

Applying the Neurosequential Model of Therapeutics (NMT)

A ROAD MAP TO SUPPORT
EFFECTIVE ASSESSMENT,
SELECTION AND SEQUENCING OF
INTERVENTIONS, AND MEASUREMENT
OF PROGRESS

ALI FREEDMAN, PSYD, REGIONAL VICE PRESIDENT, FRED FINCH YOUTH CENTER
JORGE CABRERA, ACSW, SENIOR DIRECTOR, CASEY FAMILY PROGRAMS

Who we are and why are we
presenting this material?

What is NMT?

The Neurosequential Model of Therapeutics is a “trauma-informed,” developmentally-sensitive, approach to the clinical problem solving process.

It is not a therapy – and does not specifically imply, endorse or require – any single therapeutic technique or method.

All rights reserved © 2007-2014 Bruce D. Perry

Semi-structured, quantitative assessment process: NMT Clinical Practice Tools (Metrics)

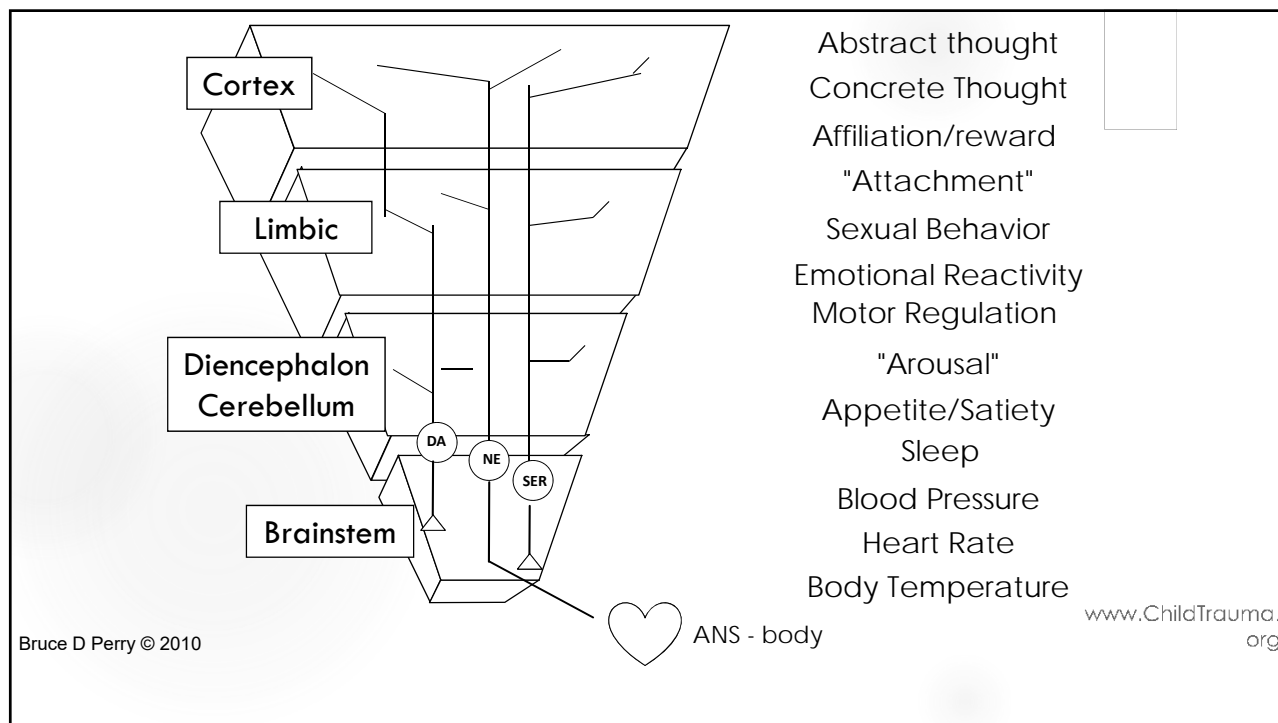
- ▣ Developmental History
 - ▣ Genetic
 - ▣ Epigenetic
 - ▣ Adverse Experiences
 - ▣ Developmental Timing
 - ▣ Nature, Severity, Pattern
 - ▣ Relational Health
 - ▣ Developmental Timing
 - ▣ Bonding and attachment
 - ▣ Family supports
 - ▣ Community supports
- ▣ Current Functioning
 - ▣ Individual CNS
 - ▣ Brainstem
 - ▣ Diencephalon/CBL
 - ▣ Limbic
 - ▣ Cortex/F TCTX
 - ▣ Relational
 - ▣ Family
 - ▣ Peers
 - ▣ School
 - ▣ Community

