Handout for the Therapro webinar
School Trauma-Informed Therapy Strategies
presented by John Pagano, Ph.D., OTR/L - March 21, 2023

SCHOOL TRUAMA-INFORMED THERAPY STRATEGIES P. 1

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Increasing Scope of Pediatric PTSD P. 2

- Neurological and behavioral changes as well as negative affects on physical and mental health are more likely if early child abuse & neglect (Teicher et al., 2016)
- Children and family members can experience PTSD in response to NICU, PICU, and other prolonged or severe hospitalizations (Stenman et al., 2019)
- Higher rates of PTSD in parents and care givers of children with severe acute and chronic illness (Carmassi et al., 2017)

Trauma-Informed Therapists P. 3

Assume all clients may have PTSD so consistently use trauma-informed strategies with everyone:

Invite not command: (Participate, Close eyes); **Still like you**; **Orienting** game (facing door); **Ask permission to kid with and touch; Choices; Priming** (Orient to environment, class, books before teach)**; Intersperse learned tasks** (initially every other task one they already know and can succeed at)

Before start & in treatment: Facilitate a calm alert state (sensory modulation), **minimize sensory distractions; lower stress level to moderate or less; facilitate body awareness and an organized sensory and interoceptive state** (Sensory Discrimination); and **address Emotion Regulation for learning.**

Sensory Processing Disorder Treatment for Pediatric Mental Health Challenges P. 4

- **Children with PTSD have significantly more sensory processing and emotion regulation challenges (Teicher et al., 2016)**
- **Kids with abuse and neglect hx showed significant differences in sensory processing. Approximately three-quarters had tactile sensitivity if abuse hx; and underresponsive/seeks sensation if neglect (Howard et al., 2019)**

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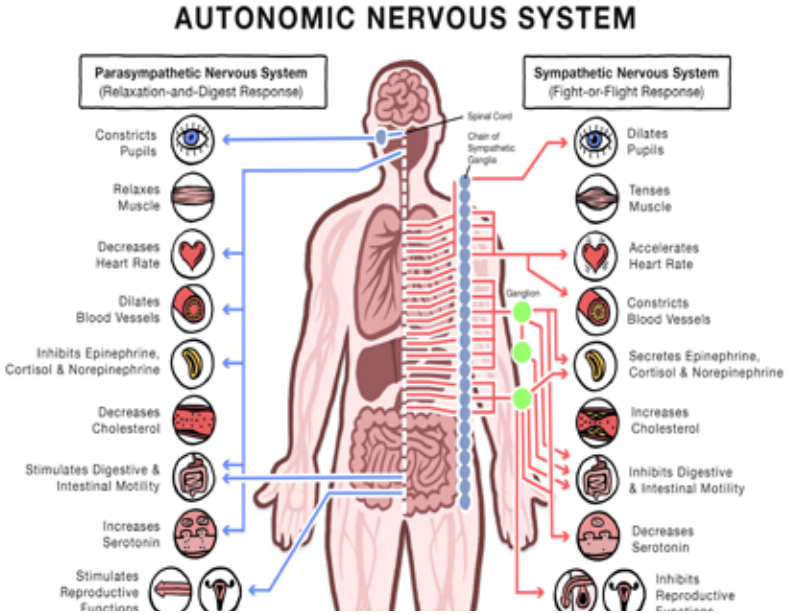
Emotion Regulation for PTSD P. 5

- **Emotion/Affect Regulation teaching** results in evidence-based improvements in tolerating, regulating and appropriately managing emotions. Significant relationship between psychiatric disorders and poor emotion regulation.
- **Emotion Regulation Teaching/Treatments best taught in context by OT, ST, PT, and MH therapists include mindfulness, coping strategies, and preferred deep pressure touch (Case et al., 2020).** Teach students to recognize their unique early bodily & environmental triggers for dysregulation and the coping strategies to prevent aggressive behavior (Stevens, 2019).
- **Emotion/Affect/Memory Reconsolidation** can result in evidence-based improvement by permanently changing the emotional response of a negative memory; but requires attention and moderate emotional arousal or less to work. Memory reconsolidation CBT reduced suicide attempts in adolescents (Hogberg & Holstrom, 2018).
- **Emotion Regulation** can be done to optimize emotion arousal for Emotion Reconsolidation or return to school tasks after.

