

Neurorelational Framework (NRF)

Initial Mapping Assessment

Client: _____ DOB: _____ DOS: _____ ID: _____

STEP 1: STRESS RECOVERY & RESPONSE

Stress Recovery: Sleep

1. Please describe your child's bedtime routine (what do you do in the hour before they go to bed): _____

2. Do you have techniques or rituals to help your child relax at bedtime? Such as taking a warm bath, listening to relaxing music, deep breathing, or imagery. YES NO

3. Is the sleeping environment comfortable? Comfortable bed, comfortable bedroom temperature, a clean, quiet and darkened bedroom. YES NO _____

4. Does your child nap? YES NO _____

5. On average, how long does it usually take your child to fall asleep? _____

6. On average, how many hours of sleep; does your child usually get in a night? _____

7. On average, how many times does your child wake at night? _____

8. In general, how would you describe your child when they wake up: Refreshed
 Not Refreshed _____

9. Others in the home have trouble with falling asleep, staying asleep or feeling refreshed when waking? _____

Green Zone Description: *feel calm, present, regulated, and able to both learn and to connect.*

Green Zone % of Time:	Weekday Intensity	Weekend Intensity
Duration (hours):	Morning:	Morning:
Rhythm (pace):	Afternoon:	Afternoon:
	Evening:	Evening:

Client Name: _____ DOB: _____ DOS: _____ ID: _____

Red Zone Description: <i>the neuro system is firing quickly and there is a lot of activity that is either positive or negative (excitement, anger). "Pedal to the Medal"</i>		
Red Zone % of Time:	Weekday Intensity	Weekend Intensity
Duration (hours):	Morning:	Morning:
Rhythm (pace):	Afternoon:	Afternoon:
	Evening:	Evening
Blue Zone Description: <i>the neuro system is running slow and there is flat affect, withdrawn, detached, zoning out, & in own world. "Brakes"</i>		
Blue Zone % of Time:	Weekday Intensity	Weekend Intensity
Duration (hours):	Morning:	Morning:
Rhythm (pace):	Afternoon:	Afternoon:
	Evening:	Evening
Combo Zone Description: <i>the neuro system is mixed up and client can present w/ anxiety, clinging, whining behavior or appear to be calm but wind up & feel fear on the inside, jerky pace "The New Driver"</i>		
Combo Zone % of Time:	Weekday Intensity	Weekend Intensity
Duration (hours):	Morning:	Morning:
Rhythm (pace):	Afternoon:	Afternoon:
	Evening:	Evening

Stress Patterns/Stress Responses:

1. Is stress occurring to frequently or does the stress response happen very suddenly? YES NO
2. Is there a lack of habituation with stress or trouble with transitioning? YES NO
3. Has the stress occurred over a long period of time? YES NO
4. Does the person recover from the stress response? Is the sleep cycle disorganized? YES NO

Heart, Hand, Head (HHH) Personality Preferences:

	Under Coordination	Under Stress	Zone Characteristics
Heart	Responsive, engaging	Gives too much, over accommodates	Hyper vigilance, fear, anxiety, hyper/frenzied
Hand	Directives, delegates, doers, leads	Demanding, dominates & controls	Crying, anger, rage, mania hyperactivity
Head	Reflective, thinkers, problem-solvers	Detaches, dismisses & ignores	Shut down, glazed, tuned out, depressed, dissociated.

