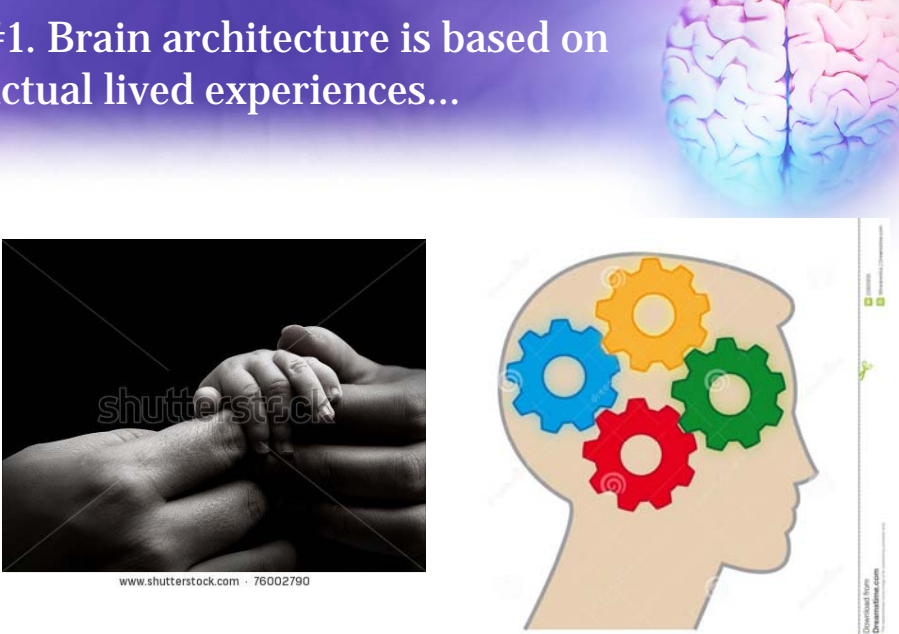
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NRF Step #1
Adaptive vs. Toxic Stress

#1. Brain architecture is based on actual lived experiences...



http://developingchild.harvard.edu/resources/multimedia/videos/three_core_concepts/brain_architecture/

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Brains Grow “Bottom-up”



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“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

“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

Our Default Modes



**Anything & Everything
Automatic!**

Whether...

- Actions
- Words
- Feelings
- Thoughts



“Top-Down” Processes



Top-down = Any behavior that is...

- Conscious & Effortful
- Things we do with thinking
- Often does involve the use of words

“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

Our Intentional Modes



Anything & Everything
Deliberate!

Whether...

- Actions
- Words
- Feelings
- Thoughts

*Deliberate
Actions*

#2. Our brain networks are based on
“serve & return” experiences...

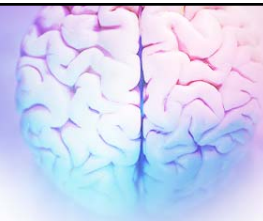


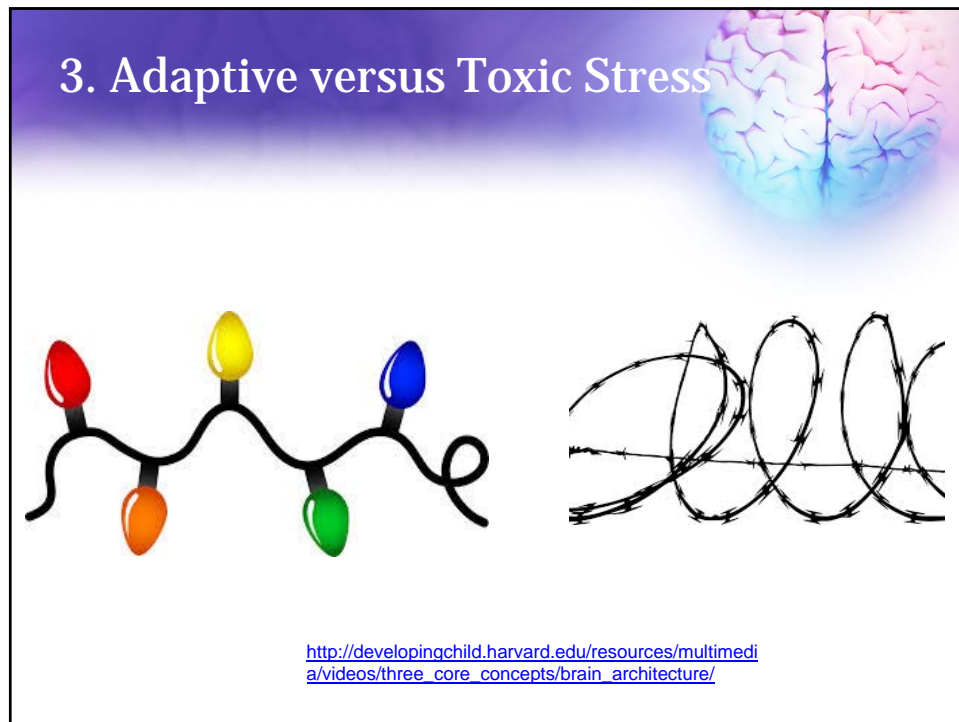
paa433000014 fotosearch.com

http://developingchild.harvard.edu/resources/multimedia/videos/three_core_concepts/serve_and_return/

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“What fires together,
wires together”





The Neurorelational Framework (NRF) “translates” what matters in early brain development into three clinical steps:

What Matters:

- Stress Resilience versus Toxic Stress
- “Serve & return” levels of high quality engagement
- Development of brain networks and circuits

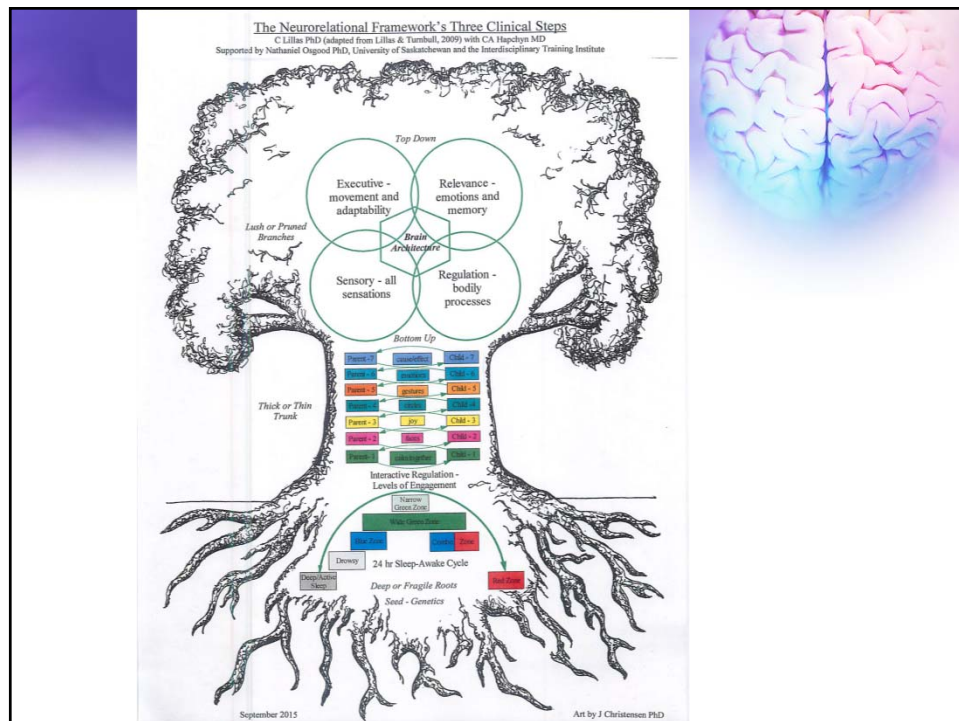
Assess & Intervene:

- *Step 1:* Adaptive vs. toxic stress
- *Step 2:* Age appropriate vs. low levels of relational engagement
- *Step 3:* Age appropriate developmental & functional brain capacities vs. delays or disorders

The NRF is “Value Added” to Any EBT

Because of the intense focus on neurodevelopment

- Tracking neurodevelopment tells the practitioner where to begin treatment
- Tracking neurodevelopment guides one if one is making developmental progress or not
- Tracking neurodevelopment gets development back on track as quickly as possible
- Tracking neurodevelopment helps you match the EBT with what the child/parents need & where they are at



Cascade Effect


- **Neglect disrupts the firing/wiring of brain architecture & circuits**
- In 2010 alone, neglect accounts for 78% of all child maltreatment cases nationwide, far more than physical abuse (17%), sexual abuse (9%), and psychological abuse (8%) *combined*. *In Brief, The Science of Neglect, pg 2.*
- Finally, the vast majority of children who die as a result of child maltreatment are victims of neglect (70%), rather than other forms of child maltreatment (DHHS, 2013).
- **Toxic stress disrupts circuits that exist**
...."estimate that over 80% of foster children they examined suffered from developmental, behavioral, or emotional problems (between two and eight times the national averages)."
Stock & Fisher, 2006, Child Welfare League of America, pg. 446.

