Self-Regulation: Strategies for Home and School

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These kids are from the same family?
Temperament Differences = Fundamental differences in Reactivity and Regulation

- Reactive features: reflects how easily how person becomes aroused to respond to events and is seen in rate of onset, speed of escalation, persistence and intensity of emotional reactions as well as sensory threshold
- Regulatory features: seen in how reactivity is modulated, approach-withdrawal, soothability, emotional regulation, and adaptability
- Self-Assessment

Self-regulation

- The ability to regulate behavior based on environmental demands
- Self-regulation develops out of “co-regulation”…think developmentally:
  - Baby
  - Toddler
  - Adolescent
  - Adult
- Linked to Social: “display rules”
- Linked to Cognition: Cognitive monitoring and learning cognitive strategies
- Linked to Sensory: respond appropriately to internal and external sensory feedback
Sensory Processing Disorder (SPD)

- Individuals with SPD are unable to process sensory information correctly. SPD affects the way their brains interpret the information they take in and also how they act on that information with emotional, attentional, motor and other responses...affecting their ability to regulate

- A comment about normal variations

- What individuals with autism have taught us...
Sensory Modulation Disorder

• Problem in regulating and organizing the degree, intensity, and nature of responses to sensory input in a graded manner
• Over-response
• Under-response
• Fluctuating response-idea of a very small window

Prevalence

• 10 - 12 % general population
• 5% school aged population
• 30 - 100% children in the autistic spectrum
• 30% people with developmental disorders
• Also found across multiple disability groups (ADHD, CP, TBI, Fragile X)
Sensory Over-responsivity

- Respond too intensely or too easily
- Response to non noxious stimuli is a fear response: fright, flight, fight, freeze
- Associated with anxiety, hyper vigilance, hyperactivity, aggression, withdrawal
- Interferes with engagement in activities
- Resistant to change, non-adaptable
- Difficulty focusing or attending
- Sensory defensiveness, tactile defensiveness, hypersensitivity

Sensory Under-responsivity

- Insatiable desire for sensory stimulation
- Appear hyperactive, impulsive, constantly on the move, fidgeting
- Unawareness of touch or pain, touch others too hard or too often-may appear aggressive
- Lack of safety awareness while seeking out sensation
- Provide self with extra sensory input from “all channels”
- Very negative, resistant, “bored” if unable to engage in sensory activities
- Hyposensitivity, low registration
Sensory Processing and ASD


  - Individuals with ASD had significantly lower sensory scores (higher presence) than typically developing children
  - Underresponsiveness characterized ASD relative to the typical groups, followed by overresponsivity and seeking
  - Increase in seeking and overresponsivity up to age 6-9 years of age and then a decrease thereafter….no pattern for underresponsivity
  - Lower seeking behavior in 0-3 ASD group compared to typical group (less active exploration?..may seek sensation later on when it is not age appropriate?)

In their own voices….

- “Perceptions of senses: the senses all don’t work right and I struggle to think. Really each time I use my body I can’t feel my body; it feels stiff, I can’t move how I want; no muscles work; they are really cement. The ears work but the sounds are mixed up with all the sounds around the room. Sounds are accosting me. I see but my body really can’t move in response to each hard thing around me. Taste is ok, it’s extreme; smell is all inside the room and that’s overwhelming to my head and brain.”
Sensory Modulation Disorder in Context

- What is the impact of sensory modulation disorders in home, school, work, community environments and how does it vary?
- To what extent does it impact the individual?
- Are their goodness or poorness of fit characteristics between sensory processing and environment?
- A word about…”freaking out when they get home from school”……

Use of Sensory Input for Intervention

- Concept of sensory diet - the right amount, type and frequency of sensory experiences to obtain and maintain optimal functioning.
- Regular vs. Crash vs. Starvation Diet
- Use touch, movement and proprioception to attain a calm, alert state.
Calming Stimulation

- Slow, heavy, rub downward
- Deep tactile pressure
- Proprioception - jumping, running & moving
- Massage
- Slow, rhythmic rocking
- Vibration
- Increased oxygen
- Predictability
- Structure
- Purposeful movement
- Focus

Alerting Activities

- Brisk rub
- Variety of textures
- Bouncing
- Quick rocking
- Quick changes in direction
- Wrestling
- Rough play
- Unpredictable changes
- Being off balance
- Novelty
Combine sensory with cognition

• Working from both a bottom up and top down approach
• Examples
  – Alert Program …Maas article
  – Sensory Stories…..haircut example
  – Super-Flex curriculum for older kids combined with sensory strategies
  – Workout programs…keeping a log

When In Doubt….Prop it Out…..

-Meryl Samuels Turner
OT, ASD Nest Program
New York Department of Education
A way to “prop” (rhymes with cope) with a busy day….

- Weighted blanket to bed
- Wake up, jump on the bed
- Heavy “prop” breakfast (bagels, fruit leathers, apples, suck thickened shake)
- Heavy backpack on lap on bus
- Help teacher pull down all the chairs
- Collect all library books from classrooms with buddy and take to library
- Pressure Vest, Sit-o-disc cushion for seat work
- Power/Movement breaks
- “waiting” snacks
- Assigned door holder
- Unstructured time upon arrival home….or when can I just run around? (video games are not heavy prop….but some are getting closer!)
- Take a walk…in the park….

New research…supports…taking a walk…in a park….

- 17 children with ADHD experienced each of 3 Urban environments—in the park, downtown, and neighborhood via guided 20 minute walks
- After each walk, concentration was measured using Digit Span Backwards
- Children with ADHD showed significantly higher levels of concentration after the walk in the park compared to the downtown or neighborhood walk
- “doses of nature”
- Faber Taylor & Kuo (2009), *Journal of Attention Disorders*
General Rules for Movement

• If you are using vestibular (movement) input, give consideration to the following:
  – Behave then you can move….vs, move then you will behave…moving first may help me regulate later…or do you exercise in the morning?
  – Can we switch recess and lunch?
  – We need movement breaks….

New research….kids need recess…

• Looked at sample of over 10,000 children
• Among 8-9 year old children having at least 1 daily recess period for at least 15 minutes associated with better teacher ratings of classroom behavior
• 30% of children were exposed to no or minimal recess and were more likely to live in the South or Northeast, low SES, live in large cities, be black, and attend public school
Yes but can I do this at home?

- Parents know best.....and what works....
- Natural routines
- Not need to look like therapy
- Taking time out....all of you.....and great sensory and learning based activities are typically what happens
- What you going to do with that input?
- The beauty (and curse) of “You Tube” and other user generated content

Final thoughts...

- Preferred Interests as self-regulatory (passions vs. obsessions)....
- “I can look at you or listen to you...you choose” as self-regulatory....
- Things change...or “if I shake my head, I won’t get a date”....

- Thank You!
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