

Neurosequential Model Core Slides


"Best Hits" Package


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 Info NMN

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NMEC
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NMRS
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"You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete."

- Buckminster Fuller

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Essentially, all models are wrong, but some are useful.

--- George E. P. Box, in Norman R. Draper (1987). Empirical Model-Building and Response Surfaces, p. 424, Wiley. ISBN 0471810339

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WHAT IS NMT?

The Neurosequential Model of Therapeutics is a neuroscience-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.

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The NMT is both an 'evidence-based' and an 'evidence-generating' practice.

The web-based, standardized assessment elements allow the collection of aggregate data to facilitate the ongoing monitoring of a range of individual and program outcomes.

The model is designed to allow iterative modifications to improve program and treatment plan elements.

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The Neurosequential Model

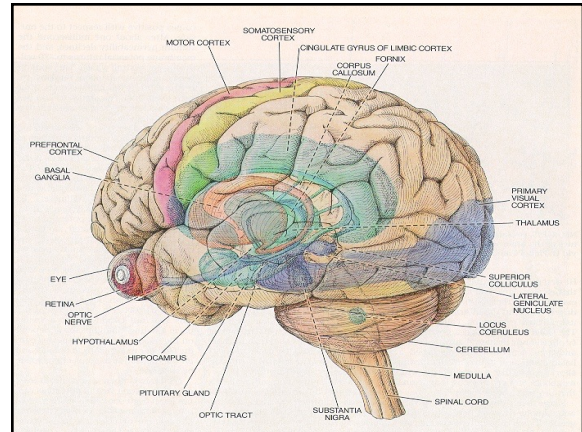
The brain mediates our thoughts, feelings, actions and connections to others and the world.

Understanding core principles of neuroscience, including neuroplasticity and neurodevelopment, can help us better understand ourselves and others.


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Neurons	86,000,000,000	86 Billion
Glia	111,800,000,000	111 Billion
Synaptic boutons	430,000,000,000,000	420 TRILLION
Synaptic proteins	8,603,956,000,000,000,000	8.4 QUADRILLION
Polarizations/minute	2,581,186,800,000,000,000	2.5 QUADRILLION/minute

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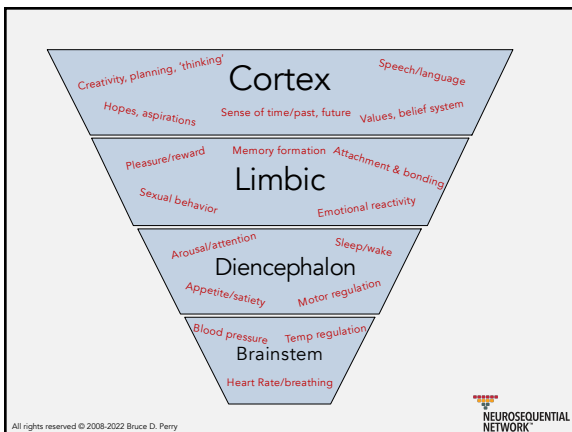
Heuristic (/hjuˈnɪstɪk/; Greek: "heuriskein", "find" or "discover") refers to experience-based techniques for problem solving, learning, and discovery that employ a practical method not guaranteed to be optimal, but sufficient for immediate goals. *Where finding an optimal solution is impractical, heuristic methods are used to speed up the process of finding a satisfactory solution via mental shortcuts to ease the cognitive load of making a decision.* Examples of this method include using a rule of thumb, an educated guess, an intuitive judgment, stereotyping, or common sense.

In more precise terms, heuristics are strategies using readily accessible, though loosely applicable, information to control problem solving in human beings and machines.

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The Neuroarcheology of Experience and the Neurosequential Model

- The age at which an experience (e.g., an adverse event) takes place will determine the neurodevelopmental impact and the resulting functional consequences
- Therefore, a developmental history of the timing of adverse experiences (as well as positive, attenuating experiences) is crucial to understanding current functioning
- The NMT includes a developmental review of adverse experiences and the buffering effects of relational health ('connectedness').

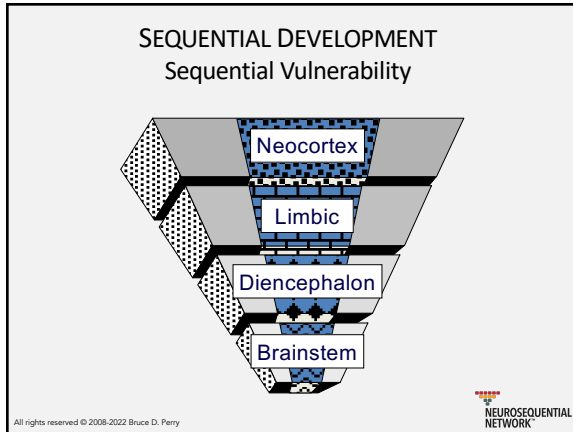
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The Neurosequential Model

Humans are complex – individually, in families, communities, cultures and across generations.

Overly simple constructs – including the Neurosequential Model – do not capture the depth and breadth of the human experience.

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Neurosequential Model

It is important to understand mechanisms underlying current functioning.

Your understanding determines your solution
- Stuart Ablon (CPS, 2010)

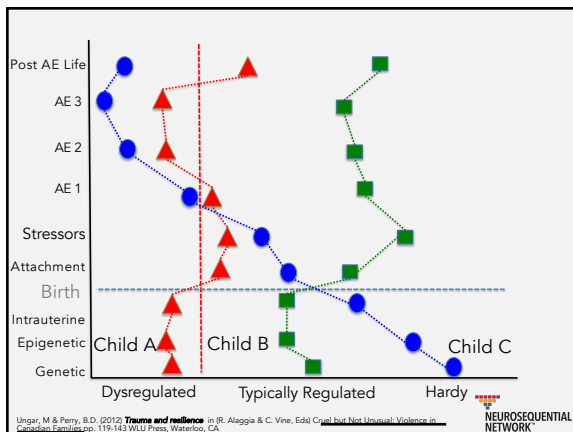
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The Neurosequential Model

Each person has a unique pathway to the present and deserves individualized care.

"One-size fits all" approaches rarely meet the needs of the individual – more often they meet a need of the provider (or system).

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Relational Complexity in Groups

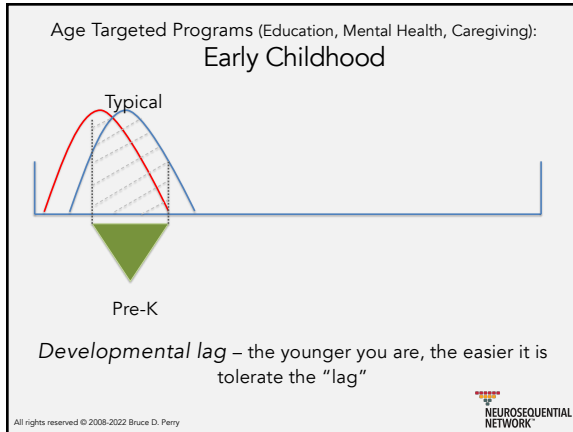
Size of Group	Number of Relationships
2	1
3	6
4	25
5	90
6	301
7	966
8	>3000

Adapted from Kephart, W.M. (1950) A quantitative analysis of intragroup relationships. *American Journal of Sociology* 60: 544-549

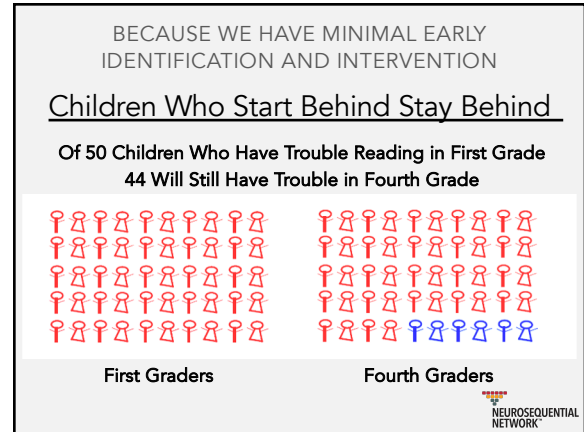
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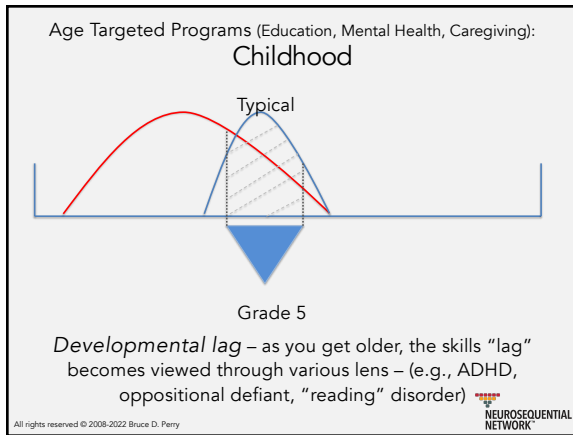
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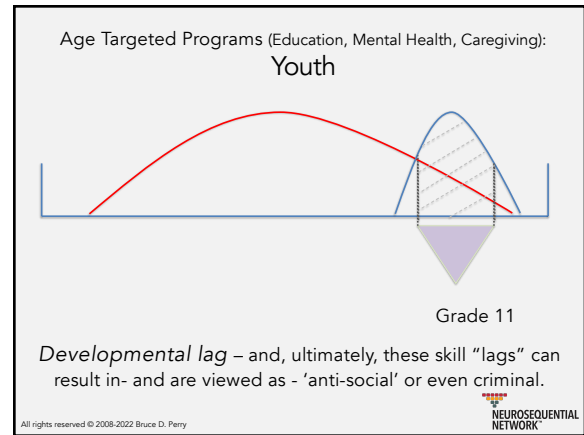
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NM is not “On the Shelf”

86% of clinical research is never used in direct patient care
(Balas & Boren, 2000)

It takes ~17 years for the 14% of research that does influence practice to get there!
(Morris, Wooding & Grant, 2011)

NMT was first manualized in 2008 (NMT Certification: 3 levels)

NME was first manualized in 2012 (NME Certification: 3 levels)

NMC was manualized in 2020 (NMC Trainer Certification)

NM Sport was manualized in 2021 (NM Sport Phase I Certification)

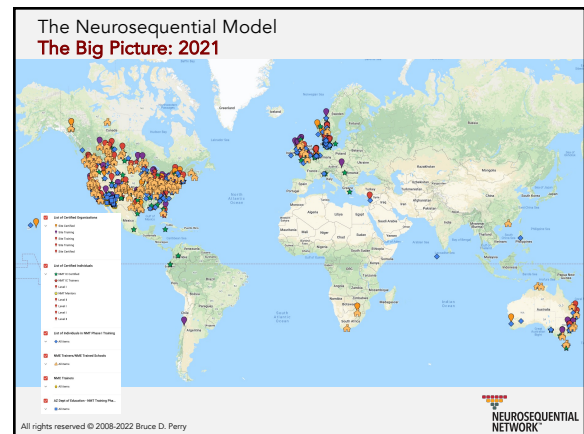
Since 2008

- 90,000 NMT metric reports
- 100,000 NME “mini-map” reports
- 5000 + NM (NMT, NME, NMC & NM Sport) certified professionals
- 600 + NMT or NME certified organizations
- 28 countries

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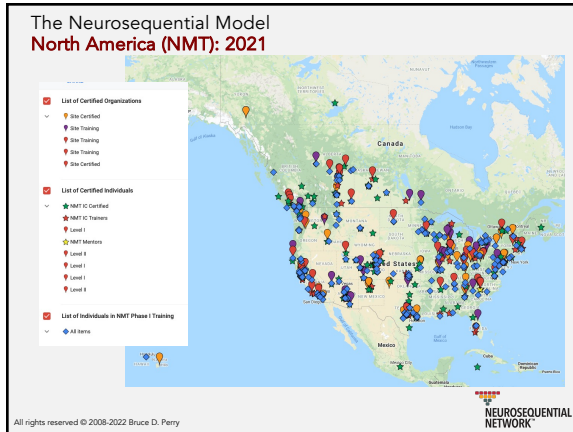
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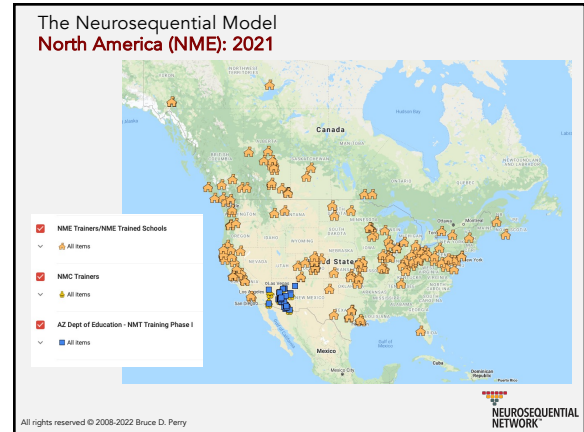


