

# Sensory Contributions to Young Children's Social-Emotional Development

April 22, 2019



# TTAC

The New York City Training and Technical Assistance Center (TTAC), funded through ThriveNYC, in partnership with the NYC Department of Health and Mental Hygiene ( DOHMH).

TTAC is a partnership between the New York Center for Child Development ( NYCCD) and the McSilver Institute on Poverty, Policy and Research

TTAC is tasked with building capacity and competencies of mental health professionals and early childhood professionals in family serving systems to identify and address the social-emotional needs of young children and their families across NYC.

<http://www.TTACny.org>





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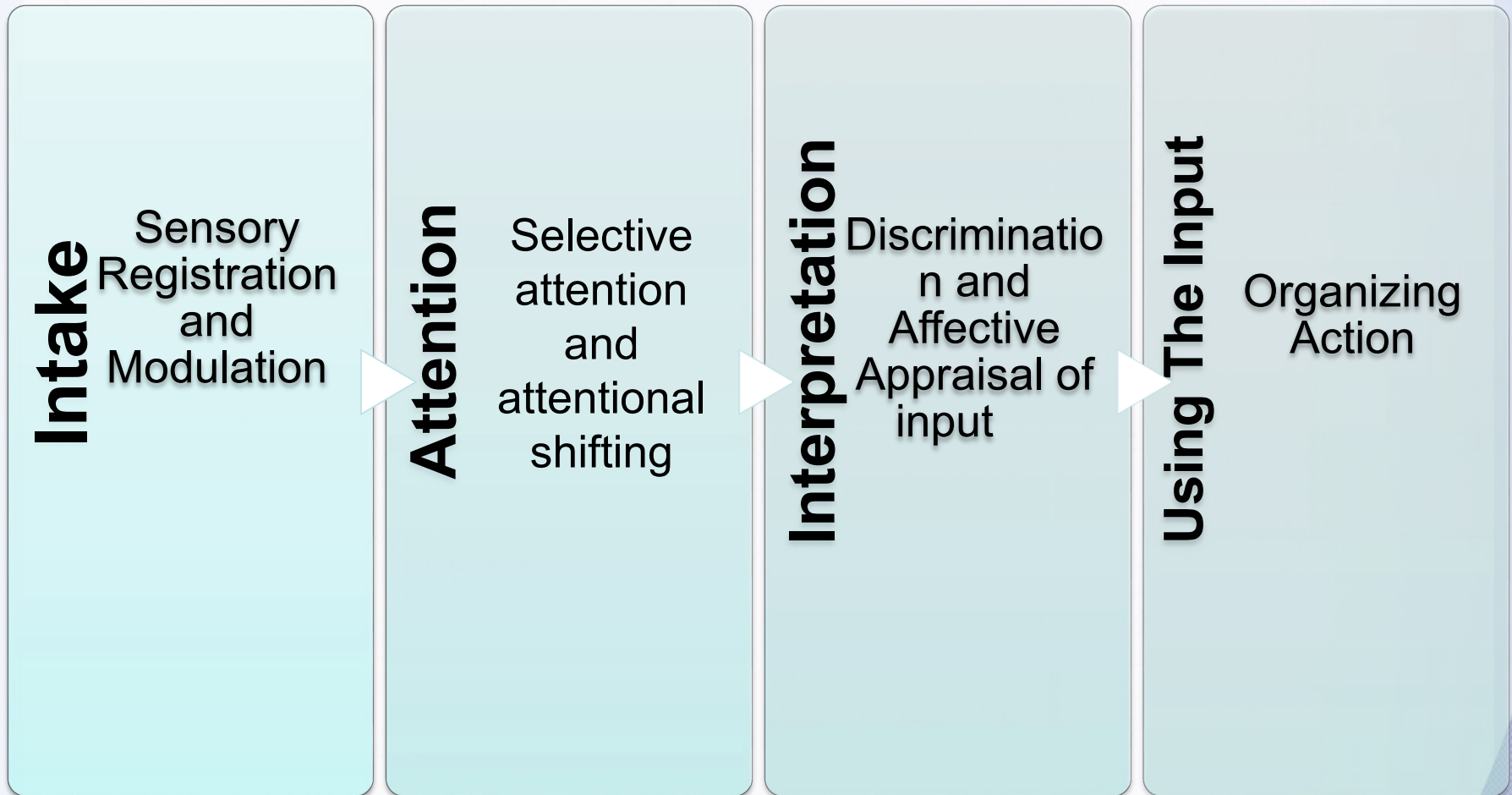
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# What is Sensory Integration

- SI is the organization of sensory information for use...
  - A process that occurs in all of us
  - A way of understanding individual differences and dysfunction (SPD)
  - A method of intervention