All rights reserved © 2007-2014 Bruce D. Perry

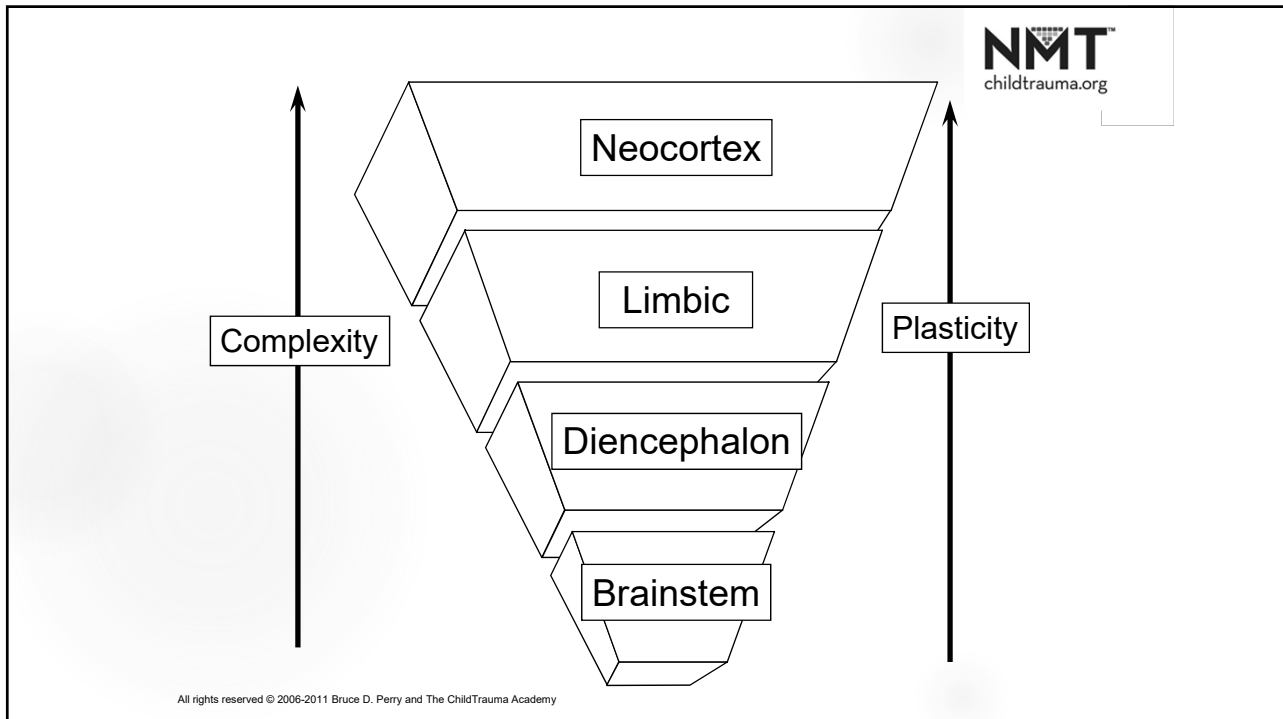
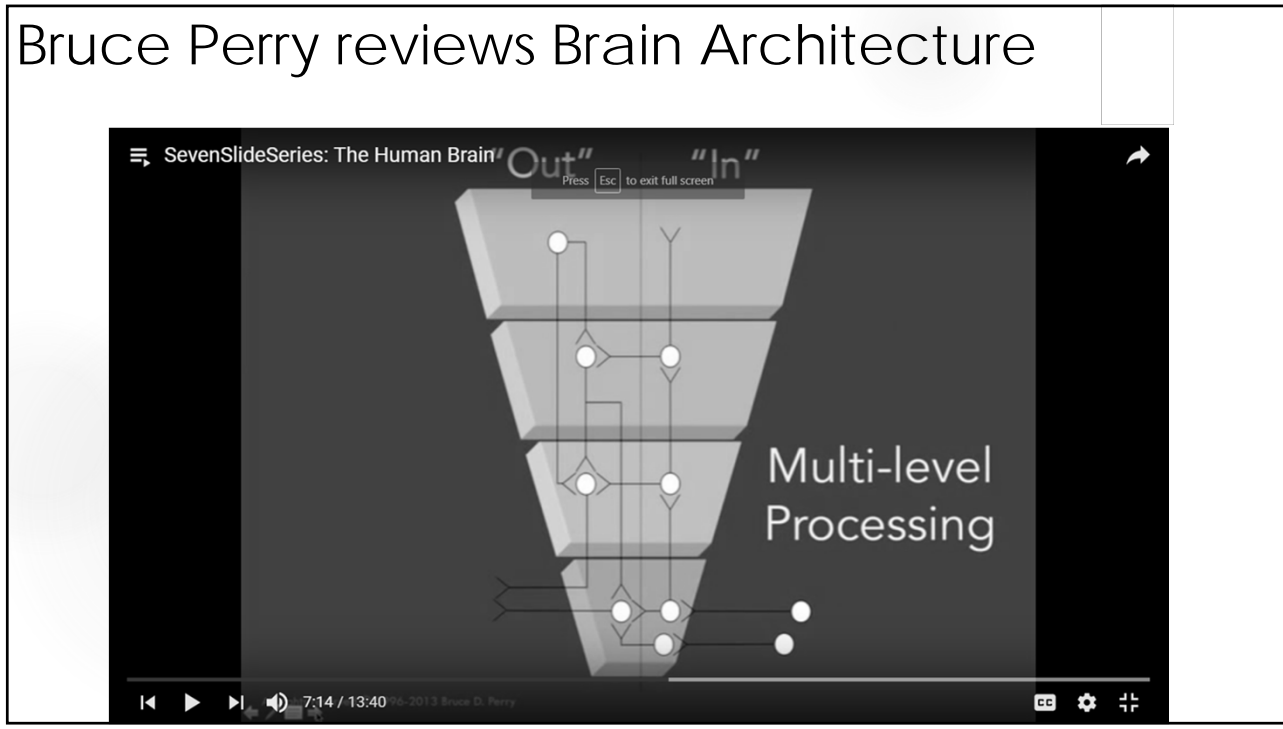
NMT Clinical Practice Tools (NMT Metrics)

1. Is not a stand-alone evaluation or assessment.
2. Should not be used out of context of broader assessment and formulation.
3. Is a supplement not a replacement to clinical problem solving and planning.
4. Can inform information gathering, analysis, action and review but not appropriate for stand-alone evidence in court.
5. Final decisions and recommendations must be based on clinical expertise and judgment.