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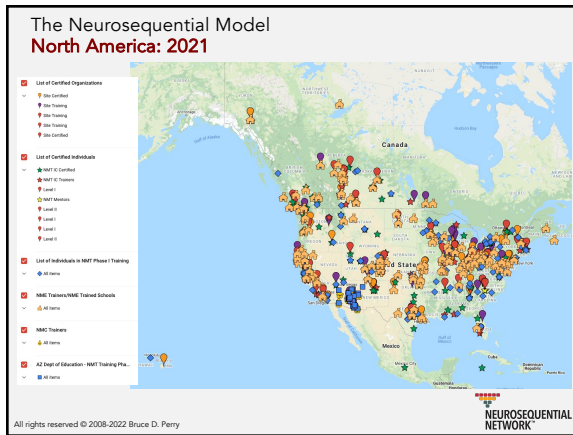
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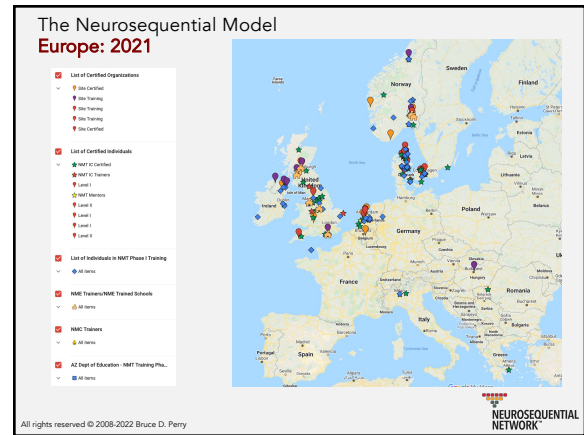
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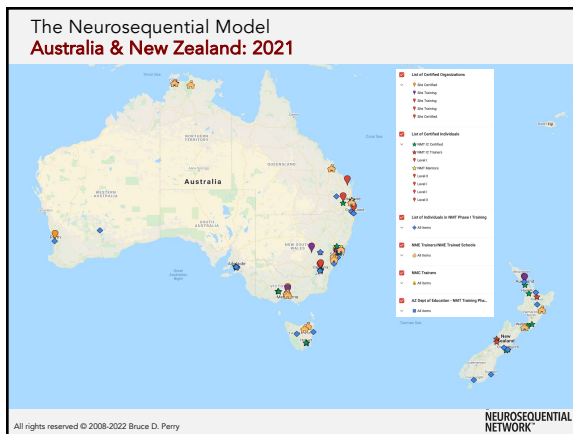
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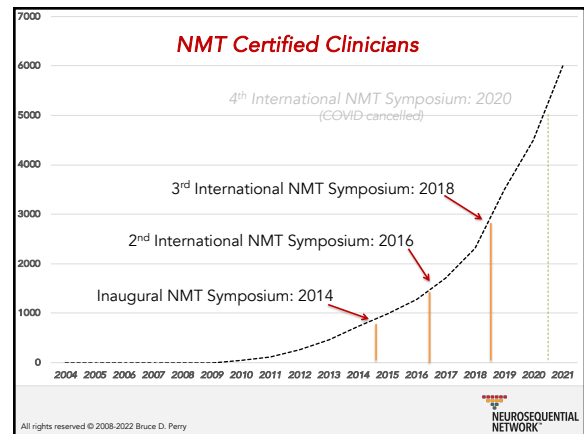
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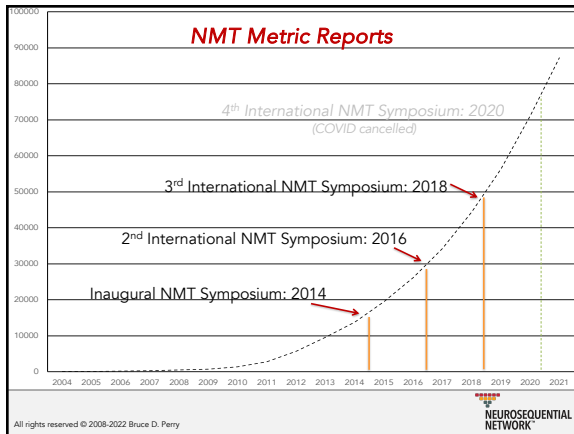
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Cumulative
Clinicians, Teachers,
Caregivers
Exposed to the
Neurosequential
Model

YEAR	Web, Webinars, Books, Live Training
2004	6,000
2005	20,000
2006	40,000
2007	80,000
2008	120,000
2009	180,000
2010	250,000
2011	300,000
2012	350,000
2013	400,000
2014	500,000
2015	600,000
2016	800,000
2017	900,000
2018	1,000,000
2019	1,300,000
2020	1,800,000
2021	2,500,000

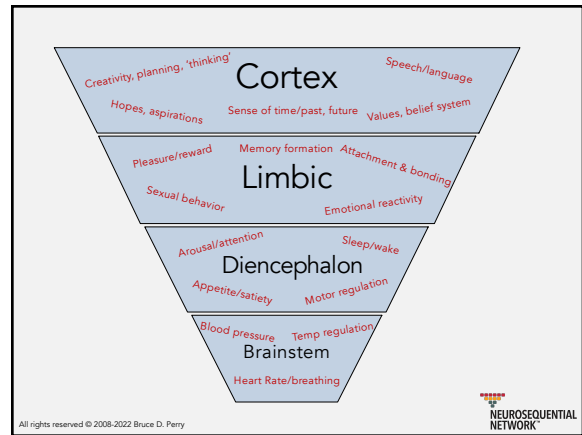
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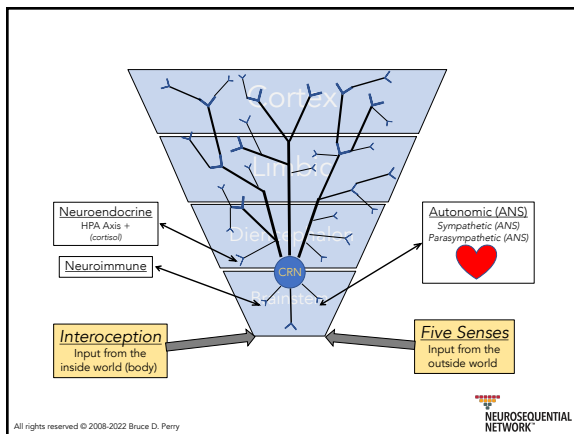
YEAR	Professionals Using NMT		Children, Youth, Adults	
	(Direct) Cumulative	(Indirect) Cumulative	(Impacted) Cumulative	(Impacted) Cumulative
2004	1	25	10	250
2005	4	100	40	1000
2006	10	250	100	2500
2007	12	300	120	3000
2008	20	500	200	5000
2009	45	1125	450	11250
2010	44	1100	440	11000
2011	120	3000	1200	30000
2012	264	6600	2640	66000
2013	462	11550	4620	115500
2014	726	18150	7260	181500
2015	992	24800	9920	248000
2016	1278	31950	12780	319500
2017	1708	42700	17080	427000
2018	2618	65450	26180	654500
2019	3418	85450	34180	854500
2020	4200	105000	42000	1050000
2021	5124	128100	51240	1281000
2022*	6000	150000	60000	1500000
	Direct	676,150	Indirect	2,930,500
		TOTAL		3,606,650

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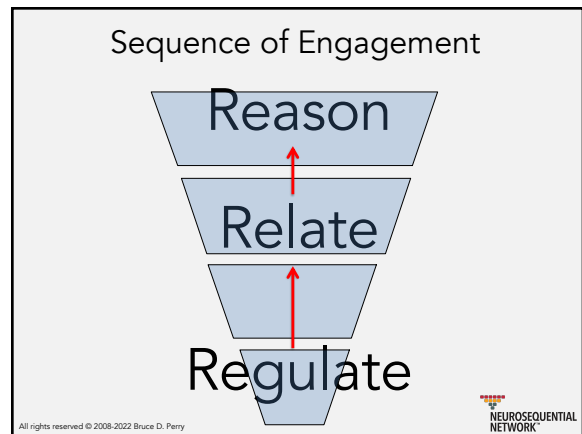
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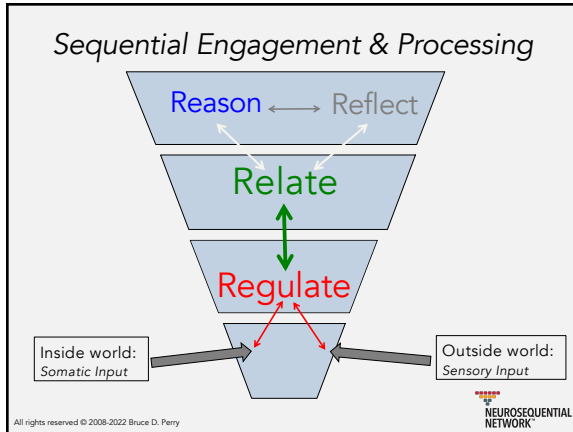
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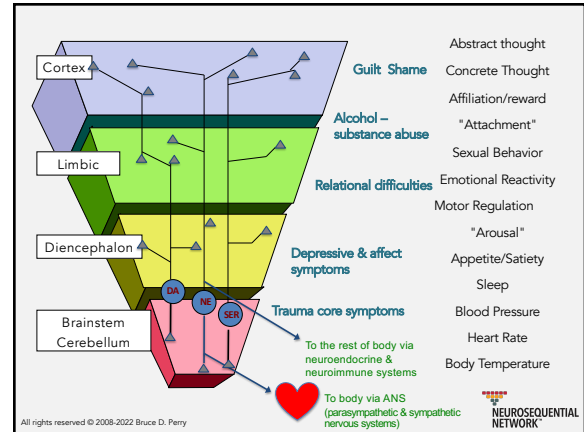
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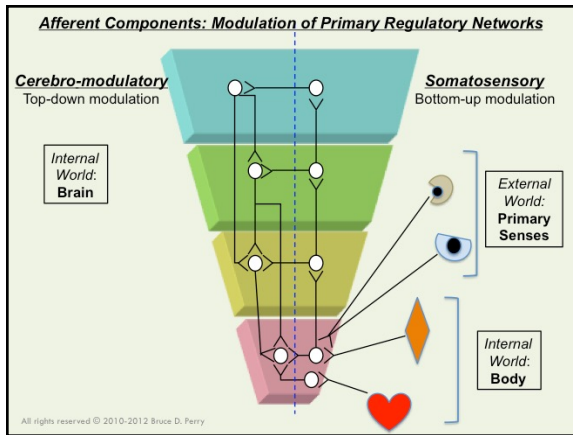
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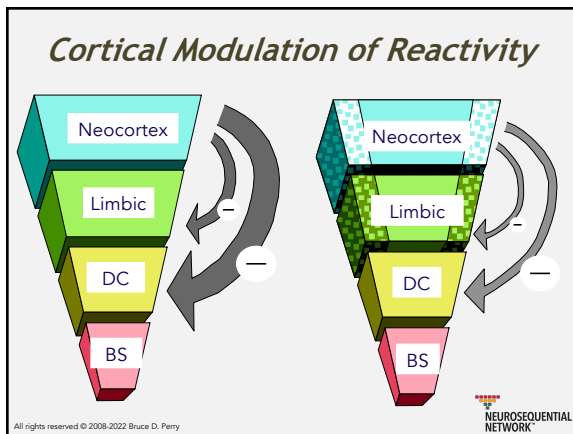
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- Predictable disruptors of CRN functioning resulting in 'cascade' of vulnerability for global (pervasive) health problems
- Intrauterine insults**
 - EtOH, methamphetamine, malnutrition, maternal distress
 - Bonding & attachment disruptions**
 - Domestic violence
 - Maternal isolation, Post-partum depression
 - Maternal history of attachment/bonding issues
 - Sensitizing pattern of stress response activation**
 - Chaos, unpredictability, 'splinter' neglect
 - "Out-group" experience – e.g., racism, gender, identity
 - Exposure to violence, physical, sexual abuse
 - Emotional humiliation, shaming,
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- "Self-regulation" (SR)**
- Somatosensory regulation/self-soothing (SS)**
- Bottom-Up: Primary*
- Starts in womb; suck/swallow
 - Tied to intrauterine and perinatal associations
 - Breathing, walking, running, rocking, swimming, rhythm
 - Doodle, hum, swing, jump, dance
- Cortical Modulation (CM)**
- Top-down: Secondary*
- Tied to cortical development & state-dependence
 - Slower process -
- Dissociation (Diss)**
- In-Out: Universal*
- Inescapable, unavoidable, painful - Universal
 - Adaptive continuum
 - Mind-wandering to threat-induced full dissociation
 - Used rhythmically ("in-out")
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REGULATORY OPTIONS

- **"Self-regulation" (SR)**
 - Self-"soothing" – using SS
 - Cortical regulation
 - Dissociation
- **Somatosensory regulation (SS)**
 - Self vs Other
- **Relational regulation (Rel)**
 - Positive co-regulation
 - Co-dysregulation
 - Tied to primary relational templates
- **Pharmacological regulation (Rx)**

• Optimal regulatory interactions use "multiple" pathways

- SS and Rel
- Cort and SS
- Diss and SS

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The Six R's

Key Elements of Positive Developmental and Educational Settings

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

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Creating the Relational 'Space' for Optimal Development, Learning & Healing

(or How do you like those P's?)

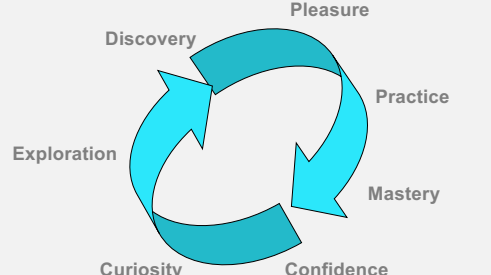
- Present,
- Parallel,
- Patient &
- Persistent in Providing
- Patterned, Predictable, Positive doses of
- Protected (safe) experience

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The Cycle of Learning



Discovery, Pleasure, Practice, Mastery, Confidence, Curiosity, Exploration

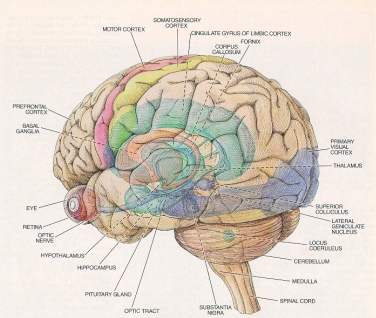
It all starts with a sense of safety

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The brain – particularly the human **NEOCORTEX** – allows us to absorb the accumulated and distilled experiences of thousands of previous generation – in a single lifetime.



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The Relational Landscape is Changing

Children have fewer emotional, social and cognitive interactions with fewer people.

The impact of "modern" life on the developing child has yet to be fully understood.

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Poverty of Relationships

The compartmentalization of our culture has resulted in material wealth yet poverty of social and emotional opportunity.

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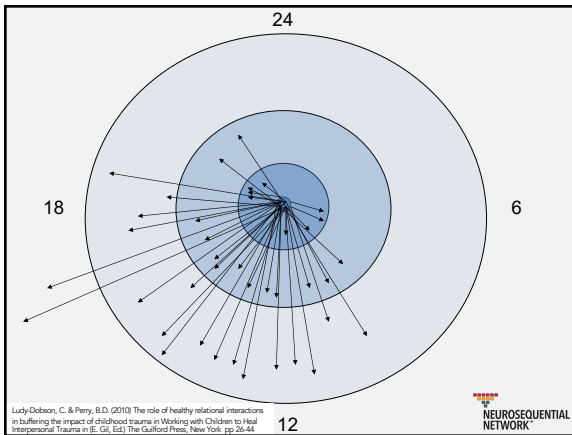
So What? Why does this matter?