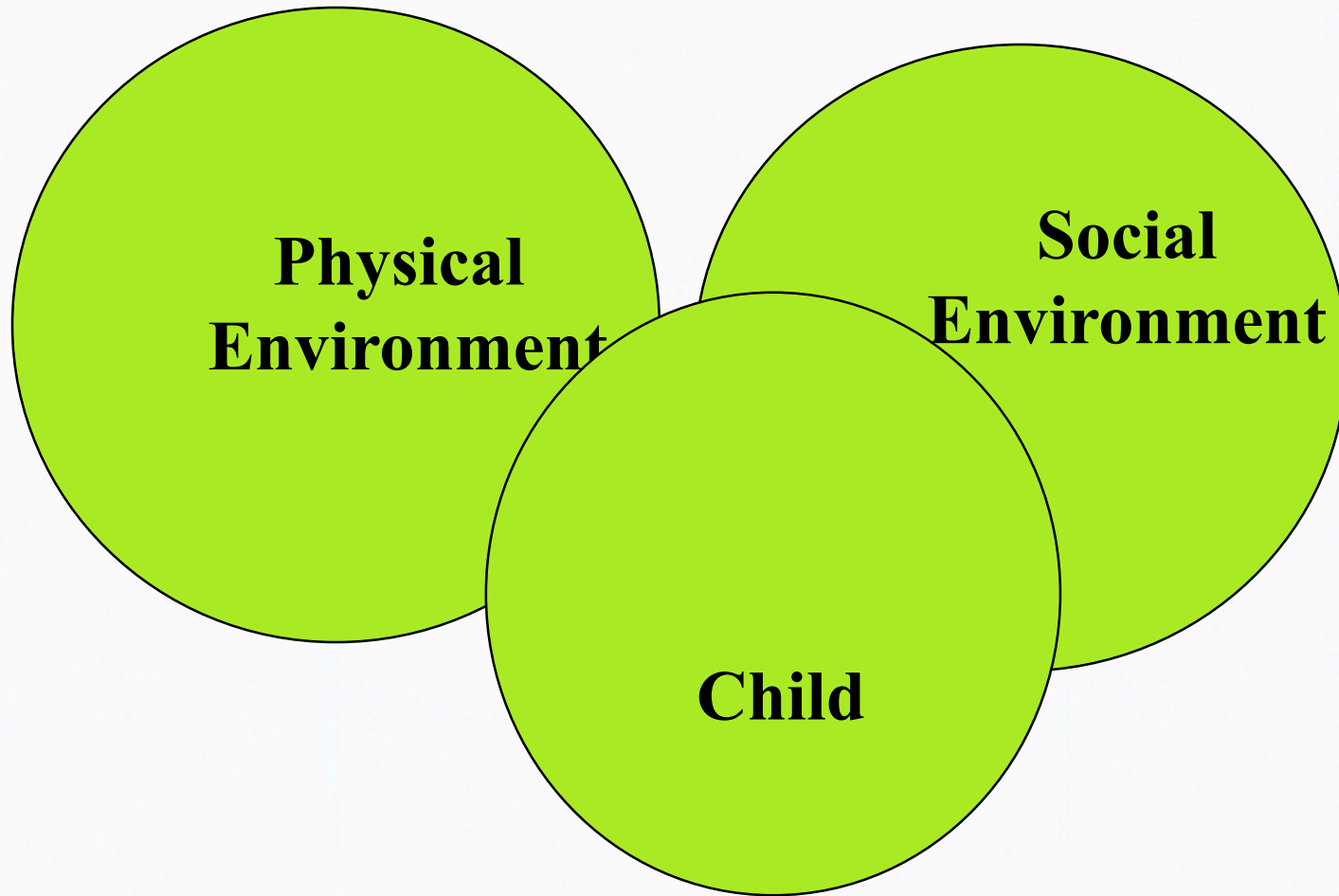
# The Process of Sensory Integration



# Understanding Sensation

- Modalities
- Intensity
- Duration

# SI as an emergent property



# Understanding SI in Context

- Arousal
- Attention
- Affect
- Action



# Sensory Processing Disorder

- Intake
  - Sensory Modulation Disorder
- Interpretation
  - Discrimination or Perceptual Deficit
- Using Input
  - Sensory Based Motor Disorder (dyspraxia)