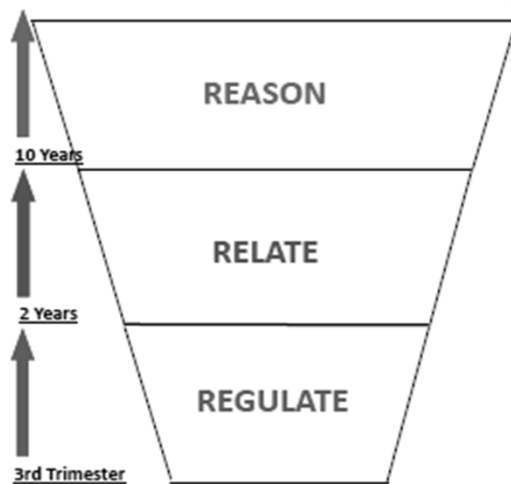
All rights reserved © 2007-2014 Bruce D. Perry



Bruce Perry reviews Brain Architecture



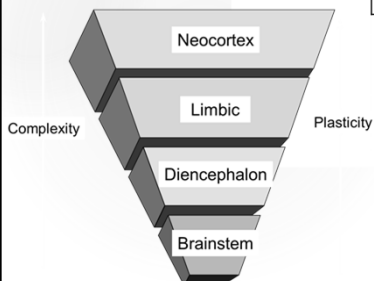
Brain Organization by Core Function



All rights reserved © 2007-2014 Bruce D. Perry

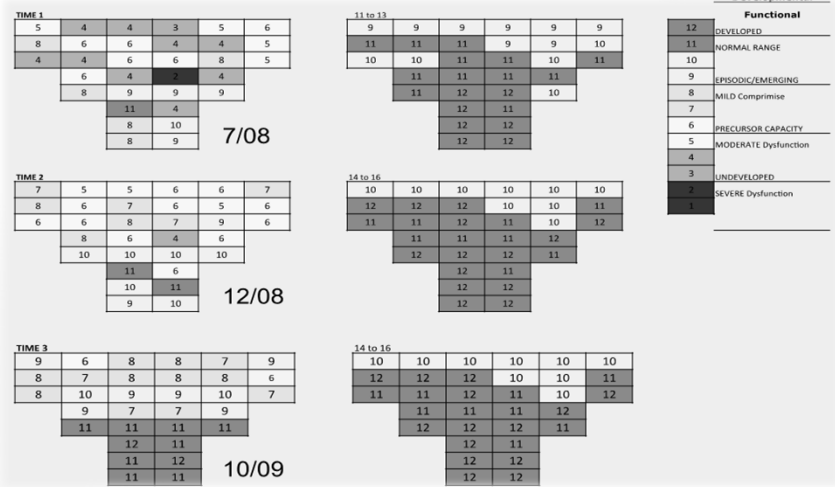
Functional Brain Map Key (Part C)

Abstract Cognition	Math/ Symbolic Cognition	Performance	Modulate Reactivity/ Impulsivity	Verbal	Values/ Beliefs/ Morality
Speech/ Articulation	Language/ Communication	Somato/ Motorsensory Integration	Sense Time/Delay Gratification	Self Awareness/ Self Image	Concrete Cognition
Share/ Relational	Attunement	Reward	Affect Regulation/ Mood	Psycho-sexual	Short-term memory/ Learning
	Neuroendocrine / Hypothalamic	Dissociative Continuum	Arousal Continuum	Primary Sensory Integration	
	Fine Motor Skills	Feeding/ Appetite	Sleep	Coordination/ Large Motor Functioning	
		Suck/Swallow/ Gag	Attention/ Tracking		
		Temperature regulation/ Metabolism	Extraocular Eye Movements		
		Cardiovascular	Autonomic Regulation		