Both the **STRESS RESPONSE** and the **REWARD** networks in the brain are shaped by relationships in early childhood – in healthy and unhealthy ways.

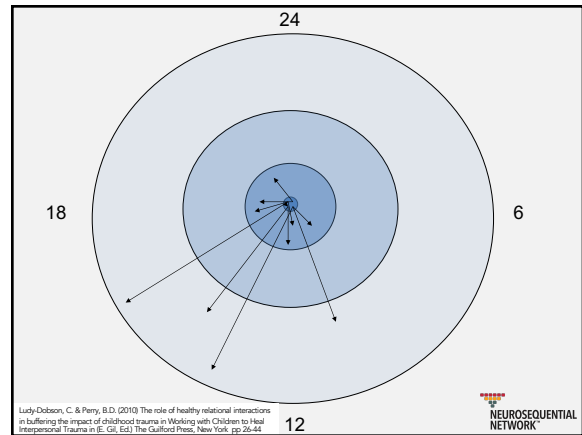
Relationships have a key role in global health, creativity and productivity of a group

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On Becoming Humane

Being born a human being does not ensure a child will become humane.

Humans become humane. The capacity to care, to share, to listen, value and be empathic – to be compassionate – develops from being cared for, shared with, listened to, valued and nurtured.

Humane caregiving expresses our capacity to be humane. Inhumane caregiving can decrease or even destroy this capacity.

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The brain develops and organizes as a reflection of our genetic gifts, epigenetic heritage, intrauterine, perinatal and developmental experiences, organizing in response to the pattern, intensity and nature of our sensory and perceptual experience.

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Robert F. Anda - Vincent J. Felitti - J. Douglas Bremner - John D. Walker - Charles Whitfield - Bruce D. Perry - Shanta R. Dube - Wayne H. Giles

The enduring effects of abuse and related adverse experiences in childhood

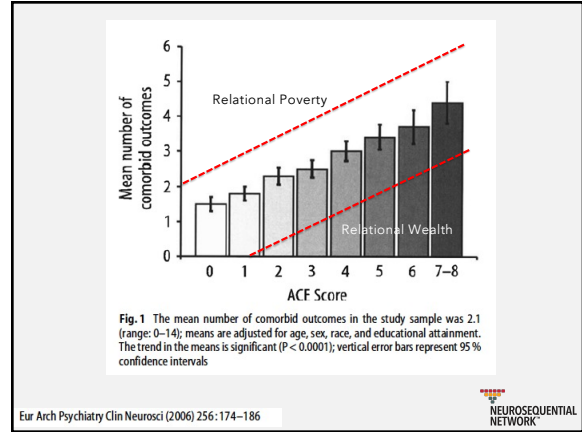
A convergence of evidence from neurobiology and epidemiology

Table 6 Summary of the convergence between neurobiological effects of childhood maltreatment with ACE study epidemiological findings

Area of function or dysfunction studied	Demonstrated neurobiological defects from early trauma	ACE study findings
Anxiety, panic, depressed affect, hallucinations, and substance abuse	Repeated stress & childhood trauma → hippocampus, amygdala & medial prefrontal cortex atrophy and dysfunction that mediate anxiety & mood problems	Tables 2 and 3 Unexplained panic, depression, anxiety, hallucinations & alcohol & other drug problems
Smoking, alcoholism, illicit drug use, injected drug use	Repeated stress & childhood trauma → increased locus coeruleus & norepinephrine activity, decreased by heroin & alcohol	Table 3 Increased smoking, alcohol and other drug use
Early intercourse, promiscuity, sexual dissatisfaction, perpetration of intimate partner violence	Repeated stress & childhood trauma → amygdala defects; role in sexual & aggressive behavior and deficits in oxytocin with impaired pair bonding	Tables 3 and 5 Risky sexual behavior, anger control, risk for aggression against intimate partners
Memory storage and retrieval	Hippocampus role in memory storage and retrieval; hippocampal & amygdala size reduction in childhood trauma; deficits in memory function	Table 4 Impaired memory of childhood and number age periods affected increases as the ACE score increase
Body weight and obesity	Repeated stress & distress, via glucocorticoid pathways, leads to increased intra-abdominal & other fat deposits	Table 2 Increased obesity
Sleep, multiple somatic symptoms, high perceived stress	Repeated stress & distress, via several pathways, leads to increase in other physical problems	Tables 2 and 5 Increased somatic symptoms and disorders, including sleep problems
Co-morbidity/Trauma spectrum disorders	Multiple brain and nervous system structure and function defects, including monoamine neurotransmitter systems	Fig. 1 The graded relationship of the ACE score to psychiatric and physical symptoms or disorders, including multiple co-occurring problems (comorbidity)

Eur Arch Psychiatry Clin Neurosci (2006) 256:174-186

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Contents lists available at ScienceDirect

Archives of Psychiatric Nursing

Journal homepage: www.elsevier.com/locate/apnu

Beyond the ACE score: Examining relationships between timing of developmental adversity, relational health and developmental outcomes in children

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¹The ChildTrauma Academy, 2412 San Felipe Street, #208, Houston, TX 77056, USA
²University of Missouri - Kansas City, Department of Psychology, 2600 Cherry Street, Room 211, Kansas City, MO 64114, USA
³University of Kansas, Center for Research Methods and Data Analysis, 1402 Jayhawk Boulevard, 4th Floor, Lawrence, KS 66044-7536, USA
⁴Northwestern University Feinberg School of Medicine, Department of Psychiatry, Chicago, IL, USA
⁵University of California Davis School of Medicine, Department of Pediatrics, 2516 Stockton Blvd., Sacramento, CA 95817, USA

ARTICLE INFO

ABSTRACT

Keywords: Child trauma; Adverse childhood experiences; Social support; Resilience; Regularization; Neurosequential Model

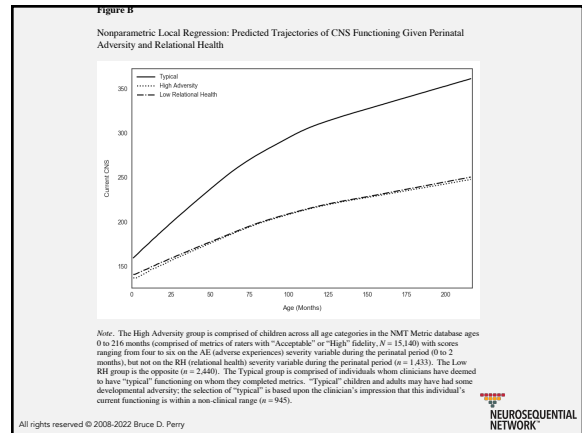
Background: The association between developmental adversity and children's functioning is complex, particularly given the multifaceted nature of adverse experiences. The associations between the timing of experience and outcomes is underresearched and clinically underappreciated. We examine how the timing of both adverse (including potentially traumatic) events and relational poverty are associated with developmental outcomes.

Method: Clinicians using the Neurosequential Model of Therapeutics (NMT), an approach to clinical problem solving, reported on the timing of children's developmental experiences, their degree of current relational health, and current functioning in key brain-mediated domains ($N = 3023$ 6- to 13-year-old children). A registered hierarchical mixed-effects model and generalized estimates reporting associations between the timing of experiences across four developmental periods: Perinatal (0-2 months), infancy (3-12 months), early childhood (13 months to 4 years), and childhood (4 to 11 years) and current functioning.

Results: Perinatal developmental experiences were more strongly associated with compromised current functioning than experiences occurring during other periods. Perinatal relational poverty was a stronger predictor than perinatal adversity. During subsequent developmental periods, the influence of relational poverty diminished, with the influence of adversity increasing throughout early childhood. Current relational health, however, was the strongest predictor of functioning.

Conclusions: Findings expand the understanding of the association between the timing of adversity and relational health, and the influence of adversity and children's functioning. Although early life experiences are significantly impactful, relationally enriched environments may buffer these effects.

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Children Australia

Volume 43 | Number 2 | pp. 105-115 | © The Author(s) 2018 | doi:10.1017/cha.2018.21

Examining Developmental Adversity and Connectedness in Child Welfare-Involved Children

Erin P. Hambrick^{1,2}, Thomas W. Brawner^{1,3} and Bruce D. Perry^{1,4}

¹The ChildTrauma Academy, Houston, Texas, USA
²Department of Psychology, University of Missouri - Kansas City, Kansas City, Missouri, USA
³Center for Research Methods and Data Analysis, University of Kansas, Lawrence, Kansas, USA
⁴Department of Psychiatry, Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA

Identifying optimal out-of-home placements for child welfare-involved youth is challenging. Examples of youth recovering within each "out-of-home" placement type (foster, relative, residential) are evident, as are examples of youth who are deteriorating. The heterogeneity in developmental history and current functioning of youth makes blanket policies regarding placement unwise. Examination of developmental heterogeneity and functioning of youth in the welfare system can provide insights about factors influencing outcomes, thereby informing practice, program and policy. We explore whether current relational health (connectedness) promotes positive outcomes for child welfare-involved youth while controlling for developmental risk (history of adversity, and lack of relationally positive, experienced). Clinicians at 19 organizations serving child welfare-involved youth used a neurodevelopmentally informed approach to intervention, the Neurosequential Model of Therapeutics (NMT), which includes metrics to assess the developmental timing of children's risks, "connectedness" and neurodevelopmental functioning (e.g., sleep, arousal, cortical control). Data-driven statistical techniques were used to produce stable, generalizable estimates. Risk during the perinatal (0-2 months) period significantly predicted children's functioning; current relational health predicted outcomes more strongly. Although early life developmental risk has a persistent effect on functioning, relationally supportive contexts may mitigate this risk. Improving relational contexts of child welfare-involved youth, regardless of placement type, is key.

Keywords: child trauma, child maltreatment, social support, neurosequential model, regularization

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Connectedness is the key.

Your history of connectedness is a better predictor of your health than your history of adversity.

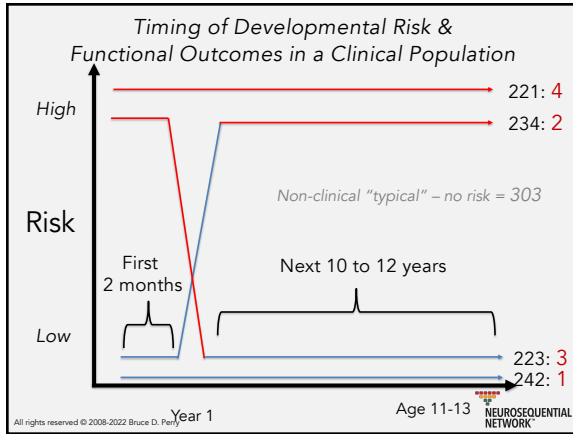
Be with each other. Celebrate diversity. Listen and learn from others. Share time, food, work.

The 'super-power' of humankind is our capacity to connect; it is regulating, rewarding and the major "route" by which we can teach, coach, parent, heal and learn.

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frontiers
in Behavioral Neuroscience

ORIGINAL RESEARCH
published: 09 August 2018
doi: 10.3389/fnbeh.2018.00183

Timing of Early-Life Stress and the Development of Brain-Related Capacities

Erin P. Hambrick^{1,2*}, Thomas W. Browner^{1,3} and Bruce D. Perry^{1,4,5}

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Early-life stress (ELS) poses risks for developmental and mental health problems throughout the lifespan. More research is needed regarding how specific ELS experiences influence specific aspects of neurodevelopment. We examined the association between ELS, defined as severe adversity (e.g., domestic violence, caregiver drug use) and severe relational poverty (e.g., caregiver neglect, lack of caregiver attunement), occurring during the first 2 months of life and a variety of brain-

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Child Abuse Review Vol. 28: 225–239 (2019)
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Take Two – Implementing a Therapeutic Service for Children who have Experienced Abuse and Neglect: Beyond Evidence-Informed Practice

Margarita Frederico¹, Annette Jackson², Carina Black³, Ric Pawsey⁴, Allison Cox⁵

¹Department of Community and Clinical Allied Health, La Trobe University, Bundoora, Victoria, Australia
²Berry Street Take Two, Eaglemont, Victoria, Australia
³Victorian Aboriginal Child Care Agency, Preston, Victoria, Australia
⁴Berry Street Take Two, Eaglemont, Victoria, Australia

Describes the implementation of a therapeutic service, in Victoria, Australia, known as Take Two, and provides a profile of client characteristics.

Frederico, M., Jackson, A., Black, C., Pawsey, R. & Cox, A. (2019) **Take Two – Implementing a therapeutic service for children who have experienced abuse and neglect: beyond evidence-informed practice.** Child Abuse Review, 28: 225-239. DOI: 10.1002/car.2563

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Resourcing the System and Enhancing Relationships: Pathways to Positive Outcomes for Children Impacted by Abuse and Neglect

Allison Cox¹, Bruce D. Perry², Margarita Frederico³

¹Berry Street Take Two Program, Eaglemont, Victoria, Australia
²The Child Trauma Academy, Houston, Texas, Feinberg School of Medicine, Northwestern University
³La Trobe University, Bundoora, Victoria, Australia

This paper demonstrates bringing together clinical services, research and training in a loop of evidence-informed and evidence-generating practice utilizing the Neurosequential Model of Therapeutics (NMT) to improve assessment and intervention for children impacted by abuse and neglect. Take Two client data (n = 677) between 2010 and 2017 were analyzed. Repeat measure analysis found children demonstrated statistically significant improvement, benefiting from a relational model of intervention prioritizing building a system of therapeutic relationships to promote resilience and positive sense of self.

Cox, A., Perry, B.D., & Frederico, M. (2021) **Resourcing the system and enhancing relationships: pathways to positive outcomes for children impacted by abuse and neglect.** Child Welfare: Special section "Global Perspectives on Neglect and Child Protection" 98.6, 177-201

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OCTOBER 2021 • ISSUE NO. 140

Adoption Advocate

Meeting Children Where They Are: The Neurosequential Model of Therapeutics

BY ALLISON COOKE DOUGLAS, M.S.