Ourselves, Our Parents, Their Children






Parallel Processes



- There is often a parallel process that exists between ourselves and others in our lives on multiple levels –*from the mundane to the sublime!*

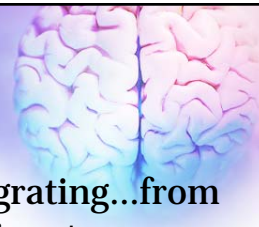


Parallel Process



- Use of all three steps to hold the baby and parent in mind
- Use of all three steps to hold yourself in mind!
- Use step one to look at your transference & countertransference responses

Parallel Processes...

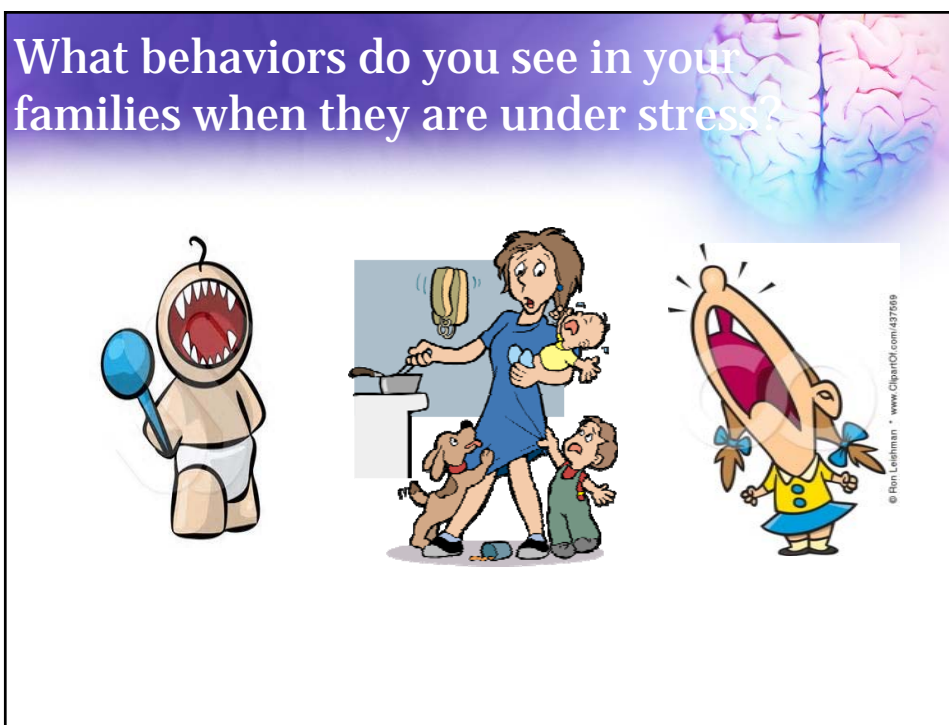


Integrating...from
micro to macro

- **Personal**
- Interpersonal
- Institutional
- Cultural

Simultaneously, similar
dynamics occurring
on multiple levels

NRF Step #1
Adaptive vs. Toxic Stress



Cultural Context

Our culture tells us what are “right” and “wrong” ways to parent...

Many parenting and evidence based approaches are by definition, very narrow...



What do YOU think is a challenging behavior!?

- Please give us your words for challenging behaviors...



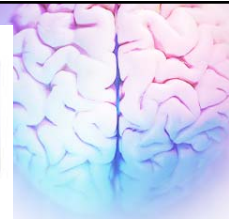
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These are words we've heard used...



- Aggressive
- Attention-seeking
- Coercive
- Defiant
- Distracting
- Lacks motivation
- Manipulative
- Non-compliant
- Oppositional
- Resistant
- Spoiled
- Temper tantrums
- Willful
- Withdrawn

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In our culture, we are taught...

- That children are doing these behaviors “on purpose” and that ...
- Rewards and punishments/consequences are how to help these behaviors...
- And, if these are not working, then parents are to blame!

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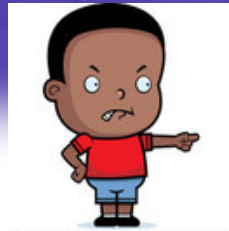
Parents are not...

- Setting firm enough limits
- If you do have limits, then...
- You do not have enough consequences
- If you do have consequences, then..
- You are not consistent enough with following through with consequences

OR

- You are not sensitive enough to reading the child's cues
- Not empathic enough

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The Blame Game!

We believe, that in this way of viewing behaviors, we end up either blaming the child, blaming the parents, or both!

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BLAME

- We want to shift to a “no blame” zone!
- We accept that we **ALL** have “challenging” behaviors from time to time and...
- And there are most often, multiple reasons for behavior

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Behavior often comes from Multiple Directions, not just one!



The image contains two signs. On the left is a standard black and white 'ONE WAY' sign with a right-pointing arrow. On the right is a cartoon character with a long nose, wearing a green shirt and blue pants, looking at a signpost with five blue arrows pointing in different directions. The signpost has the words 'THIS WAY' written on it. The background of the slide is purple with a brain illustration in the top right corner.

When you need help, do you have self-regulation strategies?



- I Am
- I Calm
- I Feel
- I Choose
- I Solve

When you need help, who do you “go-to” for co-regulation?



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NRF Step #1

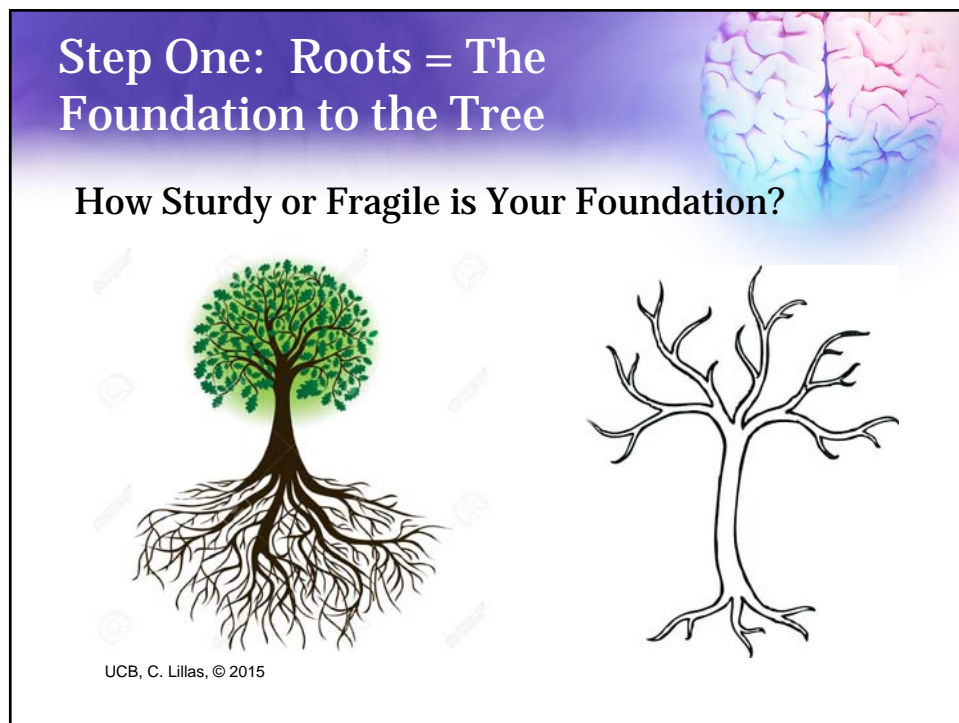
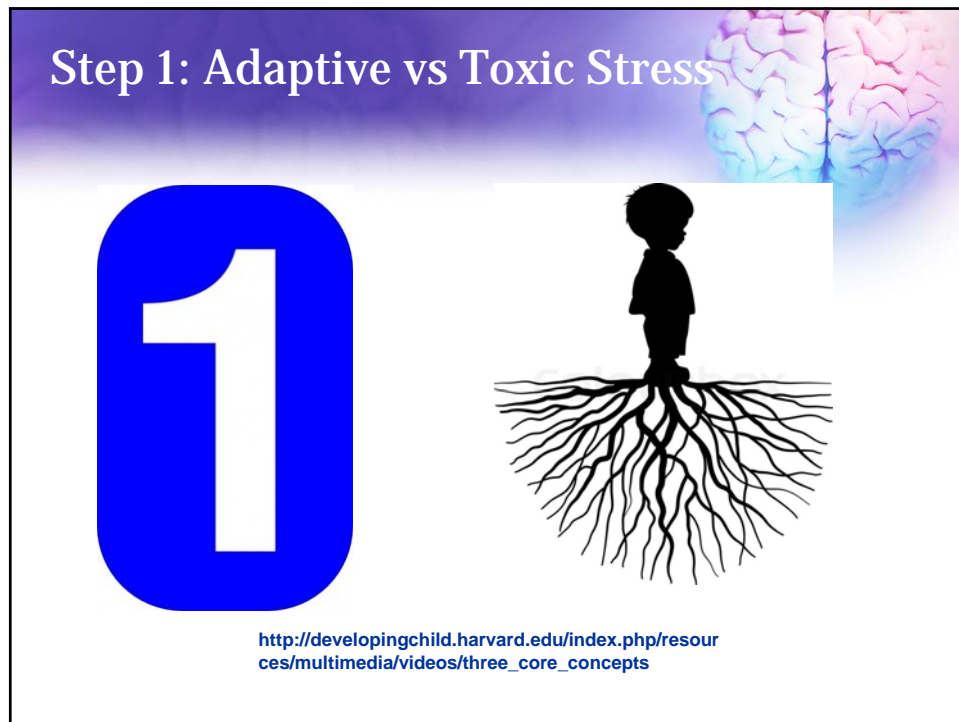
Adaptive vs. Toxic Stress

