



**SUPPORTING THE PARENT/CHILD RELATIONSHIP THROUGH THE POWER OF CO-REGULATION**

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### Learning Objectives

1. Learn the importance of the sensory processing systems in the context of the parent/child relationship
2. Understand arousal theory and the development of self-regulation
3. Learn to look at attachment theory in the context of sensory processing
4. Be able to utilize 3-5 strategies to support co-regulation skills between the parent and child

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### Sensory Processing Defined

- "Sensory integration is the ability of the central nervous system to organize and process input from different sensory channels in order to make an adaptive response" (Ayres, 1979)
- The way the nervous system receives messages from the senses and turns them into appropriate motor and behavioral responses. (SPD Foundation)

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### Why is integration so important?

- 8 systems working together
- Emotional Regulation
- Sustained attention over time
- Ability to easily discriminate "salient" vs. "background" information from the world.
- Ability to understand self from others




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### Body Awareness Proprioceptive System

What is it:  
Receptors located in your joints and muscles

What does it do?

- Gives you a sense of body position in relation to itself
- Helps you to know where your body ends and where space begins
- Force modulation: How much force is required to complete an activity?

How do you get it?

- Oral proprioception
- Input received through pushing, pulling, lifting, hanging, crawling
- When this works well, everyday tasks with proprioceptive elements make body awareness "automatic"




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### Movement - Vestibular System

- Gives you information about in what direction and how fast you are moving
- Relationship to Gravity- sense of self being connected to the earth
- Basis for spatial awareness




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## Touch

Gives us the "container" for our body.

Helps us determine self vs. world.

Touch receptors are located under the skin

- Protective: Alert child to danger
- Discriminative: provide information about quality of objects in his environment (hard, soft, sharp, dull)




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## Interoception

- Interoception is the sense we receive from our internal organs (feeling of fullness, bladder/bowel control)
- Closely linked to tactile processing

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## Auditory System

- Discriminate relevant vs. non-relevant auditory information
- Orienting to auditory information
- Give appropriate meaning to the auditory information
- Relate auditory and visual information together




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## Visual System

### Later Development

Visual experiences are vital for the vision to develop.

- Children begin to combine visual input with other sensations, including auditory and movement in order to understand their world.
- Use of vision to “map” environments and facilitate drive to move through space
- Vision one of the earliest ways of alerting and orienting for safety.
- Visual foreground/background
- In young childhood, pairing visual and tactile inputs supports self-regulation and interpersonal interactions.
- Around age 2, children move from using their vision to understand “body centered” activities to activities in distant space.

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## Gustatory / Olfactory Processing

- Gustatory: Sense of taste/receptors located inside mouth on tongue
  - Spicy, sour, sweet, bitter
- Olfactory: Sense of smell
  - Has neurological connections to memory
  - Strongly related to taste

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## Praxis

- 3 Parts
- Forms a feedback/feed forward loop

- Ideation
  - What if I did this?
  - I wonder what would happen if?
  - How can I get...?



- Motor Plan
  - Internal process to setting up the task
  - Happens automatically for most of us
- Motor Execution
  - Use previous experiences to adapt the motor actions for success

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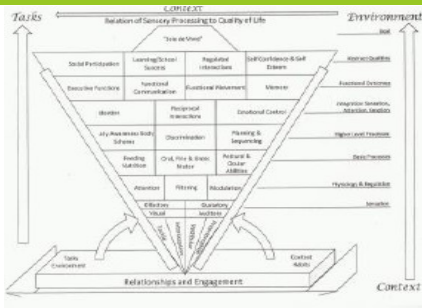
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# Sensory Pyramid



Used with permission, Dr. Lucy Jane Miller/SPD Foundation

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# What does sensory overload feel like?

□ <http://www.autism.org.uk/get-involved/tmi/film.aspx>

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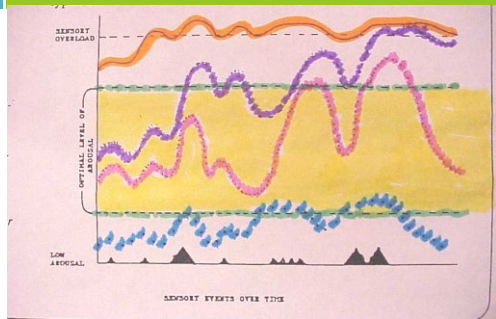
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# How sensory inputs affects arousal levels




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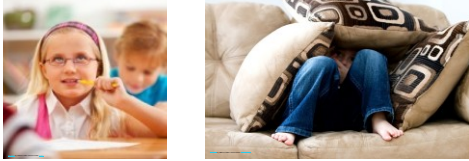
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## Self Regulation

- Self-regulation refers to the strategies a child uses to increase their attention to a task, to self calm, and for impulse control.