# Focus on Sensory Modulation Disorder (SMD)

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# Sensory Modulation

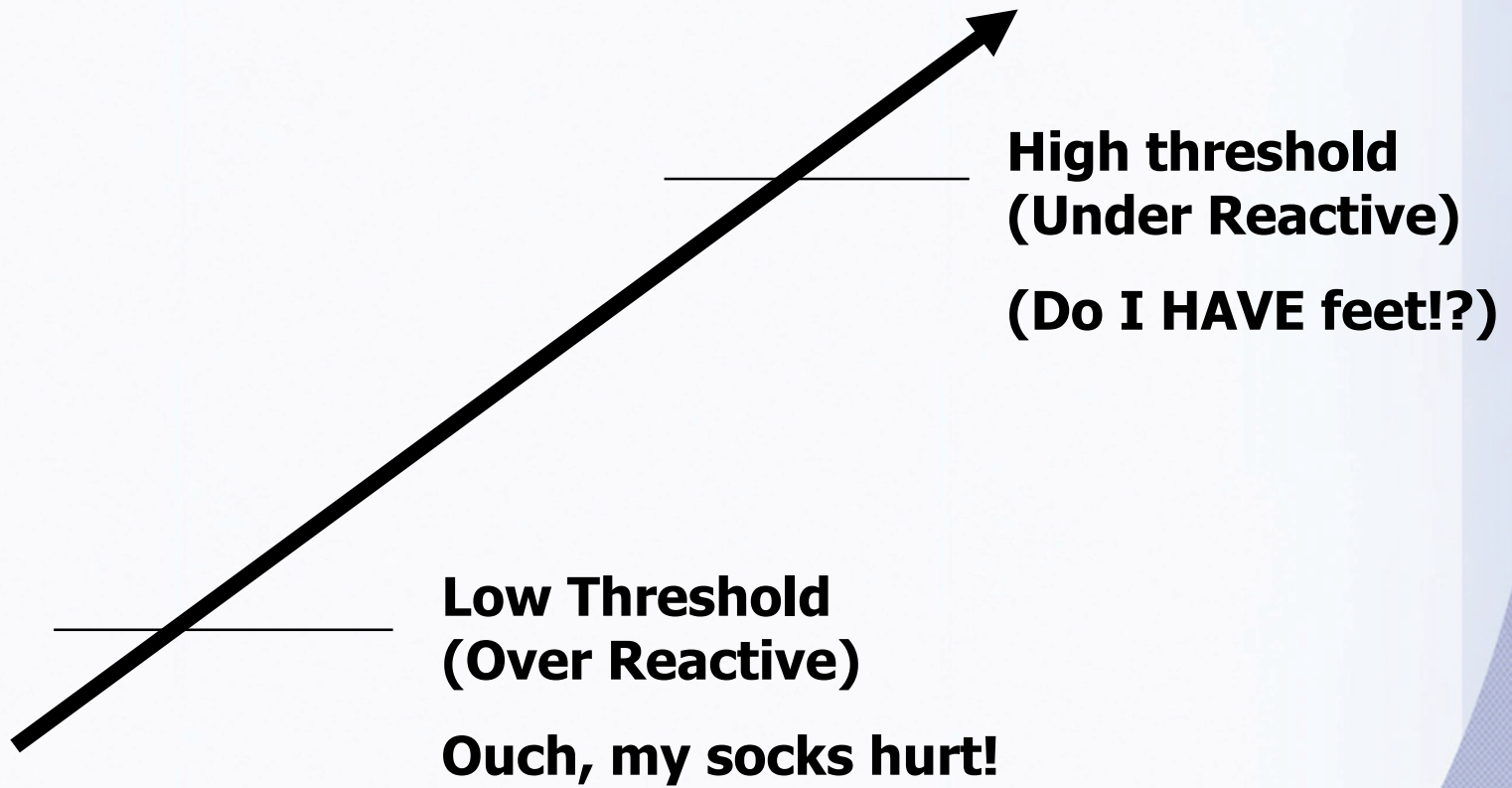
The ability to grade responsiveness and reactivity to sensation