NRF's 3 Steps and 4 Tiers			
Tier 1	Tier 2	Tier 3	Tier 4
Basic	Intermediate	Advanced	Synthesis
Step 1: Physiology, Sleep-Awake Cycle: Awake States with Stress Responses Grid & Checklist Arousal Curve & Pie Pattern Sheet & Journal	Step 1: Heart, Hand, & Head: Who We Are - Best & Worst Interpersonal modes	Step 1: Inside & Outside Cues [Physiological Equipment]	Pulling the 3 Steps Together
Step 2: States of Arousal Dyadic Patterns with Levels of Engagement: Arousal State Graphing Pattern Sheet & Journal Pyramid	Step 2: Quality of Levels of Engagement between Parent/Child Dyad: Grid with Rating Scale of 4 Grid with Rating Scale	Step 2: Quality of Levels of Engagement: Grid with Rating Scale of 6, Use with any dyad	States of Arousal, Levels of Engagement, & 4 Brain Systems
Step 3: Macro level of 4 Brain Systems: History Worksheet Purple Wheel	Step 3: Micro level: Current Capacities Worksheet	Step 3: Micro level: Trigger & Toolkit Menu, Mapping Self & Mapping with Self & Co-	Use with Inter-and Trans-disciplinary Community Teams

NRF Step #1 and Tier 1



- You are in the BASIC level of NRF information
- Everyone can learn the Basic level of this information no matter what your role is in using the NRF



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

Redefining Behavior Through the Lens of Stress & Stress Recovery - Step 1



(Step #1)

Roots to the tree begin with the sleep-awake cycle

Are you referring to your child as “oppositional” when one or both of you are in a stress pattern?

What is the stress response pattern in your child?

What is the stress response pattern between you and your child (“dyad”)?

What is the pattern in your parental “dyad”?

ramping-up patterns opposing patterns chaotic patterns

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 three primary stress responses and
who we are at our Worst!***

C. Recognize four toxic stress patterns

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Step #1A:
How do we identify stress recovery ?

- Recognize what stress recovery looks like:

- **Deep sleep**
- **Green zone**

**These two states of arousal represent
stability**

**A healthy rubber band, with elasticity always
bounces back!**

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What's the quality of your sleep, your partner's & child's sleep?



- Can you get to sleep?
- Can you stay asleep?
- Do you get enough total sleep?
- Do you wake up and feel refreshed?
- Do you wake up and feel tired and cranky?



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How Much “Green Zone” Do You Each Have?



- How much **green (red/blue/combo) zone** behavior do you, your partner, your child(ren) have during any given day? [0, 25, 50, 75, 100%]
- Is there a difference in the “**green zone**” (& stress responses) between a day during the week and on the weekend?
 - Some do “better” during the week when there is often more structure
 - Some do “better” during the weekend when there is often less structure

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Be ready for mismatches in a parent's perception (relevance system)!

- Faking good

"I'm green 100% of the time."

Tend to be in denial, dismissive, or afraid of looking bad to you. You get the feeling they are hiding things.



Be ready for mismatches in a parent's perception (relevance system)!

- Faking bad

"My child is in the red zone 100% of the time."

Tend to be angry and may likely have trauma triggers with this child from his/her procedural memories.



Assessment Principle

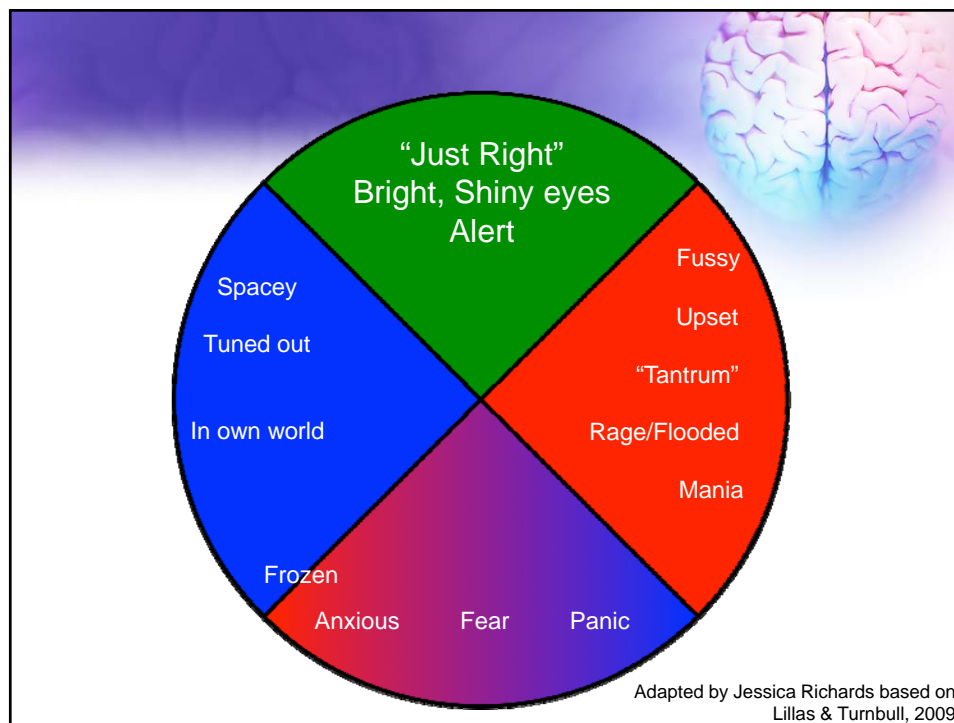


- Assess the Dimensions of Baseline Health Behavior According to:

- **Duration:** the long and the short of the behavior
- **Intensity:** the high and the low of the behavior
- **Rhythm/frequency:** the fast and the slow of the behavior

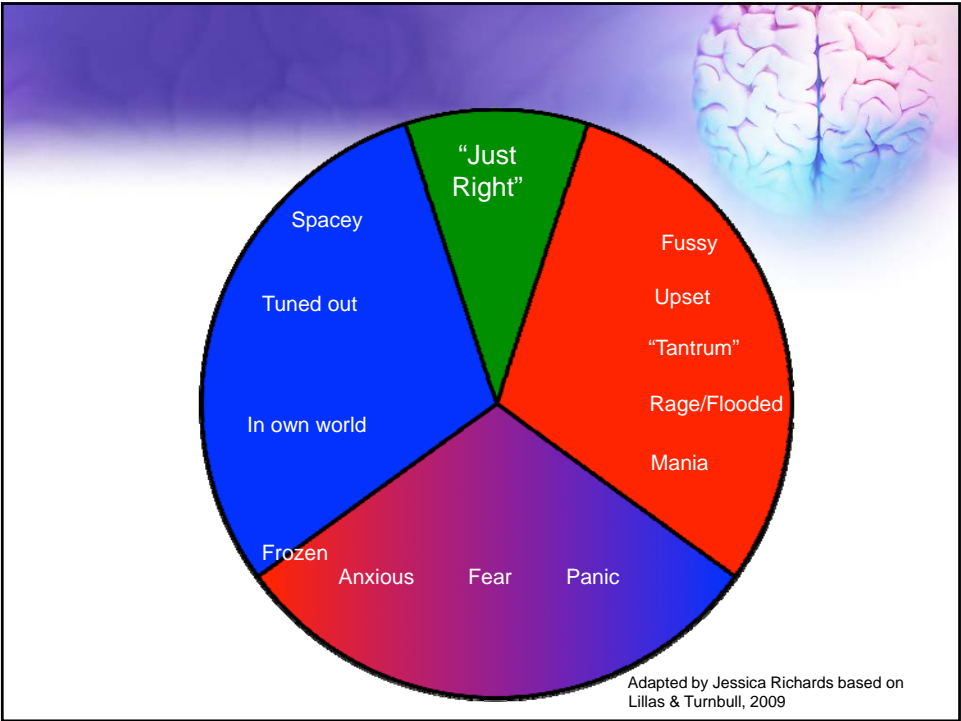
This is critical to establish at the beginning of your intake and early phase of treatment so you know if you are making any gains!