All rights reserved © 2007-2014 Bruce D. Perry

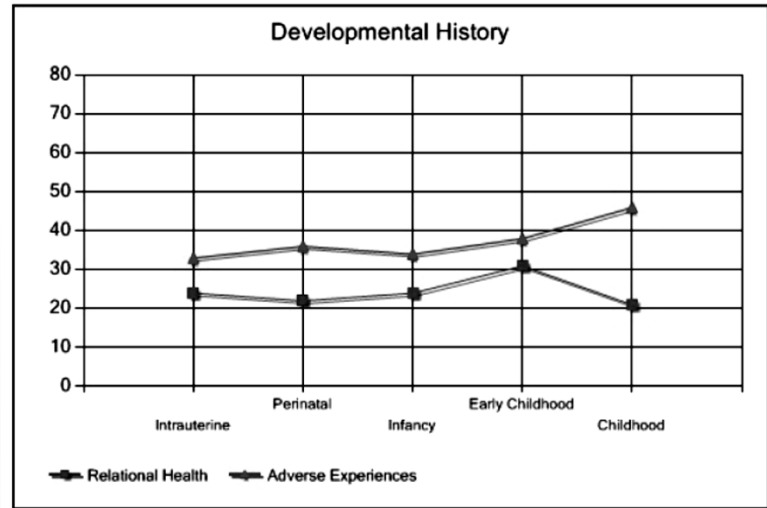
Outcomes: Multiple Times

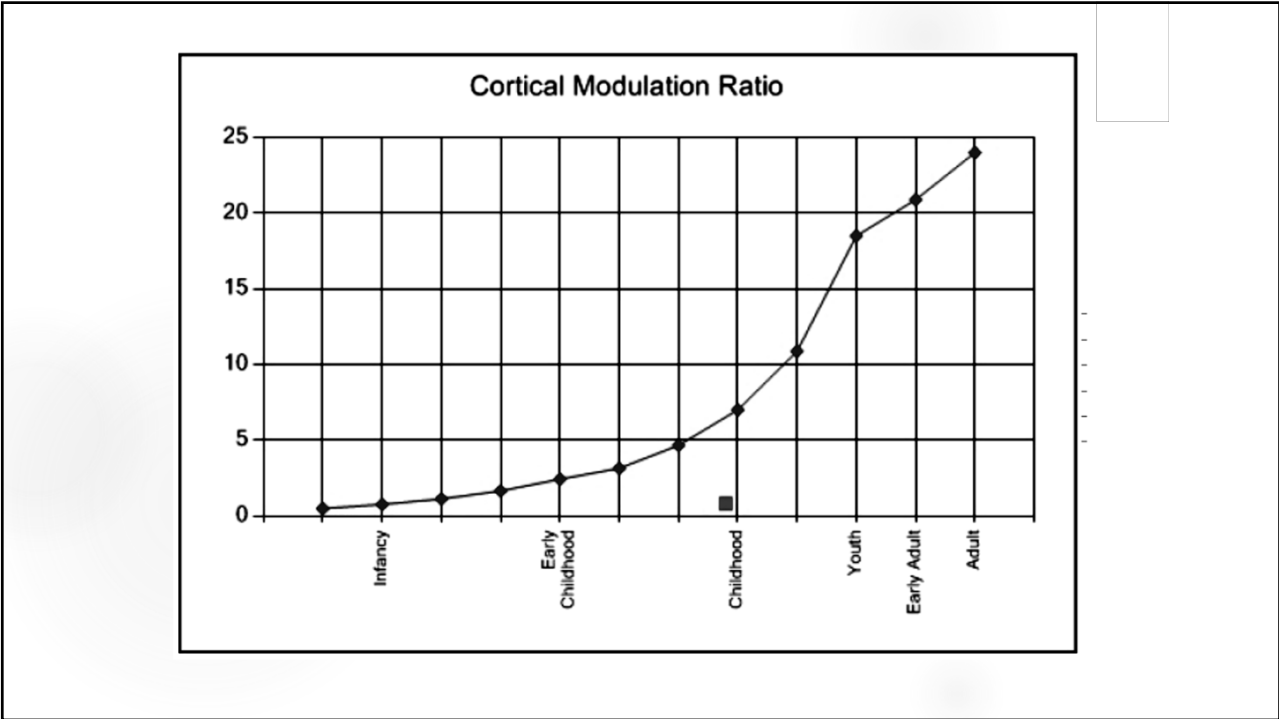
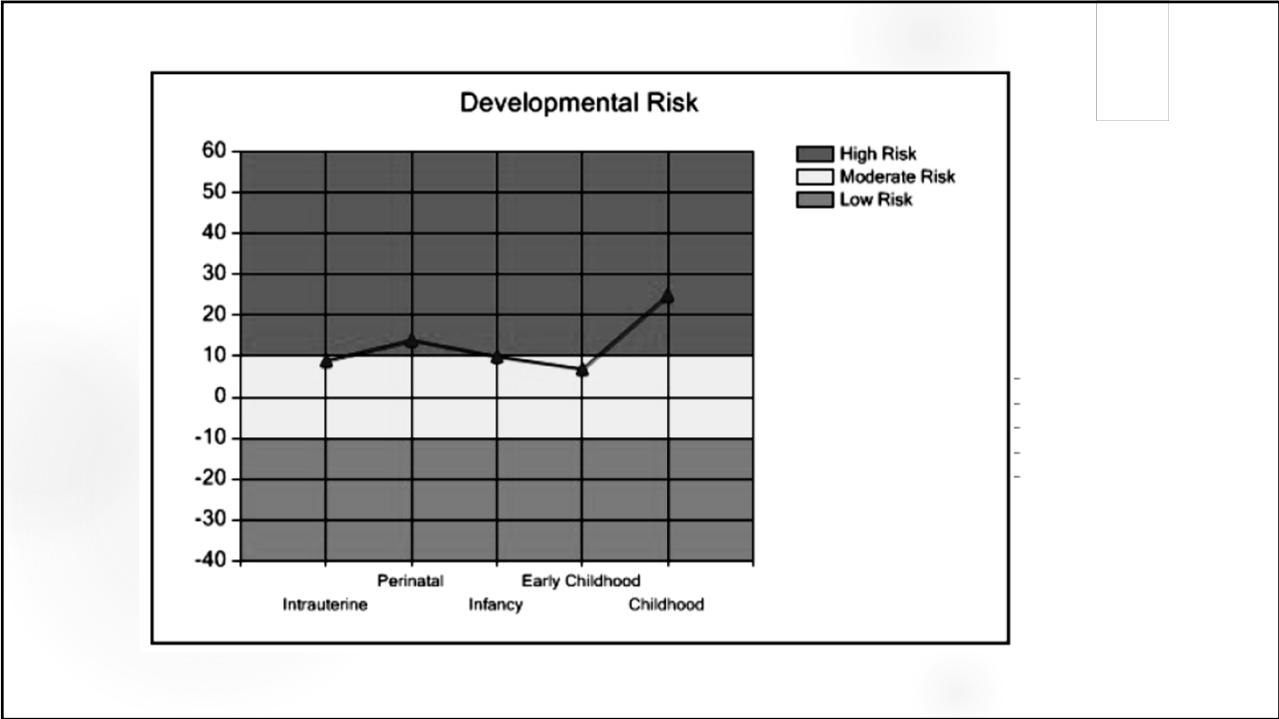