As an adoption social worker and child welfare professional, I have seen firsthand the incredible power of the Bruce Perry's groundbreaking work to transform treatment for the very best and most resilient of our children. I have seen the power of his work to help children who have experienced trauma and neglect to heal and thrive. I have seen the power of his work to help children who have experienced trauma and neglect to heal and thrive. I have seen the power of his work to help children who have experienced trauma and neglect to heal and thrive.

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Napa IPMH Fellowship

Napa Infant-Parent Mental Health Fellowship

PARENT-INFANT & CHILD INSTITUTE

NMT Certification has been integrated into the internationally-acclaimed post-graduate training program led by Dr. Kristie Brandt at UC-Davis. The result is an annual group of clinicians with advanced training in Infant Mental Health, who also qualify for NMT certification. While many of these clinicians are based in California, the group has international representation.

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Neurosequential Model Core Slides "Best Hits" Package

NMT embedded in MSW Training (Loyola, Chicago SSW)

The Neurosequential Model of Therapeutics (NMT): Helping Clients Move Beyond Trauma
By Christie Mason, Ph.D., LCSW

Abstract: Following the lead of Dr. Mason at Loyola-Chicago, multiple graduate programs in social work and education are integrating NM concepts or NMT into their curricula; these include Case Western Reserve, University of Texas, Smith College, Cleveland State, and the University of Chicago.

Keywords: Neuroscience; trauma; social work education; Neurosequential Model of Therapeutics

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JOURNAL OF TEACHING IN SOCIAL WORK
2020, VOL. 40, NO. 4, 352-371
https://doi.org/10.1080/08842123.2020.1788692

Routledge
Taylor & Francis Group

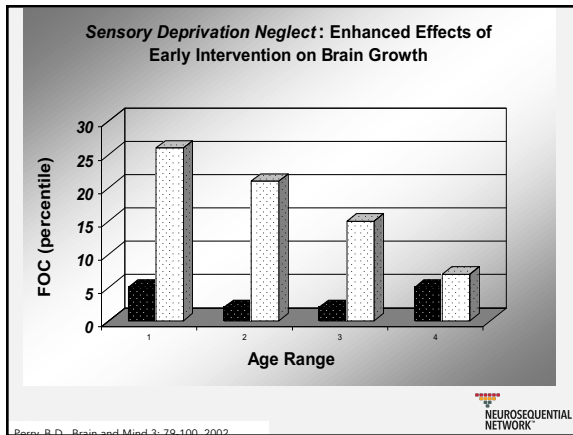
Including Neuroscience in Social Work Education: Introducing Graduate Students to the Neurosequential Model of Therapeutics

Christie Mason, Brian L. Kelly, and Virginia McConchie
School of Social Work, Loyola University Chicago, Chicago, Illinois, USA

Abstract: To fill a gap in research on the incorporation of neuroscience in social work education, this article describes Master of Social Work (MSW) student and alumni experiences learning a neuroscience-informed model for practice with clients who have endured developmental traumas. The Neurosequential Model of Therapeutics (NMT) is a clinical decision-making tool that provides an estimate of how a client's current neurological functioning may have been impacted by trauma during the developmental period in order to inform the selection and sequencing of interventions. MSW students and alumni participated in focus groups exploring their perspectives on learning the NMT, the utility of the model in their work, and the fit between the model and social work theory and practice. Participants found the model helpful in conceptualizing client cases and applicable to their work, but challenging to implement due to others' lack of familiarity with the model, and insufficient infrastructure. These findings suggest the NMT may be a valuable tool for teaching neuroscience within schools of social work.

Keywords: Neuroscience; trauma; social work education; Neurosequential Model of Therapeutics

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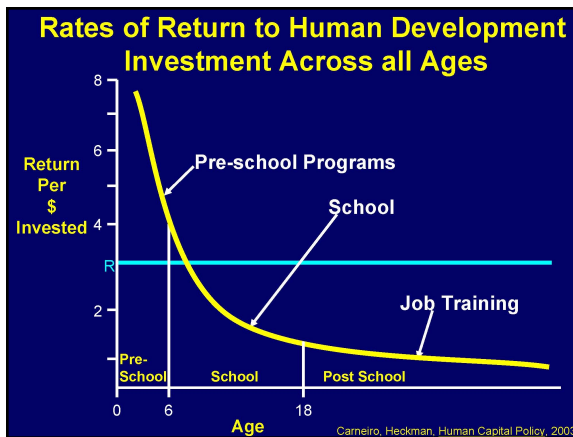
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Creating Policy and Practice that Capitalize on Biological Gifts

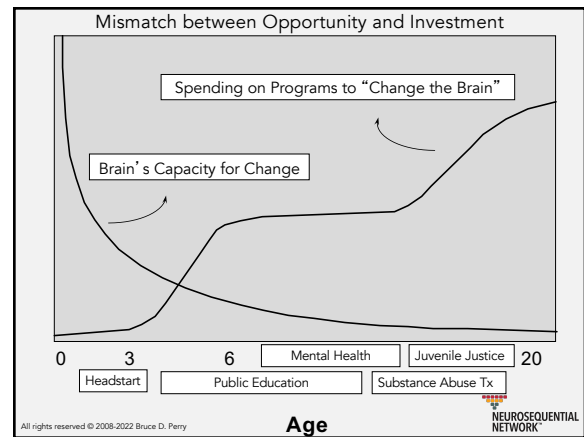
Democracy, public education, suffrage, civil rights – and, ultimately, early childhood investment and communities rich in relational health

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Neurosequential Model Core Slides

"Best Hits" Package

People not programs change people!

The effective agents of change in any successful program, project or system are human beings.

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NEUROSEQUENTIAL NETWORK

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Yet successful programs provide the people, process and "program" elements that put the "right" people together in "right" ways at the "right" time.

The effective agents of change in any successful program, project or system are human beings.

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NIMH Research Domain Criteria

<p>RDoC</p> <ul style="list-style-type: none"> • Focus on genetic, epigenetic, neural network and related biomarkers along with "symptoms" • The major RDoC research domains: <ul style="list-style-type: none"> – Negative Valence Systems – Positive Valence Systems – Cognitive Systems – Systems for Social Processes – Arousal/Modulatory Systems 	<p>DSM</p> <ul style="list-style-type: none"> • "a diagnostic system limited to clinical presentation could confer reliability and consistency but not validity" • Minimal focus on mechanism – fundamentally "descriptive" and symptom focused
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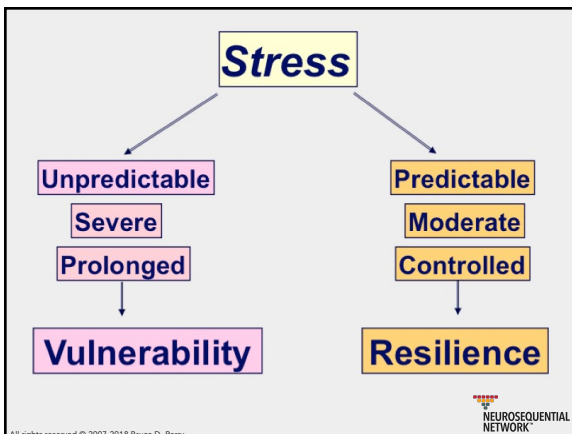
The Challenge of "Diagnosis" in Mental Health

<p>Brain</p> <ul style="list-style-type: none"> • 86 billion unique neurons <ul style="list-style-type: none"> – 5 times as many glia – each neuron 5000 - 20,000 synaptic connections – 100s of neurotransmitters • Hundreds of major neural networks • Thousands of functions • 90% of children/youth in public MH Clinics have 1 of 8 "diseases" – often "co-morbid" 	<p>Heart</p> <ul style="list-style-type: none"> • 2 billion heart cells • Dozens of major sub-systems <ul style="list-style-type: none"> – Nerve, muscle, vessels • A handful of major "main" functions • Hundreds of distinct cardiac "diseases"
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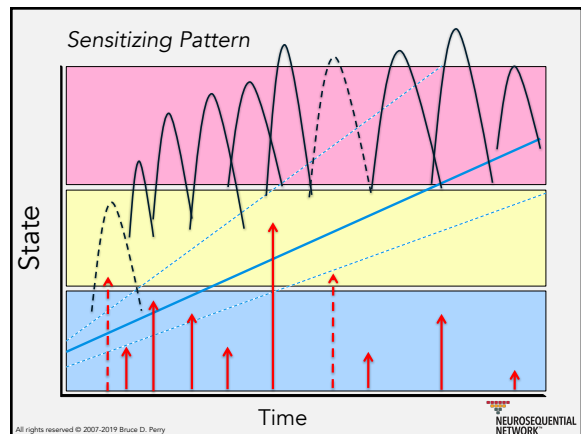
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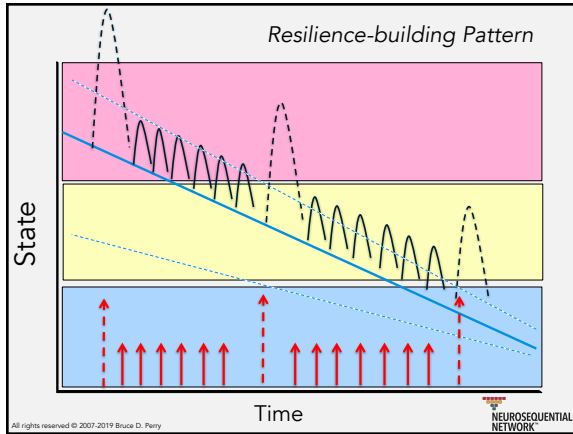
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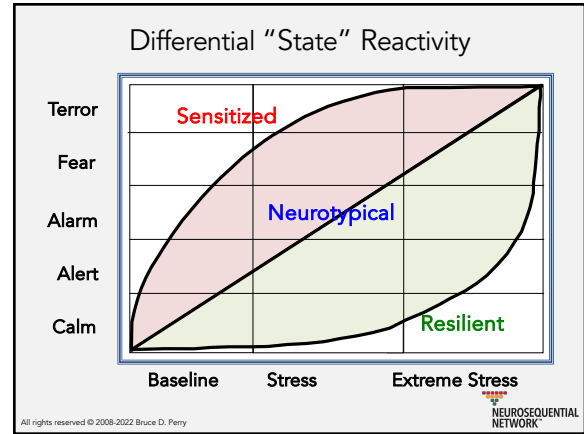
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Neurosequential Model Core Slides

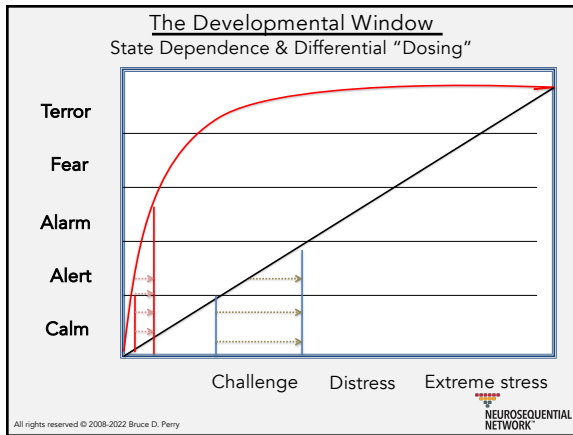
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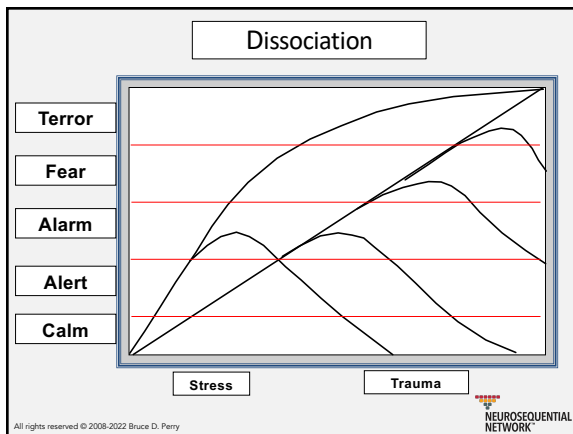


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Responses to Stress, Distress, Trauma

- **Heterogeneity of response patterns**
- Adaptive changes in *cognition*
- Adaptive changes in *affects*
- Adaptive changes in *behavior*
- Adaptive changes in *neurophysiology*
- Adaptive changes in *physiology*

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DISSOCIATIVE/AROUSAL BALANCE

Dissociation	Arousal
Females >	Males
Young Children >	Older Children
Torture/Pain >	Observer
Inescapable Helplessness >	Action Active Role

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Neurosequential Model Core Slides "Best Hits" Package

All Brain Functioning is "State" Dependent

The brain is a rhythmic, dynamic organ.

All functioning of the brain will vary depending upon the "state."

Asleep or awake the brain will have varying activation in cognitive, social, emotional, motor and all other brain mediated functions.

Both sleep and wakefulness also have various states which involve shifts in the activity of key neural networks.

Novelty, transition and threat will all shift internal state.