Lillas & Turnbull, 2009, page 160



NRF Step #1

Adaptive vs. Toxic Stress



Possible Regulation and Stress Response Correlates of Interpersonal Modes Across the Lifecycle				
Arousal State and Interpersonal Mode	Just Right/Alert Processing Stability with Flexibility	Too Fast/Flooded High Demand	Too Slow/Hypocort High Detach	Too Vigilant/Hyperalert High Compliance or Control
EYE CONTACT	<ul style="list-style-type: none">Bright, shiny eyes looking directly at other / object — "pleam!"Gaze aversions for modulation of proximityAppears to actively process information	<ul style="list-style-type: none">Eyes may be open / squinted / closedMay have direct, intense eye contactMay have avoidance of eye contactEye rolling upwardScanning room very quickly, rapidly	<ul style="list-style-type: none">Glazed eyes, looking through rather than at the other/objectProlonged gaze aversionAppears drowsyEyes turned downEyes do not scan the room, looking for objects of desireWhen interested, prefers looking at objects rather than people	<ul style="list-style-type: none">Eyes are wide openAppears vigilant, in a state of panic or fearIntensely focusing on somethingUnable to break the gaze/fixation to the stimulus
FACIAL EXPRESSION	<ul style="list-style-type: none">Joy, particularly smilesNeutralCan express a full range of emotionsModulation with all emotions	<ul style="list-style-type: none">Wide, open mouthAnger, disgustDistressGrinaceFrowningClenched jaw or teethForced smile (only mouth is upturned, corners of eyes are not)	<ul style="list-style-type: none">FlatTurned down mouth, sadExpressionlessNo smiles or hints of smilesLimited range of emotions	<ul style="list-style-type: none">Raised eyebrows, especially with inside corners turned upTrembling lips or mouthFacial expressions of pain, grimaceMouth wide open (stattle)
TOE OF VOICE	<ul style="list-style-type: none">Melody and prosodyModulation of toneFluctuations of toneLaughing	<ul style="list-style-type: none">High-pitched cryLoudHostileGruffYelling or screamingSarcastic, sneeringHysterical laughter	<ul style="list-style-type: none">FlatLacks musical qualityFew or no vocalizationsToo quietColdSoftSad	<ul style="list-style-type: none">High-pitched nasal, "ang-song" voiceMoaning or groaning to indicate painElevated toneQuavers or fluctuates rapidlyWhimpering
BODY POSTURE, MOVEMENT, AND GESTURES	<ul style="list-style-type: none">Relaxed with good muscle toneStabilityBalanceMoves arms and legs into midlineCoordinated movementsVaries according to rhythmicity and downBody molds into other's	<ul style="list-style-type: none">Finger plays ArchingIncreased muscle tension in posture and in faceConstant motionDemands space by pushing, shoving, intruding on othersBitng, hitting, kicking, bumpingPoor balance, falls, trips & letBumps into thingsForceful or threatening gestures (shaking finger, shaking fist)ThrowingKicking	<ul style="list-style-type: none">SlumpedLow muscle toneDecreased explorationLacks initiative in explorationWill not protect his/her "space"Avoids playground equipmentLacks purposeful intent with movementWandersFixates or slow moving	<ul style="list-style-type: none">Tense or rigid body posturesCoweringRapid, repetitive body movements (wringing hands, jiggling foot)Trembling handsClappingShakingGrabbing
RHYTHM AND RATE	<ul style="list-style-type: none">Fluctuating up and downMidrange tempo	<ul style="list-style-type: none">FastImpulsive	<ul style="list-style-type: none">SlowDelayed	<ul style="list-style-type: none">FastJerky

NRF Step #1

Adaptive vs. Toxic Stress

Awake States with Stress Responses		Step #1
GREEN ZONE Alert, content, joyful	EYES <ul style="list-style-type: none"> Bright, shiny eyes Looks directly at people, objects Looks away for breaks, then returns to eye contact Seems alert, takes in information FACE <ul style="list-style-type: none"> Smiles, shows joy Neutral Can express all emotions VOICE <ul style="list-style-type: none"> Laughing Tone changes 	BODY <ul style="list-style-type: none"> Relaxed with good muscle tone Stable, balanced and coordinated movements Infant moves arms and legs toward centre of the body Infant molds body into a caregiver when held Moves faster or slower depending on environment RHYTHM/RATE OF MOVEMENT <ul style="list-style-type: none"> Changes smoothly to respond to the environment Movements not too fast or too slow
RED ZONE Too aroused, angry	EYES <ul style="list-style-type: none"> Open, squinted or closed eyes May have direct, intense eye contact May avoid eye contact Eyes roll upward Eyes look quickly around the room FACE <ul style="list-style-type: none"> Wide, open mouth Anger, disgust Frown Fake/forced smile Clenched jaw or teeth VOICE <ul style="list-style-type: none"> High-pitched crying, yelling or screaming Loud 	BODY <ul style="list-style-type: none"> Hostile or grumpy Sarcastic Out of control laughing Fingers spread out Arched back; tense body position Constant motion Demands space by pushing, shoving, and getting into others' space Hitting, hitting, kicking, jumping, throwing Bumps into things, falls Threatening gestures (shakes finger or fist) RHYTHM/RATE OF MOVEMENT <ul style="list-style-type: none"> Fast movements Impulsive movements
BLUE ZONE Too drowsy, tired	EYES <ul style="list-style-type: none"> Glassed-glazy eyes (looks through rather than at) Looks away for a long time, looks down Seems drowsy/tired Does not look around the room for interesting items Looks at things more than people FACE <ul style="list-style-type: none"> Flat/blank Mouth turned down, sad No smiles or hints of smiles Few emotions shown VOICE <ul style="list-style-type: none"> 	BODY <ul style="list-style-type: none"> Flat Makes few to no sounds Sounds cold, soft, sad, too quiet Slumped/slouching Low muscle tone Little or no exploring play or curiosity Wanders Frozen or slow-moving RHYTHM/RATE OF MOVEMENT <ul style="list-style-type: none"> Slow movements Slow to start moving
ORANGE ZONE Frustrated, irritable	EYES <ul style="list-style-type: none"> Wide open eyes Looks around as if worried or scared Stares at things Rolling of the eyes FACE <ul style="list-style-type: none"> Raised eyebrows Furrowed brow Trembling lips or mouth Seems in pain Mouth wide open Startled expression VOICE <ul style="list-style-type: none"> High-pitched, nasal, sing-song voice 	BODY <ul style="list-style-type: none"> Moans or groans in pain Whimpers Wobbly/culvering voice or fast changes Tense or rigid posture Cowers or hides Fast, repetitive movements (wriggles hands, shakes feet) Trembling hands Climbs, grabs Rolls around RHYTHM/RATE OF MOVEMENT <ul style="list-style-type: none"> Fast movements Jerky movements

From: Infant-Child Mental Health, Early Intervention, and Relationship-Based Therapies: A Neurorelational Framework for Interdisciplinary Practice, by Lillas & Turnbull, © 2009, New York, New York: W. W. Norton. Revised 4-10-14