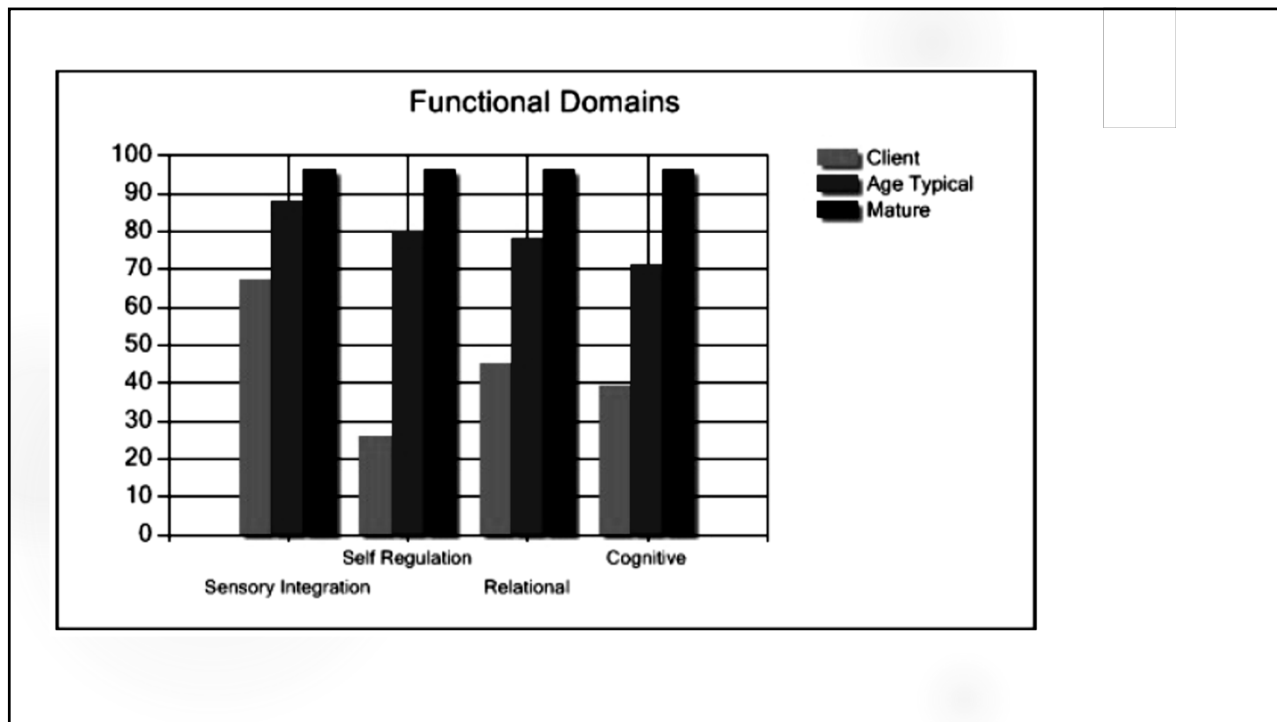
Client: Christopher

Age Typical

All rights reserved © 2010 Bruce D. Perry



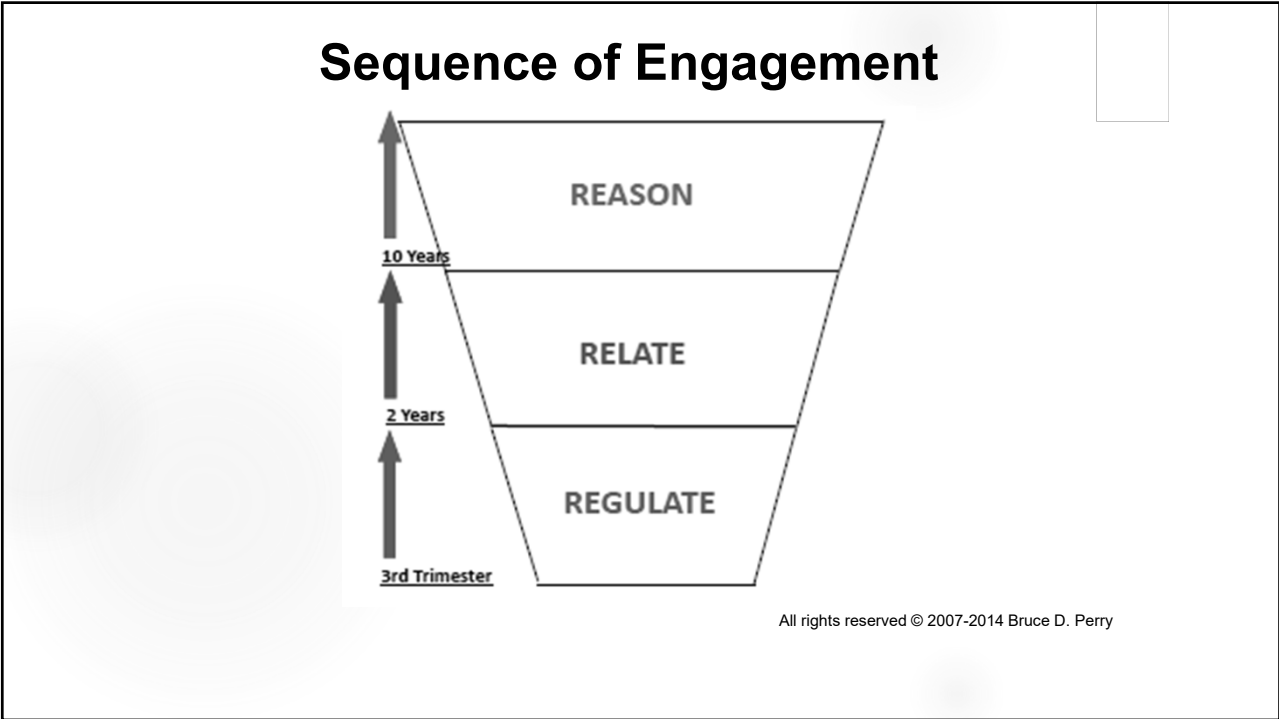




Neurosequential Model of Therapeutics (NMT) – Recommendations

- ▶ **Essential = activities crucial to child’s future growth in particular area.** (Score below 65% of typical age score). Unless functioning in essential area is increased child will lack foundations for future growth and development in this and other areas.
- ▶ **Therapeutic = activities aimed at building in strength and growth in particular area.** (Scores within 65 to 85% of typical age are appropriate for more focused treatment). These activities are important for child’s continued growth and improvement in area.
- ▶ **Enrichment = activities providing positive, valuable experiences that continue to build capacity in given area.** (Scores are at or above 85% of age typical functioning). Activities are designed to enhance and reinforce strengths previously built into area.

Interventions



Core Elements of Positive Developmental, Educational and Therapeutic Experiences