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## Self Regulation

- Autonomic Nervous System
  - Fight/flight/freeze/cling response (sympathetic)
  - Restoring Calm (parasympathetic)
  - Regulation of internal organs (enteric)
- Self modulation has a significant impact on the formation of relationships, and vice versa. *anticipation, applying meaning to the sensory inputs*

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## How does self regulation develop?

- Newborns & Infants



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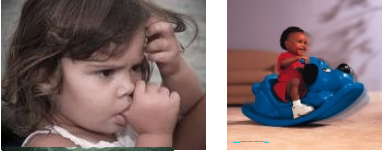
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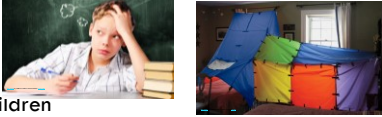
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## Development of Self-Regulation

### □ Toddlers



### □ Young Children




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## Let's think about our own modulation needs...

- What do you need every day in order to be ready for the day?
- How does it feel for you when:
  - You are in a crowd?
  - You are wearing an itchy sweater or pants that don't fit quite right?
  - Your child struggles with getting dirty, is too rough with peers, or becomes fearful of loud noises

*It is important that we recognize and support our own bodies changes in state of arousal.*

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## SENSORY EXPERIENCE ↔ EMOTIONAL EXPERIENCE

- How well do we regulate emotions when we are uncomfortable?




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### WHAT IS ATTACHMENT?

- An interactive, positive experience between child and parent/caregiver.
- Attachment begins in the earliest months of life as the adult regulates their behavior to fit the infant's autonomous rhythm. This evolves into a mutual adjustment process.
- Healthy attachment is the basis for trust and the later ability to form and sustain healthy, intimate relationships.

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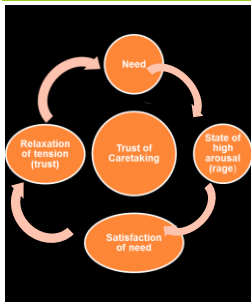
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### ATTACHMENT CYCLES 1ST YEAR



- Necessary ingredients of development of basic trust and attachment:
  - Eye contact
  - Food
  - Motion
  - Touch
  - Verbal contact
  - Emotional contact
  - Smiles

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### ATTACHMENT CYCLES 2ND YEAR



- Necessary ingredients of development of autonomy, good character foundation and conscience:
  - Adult maintains parental control while allowing child to explore and begin to make good choices for themselves.

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BEHAVIORS INDICATING HEALTHY ATTACHMENT  
IN CHILDREN 6MOS-18MOS:

- Ability to give and receive affection
- Increasing frustration tolerance
- Ability to accept delayed gratification
- Increasing impulse control
- Increasing self-regulation (can calm down, sleep regularly, etc)

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### Sensory Processing and Attachment

- Attachment difficulties: Lack of trust that new caregivers will be there for child, regardless of behavior.
- If coupled with sensory processing issues, may have even greater difficulty with bonding.
- Children with attachment difficulties may be friendly with nonroutine caregivers. With parents, especially mothers, the connection and intimacy is often overwhelming and the child may strongly push the parent away.
- Sensory based activities can both provide missing or diminished sensory experiences as well as be something parent and child can enjoy together.
- Jane Koomar (2012) *Combining Sensory-Integration Strategies with Psychotherapy*

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**NEVER**

IN THE HISTORY OF CALMING DOWN.  
HAS ANYONE EVER CALMED DOWN  
BY BEING TOLD TO CALM DOWN.



**CALM DOWN**

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## Factors of Co-regulation

- ▣ Arousal Modulation
- ▣ Sensory Perception
- ▣ Attunement
- ▣ Intersubjectivity



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## Arousal Modulation

- ▣ Our alertness to sensory information coming in from our environment and interactions with people
- ▣ Children need their parents to learn how to effectively shift their arousal states in response to demands of the interaction/environment
- ▣ Shifting arousal states with another person is a key component of co-regulation

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## Sensory Perception

- ▣ Sensory Perception- Sensations that come in from the environment (interactions with people and the physical environment) are organized into meaningful experiences. Match the world to what we expect to sense, making it what we perceive it to be. (Ratey 2002)
- ▣ This is strongly based on the individual's neurology, temperament, experiences, and unique sensory profile.

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## Attunement

- Connectedness between 2 people
- Being aware of and responsive to another
- Non-verbal in nature and requires focused attention
- Allows for a match between the needs of the child and response from the parent
- Synchronous and rhythmic
- Ways that the sensory system can impact successful attunement between parent and child?