Green Zone is 'just right'...
for learning and relationships



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Video clips

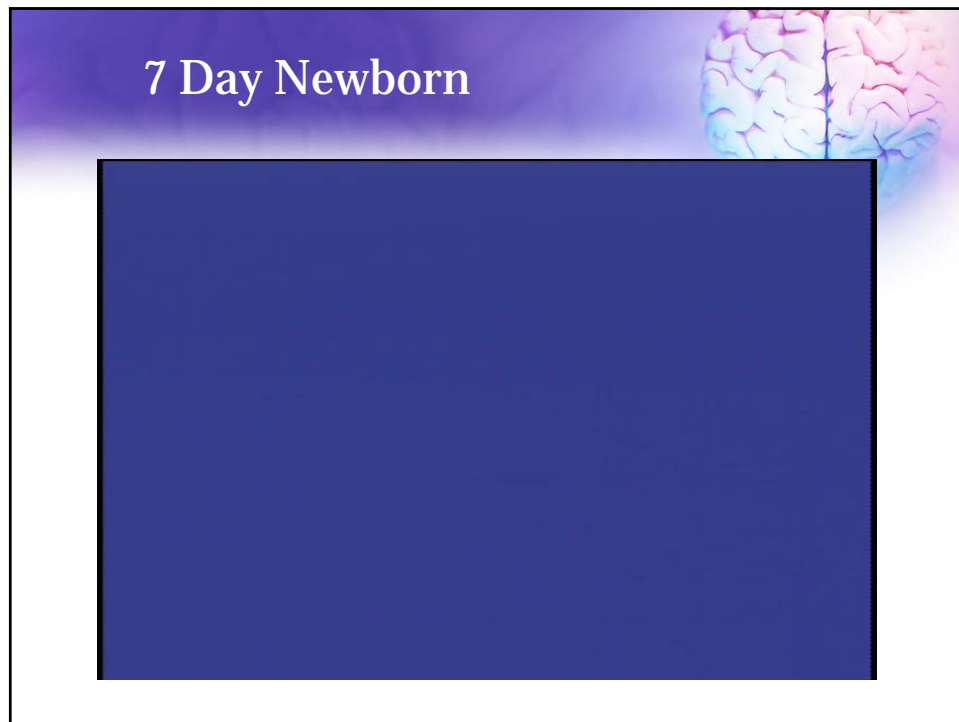
Please circle the non-verbal cues in the video that represent the green zone.

- Happy grandfather 7 days old!
- Happy baby and mom 4 months old

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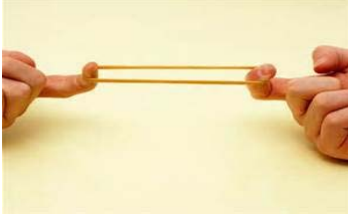
What Do You See & How Do You Show Your Green Zone?

- What non-verbal body cues do you see in the video clips that represent the green zone?
- Pick a vignette to share about your own body's green zone signals with the person to your right!





Adaptive Stress

Stretches out



Bounces back



Step #1B:
How do we identify three primary stress responses?

Recognize the three primary stress responses:

- Red zone
- Blue zone
- Combo zone

These three states of arousal represent flexibility

Reading Non-Verbal Cues:

Red Zone 



A Baby's Flooded State:

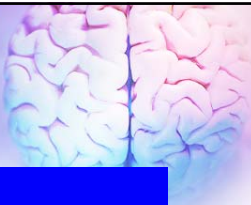


What Do You See & How Do You Show Your Red Zone?



- What non-verbal body cues do you see in the red zone in this video clip?
- Pick a vignette to share about your body's non-verbal cues that signals the red zone with the person to your left!

Flooded – Fight/Flight



HOT
Flight and Fight

Reading Non-Verbal Cues:
Blue Zone



A Baby's Shut-Down State

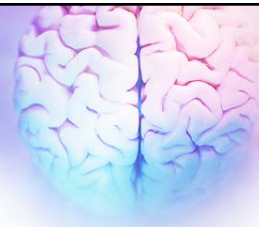


Case Study to Follow

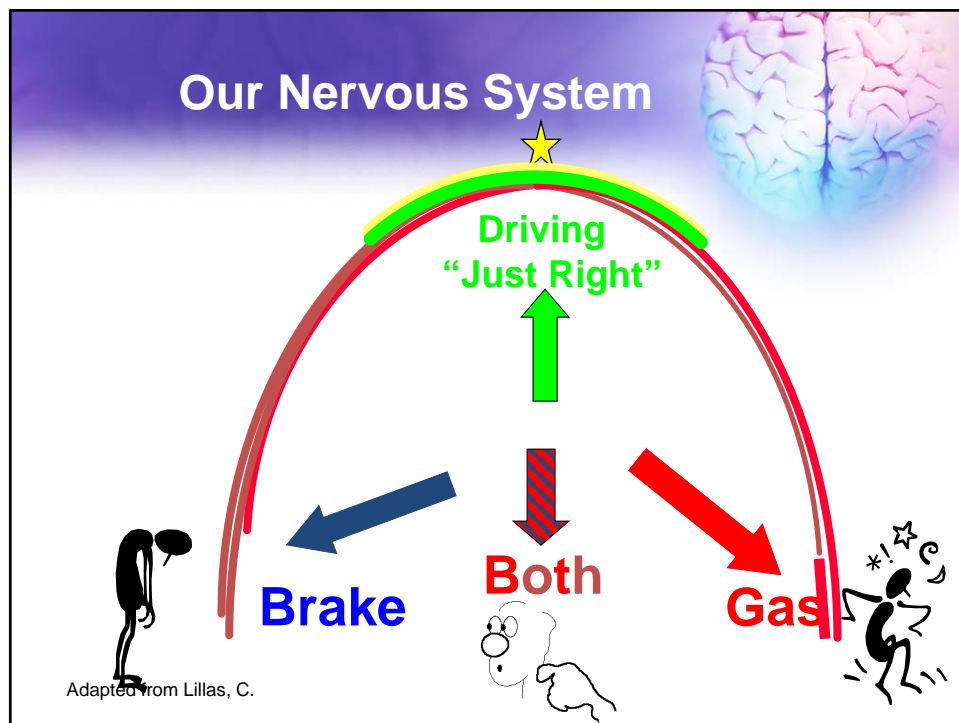


Latina pre-teen mom
Gang member mom and dad
Dad in prison
27.5 week Baby in NICU for 3 months
Mom with multiple trauma's

What Do You See & How Do You Show Your Blue Zone?



- What non-verbal body cues do you see in the blue zone in this video clip?
- Pick a vignette to share about your body's non-verbal cues that signals the blue zone with the person to your right!



Reading Non-Verbal Cues:

Combo Zone ❤️



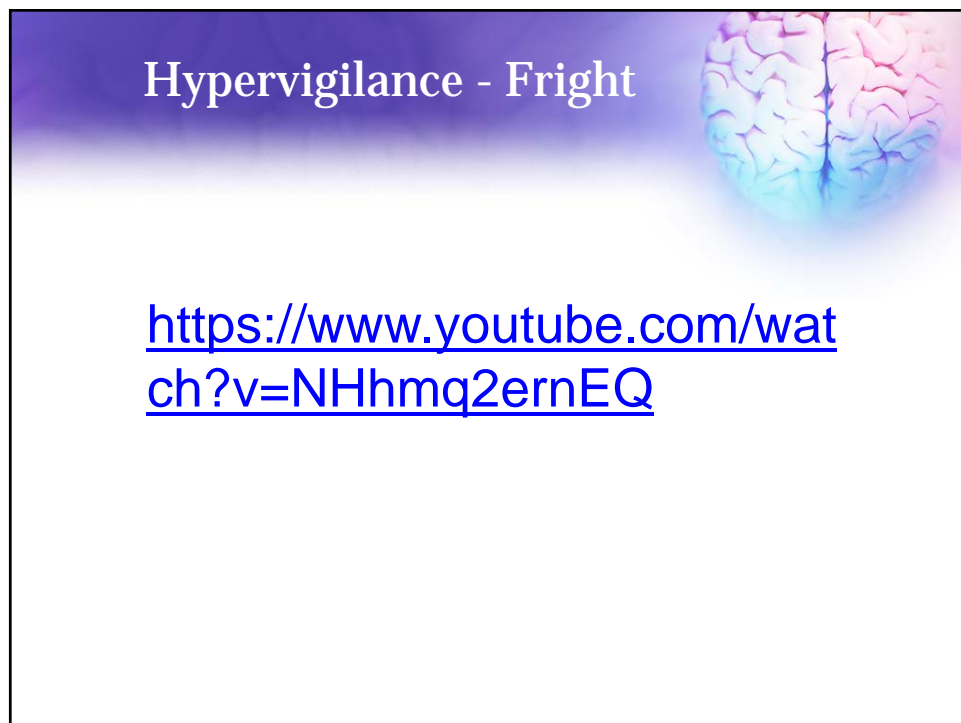
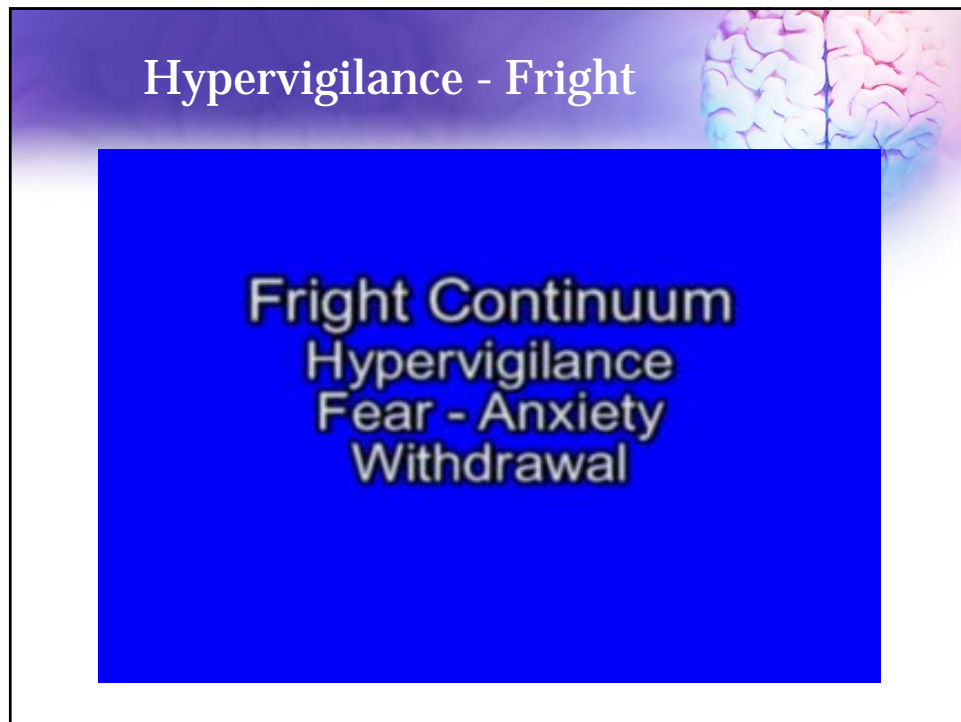
A Baby's Vigilant State:




What Do You See & How Do You Show Your Combo Zone?



- What non-verbal body cues did you see in the combo zone in this video clip?
- Pick a vignette to share about your body's non-verbal cues that signals the combo zone with the person to your left!



What is FROZEN?



- Hypervigilance AND
- Blue zone

Combined!

One foot on the gas, one foot on the brake



At Our Best & Our Worst




<i>Heart Under Coordination</i>	<i>Hand Under Coordination</i>	<i>Head Under Coordination</i>
Responsive	Directive	Reflective
Engagers	Doers	Thinkers
<i>Body Under Stress</i>	<i>Body Under Stress</i>	<i>Body Under Stress</i>
Hypervigilance	Crying, Anger, Rage	Shut Down, Glazed
Fear, Anxiety	Hyperactivity, Mania	Depression, Dissociation

Adapted from Lillas & Turnbull, © 2009


Chinese Proverb



I hear and I forget

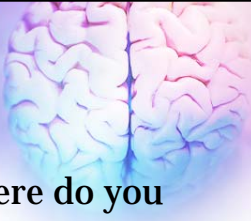


I see and I remember



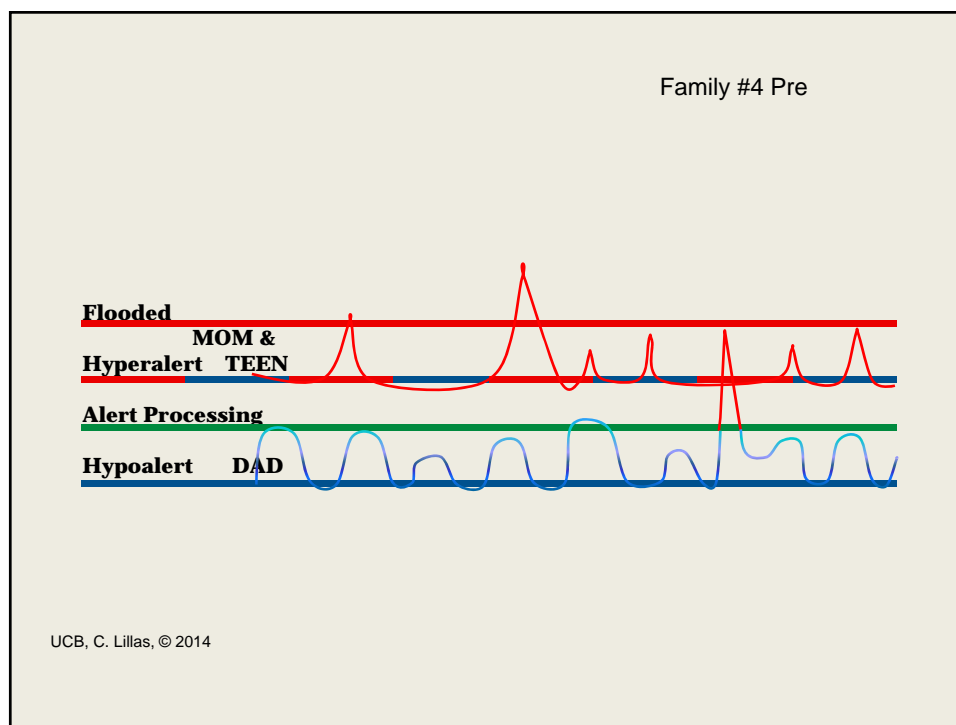
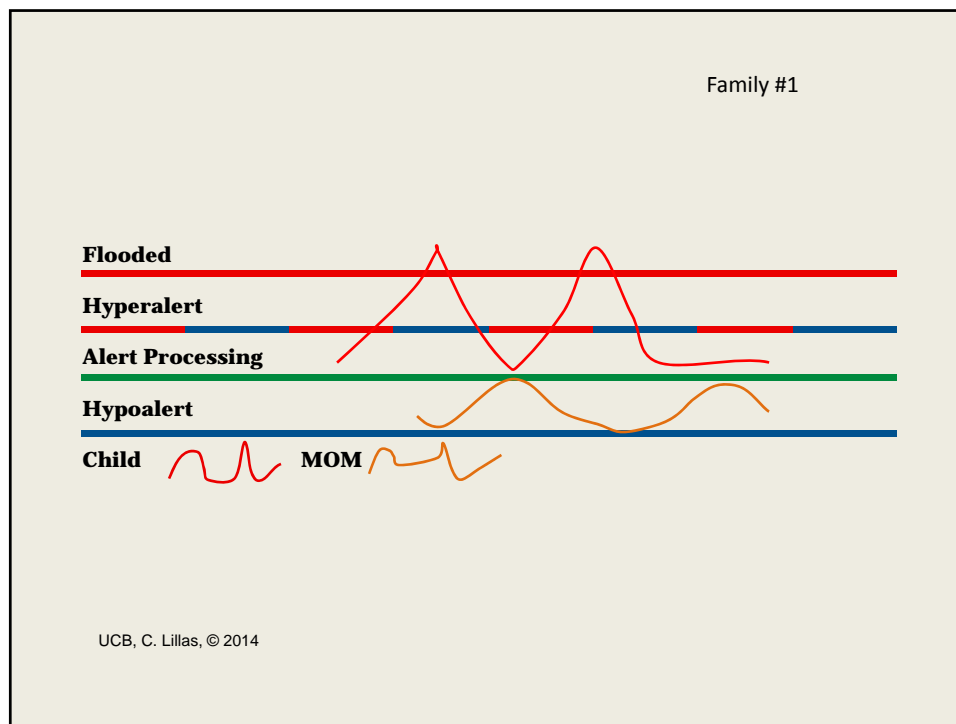
I do and I understand