(Stevens, 2019)



Mindfulness Promotes Emotion Regulation & optimal Sensory Modulation. ***Developmentally grade*** *so easy enough to do but challenges so you can't think of anything else*

Mindfulness Efficacy for PTSD P. 6

- Slow breathing activities significantly reduced anxiety, depression and trauma symptoms in children and adolescents with developmental, PTSD, and mental health challenges (Brown & Gerbarg, 2022; Manuel, 2022)
- Mindfulness training significantly decreased bullying behavior difficulties in elementary school students (Faraji et al., 2019)
- Feel your feet significantly improved behavior in adolescents with conduct disorders and aggressive behaviors (Singh et al., 2016)
- Pediatric PTSD interventions that significantly improved self-regulation included mindfulness, exercise, sensory enhanced yoga, and massage

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Move, Tense & Relax, & Hand Breathe P. 7

★**Move: Head, Shoulders, Hip circles**

★**TENSE & RELAX**

TENSE AFTER I SAY 1-2-3-GO IMMEDIATELY RELAX

TENSE PRUNE & GRAPEFRUIT DRINK FACE (3 X)

ELEVATE BOTH SHOULDERS (3 X)

MAKE FISTS TO SQUEEZE ORANGES INTO JUICE

★**HAND BREATHE**: ***TAKE 3 DEEP BREATHS IN STOMACH GOES OUT, FINGERS OPEN WIDE;***

OUT STOMACH GOES IN FIST THUMB (Adi Mudra), DOUBLY SLOW

Hand Breathing and Developmental Coping Strategies- Easy enough that they can do it, hard enough that they can't think of anything else **P. 8**

Sensory Discrimination Mindfulness P. 9

- **Rub hands together-**
- **Energy ball-** Separate E breathe in slow, Gather E breathe out
- **Bubble protective circle-** feet moving then glued
- **Paint wall-**
- **Earth & Sky**- Get star from sky bring down, get flower from the earth bring up
- **Flower & candle-** Pointing finger 1 ft. in front of nose; slowly breathe in to smell flower; snort out candle

(Brown & Gerbarg, 2022; Manuel, 2022)

Bully Mindfulness P. 10

Kindness: Happy, healthy, at peace.
Unconditional Love, Stranger, Self, Class.

Before speaking ask yourself:

1. Is it true

2. Is it kind

3. Is it necessary (Greenland, 2015)

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Sensory Modulation Disorders P. 11

1. **Sensory Modulation Disorders**-Difficulty using sensory information to functionally respond to significant environmental information and screen out irrelevant input. Approximately 35% of youth with PTSD compared to 5% in undiagnosed kids have sensory modulation disorders.

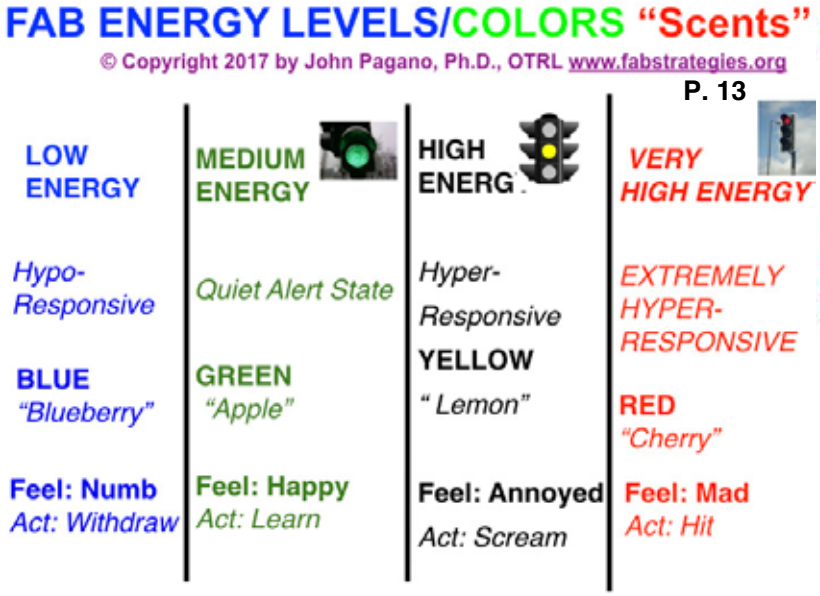
a. Sensory Overresponsivity-(Sensory Sensitive/Hyper-reactivity)- Seen in over half of youth with Autism Spectrum Disorder, related to neurophysiologically heightened attention to irrelevant sensory information (Green et al., 2016) and decreased amygdala & sensory cortex habituation (Green et al., 2015)