- ▶ Relational (safe)
- ▶ Relevant (developmentally-matched)
- ▶ Repetitive (patterned)
- ▶ Rewarding (pleasurable)
- ▶ Rhythmic (resonant with biology)
- ▶ Respectful (child, family, culture)

A Background History...

- ▶ Maria is a 12 year old female with a lengthy history in foster care
- ▶ Originally removed when she was 1 year old and reunified with bio mother but experienced a second removal, at age 8
- ▶ Exposed to a history of parental substance abuse, domestic violence and chaotic home environment, that included numerous moves and poverty
- ▶ Presenting with anger, low levels of impulse control, sleep disruptions, and a history of multiple placement disruptions

Initial Map

- ▶ Abstract cognition
- ▶ Modulate reactivity/impulsivity
- ▶ Row of Relational – share/relational,
 - ▶ attunement/empathy, reward, affect
- ▶ Dissociative, Arousal continuum
- ▶ Attention tracking, sleep
- ▶ Cardiovascular, temperature regulation

Client (10 years, 4 months) Report Date: 9/2/2014

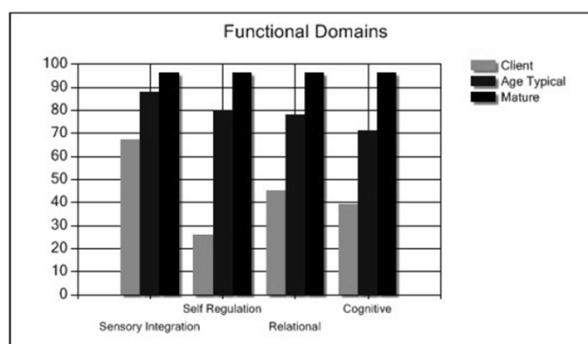
2	6	4	2	4	3
10	6	7	4	5	7
3	2	4	3	7	7
	2	3	2	6	
10	11	4	9		
	11	2			
	7	11			
	5	8			