Bruce D. Perry, MD, PhD © 2010-2016

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Flock, Freeze, Flight, Fight Continuum

Traditional Fight/Flight	Reflect	Flock	Freeze	Flight	Fight
Primary secondary Brain Areas	NEOCORTEX Subcortex	SUBCORTEX Limbic	LIMBIC Midbrain	MIDBRAIN Brainstem	BRAINSTEM Autonomic
Cognition	Abstract	Concrete	Emotional	Reactive	Reflexive
Mental State	CALM	ALERT	ALARM	FEAR	TERROR

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Sense of Time	Extended Future	Days Hours	Hours Minutes	Minutes Seconds	Loss of Sense of Time
Primary secondary Brain Areas	NEOCORTEX Subcortex	SUBCORTEX Limbic	LIMBIC Midbrain	MIDBRAIN Brainstem	BRAINSTEM Autonomic
Cognition	Abstract	Concrete	Emotional	Reactive	Reflexive
Mental State	CALM	ALERT	ALARM	FEAR	TERROR

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Adaptive Response	REFLECT	FLOCK	FREEZE	FLIGHT	FIGHT
De-escalating Behaviors (behaviors of the teacher when the child or classroom is in various states of arousal)	<ul style="list-style-type: none"> Calm sounds Personal space Predictable touch Predictable routine 	<ul style="list-style-type: none"> Quiet voices Eye contact Confidence Rhythmic movement Clear directions Somatosensory activities 	<ul style="list-style-type: none"> Comforting and predictable voice Invited therapeutic touch Singing, humming, music Reflective listening Reassurance 	<ul style="list-style-type: none"> Calm, quiet, presence Turn off lights, white noise Reduce sensory input 	<ul style="list-style-type: none"> Calm affect Disengage but direct attention Adult support Feedback attention
Escalating Behaviors (behaviors of the teacher when the child or classroom is in various states of arousal)	<ul style="list-style-type: none"> Loud Noises Close uninvited proximity Unpredictable touch Changes in daily routine or schedule 	<ul style="list-style-type: none"> Frustration or anxiety Communication from a distance (like yelling) Complex directions Ultimatums 	<ul style="list-style-type: none"> Raised voices Raising hand/point finger, sudden movement Threatening tone Chaos in classroom, disorganization of peers 	<ul style="list-style-type: none"> Frustration of teacher Yelling, chaos Collective derogation of peers 	<ul style="list-style-type: none"> Physical restraint, grabbing, shaking Scolding Intimidating voice
"Mediating" Brain Region	NEOCORTEX Cortex	CORTEX Limbic	LIMBIC Midbrain	MIDBRAIN Brainstem	BRAINSTEM Autonomic
Cognition	ABSTRACT	CONCRETE	EMOTIONAL	REACTIVE	REFLEXIVE
CLASSROOM "STATE"	CALM	ALERT	ALARM	FEAR	TERROR
CLASSROOM CHARACTERISTICS	Reflection and consolidation of new information is actively taking place or while teaching, efficient retrieval of content is possible.	Active teaching can take place; students are internalizing new content and "mind wandering" to efficiently store new content.	Learning new content is difficult; students are either disengaging or acting out; "mind wandering" to individual self-regulatory behavior seem.	Learning is impossible. Engaging students difficult. Many demonstrate "fear" responses that appear oppositional/defiant, increased acting out.	Engagement unlikely; behavior, openly defiant and unresponsive. Self-fulfilling "out" state.

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Organizational Pressures	Resource-surplus Predictable Stable/Safe	Resource-limited Unpredictable Novel	Resource-poor Threatening Inconsistent
Prevailing Cognitive Capacity	Abstract Creative (IQ = 120)	Concrete Superstitious/Defensive (IQ = 100)	Reactive Regressive (IQ = 80)
Prevailing Affective "Tone"	CALM	ANXIETY	FEAR
Systemic Solutions	Reflective INNOVATIVE	Concrete SIMPLISTIC	Fear-based REACTIONARY
Focus of Solution	FUTURE Intentional Inflection	SHORT-TERM Serendipitous Inflection	PRESENT Forced Inflection
Policies and Practices	Abstract Conceptual	Concrete Superstitious Intrusive	Restrictive Punitive
Staff & Supervisory Practices	Nurturing Flexible Enriching	Ambivalent Obsessive Controlling	Apathetic Oppressive Harsh

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Co-regulation
Reactive child and well-regulated teacher

Present, parallel, patient, persistent – facilitate multisensory, multi-domain, repetitive activity

Terror

Fear

Alarm

Alert

Calm

Child

Teacher

Time

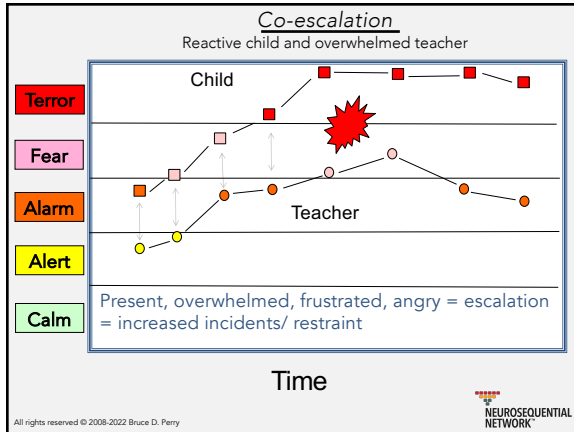
Rhythm & Relationship = Regulation

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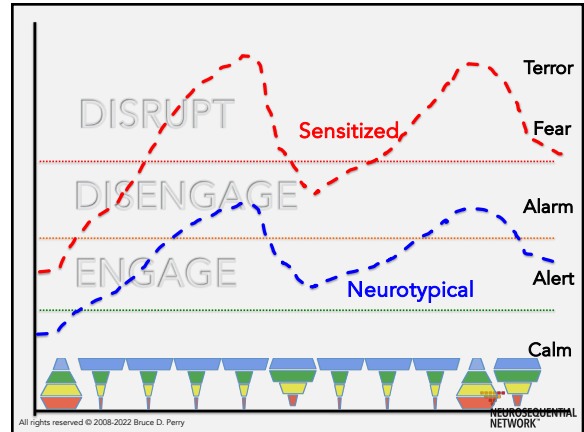
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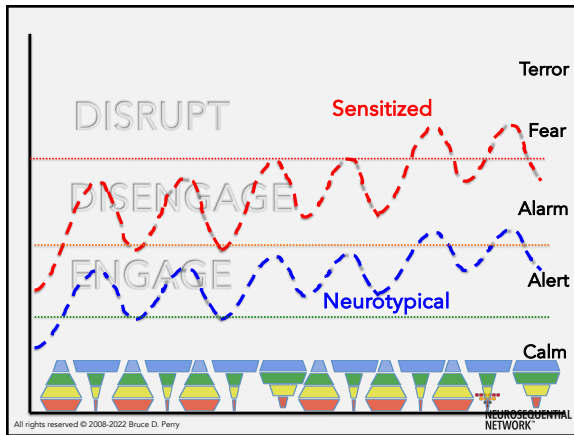
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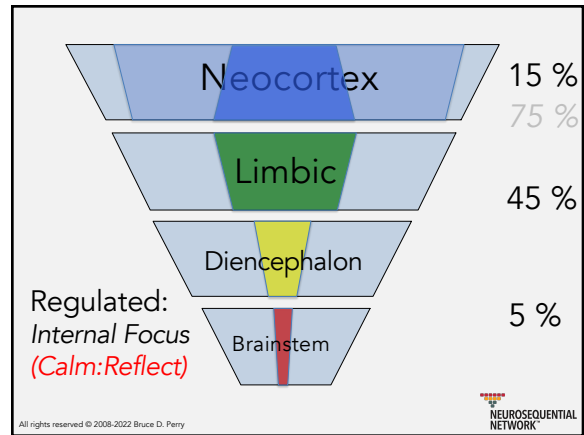
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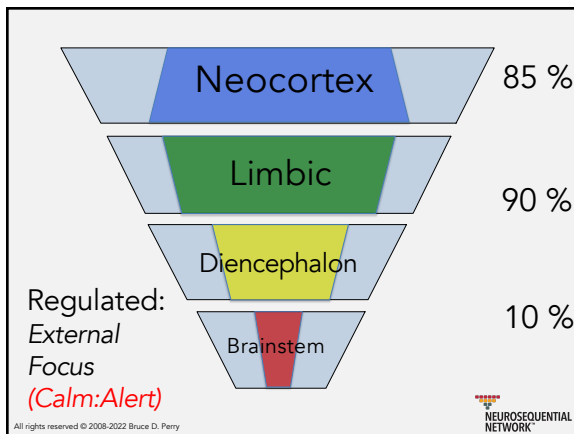
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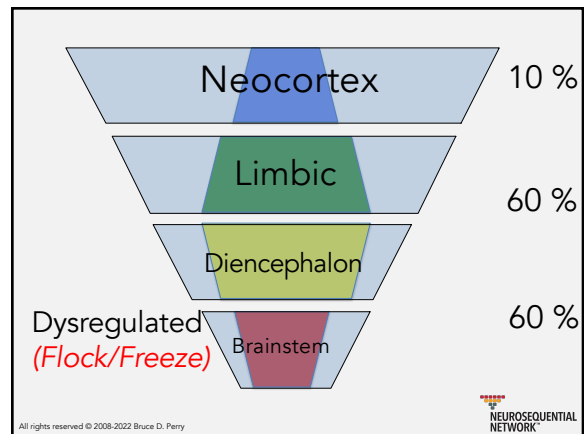
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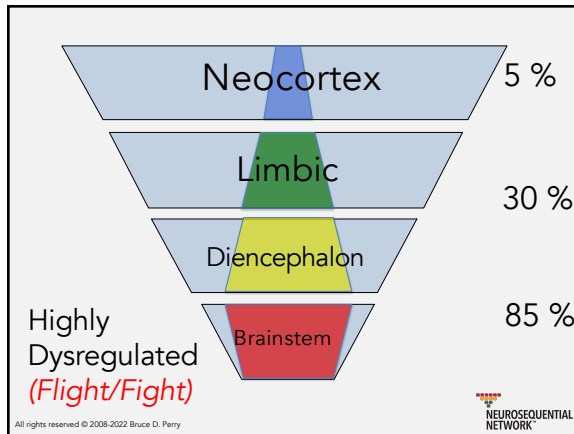
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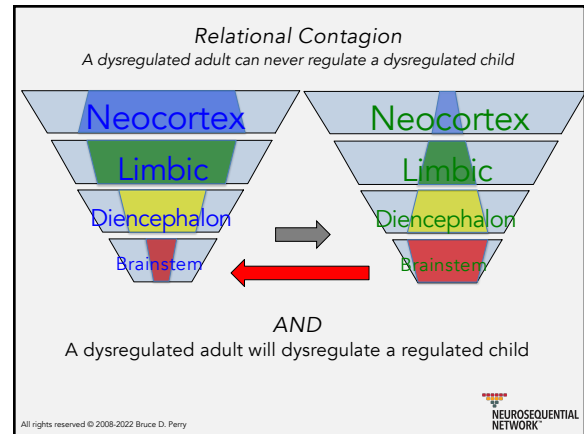
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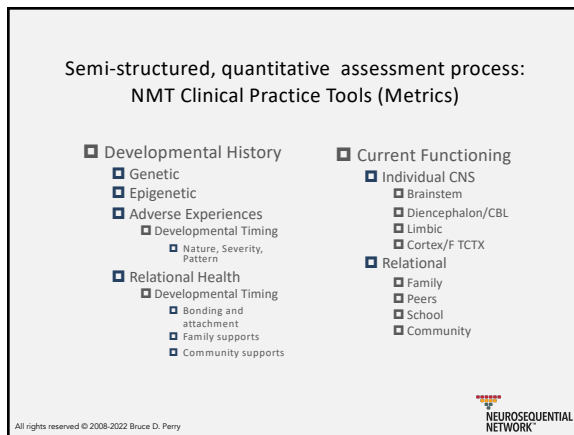
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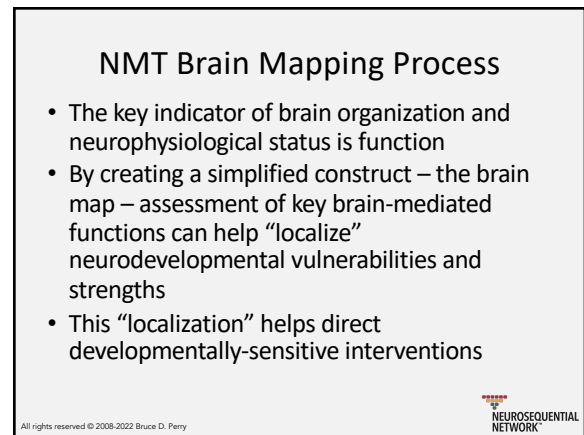
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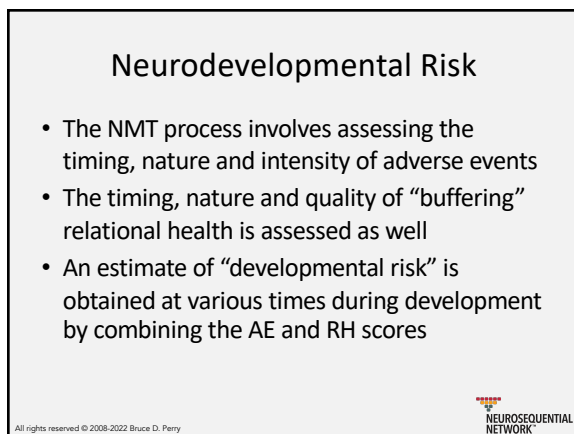
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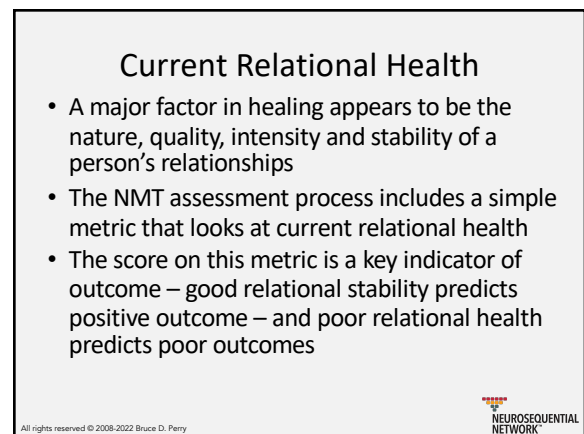
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Neurosequential Model Core Slides

"Best Hits" Package

Abstract Cognition	Math/Symbolic	Perform	Modulate Impulsivity	Verbal	Values/Beliefs
Speech Articulate	Commun Language	SS/Mot Integrate	Time Delay Grat	Self Image Awareness	Concrete Cognition
Relational Attach	Attune	Reward	Affect Mood	Psychosex	Memory Learning
	Neuroend Hypothal	Dissociate Response	Arousal Response	Primary Sensory Int	
	Fine Motor	Feeding Appetite	Sleep	Coordinate LMF	
		Suck/Swal Gag	Attend Track		
		Temp Metabolic	EOEM		
		Cardio	Autonomic Regulation		