Patterns

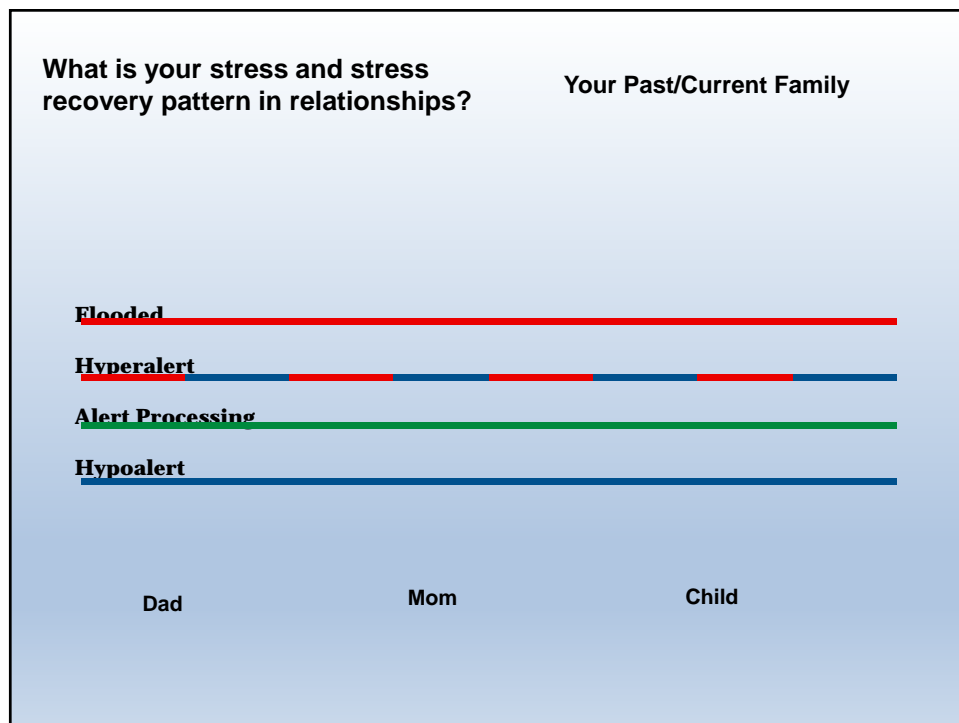


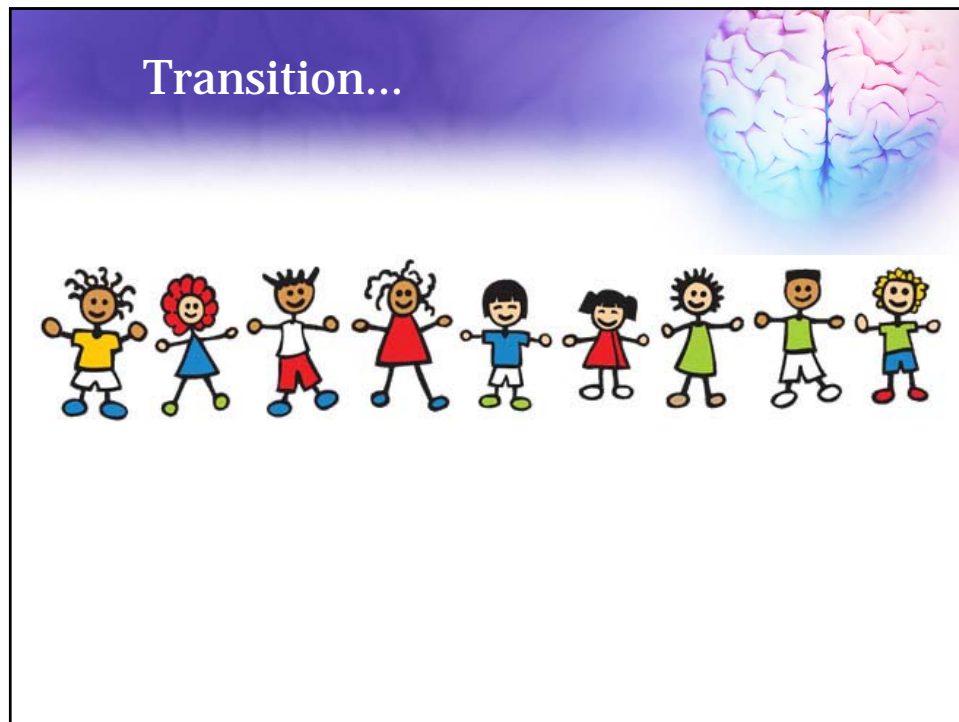
- When your child goes red, where do you go?
- When your child goes blue, where do you go?
- When your child goes combo, where do you go?
- What was your pattern growing up?
- What is the pattern in your current family?

NRF Step #1
Adaptive vs. Toxic Stress



NRF Step #1
Adaptive vs. Toxic Stress





Step #1:
How do we identify stress & stress recovery ?

A. Recognize what stress recovery looks like and who we are at our Best!



© Can Stock Photo - cap5306829

B. Recognize three primary stress responses and who we are at our Worst!

C. Recognize four toxic stress patterns (now)

UCB, C. Lillas, © 2014

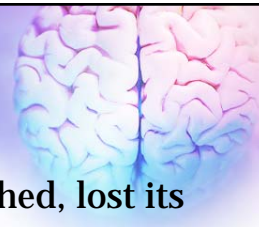
Step 1C: How do we identify toxic stress?



- 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**

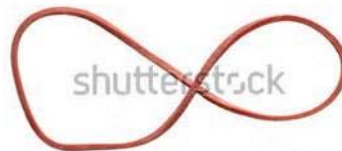
UCB, C. Lillas, © 2014

Toxic Stress

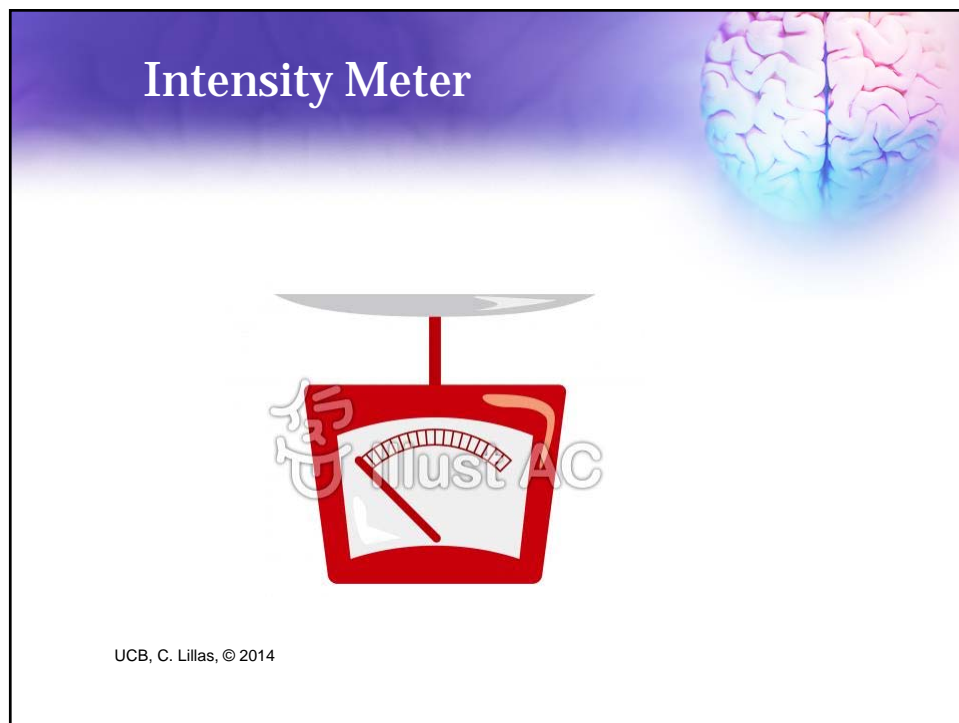


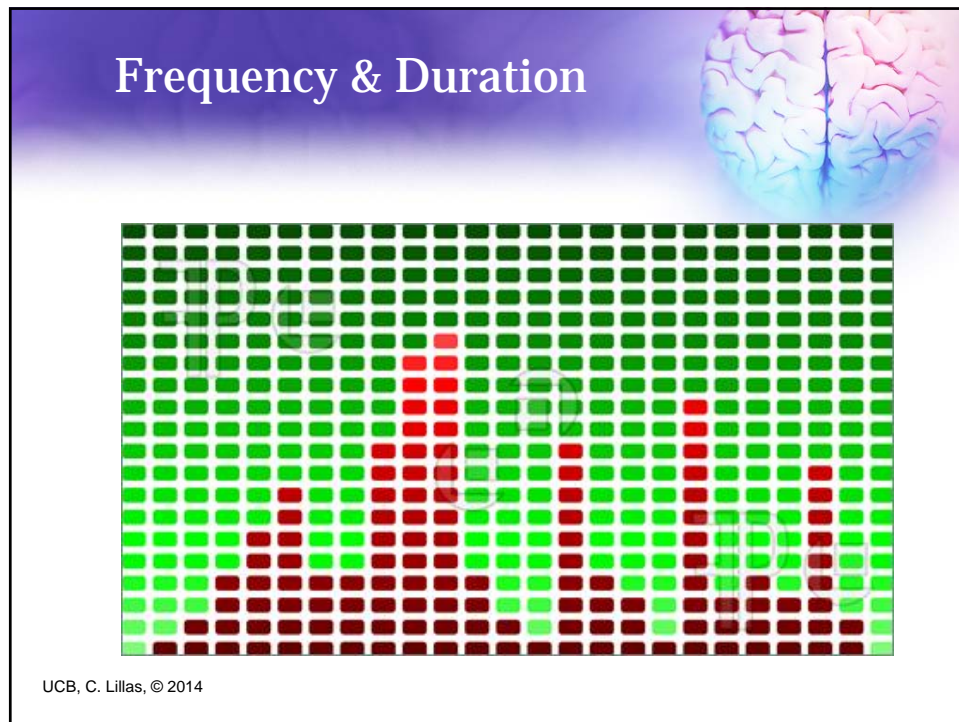
Stretched out too long,
too many times

Overstretched, lost its
elasticity



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Step #1C: *How do we identify toxic stress patterns?*