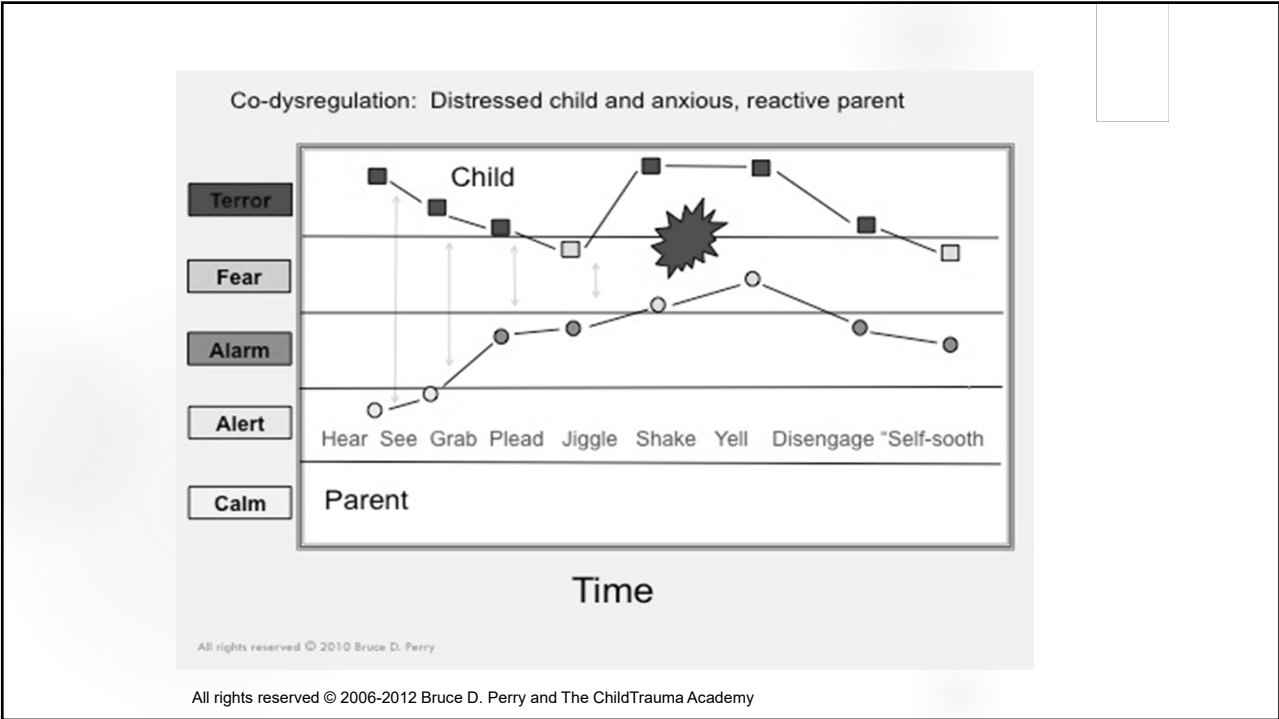
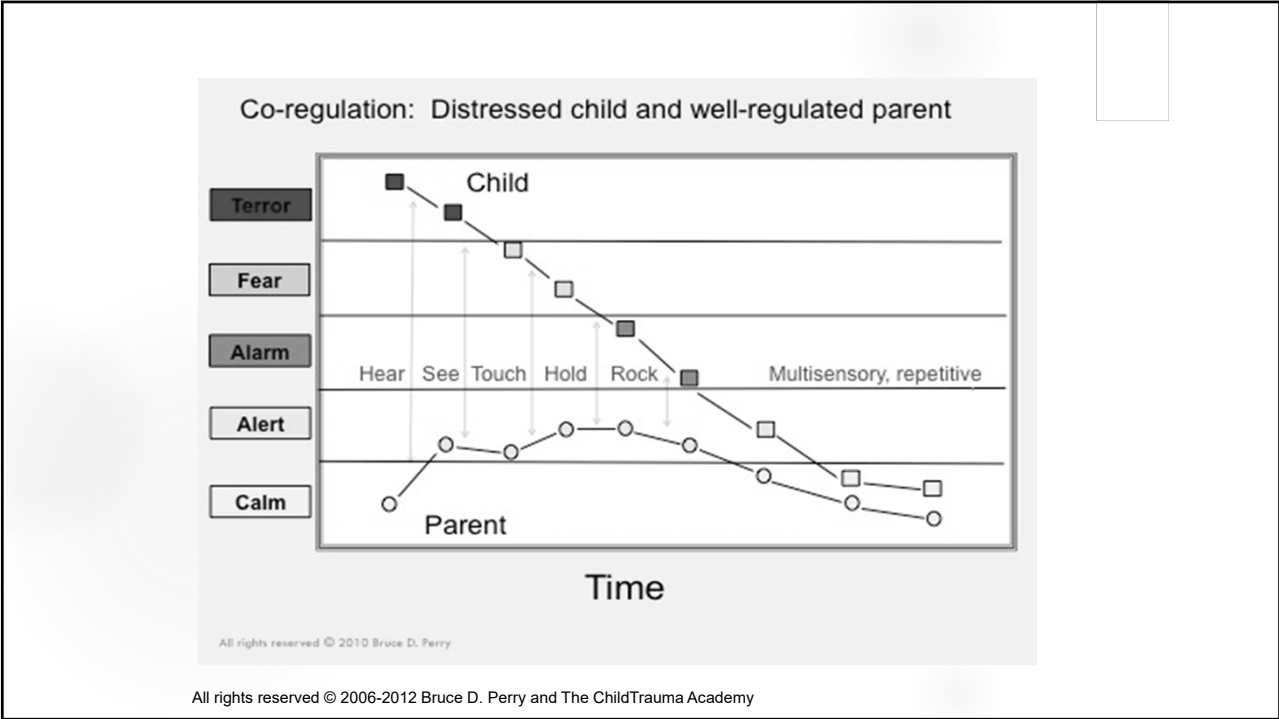
Age Typical - 8 to 10