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Abstract Cognition	Math/Symbolic	Perform	Modulate Impulsivity	Verbal	Values/Beliefs
Speech Articulate	Commun Language	SS/Mot Integrate	Time Delay Grat	Self Image Awareness	Concrete Cognition
Relational Attach	Attune	Reward	Affect Mood	Psychosex	Memory Learning
	Neuroend Hypothal	Dissociate Response	Arousal Response	Primary Sensory Int	
	Fine Motor	Feeding Appetite	Sleep	Coordinate LMF	
		Suck/Swal Gag	Attend Track		
		Temp Metabolic	EOEM		
		Cardio	Autonomic Regulation		

WISC

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Abstract Cognition	Math/Symbolic	Perform	Modulate Impulsivity	Verbal	Values/Beliefs
Speech Articulate	Commun Language	SS/Mot Integrate	Time Delay Grat	Self Image Awareness	Concrete Cognition
Relational Attach	Attune	Reward	Affect Mood	Psychosex	Memory Learning
	Neuroend Hypothal	Dissociate Response	Arousal Response	Primary Sensory Int	
	Fine Motor	Feeding Appetite	Sleep	Coordinate LMF	
		Suck/Swal Gag	Attend Track		
		Temp Metabolic	EOEM		
		Cardio	Autonomic Regulation		

TSCC

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Abstract Cognition	Math/Symbolic	Perform	Modulate Impulsivity	Verbal	Values/Beliefs
Speech Articulate	Commun Language	SS/Mot Integrate	Time Delay Grat	Self Image Awareness	Concrete Cognition
Relational Attach	Attune	Reward	Affect Mood	Psychosex	Memory Learning
	Neuroend Hypothal	Dissociate Response	Arousal Response	Primary Sensory Int	
	Fine Motor	Feeding Appetite	Sleep	Coordinate LMF	
		Suck/Swal Gag	Attend Track		
		Temp Metabolic	EOEM		
		Cardio	Autonomic Regulation		

Speech/Language Eval

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Abstract Cognition	Math/Symbolic	Perform	Modulate Impulsivity	Verbal	Values/Beliefs
Speech Articulate	Commun Language	SS/Mot Integrate	Time Delay Grat	Self Image Awareness	Concrete Cognition
Relational Attach	Attune	Reward	Affect Mood	Psychosex	Memory Learning
	Neuroend Hypothal	Dissociate Response	Arousal Response	Primary Sensory Int	
	Fine Motor	Feeding Appetite	Sleep	Coordinate LMF	
		Suck/Swal Gag	Attend Track		
		Temp Metabolic	EOEM		
		Cardio	Autonomic Regulation		

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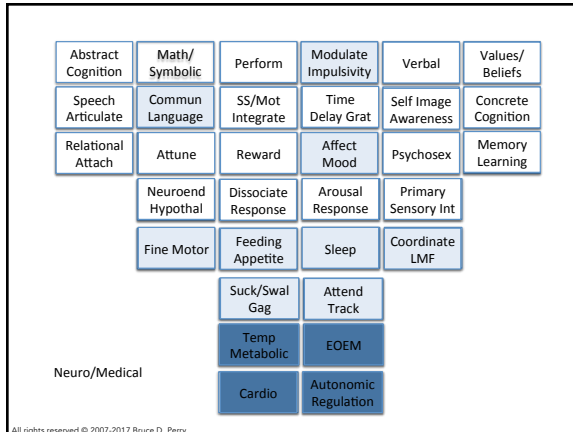
Abstract Cognition	Math/Symbolic	Perform	Modulate Impulsivity	Verbal	Values/Beliefs
Speech Articulate	Commun Language	SS/Mot Integrate	Time Delay Grat	Self Image Awareness	Concrete Cognition
Relational Attach	Attune	Reward	Affect Mood	Psychosex	Memory Learning
	Neuroend Hypothal	Dissociate Response	Arousal Response	Primary Sensory Int	
	Fine Motor	Feeding Appetite	Sleep	Coordinate LMF	
		Suck/Swal Gag	Attend Track		
		Temp Metabolic	EOEM		
		Cardio	Autonomic Regulation		

CBCL

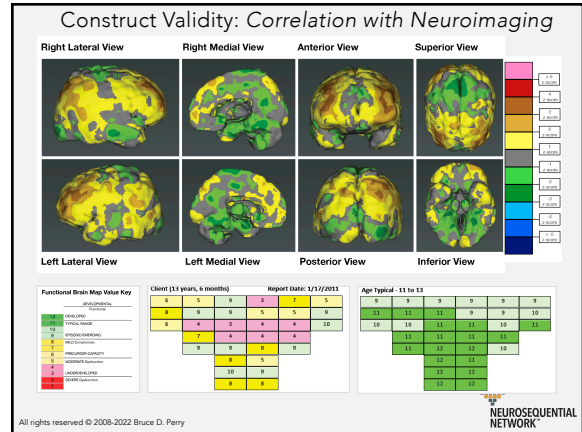
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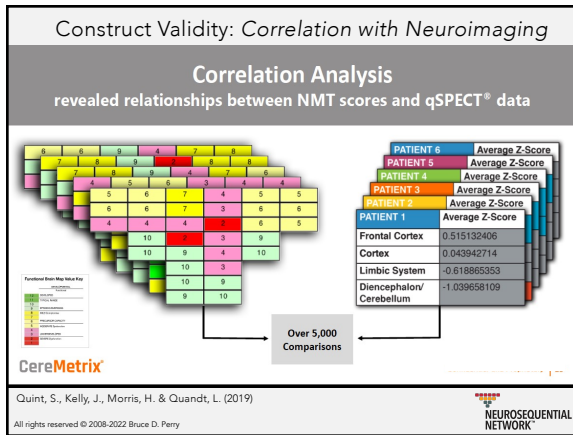
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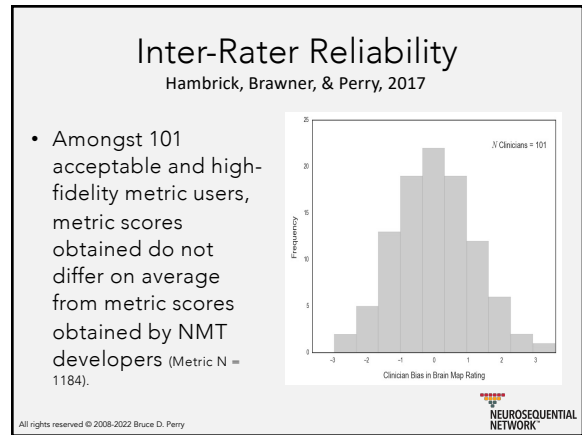
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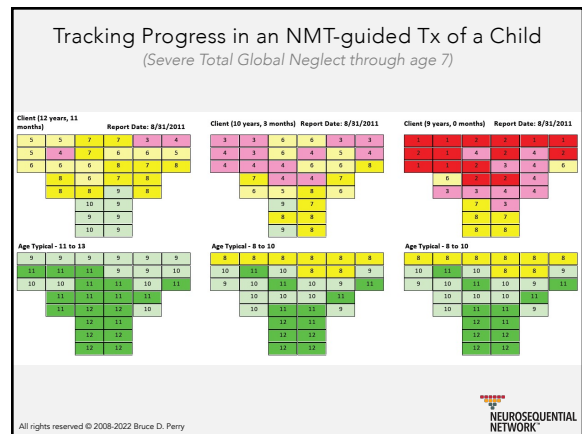


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OUTCOMES

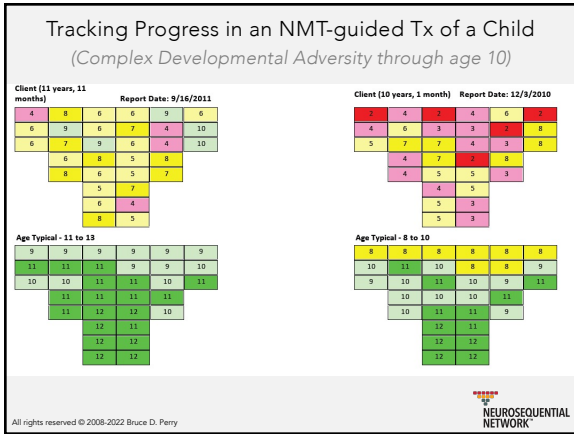
See NM Selected Outcomes and NMT as EBP documents available at www.bdperry.com/handouts

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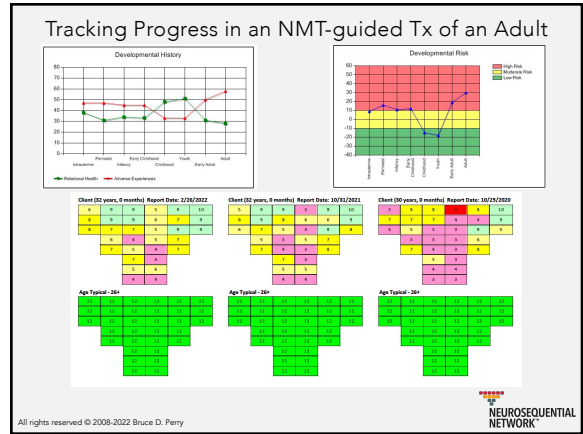


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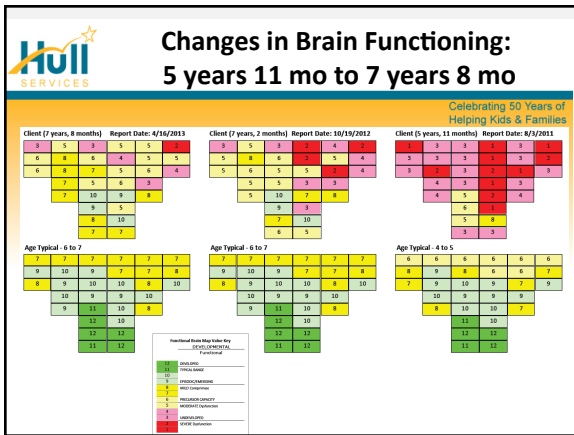
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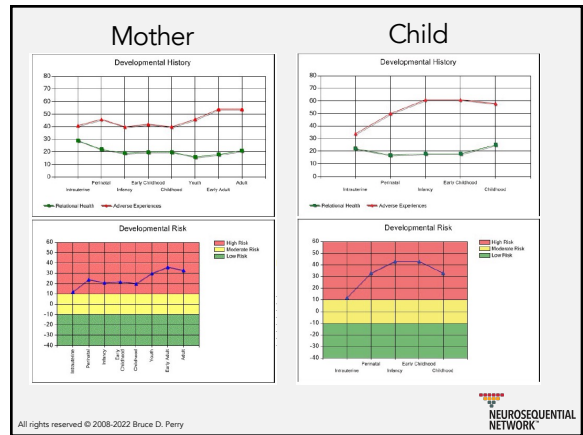
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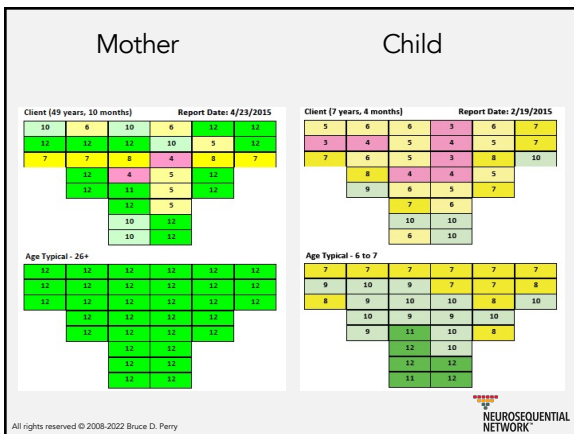
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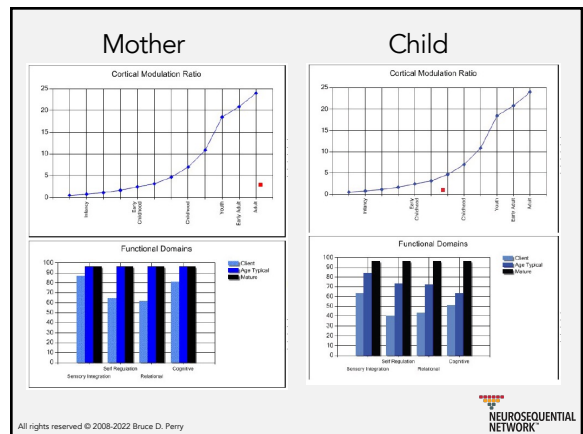
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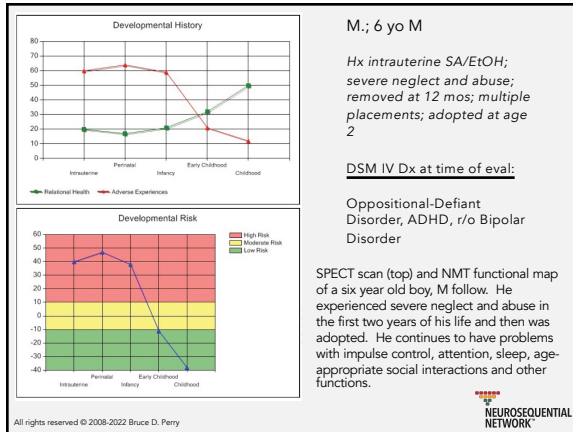


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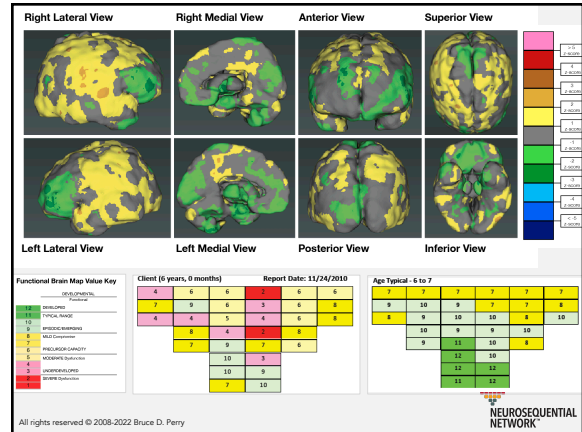


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Neurosequential Model Core Slides "Best Hits" Package



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Neurosequential Model of Therapeutics in a Therapeutic Preschool: Implications for Work With Children With Complex Neuropsychiatric Problems

Sharon Barfield
Health Policy and Research Solutions, Lawrence, KS

Christine Dobson
The ChildTrauma Academy, Houston, TX

Rick Gaskill
Sumner Mental Health and Wichita State University

Bruce D. Perry
The ChildTrauma Academy, Houston, TX and Feinberg School of Medicine, Northwestern University

The two studies presented examine the use of the Neurosequential Model of Therapeutics on the social-emotional development and behavior of 28 children participating in a therapeutic preschool program. Results from these studies indicate that the use of the Neurosequential Model of Therapeutics approach to determine the nature, timing, and "dose" of developmentally appropriate activities and interventions within the context of a therapeutic preschool did improve the social-emotional development of the participating children. Interventions and activities were provided in the context of Filial Play Therapy as part of the therapeutic preschool environment. Six-month and 12-month follow-ups suggest gains in social-emotional development and behavior were retained. Implications for future use are discussed.