Response is consistent with perceived intensity of stimulus

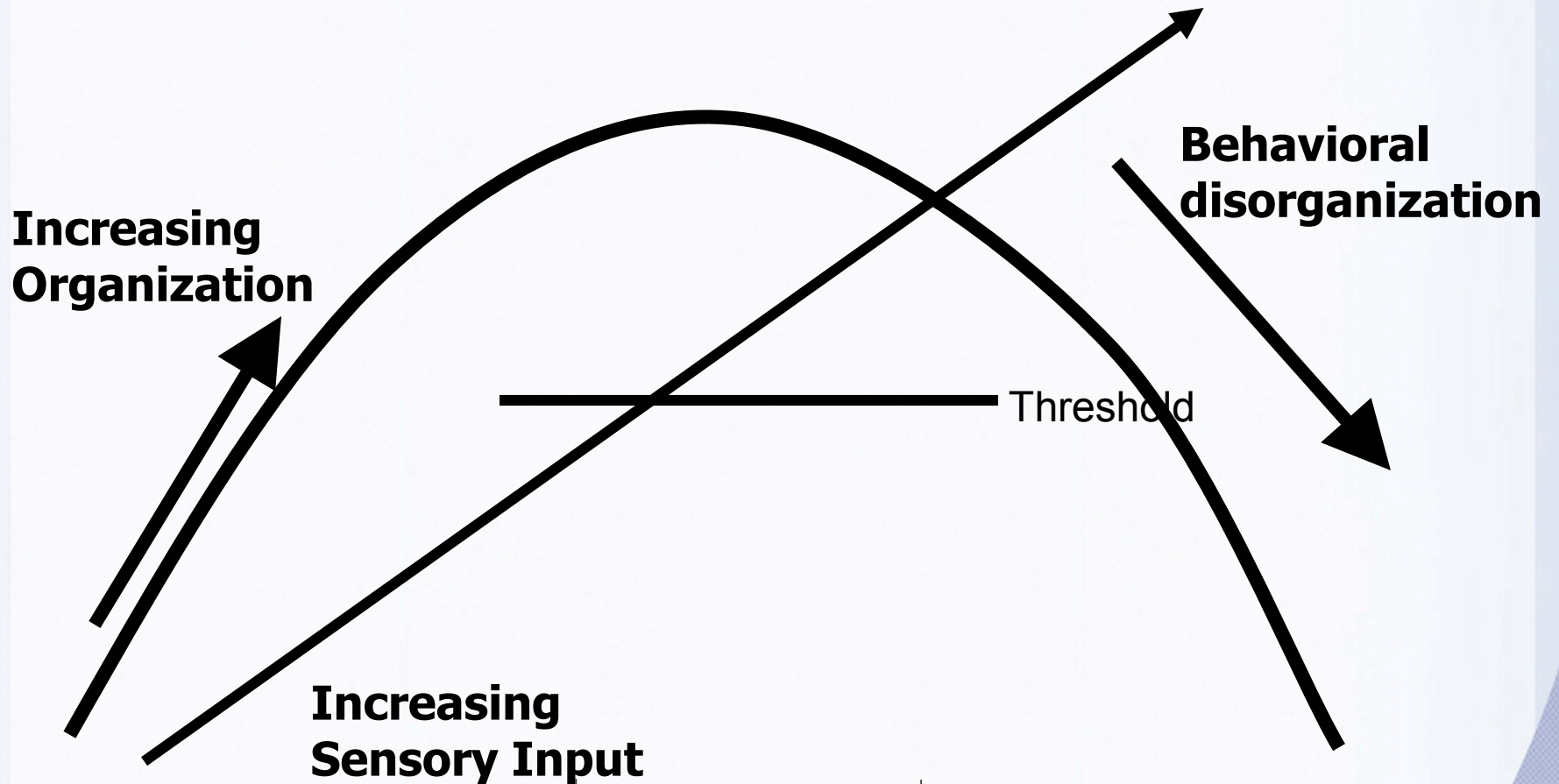
# Sensory Threshold

- Think about it as a central process (not specific to each modality)
- Sensation is summed (accumulation over time)
- Rate, intensity, and recovery
- Inconsistency is expected (and can help us)
- Interacts with arousal curve and arousability to produce modulation

# Sensory Reactivity is on a continuum



# Sensory Threshold Interacts with Arousal Curve

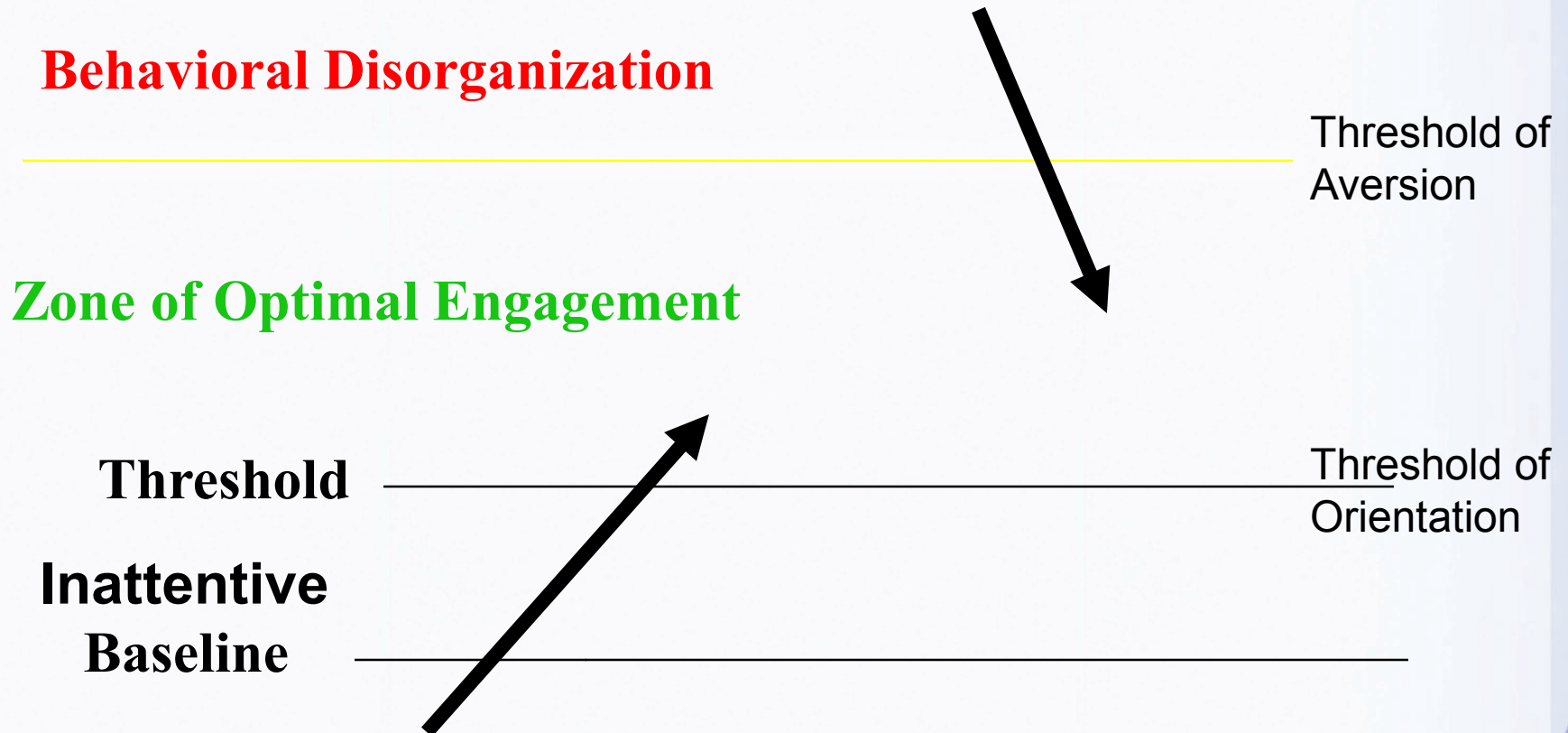


# Sensory Threshold

<b>Sensitivity)</b>	<b>LOW (Increased Sensitivity)</b>	<b>HIGH (Decreased</b>
<b>Acts in accordance with threshold</b>	<b>Hyperreactive (SOR)</b>	<b>Hyporeactive (SUR)</b>
<b>Attempts to compensate threshold</b>	<b>Sensory Avoider</b>	<b>Sensory Seeker (SS)</b>