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## Intersubjectivity

- The ability to discover aspects of self through the impact one has on the subjective experience of the other
- A joint process between parent and child and partners.
- Requires matched affect and the expression of the emotion within the interaction
- Infants experience of self grows out of their parents' experiences of them
- BUT this also continues to shift your sense of "self" through your relationships as an adult

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## Routines

- What is a routine?  
Routines consist of the commonplace tasks, chores or activities that happen on a regular basis, typically daily or weekly.
  - Tradition—societal,
  - Ritual-cultural, religious
  - Daily living activities (eating, bathing, dressing, etc.)

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## Why are routines so important?

- ▣ Predictable--Automatic nature helps free up energy for other things
- ▣ Routines help provide order to family life and can be the context for deeper meaning in family interactions.
- ▣ Provides sense of community/family
  - ▣ Sense of belonging, togetherness
- ▣ Socialization
- ▣ Set clear expectations
- ▣ Sense of safety
- ▣ Provide the message "I am loved, cared for, protected"

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## Overarching Principles

- ▣ Remember that not everyone processes sensory input the same way
- ▣ Must be a good detective as to where the breakdowns are happening for a child with sensory differences.
- ▣ Be aware of the adult's sensory needs and honor these in order to be available for the child.

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## Put your own life vest on first!

- ▣ Common Challenges parents face in the process of coregulation
  - ▣ Have difficulty providing structure
  - ▣ Difficulty reading their own cues
  - ▣ See themselves in their child
  - ▣ Mismatch of arousal states
  - ▣ Interactions of push/pull
  - ▣ Influence of their own parenting history
  - ▣ Lack of own self-care
  - ▣ Inconsistency
  - ▣ Parent mental health
  - ▣ Trauma (child, parent, or both)
- ▣ Influenced by their attachment history, resiliency, stressors
- ▣ In order to make change in their ability to co-regulation, both parent and child must be willing to change

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## Lifestyle Modifications for Parents

- The adult sensory diet- how are parents supporting their own sensory needs
- Help parents learn to notice themselves so that they can learn to effectively notice their kids
- Health and wellness needs (sleep, food, work/life balance, etc.)
- Giving adults permission to:
  - Take a break
  - Mess up
  - Get a do-over

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## Use of Play

- Teach parents to play 1<sup>st</sup>
- "Safe risks"
- Join in as a problem solver with the child
- Put meaning to and organize and child's behavioral responses to sensory stimuli
- Down shift or up shift their input (sensory, emotional, affective) in order to shift a child's arousal during affective changes. This takes a lot of practice!
- Promote anticipation of actions by the child- setup of the interaction

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## Use of Play (Cont.)

- Provide predictable responses to sensory experiences
- Shared enjoyment (child must feel that you are enjoying them)
- Awareness to your responsiveness to what they accomplish or what they are doing "right"
- Pacing
  - Change pace of activity to sustain engagement
  - Create pauses for processing or breaks

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## The Power of Touch

- Deep pressure vs. light touch
- Oral input
- Get Messy
- Safe Touch
- "Noticing"

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## Transitions

- Routines and Predictability
- Consistent structure and clear expectations within flexibility (right challenge for environment/task demands-pick the right battle)
- Visual supports
- Hyper-structure: if the task is too difficult as a whole, break it down
- Use of Rhythm
- Add movement or sensory experiences to the routines

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## Routine Strategies

- Parents and caregivers should model following consistent routines, including labeling and commenting on how different sensory input influences the body, arousal level, and behavior both for themselves and the child.
- Talk /provide visuals about expectations
- Write down/talk about changes that are going to occur

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## Environment

- Consistent (visual, auditory, smell)
- Opportunities for exploration of all senses
- Find a place for movement opportunities
- Good match of novelty and familiarity
- Decrease extraneous stimulation
- Small spaces
- Learn to anticipate what your child may find stressful

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## Emotional Strategies

- Validate: Label emotion or worry
- Empathize: Label the child's experience, give them language to describe what's wrong and that you understand and accept their experience
- Collaboratively Problem Solve
  - Give predictability. Just the next step.
  - PAUSE. Allow for processing.
  - Give an alternative behavior

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## Emotional Strategies, cont.

- Give parameters
- Establish boundaries
- Match intensity
- Allow for time and space to process vs. rescuing (when the right battle and right time and place)
- Repair the relationship after addressing behaviors

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## Let's Experiment

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## References

- Koomar, J. (2012) **Combining Sensory-Integration Strategies with Psychotherapy**. Presentation. **Attach Conference, September 21, 2012.**

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