CITATION
Barfield, S., Dobson, C., Gaskill, R., & Perry, B. D. (2011, October 31). Neurosequential Model of Therapeutics in a Therapeutic Preschool: Implications for Work With Children With Complex Neuropsychiatric Problems. *International Journal of Play Therapy*. Advance online publication. doi: 10.1037/a0025955

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Article

Clinical Improvements in adopted children with fetal alcohol spectrum disorders through neurodevelopmentally informed clinical intervention: A pilot study

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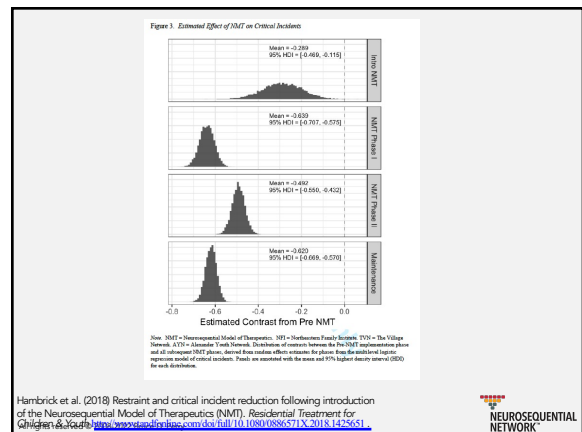
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Restraint and Critical Incident Reduction Following Introduction of the Neurosequential Model of Therapeutics (NMT)

Erin P. Hambrick^{a,b}, Thomas W. Brawner^b, Bruce D. Perry^{b,c}, Emily Wang^d, Gene Griffin^e, Toni DeMarco^f, Cara Capparelli^f, Tim Grove^g, Michelle Maikoetter^h, Dawn O'Malleyⁱ, Dave Paxton^j, Lorraine Freedle^k, Jeffrey Friedman^l, Joan Mackenzie^m, Katharine M. Perryⁿ, Pete Cudney^j, Jerry Hartman^o, Elizabeth Kuh^l, Joseph Morris^o, Caroline Polales^o and Mark Strother

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Neurosequential Model Core Slides

"Best Hits" Package

Table 2. Estimated economic savings associated with restraint reductions.

Site name	Pre-NMT		Pre-NMT		Intro		Cert 1		Cert 2		Maint		Total Savings
	Rate	Cost	Rate	Cost	% Pre	Period	% Pre	Period	% Pre	Period	% Pre	Period	
1 NFI	100	48	380	1154	24	9120	0	24	9120	0	36	13680	39945.6
2 TVN	100	12	8010	7166	5	5229	20.43	15	61805	14.02	11	637019	164014.4
3 Canyon Oaks	100	29	1400	252	8	8384	59.32	13	7410	10.73	18	225016	404
4 Cal Family's	100	25	3086				46.64	11	2442732	51.42	12	23376	48114
5 Saint A's	100	32	5086	118.7	19	-1839636	46.46	13	33124	79.6	20	122304	103.8
6 Hull	100	11	642	58.85	11	32843	33.84	9	37557	11.49	12	485656	45.88
7 AYN	100	30	8662	62.9	17	108884	26.8	19	274335	38.39	18	1859479	45.7
8 Teambuilders	100	12	1663										
9 Warwick	100	4	43383	44.57	6	1534863	23.57	5	723405				
10 Kibble	100	12	2333	22.5	12	215692							
Total % Pre-NMT	100	8226.5	51.9	284914.6	33	3839102	27.58	433339	37.58	436232	151827	1538027.0	

Note: NMT = Neurosequential Model of Therapeutics; NFI = Northeastern Family Institute; TVN = The Village Network; AYN = Alexander Youth Network; Pre-NMT, Cert 1, Cert 2, and Maint = the stages of NMT Certification. Economic savings estimates based on Label & Goldstein's (2005) estimate of the costs of restraints. All sites were converted such that "Pre-NMT" baseline = 100 and all other values is the % "Pre-NMT" baseline. All statistical analyses (except the Total analysis) were conducted on raw, pre-converted data.

Savings from introducing NMT:
\$ 1,538,027

Hambrock et al. (2018) Restraint and critical incident reduction following introduction of the Neurosequential Model of Therapeutics (NMT), Residential Treatment for Children & Youth <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6110110/>

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Economic Benefits with Introduction of NMT

Site	Program	Pre-NMT	Pre-NMT	Monthly	% Baseline	Period	% Baseline	Period	% Baseline	Period	% Baseline	Period	TOTAL
1	NFI	100	48	380.0	11.5 (24)	9120	0	24	9120	0	36	13680	39945.6
2	Village Network	100	12	810.0	7.1 (5)	5229	20.4** (15)	6180.0	10.4** (11)	63701.9	15.2** (7)	34889.5	164014.4
3	San Mateo	100	29	1400.0	25.2 (8)	8384.0	59.3 (13)	7410.0	10.7 (18)	22501.6	4.04 (16)	21494.4	59792.0
4	Cal Family	100	25	3086.0			46.6** (11)	24427.3	51.4** (12)	23376.0	48.1** (20)	38371.7	136555.4
5	SA	100	32	5086.0	118.7 (19)	-18396.3	46.5** (13)	33124.0	79.6 (20)	122304.0	103.8 (24)	4115.2	130916.2
6	Hull	100	11	642.0	38.9 (11)	2824.8	33.8 (9)	3755.7	11.4** (12)	4856.6	45.9 (18)	7576.2	89013.3
7	AYN	100	30	8662.0	62.9** (17)	104884.0	26.8** (19)	27433.5	38.4** (18)	185947.9	45.7** (24)	238264.8	164452.0
8	Teambuilders	100	12	1663.0									7234.1
9	Warwick	100	4	43383.0	44.6** (6)	152486.3							152486.9
10	Kibble	100	12	2333.0	22.5** (12)	21569.2							21569.9
TOTAL	% Pre NMT	100.0	8326.5	51.9**	284914.6	33.0**	383510.2	27.53**	433379.0	37.58**	434223.2	1538027.0	

Ten sites
Three countries (eight states)
Avg duration of site review = 64 months (range 10-132 months)
2744 clients served in the 10 programs during the duration of the review period

Conservative economic benefit from just the reduction in restraints
\$1,538,027
4,269 restraints (avoided)
51,228 "person-hours" required for "restraint" re-directed

Hambrock et al. (2018) Restraint and critical incident reduction following introduction of the Neurosequential Model of Therapeutics (NMT), Residential Treatment for Children & Youth <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6110110/>

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Implementing the Neurosequential Model of Therapeutics

SEARCH HAS BEEN CONDUCTED TO IDENTIFY THE NEUROSEQUENTIAL MODEL OF THERAPEUTICS (NMT) IN THE LITERATURE. THE RESULTS OF THIS SEARCH ARE PRESENTED IN THIS ARTICLE. THE SEARCH WAS CONDUCTED USING THE FOLLOWING SEARCH STRATEGY: (NMT) AND (NEUROSEQUENTIAL MODEL OF THERAPEUTICS) AND (SEARCHED). THE SEARCH RESULTS ARE PRESENTED IN THIS ARTICLE. THE SEARCH WAS CONDUCTED USING THE FOLLOWING SEARCH STRATEGY: (NMT) AND (NEUROSEQUENTIAL MODEL OF THERAPEUTICS) AND (SEARCHED). THE SEARCH RESULTS ARE PRESENTED IN THIS ARTICLE.

Richard L. Gaskill
Bruce D. Perry

KARTEGGING AV BARN MED «THE NEUROSEQUENTIAL MODEL OF THERAPEUTICS»

Kartlegging av barn med kognitive og emosjonelle utfordringer er en viktig del av behandlingen. Dette dokumentet beskriver hvordan Neurosequential Model of Therapeutics (NMT) kan brukes til å identifisere og behandle barn med slike utfordringer. NMT er en strukturert og evidensbasert tilnærming som tar hensyn til barnets utviklingsnivå og individuelle behov. Dette dokumentet beskriver hvordan NMT kan brukes til å identifisere og behandle barn med kognitive og emosjonelle utfordringer. Dette dokumentet beskriver hvordan NMT kan brukes til å identifisere og behandle barn med kognitive og emosjonelle utfordringer.

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Selected Outcomes in Schools

NMETM
neurosequential.com

SEARCH HAS BEEN CONDUCTED TO IDENTIFY THE NEUROSEQUENTIAL MODEL OF THERAPEUTICS (NMT) IN THE LITERATURE. THE RESULTS OF THIS SEARCH ARE PRESENTED IN THIS ARTICLE. THE SEARCH WAS CONDUCTED USING THE FOLLOWING SEARCH STRATEGY: (NMT) AND (NEUROSEQUENTIAL MODEL OF THERAPEUTICS) AND (SEARCHED). THE SEARCH RESULTS ARE PRESENTED IN THIS ARTICLE.

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NME Mini-Map

CLIENT	DATE	NMT	NME	8/16/18	8/16/18	3/23/19	6/12/19
RS	6	1	Attention/Distractibility	1	1	2	3
BJ/CB	9	2	Fine Motor Skills	2	2	3	4
10	3	3	Coordination/Large Motor Skills	3	3	4	3
LIMBIC	12	4	Threat Response	1	1	2	2
16	5	5	Affect Regulation/Mood	2	2	2	3
19	6	6	Relational Skills	1	1	2	2
CTX	23	7	Communication/Language Skills	2	2	3	3
28	8	8	Reactivity/Impulsivity	1	1	2	2
29	9	9	Math/Logic	1	1	1	1
30	10	10	Reading/Verbal Skills	1	1	2	3

Legend:
1 First Quartile
2 Second
3 Third
4 Fourth Quartile

v. 3 2011

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NME Mini-Map: Self-regulation Score

SI/SR	8/16/18	8/16/18	3/23/19	6/12/19	8/16/19	8/16/19	3/23/19	6/12/19
Fine Motor Skills	2	2	3	4	2			
Coordination/Large Motor Skills	3	3	3	4	3	8	8	12
Attention/Distractibility	1	1	2	3	1			
Threat Response	1	1	2	2	4			
Reactivity/Impulsivity	1	1	2	2	8			
Affect Regulation/Mood	2	2	2	3	5	7	7	10
Relational Skills	1	1	2	2	6			
Communication/Language Skills	2	2	3	3	7			
Math/Logic	1	1	1	1	9			
Reading/Verbal Skills	1	1	2	3	10			

Self Regulation Score [0.54 | 0.5 | 1.1 | 1.8]

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Neurosequential Model Core Slides

"Best Hits" Package

Introduction of NME
Columbus Public Schools (2014-2015)

District	Year	# Office Referrals	# Detention, Suspension or Expulsion
Columbus City-- Ohio Ave. ES	2013-14	917	129
	2014-15	750	83
Columbus City--Livingston ES	2013-14	2719	1043
	2014-15	1017	811
Graham School	2013-14	Not available	88
	2014-15	Not available	38
The Charles School	2013-14	Not available	97 (3 expulsions)
	2014-15	Not available	90 (0 expulsion)

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NEUROSEQUENTIAL NETWORK

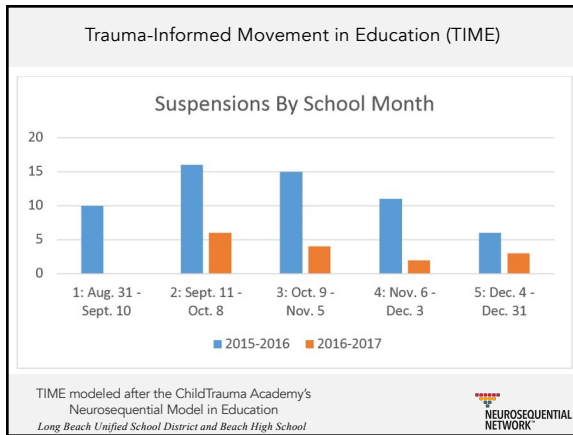
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Introduction of NME
Columbus Public Schools (2014-2015)

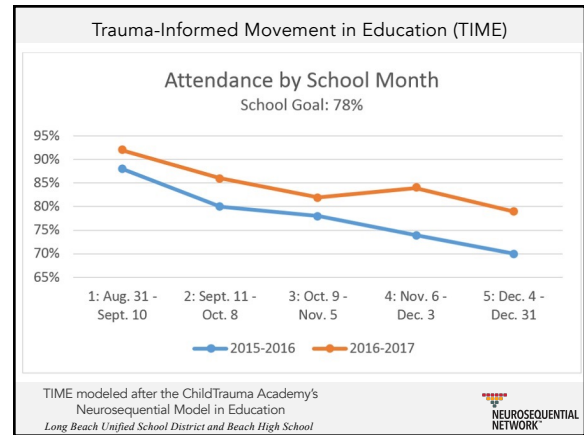
Elementary Principal in Columbus City Schools:
 "We have decreased our discipline referrals by almost 50% in one year. This means kids are in the classroom more and are developing self-regulation strategies that will help them be successful not only in school but in life."
 "I, as the principal, am able to have more time to be in classrooms observing and providing feedback to teachers because my staff is equipped to deal with behaviors in the classroom instead of referring kids to the office for me to deal with."