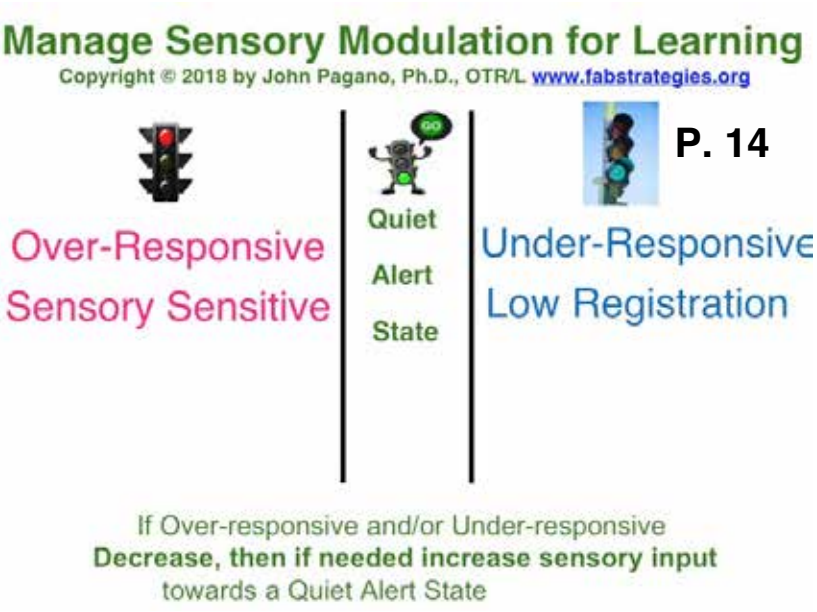
b. Sensory Underresponsivity- (Low Registration/Hypo-reactivity) do not notice sensory input, habituate quickly

c. Sensory Seeking- actively seek out sensory input

d. Sensory Avoiding- actively avoid sensory input

(Watling et al., 2011; Schaaf & Mailloux, 2015)





Therapro

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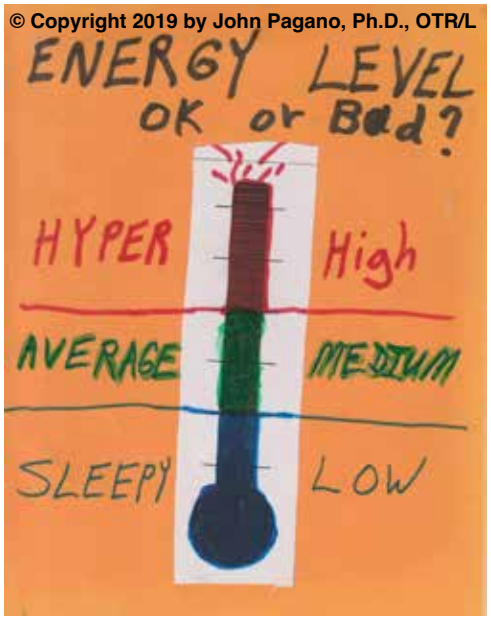
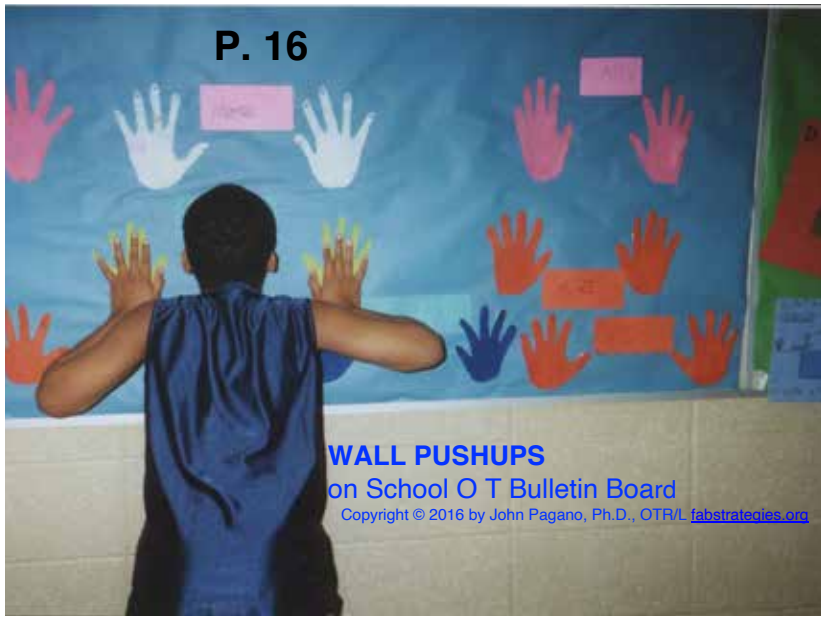


P. 15

P. 16



SENSORY DISCRIMINATION DISORDERS & TX Strategies P. 17

2. Sensory Discrimination Disorders- Difficulty with body awareness. Challenges distinguishing, interpreting, and organizing sensory information for functional use, contributing to disorganization and school difficulties. Includes interoception sensory input e.g., hunger, need to use bathroom (Miller & Collins, 2012; Watling et al., 2011).