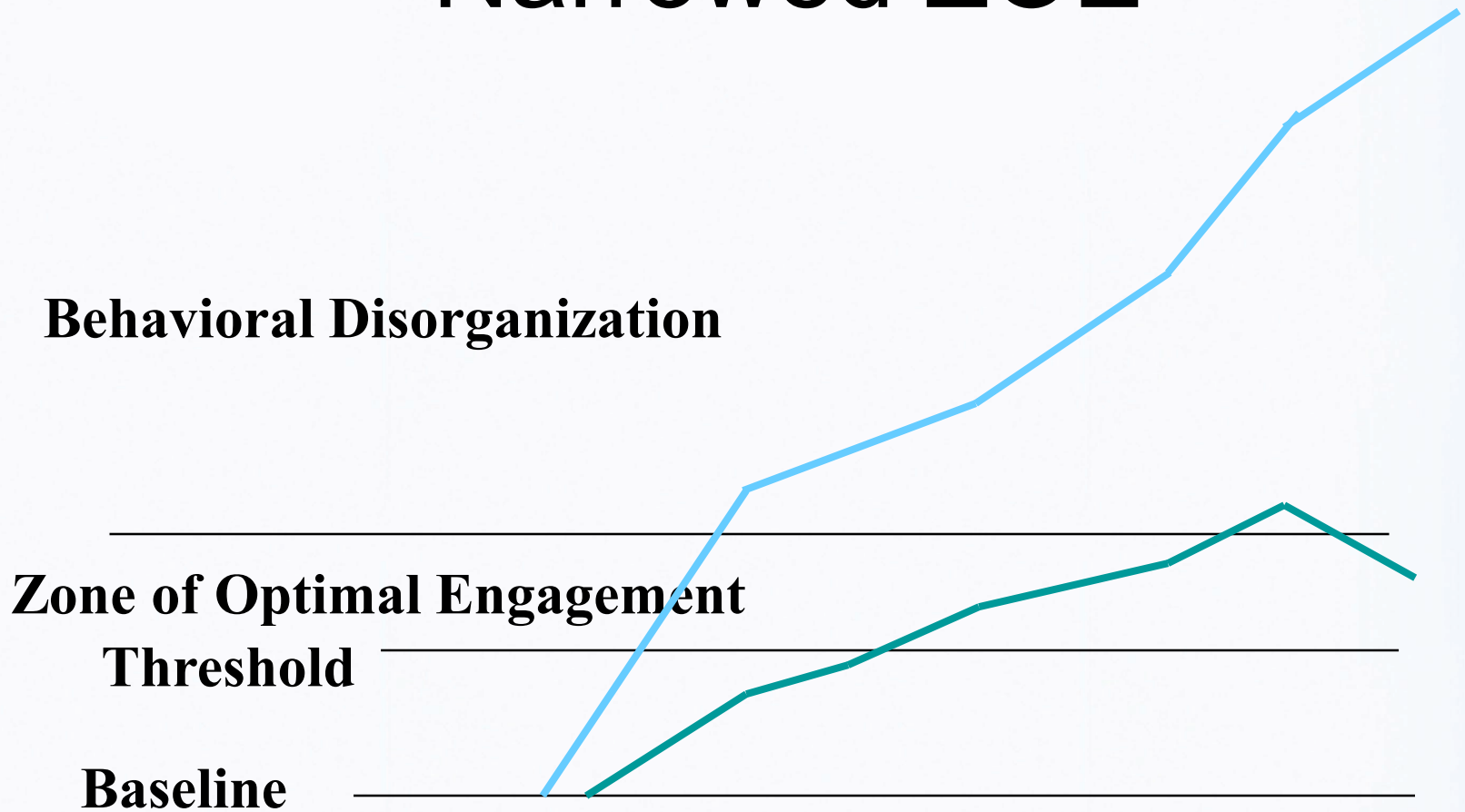
(Modified from W. Dunn, Ph.D., OTR; Department of Occupational Therapy; University of Kansas Medical Center)