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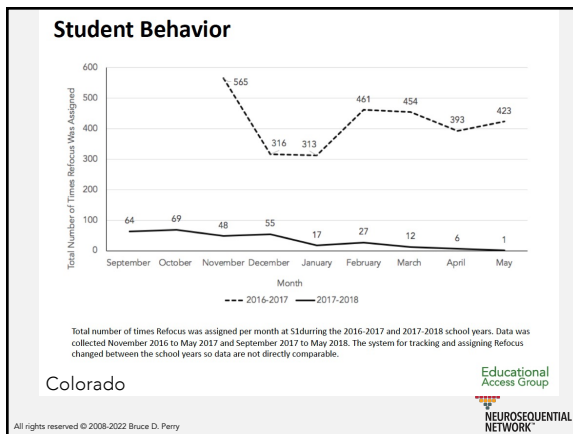
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Student Academic Performance

2017 and 2018 CMAS: Colorado Growth Model Results

	Elementary School - Median Growth Percentiles					
	Math		Change	English Language Arts (ELA)		Change
	2017	2018		2017	2018	
S1	17	45.5	28.5	49	58	9
DPS	53	48	-5	57	47	-10
Colorado	51	50	-1	51	50	-1

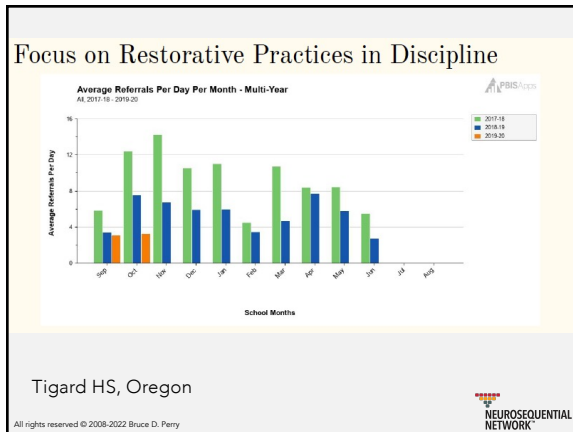
**Median Growth Percentiles reflect data for grades 3-5.*

Colorado
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Educational Access Group
NEUROSEQUENTIAL NETWORK

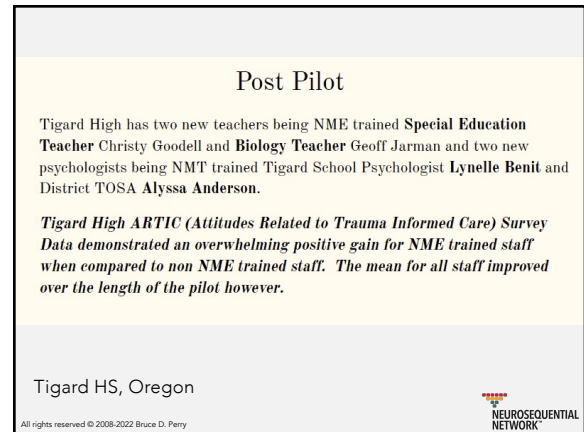
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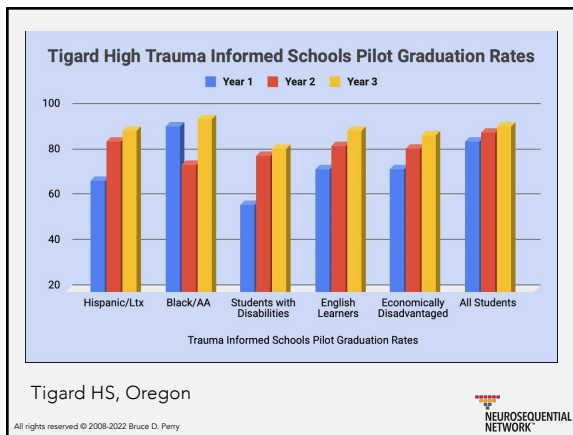
"Best Hits" Package



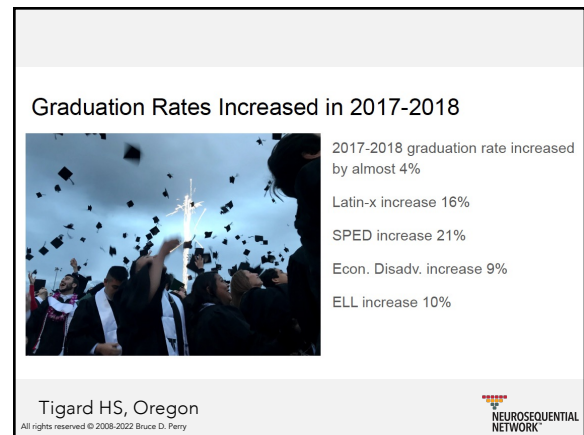
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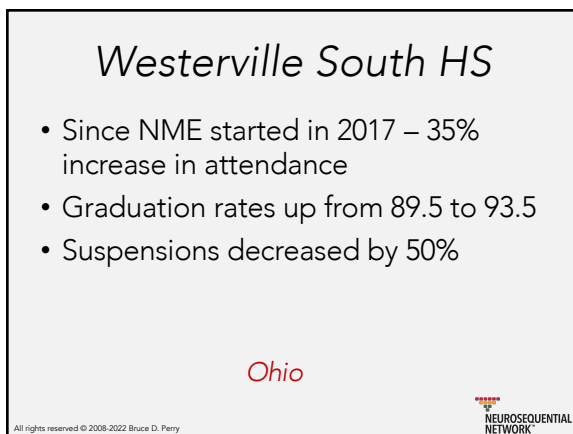
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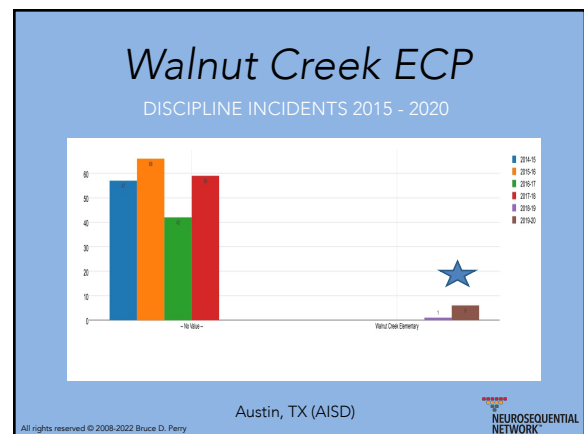
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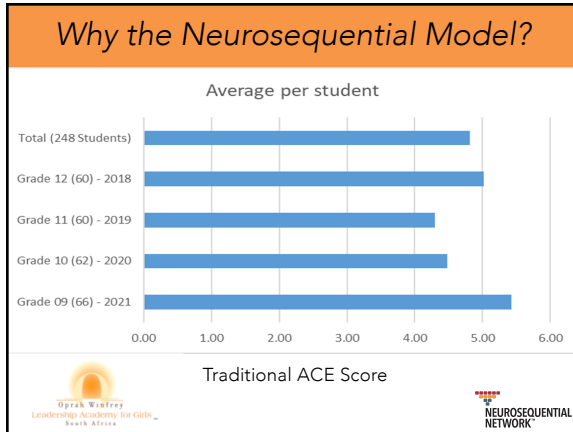


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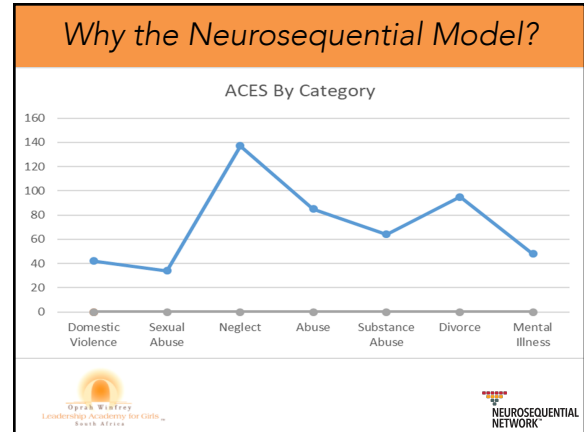


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Neurosequential Model Core Slides "Best Hits" Package



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Evidence of NM Impact

Clinical outcome data tells us that...

- Suicidality – has reduced
- Red flag Cases reduced and normalised than before
- Psychiatric referrals more investigative than crises
- Numbers in sickbay reduced
- Behavioral challenges – reduced

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Towards A Comprehensive Approach

NMT Metric – OWLAG Student

Client (18 years, 6 months) Report Date: 3/26/2021

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

Client (16 years, 10 months) Report Date: 9/15/2019

11	7	11	4	11	10
8	12	10	10	7	11
4	7	4	4	10	4
6	4	6	12		
7	9	7	11		
12	5				
9	6				
9	12				

Age Typical - 17 to 19

11	11	11	11	11	11
12	12	12	11	11	12
12	12	12	12	11	12
12	12	12	12		
12	12	12			
12	12				
12	12				
12	12				

Age Typical - 14 to 16

10	10	10	10	10	10
12	12	12	10	10	11
11	11	12	11	10	12
11	11	11	12		
12	12	12	11		
12	12				
12	12				
12	12				

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Developing a trauma-informed approach to closing the poverty-related attainment gap

Lesley Taylor & Whitney Barrett

Aim: The development of a trauma-informed approach to closing the poverty-related attainment gap called *Readiness for Learning (RFL)*. This is a project funded by the Scottish Attainment Challenge (SAC).

Method: This part of the project involved making changes to the learning environment and presentation of the curriculum, taking into greater account the developmental stage of children entering formal schooling. A selection of both qualitative and quantitative measures were completed throughout the year.

Findings: These indicated that pupils made significant gains in their executive function abilities, as measured using the Neurosequential Mind Map.

Limitations: The limitations of this study included the lack of a matched control and the potential confounding effect of co-occurring interventions. Longer term evaluation and follow-up with the cohort is planned to gather evidence of ongoing impact and attempt to address some of the limitations identified.

Discussion: Results will be discussed both in relation to pupil outcomes, as well as the wider involvement that the Educational Psychology Service (EPS) can have in relation to local authority policy and practice.

Key words: Trauma-informed practice; self-regulation; executive function.

64 Educational & Child Psychology, Vol. 35 No. 3

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#1 NEW YORK TIMES BEST SELLER

WHAT HAPPENED TO YOU?

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with MAIA SZALAVITZ

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Neurosequential Model Core Slides

"Best Hits" Package

why empathy is essential—
and endangered

BORN FOR LOVE

Maia Szalavitz
Bruce D. Perry, M.D., Ph.D.


Authors of *The Boy Who Was Raised as a Dog*

"Empathy and the way that bond people into relationships are key elements of happiness. Born for Love is truly fascinating!"
—Gretchen Rubin, author of *The Happiness Project*

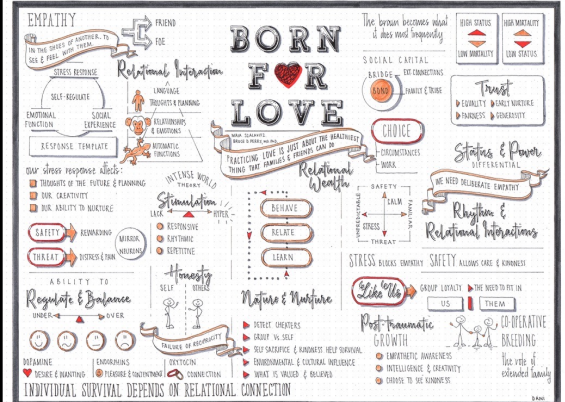
Brief

Reflections on Childhood, Trauma and Society

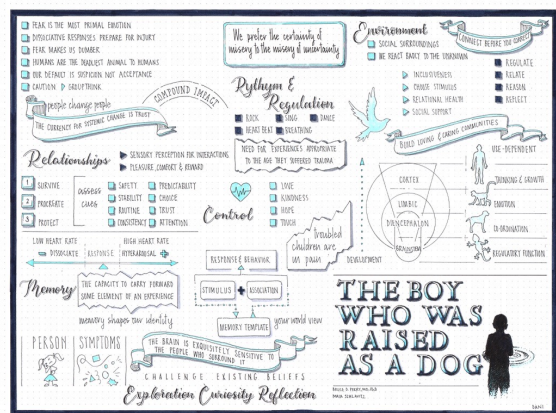
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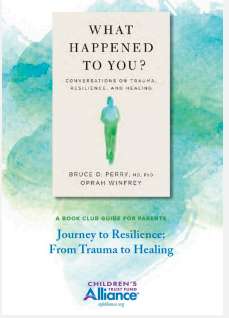
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WHAT HAPPENED TO YOU?
CONVERSATIONS ON TRAUMA, RESILIENCE, AND HEALING

BRUCE D. PERRY, MD, PhD
OPRAH WINFREY

A BOOK CLUB GUIDE FOR PARENTS
Journey to Resilience:
From Trauma to Healing

CHILDREN'S
Alliance

INTRODUCTION TO THE BOOK CLUB CONCEPT

What Happened to You? by Dr. Bruce Perry and Oprah Winfrey is a powerful book for readers of all ages and backgrounds. We invite you to join us for a book club meeting to discuss this important work together. The book club concept is a powerful tool for parents, educators, and community members to explore the book together and support one another in their healing journey.

The book club concept is designed to create a space for parents to learn, share, and connect. It offers a unique opportunity for parents to learn from each other and from the author. It is a safe space where parents can ask questions and share their own experiences. The book club concept is a powerful tool for parents to learn from each other and support one another in their healing journey.

What do we want to see in this book club? We want to see parents who are curious, open-minded, and willing to learn from each other. We want to see parents who are willing to share their own experiences and support one another in their healing journey.

OBJECTIVES

We hope this book club will help you:

- Gain a better understanding of the book
- Connect with other parents who are interested in the same topics
- Share your own experiences and support one another in your healing journey
- Learn from each other and support one another in your healing journey
- Gain a better understanding of the book

QUESTIONS

We hope this book club will help you:

- Gain a better understanding of the book
- Connect with other parents who are interested in the same topics
- Share your own experiences and support one another in your healing journey
- Learn from each other and support one another in your healing journey
- Gain a better understanding of the book

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