Tx-Deep pressure touch, Light touch (interoception) and developmental body awareness (Front-back, Top-Bottom, and sides) through movement, obstacle courses, touch.

Squeeze & Press for Calm Body Aware P. 18

- **Cross arms-** Squeeze both shoulders diagonally in 10 sec.
- **Squeeze *or Press Arms*-** Each upper arm, lower a ferm, hand, squeeze each finger, hand, lower arm, upper arm
- **Feel your feet-** Bottom of feet, toes, ball, arch, heel (Singh et al., 2016)
- **Rub hands together-**
- **Trace fingers**- Pointing finger **"breathing in"** traces fingers up, **"breathing out"** traces down
- **Squeeze fingers**- Pointing & index fingers **"breathing in"** squeeze first finger, **"breathing out"** squeezes next
- **Ha Tapping Shoulders & Above Knee**

(Brown & Gerbarg, 2022; Manuel, 2022)

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BACK X & SPINE CRAWL P. 19

X MARKS THE SPOT *X fist on back, slow & light*
WITH A DOT DOT DOT *3 dots with your fist*
AND A LINE LINE LINE *3 horizontal lines*
AND A QUESTION MARK *? on entire back*
"CRACK AN EGG ON YOUR HEAD *fist egg*
LET THE YOKE RUN DOWN" *finger yoke* **(2 X)**
CREEPY CRAWLIES UP YOUR SPINE
spine crawl with knuckles both sides spine
CREEPY CRAWLIES DOWN
palms down both sides spine

ACADEMIC TRANSFER OF BACK/FRONT, TOP/BOTTOM, SIDE TO SIDE P. 21

(Burpee, 2019)

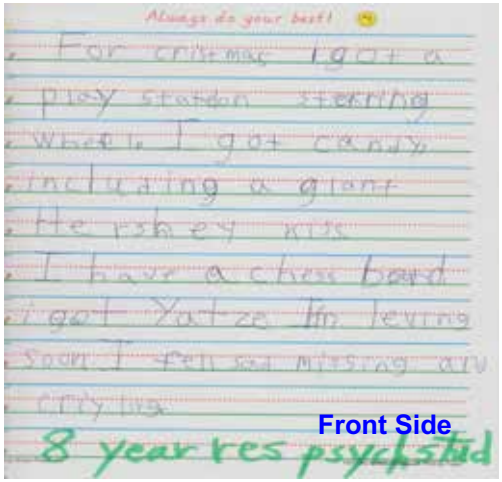
SIDE TO
TOP DOWN

DOWN

DOWN

DOWN TO BOTTOM

STOP



SIDE

Body Awareness for Movement Planning & Academics P. 20

- **Ha tapping & many of the movement breaks teach students to identify the top (head) & bottom (feet), front (face) & back (back of head) & 2 sides of their bodies.**
- **Next teach this in room orientation, there is a top & bottom, front & back, & sides of the room in which to move.**
- **Then developmentally expand to the paper/book and academics. Writing & math proceed top to bottom, front to back, and side to side (Koester, 2012; Burpee, 2019)**

SBIs for Treating PTSD P. 22

SBIs (Sensory Based Interventions) are individualized environmental & sensory strategies to improve behavior by addressing sensory modulation and sensory discrimination challenges (Watling et al., 2011). SBIs are a component of evidence-based PBIS, Floortime for ASD (Hess, 2013), Collaborative Problem Solving for ODD (Pollastri et al., 2013), & SMART approach for PTSD (Warner et al., 2014)

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Environmental Sensory Strategies for Learning P. 23

- Learning and behavior improved in youth with ASD and Sensory Sensitivity definite differences by reducing auditory, tactile & especially combined distractions through: desks separate, carrel, headphones, earmuffs, thicker walls between areas, such as so further separate desks; structurally lower noise; use head phones, earplugs, earmuffs, FM system, and gradually get them use to noise (Green et al., 2015)
- Attention and learning in LD significantly improved more than Ritalin by individualized sensory modalities enhancing the salience of teaching cues: picture directions, simultaneously hearing and reading info, highlighter for plus sign key info, & fidget use while listening (Zentall et al., 2013)

FAB Strategies® Neuroscience Treatment P. 24

Children who have Autism Spectrum Disorders, Oppositional Defiant Disorders, and/or an early trauma history may show neurological differences contributing to behavioral and learning challenges. Can apply clinical reasoning based on neuroscience.