Is there a mismatch of personalities in the home that cause conflict in the family? YES NO

Client Name: _____ DOB: _____ DOS: _____ ID: _____

Step 1 Summary Evaluation

Family Member	Green Zone % / #	Red Zone % / #	Blue Zone % / #	Combo Zone % / #	Frequent Toxic Pattern #	Stress Response (HHH)	Dyadic Conflict Notes
Child:							
Parent 1:							
Parent 2:							

STEP 2: LEVELS OF ENGAGEMENT

	1	2	3	4	5	6
	Age appropriate under all conditions including stress w/ full range of emotions	Age appropriate but vulnerable to stress &/or constricted range of emotions	Has capacity but not @ age appropriate level	Inconsistent/ needs sensorimotor support & structure to function at this capacity	Barely evidence capacity even w/support	Has not reached this level
Functional Capacities	BOTTOM-UP					
Level 1: Calm Together: Getting Calm (Green Zone) Together (by 3 months)						
Level 2: Comfort Together: 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 & connecting (by 3 months)						
Level 3: Sharing Joy: When making comforting contact, able to share joy & fall in love (by 5 months)						
Level 4: Serve & Return Communication: When sharing joy, able to create a continuous back & forth flow of communication (circles) (by 9 months of age)						
Level 5: Reading Non-Verbal Cues: When in the flow, able to expand & read non-verbal emotional & gestural cues (by 13-18 months of age)						
	TOP-DOWN					
Level 6: Sharing Emotional Themes: When reading cues, able to share feelings with others through pretend play &/or talking (24-36 months)						
Level 7: Linking Cause & Effect: When sharing feelings, able to make sense & solve problems together (36-48 months of age)						

Client Name: _____ DOB: _____ DOS: _____ ID: _____

Description Notes of Interaction: _____

Was a KIPS Completed? YES NO Score: _____ Interaction Normal Cautionary Failure

STEP 3: BRAIN SYSTEMS

4 Brain System Risk Factors (use worksheet for scores)

Family Member	Regulation	Sensory	Relevance	Executive	ACE Score
Child:	/13	/7	/15	/14	/9
Parent 1:	/17	/7	/15	/14	/9
Parent 2:	/17	/7	/15	/14	/9

Regulation System	Preferences	Triggers/Concerns
Sleep Cycle		
Alert Processing State		
Adaptive use of all stress responses		
Distinct states w/ smooth transitions between state arousals		
Connection to visceral cues		
Capacity for efficient stress recovery		

Regulation System Notes:

Sensory System	Preferences	Triggers/Concerns
Sensory Processing: Capacity to receive, translate, associate & elaborate sensory signals		

Client Name: _____ DOB: _____ DOS: _____ ID: _____

Sensory Modulation: Balance the flow of sensory signals appropriate to context		
Sensory System Notes:		
Relevance System	Preferences	Triggers/Concerns
Capacity to flexibly experience, express & modulate a full range of emotions appropriate to context		
Capacity to learn from experience by scanning a full range of memories appropriate to the context		
Capacity to create meanings that accurately reflect self & others		
Relevance System Notes:		
Executive System	Preferences	Triggers/Concerns
Capacity to express spontaneous, automatic & consciously controlled behaviors in a flexible & purposeful manner		
Capacity to integrate bottom-up w/ top-down control of thoughts		
Capacity to assess, integrate & prioritize one's own personal needs in relation to other's & their context needs (Theory of Mind)		
Executive System Notes:		

Awake States with Stress Responses

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

Parental Risk Factors

That Can Comprise a Parent's Ability to Provide Interactive Regulation

- Significant prenatal stressors
- No or poor prenatal care
- History of, or current substance abuse, smoking
- Teenage pregnancy
- Poor nutrition
- Premature labor
- Multiple births
- Genetic disorder(s)
- Chronic medical condition(s)
- Chronic allergies
- Sleep difficulties
- Rigid or chaotic pattern of arousal energy that is entrenched (hypoalert, hyperalert, flooded)
- Low maternal education
- Few financial resources
- Inadequate food, shelter, or clothing
- Limited community resources

- Loss of hearing or vision
- Inaccurate processing of information
- Slow processing of information
- Speech abnormality
- Learning disorder(s)
- Overreactive, underreactive, or both to sensory information