# Zone of Optimal Engagement

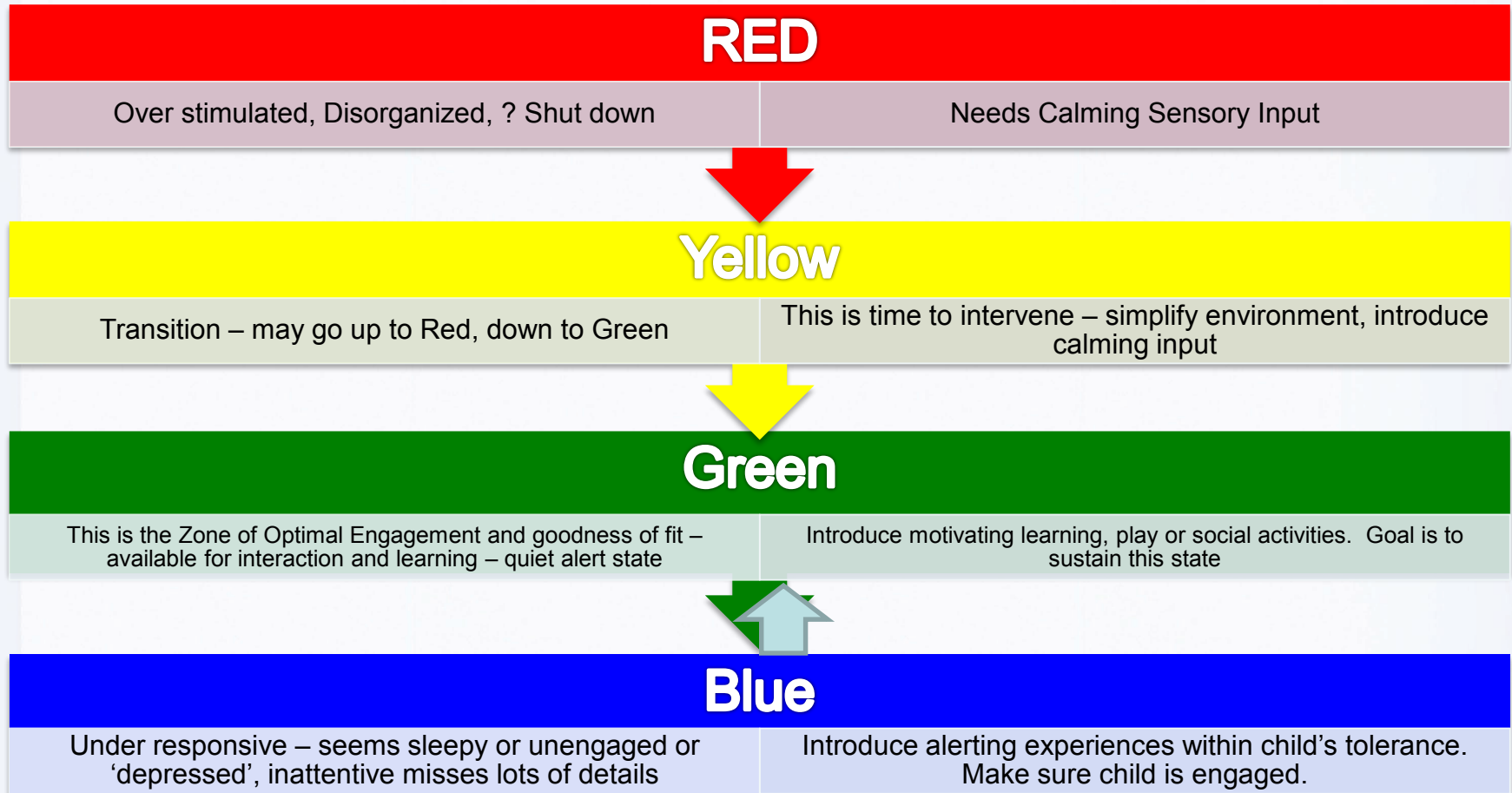




# Narrowed ZOE



# Zones from a Sensory Perspective



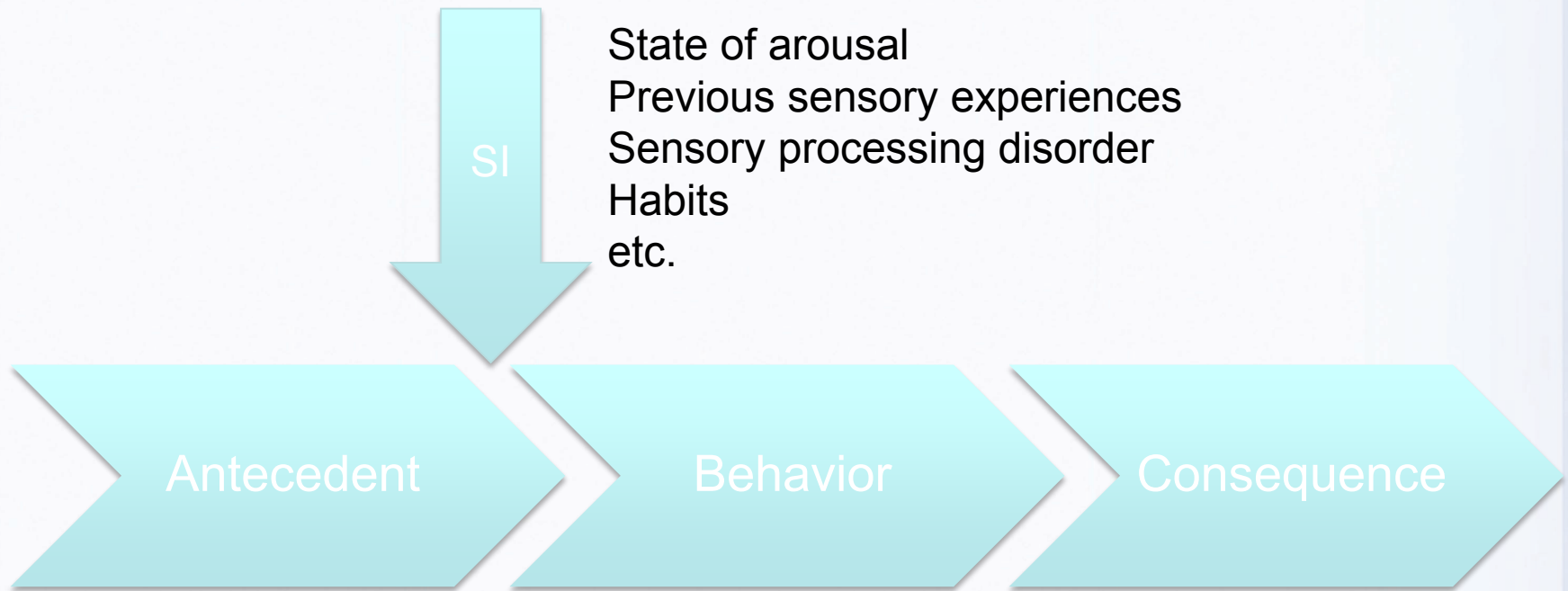
# Andre

- Just turned 2
- Language delay
- Hypotonia, DD
- Postural issues
- Hand looking/flapping
- Disengaged
- SI dx: ?