8	8	8	8	8	8
10	11	10	8	8	9
9	10	11	10	9	11
	10	10	10	11	
	10	11	11	9	
		12	11		
		12	12		
		12	12		

General Sequential Recommendations

- ▶ Sensory Integration – Therapeutic 76%
- ▶ Self Regulation – Essential 32%
- ▶ Relational – Essential 57%
- ▶ Cognitive – Essential 54%





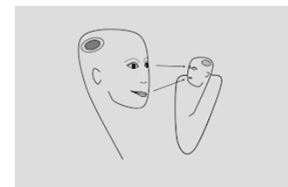
Interventions with Mother

▶ Engagement

- ▶ Relationship building over time
- ▶ Address bio parent's history of trauma and impacts on parenting (psychoeducation)
- ▶ Tangible resources, e.g. transportation, rent assistance, etc.
- ▶ System navigation

▶ Parent Coaching

- ▶ Use of NMT metrics and resources for parent education and engagement
- ▶ Parent coaching - Casey staff, Wrap Parent Partners, Therapist
- ▶ Space and opportunity for "dosing" - availability of staff, therapist
- ▶ Learned about own dysregulation and impacts on child's response
- ▶ Co-joint therapy sessions.



Therapeutic Activities with Youth

- Boxing
- Animal Interaction
- Traditional therapy with medication management
- Sleep Hygiene (Tea and reading)

Re-Map after 17 months Interventions

Client (11 years, 9 months) Report Date: 2/17/2016

7	8	7	7	7	7
11	9	9	7	7	9
8	7	9	8	8	9
	9	7	7	8	
	11	10	10	10	
		12	10		
		10	12		
		9	11		

Age Typical - 11 to 13

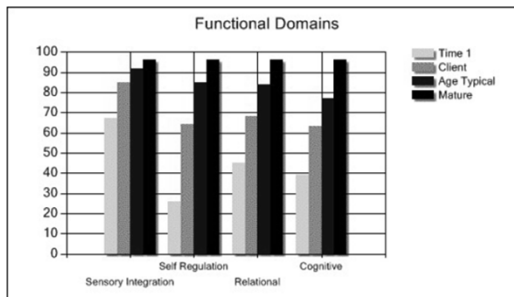
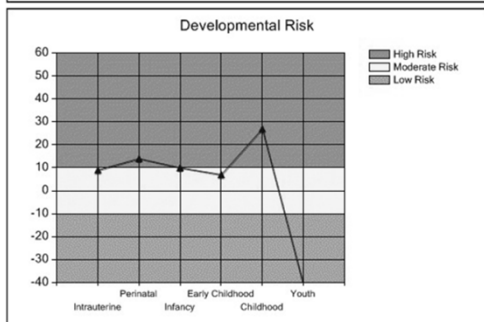
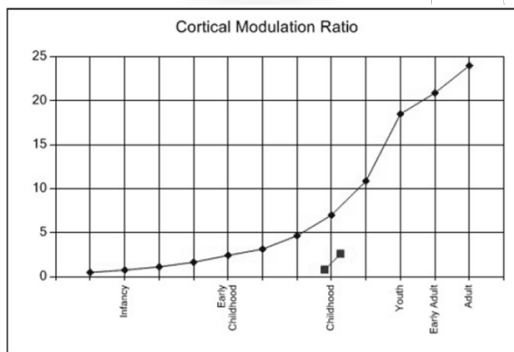
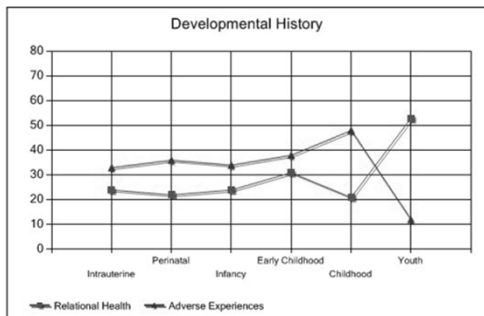
9	9	9	9	9	9
11	11	11	9	9	10
10	10	11	11	10	11
	11	11	11	11	
	11	12	12	10	
		12	11		
		12	12		
		12	12		

Client (10 years, 4 months) Report Date: 9/2/2014

2	6	4	2	4	3
10	6	7	4	5	7
3	2	4	3	7	7
	2	3	2	6	
	10	11	4	9	
		11	2		
		7	11		
		5	8		

Age Typical - 8 to 10

8	8	8	8	8	8
10	11	10	8	8	9
9	10	11	10	9	11
	10	10	10	11	
	10	11	11	9	
		12	11		
		12	12		
		12	12		



Conclusions

- ▶ Set of useful tools and organizing concepts, regardless of NMT certification
- ▶ Grounded in brain science and neurodevelopment
- ▶ Assists with critically assessing interventions with a sequential lens that mirrors brain development
- ▶ Communication resource for parents, service providers, social workers, etc.
- ▶ Emphasis on sensory motor integration
- ▶ Strong emphasis on caregiver capacity as the main purveyor of change and healing

Questions?

FOR REFERENCES AND RESOURCES
WWW.CHILDTRAUMA.ORG