(1) **Frontal Cortex (Pre-Frontal, OrbitoFrontal Cortex, & Anterior Cingulate)*: Freeze shake- dance-***"Songames for Sensory Integration" Audio CD by Lande, A., Tel. 800-489-0727); ***Red Light, Giant steps, Simon Says, Social role playing, Ask permission to Kid-Touch others, Filter in head; Play Plan-Review, Aerobic exercise, and mindfulness*** help improve executive functions for behavior and body image. **Cognitive Disability Teaching Strategies: *Embed time in schedule, change positions if stuck, don't walk and talk, results not morals.***

(2) **Corpus Callosum:** Childhood trauma affected the structural development of the Frontal Cortex and corpus callosum (Teicher et al., 2016). Improve horizontal communication using ***Feeling Wheel, Feeling Cards, Triggers, Anger Meter, Spazo-Meter, Coping Strategies.*** **For special needs kids *Switch hands toss: Favorite____(thing about self)-Guess the feeling-Feeling intensity-I feel-I message*** (Shobe, 2014).

(3) Basal Ganglia-Problems interfere with early development of attention, movement planning and chunking together automatic movement sequences. PRT improves social skills in children with ASD by increasing activation of this areas reward system (Ventola et al., 2014) Tx to reinforce gradually increasing attention, movement planning, and sequentially teaching each component of motor tasks (Koziol et al., 2014).

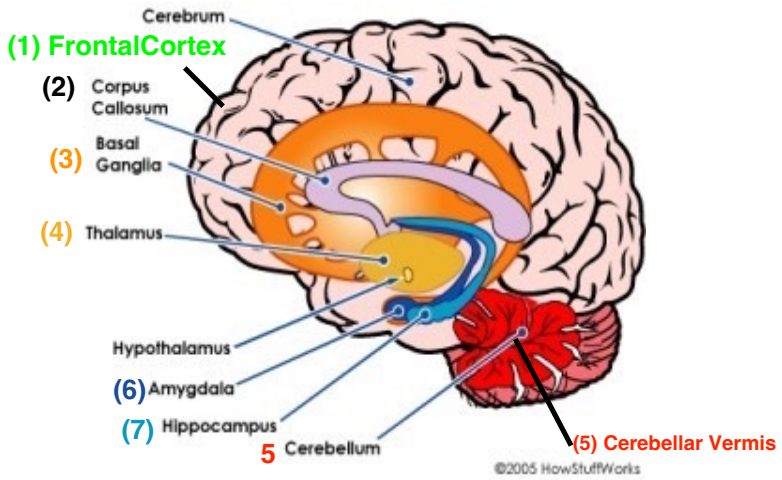
FAB Strategies® Neuroscience Treatment P. 25

(4) Thalamus-Regulates flow of sensory and motor stimulation from subcortical regions to the Cortex, and is smaller in Sx. PRT intervention improves behavior in hyperactive children with PDD by decreasing Thalamus & Hippocampus activation of the Cortex while improving attention, behavior and reducing stress (Ventola et al., 2014).

(5) Cerebellum: Acquires "internal models" through sensory-motor interactions neural representations of the body and environment mapping body part movement & the environment so feed-back leads to automatic feed forward motor planning Koziol et al., 2014).

(6) Amygdala-Facial recognition fibers and cell differences ASD so avoid eye contact. Tx: Your face calm.

(7) Hippocampus-Moderate cardio exercise promotes neuroplasticity for learning and self-control in young & special needs students; Structure playground to promote self-control, attention and motivation.



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From John Pagano. A pioneering book offering practical transdisciplinary interventions that help students with complex behavioral challenges.

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Theraputty hand exercise material is the standard in resistive hand exercise material. Each color-coded putty has a different consistency. Scented Theraputty offers a sensory twist to the hand strengthening experience!

Sensory and Movement Paths

A sensory path is a series of guided movements for kids to follow, shown by markings on the ground or walls. As students follow the path and complete the movements, they work off excess energy and develop their gross motor skills

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These noise reduction earphones are comfortable and user-friendly. Just pop them on and they go to work! A terrific tool for anyone who needs quiet for sensitivity or for focused activities.

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