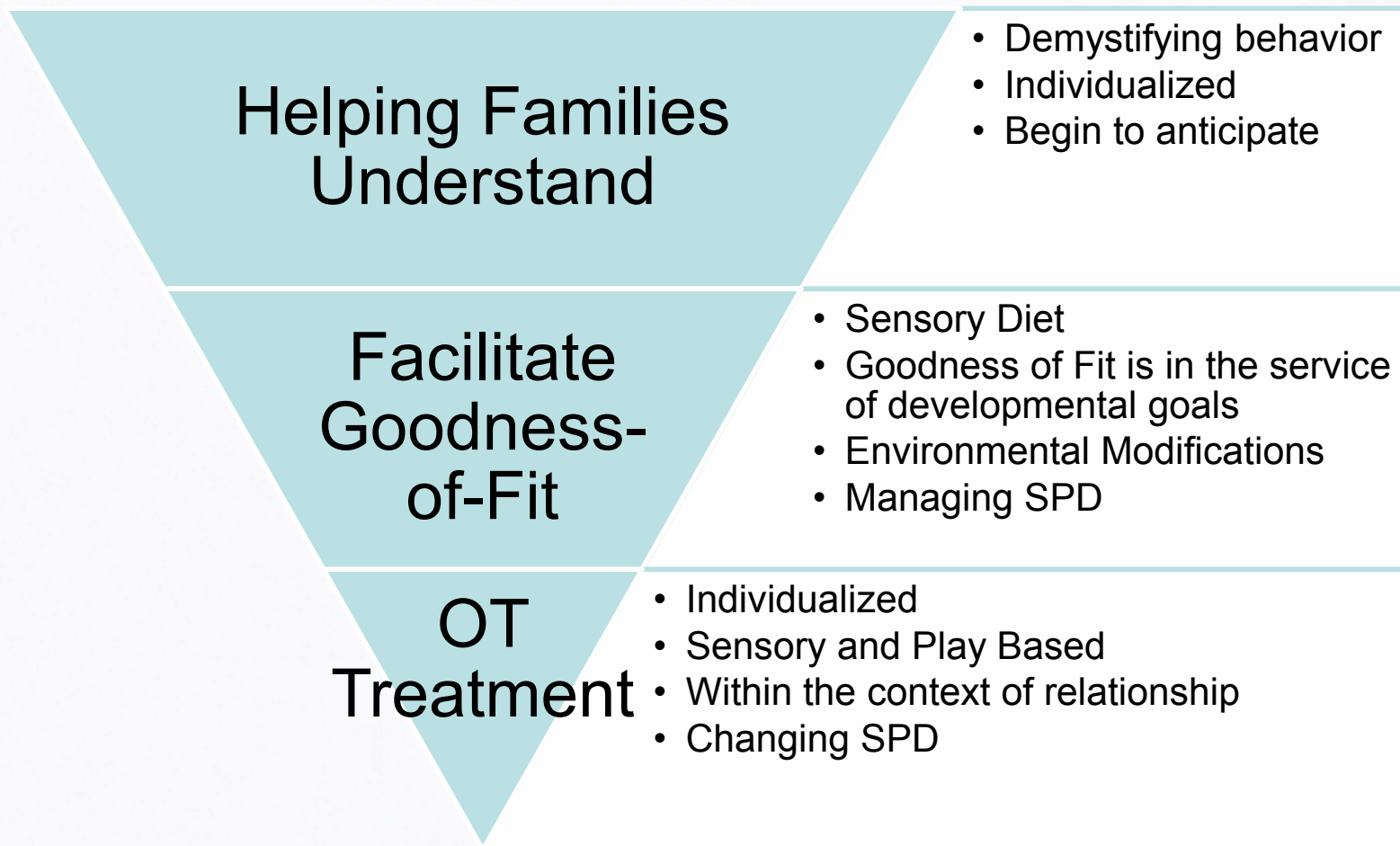
# Milton

- 2 years old
- Autism
- Initially fearful
  - Expressed as head banging on floor
- Very active (? Reactive)
- Feeding Problems (OM, Pickiness)
- Lots of itching and scratching
- Global DD (Strength GM)
- SI Dx: SOR – Mo reports ‘calmer after OT)