Recognize stress responses that are
too frequent or too long

4 Toxic Stress Patterns

1. Stress responses that occur too frequently and too quickly
2. Cannot adapt to “normal” challenges and transitions
3. Prolonged stress responses that take too long to recover (more than 10 to 20 mins)
4. Cannot recover from stress response back to baseline health (healthy sleep cycle, healthy awake state)

McEwen

Adverse Childhood Experiences



- Linear increase in negative health/mental health outcomes as number of adverse childhood experiences increase
 - **Events include:**

Abuse

Physical Abuse
Emotional Abuse
Sexual Abuse

Neglect

Physical Neglect
Emotional Neglect

Household Dysfunction

Family Violence
Parental Mental Illness
Separation or loss of a parent
Parental Criminality
Parental Substance Abuse

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

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

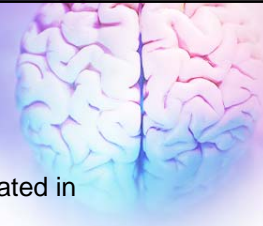
Disease does not begin at the onset of symptoms.
In fact, maladaptive stress related conditions are implicated in all of the following:

Toxic Patterns #1 to 3

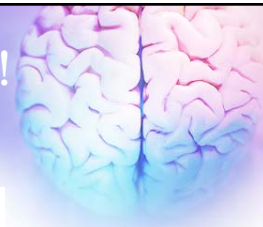
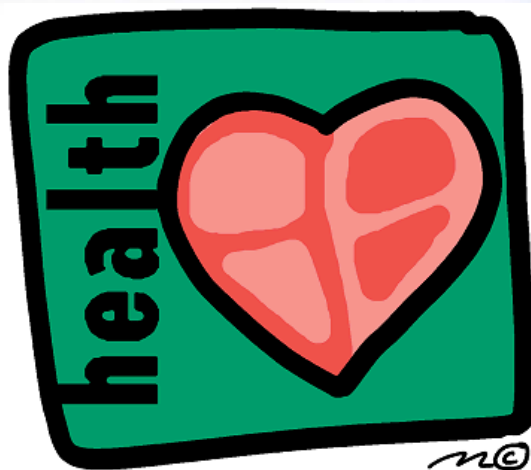
- Increase in heart attack & hypertension
- Melancholic depression
- Obsessive compulsive disorder
- Panic disorder
- Alcoholism
- Lowered immune system
- Decrease in memory functions
- Diabetes
- Malnutrition
- Hyperthyroidism
- Functional gastrointestinal disease

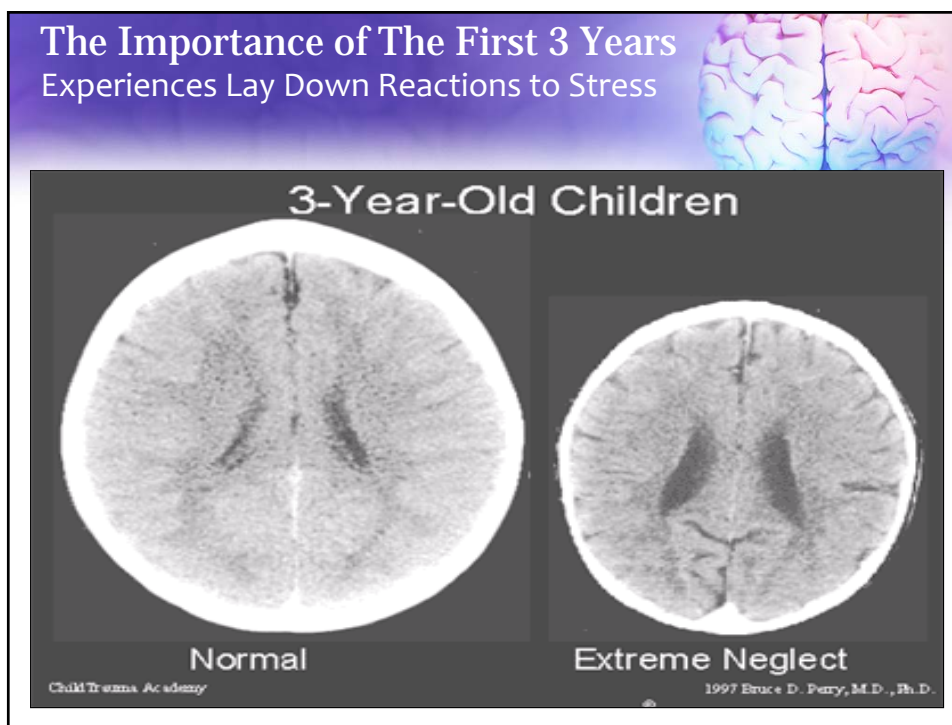
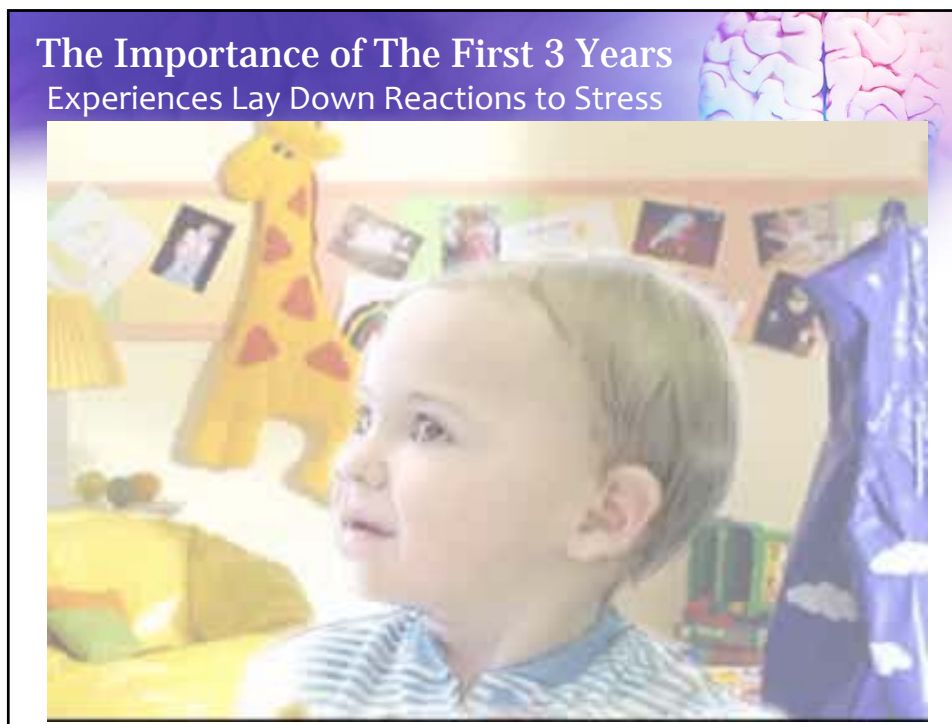
Toxic Pattern #4

- Allergies
- Asthma
- Autoimmune diseases
- Chronic fatigue syndrome
- Rashes
- Rheumatoid arthritis
- Post Traumatic Stress Disorder



Getting back to stress recovery!





Bucharest Early Intervention Program (Los Angeles Times, July 24, 2012)



Following 136 Romanian orphans for now 12 years, first randomized control study of its kind between institutional care, foster care and typically developing children:

- MRI's on 76 of these Inst children. Compared to orphans that went into foster care or had remained in their own homes, those children that remained in institutional care had less white matter (tissue that connects different regions of the brain)
- Essentially, there is less electrical activity in these brains. If a typically developing child is a 100 watt light bulb, these children were a 40 watt light bulb; increased rates of anxiety and depression are prevalent.
- Those who left the institution and went into foster care between 6 and 31 months still had poorer outcomes – similar to institutionalized children, both having increased rates of ADHD & oppositional defiant behaviors

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?”



<http://www.theannainstitute.org/a-bio.html>



NRF Interview Step #1

- Now, please look at the Interview Questions for Step #1.
- Sometimes the wording has to be simplified for your particular family
- Pick one case, ideally, a “new” family that you are going to walk through the NRF with – role play
- Review now to see where you have questions and might get stuck
- Be ready to bring back your experiences to February 19th with Jessica

NRF Step #1
Adaptive vs. Toxic Stress