- A domestic violence participant
- Personal history of abuse and/or neglect
- History of children removed from home; abuse/neglect of other children
- Multiple children to care for
- Weak commitment to child
- Familial history of mental illness
- Chronically depressed or anxious
- Rapid swings into high-intensity emotions; low frustration tolerance
- Lack of empathy for self and others
- Difficulty making eye contact and lacking warmth
- Negative appraisal of child as willfully disobeying or as not loving parent
- Parent unable to set boundaries and over-accommodates child
- Discrepancies exist among words, actions, or nonverbal communication
- Learning disruptions
- Inability to ask for help when necessary

- Motorically clumsy, awkward, or lethargic
- High distractibility
- High impulsivity
- Unable to delay gratification
- Lacks stable routines
- Adheres to rigid routines and habits, avoiding novelty
- Difficulty anticipating the need to sequence and implement agreed-on clinical input
- Lacks a willingness to incorporate a new way to understand a child'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 part in relation to the whole

Global Questions

That Assess the Overall Functioning of Each Brain System

REGULATION

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

Child Risk Factors

That Can Decrease Self-Regulation and Increase the Need for Interactive Regulation

- Prenatal maternal stress
- No or poor prenatal care
- Intrauterine growth retardation or fetal malnutrition
- Toxins in utero
- Premature birth
- Genetic disorder(s)
- Infant medical condition(s)
- Chronic allergies
- Feeding problems
- Poor suck, swallow, and breath coordination
- Poor nutrition
- Sleep difficulties
- Rigid or chaotic pattern of arousal energy that is entrenched (hypoalert, hyperalert, flooded)

- Loss of hearing or vision
- Inaccurate processing of information
- Slow processing of information
- Speech delay
- Learning disorder(s)
- Overreactive, underreactive, or both to sensory information
- Institutional care or neglect without adequate sensory information

- Male preterm infant
- Exposure to domestic violence
- Abuse and/or neglect
- Traumatic memories
- Lack of emotional care due to foster care or orphanage placement
- Chronically depressed or anxious
- Rapid swings into high-intensity emotions; low frustration tolerance
- Lack of empathy for self and others
- Lack of eye contact, absence of interest in others and/or lack of social referencing (overly detached)
- 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 among words, actions, or nonverbal communication
- Learning disruptions
- Inability to ask for help when necessary

- 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 part in relation to the whole

Assessment of Load Conditions and Current Brain Capacities for Child and Parents

Instructions:

1. Place a ✓ mark in each box that applies to the parents (P1 and P2) and the child (C) for both categories: triggers and concerns and preferences and strengths.
2. Place an N/A in capacities that do not apply to the child for developmental reasons.
3. The three highlighted items are three global intervention goals that all team members can use.

Name: _____

Date: _____

TRIGGERS & CONCERNS

PREFERENCES & STRENGTHS

Four Load Conditions

1. Too frequent stress responses to real or perceived stressors
2. Inability to adjust (habituate) to initial challenges that, over time, should no longer be stressful
3. Prolonged stress response after the stressor is removed
4. Inadequate stress recovery back to baseline

P1	C	P2

Regulation

▪ Deep sleep cycling
▪ Stable and expanding alert processing state
▪ Expression of all three stress responses
▪ Distinct states w/ smooth transitions
▪ Connection to visceral cues
▪ Efficient stress recovery

P1	C	P2

P1	C	P2

Sensory

▪ Internal (body)
○ Pain (visceral, hunger, pain, pressure)
○ Balance/vestibular/movement
○ Proprioception (use of joints, muscles)
▪ External (world)
○ Tactile (light and deep touch)
○ Taste
○ Smell
○ Auditory
○ Vision
▪ Processing
▪ Modulation

P1	C	P2

P1	C	P2

Relevance

▪ Full range of emotions (positive and negative)
▪ Appropriate access to full range of memories
▪ Accurate meanings of self and other

P1	C	P2

P1	C	P2

Executive

▪ Purposeful adaptive behavior
○ Spontaneous format
○ Automatic format
○ Conscious control format
▪ Integrating thoughts and emotions
▪ Shifting between self and other/context

P1	C	P2

P1	C	P2