# So how can we use SI to deal with Behavioral Challenges?



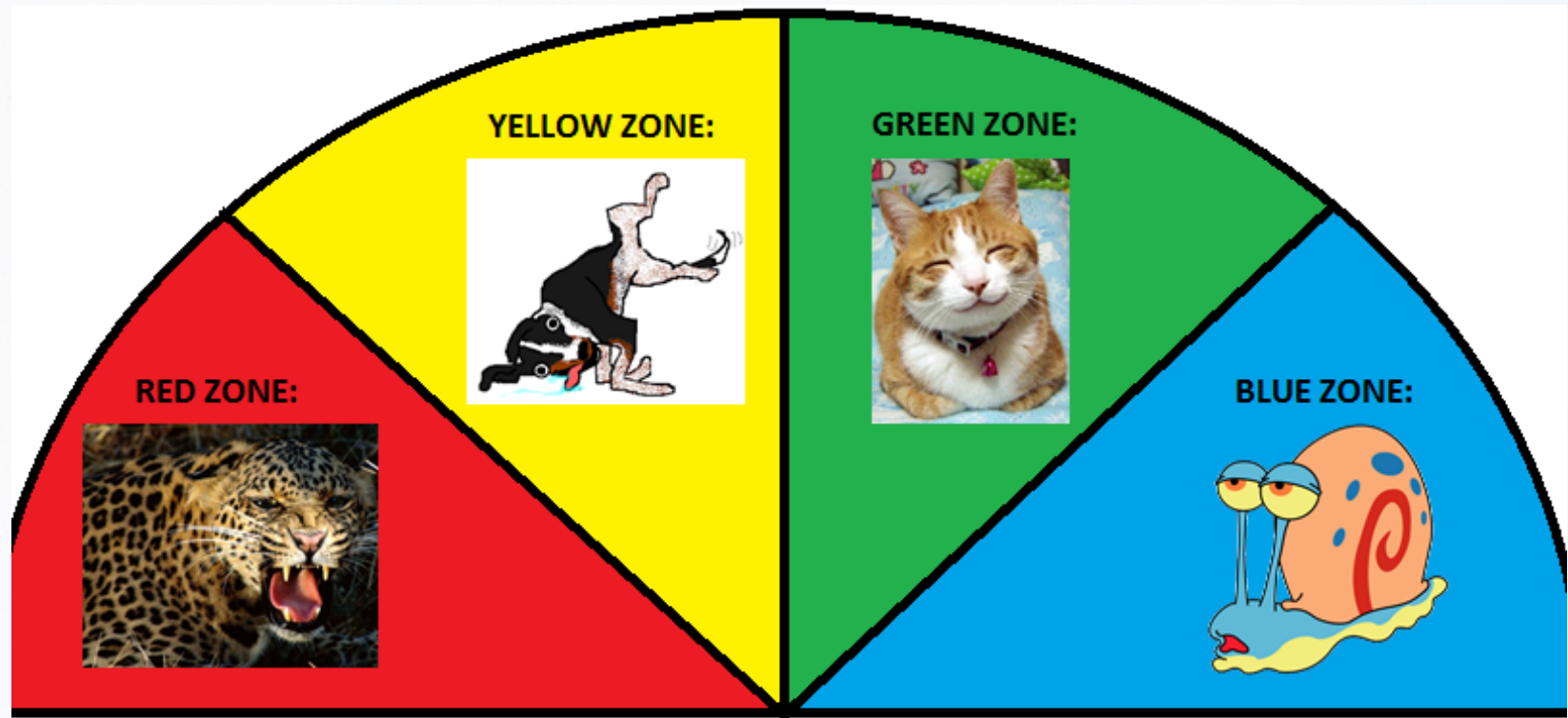
# So what can we do about SMD?



# So what can we do about SMD?

- Act PROACTIVELY and REFLECTIVELY
- Modify Environment and ask about current state
- Prepare the CNS based on current needs– Goodness of Fit
  - Understand regulatory function of stereotypes
  - Sensory prep activities
  - Breaks – cool down space/time
- Look for cues
  - Milton: Eyes
  - Andre: escape
  - Walter: Scream/head banging
  - Fisher: Twirling
  - Christine: Scream, escape, throw,

# Assess current status – it is changeable





# Understand Stereotypies

- ? Regulator Function
- ? Communicative Function
- Habit
- Carr (Functional Communication)
- If you are not getting at the root cause – mole behavior

# Based on Current assessment...

- Up or Down Regulate -- sometimes alternating depending on response
- NOT a static “Sensory Diet”
- UP regulate
  - Arousing activities
  - But not over stimulating
- DOWN regulate
  - Calming and or organizing inputs
  - Make sure input is USED

# Sensory Input can help Up or Down Regulate

To Organize or Calm	Modality	To Alert
Dim natural light	Visual	Strobe
Rhythmic	Auditory	Dissonant/loud
"Heavy Work"	Proprioception	"heavy work"
Slow Rocking	Vestibular	Spinning
Pressure Touch	Touch	Light Touch
Sucking, chewing	Oral or Taste	Crunchy, sour
Deep, slow, count	Breathing	Blow, suck

# When to Refer to Occupational Therapist

- If there is an OT on your team, refer for assessment and consultation
- Best to integrate understanding of sensory needs throughout day
- Some children need more intensive individualized intervention
  - When significant social emotional “cost” to child
  - When embedded strategies are not working or are disruptive to class or home
  - When increasing disruptive behaviors
  - When SPD is disrupting developmental skill acquisition
  - If child has dyspraxia (this usually requires direct intervention)

# Visit our Website

TTACNY.org  
ttac.info@nyu.edu

## NYC Early Childhood Mental Health **TTAC** Training and Technical Assistance Center

TTAC is funded by the New York City Department of Health and Mental Hygiene through [ThriveNYC](#).

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### Events

*Wednesday, June 13, 2018*


Sensory Integration and Self-Regulation: Sensory Contributions to Young Children's Social-Emotional Development

*Monday, November 26, 2018*

Foundations of Social-Emotional Development in Infants and Toddlers E-Learning Modules

[view more >](#)

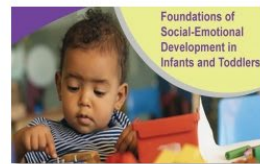


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### NYC DOHMH Bureau of Early Intervention E-Learning Modules



Foundations of Social-Emotional Development in Infants and Toddlers  
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### The Early Childhood Mental Health Network



Get to know the Early Childhood Therapeutic Centers (ECTCs)  
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