

The logo of the University of Washington, featuring a large, stylized purple letter 'W'.

# **Occupational Therapy and FASD**

Supporting Individuals and Families Across the Lifespan

**Misty Pruner, PhD, OTR/L**  
**Tracy Jirikowic, PhD, OTR/L, FAOTA**

# About us

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- Misty Pruner, PhD, OTR/L     mpruner@uw.edu
- Tracy Jirikowic, PhD, OTR/L     tracyj@uw.ed



FETAL ALCOHOL SYNDROME DIAGNOSTIC & PREVENTION NETWORK

University of Washington, Seattle WA

**FAS DPN**

# Learning Objectives

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- 1. Understand more about occupational therapy and how it can support individuals with FASD and their families.**
2. Learn about the OT process at different developmental stages using 3 case examples.
3. Learn about some interventions that support everyday participation.
4. Learn how to find a good fit OT for you and your family.

# What is occupational therapy?

Who

- Individuals, families and communities

What

- Increase functional **participation** and **engagement** in **meaningful** activities or occupations

When

- Across the lifespan

Where

- Anywhere!
- Focus on natural contexts & environments

Why

- To help people do what they need *AND* want to do
- Address barriers to meaningful activities

# OT elevator pitch

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Fine Motor Coordination



# OT elevator pitch

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Sensory Processing

# OT elevator pitch

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Adaptive Skills

# FASD is a spectrum

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- FASD is a spectrum.
- Every person is unique with their own mix of strengths and challenges.





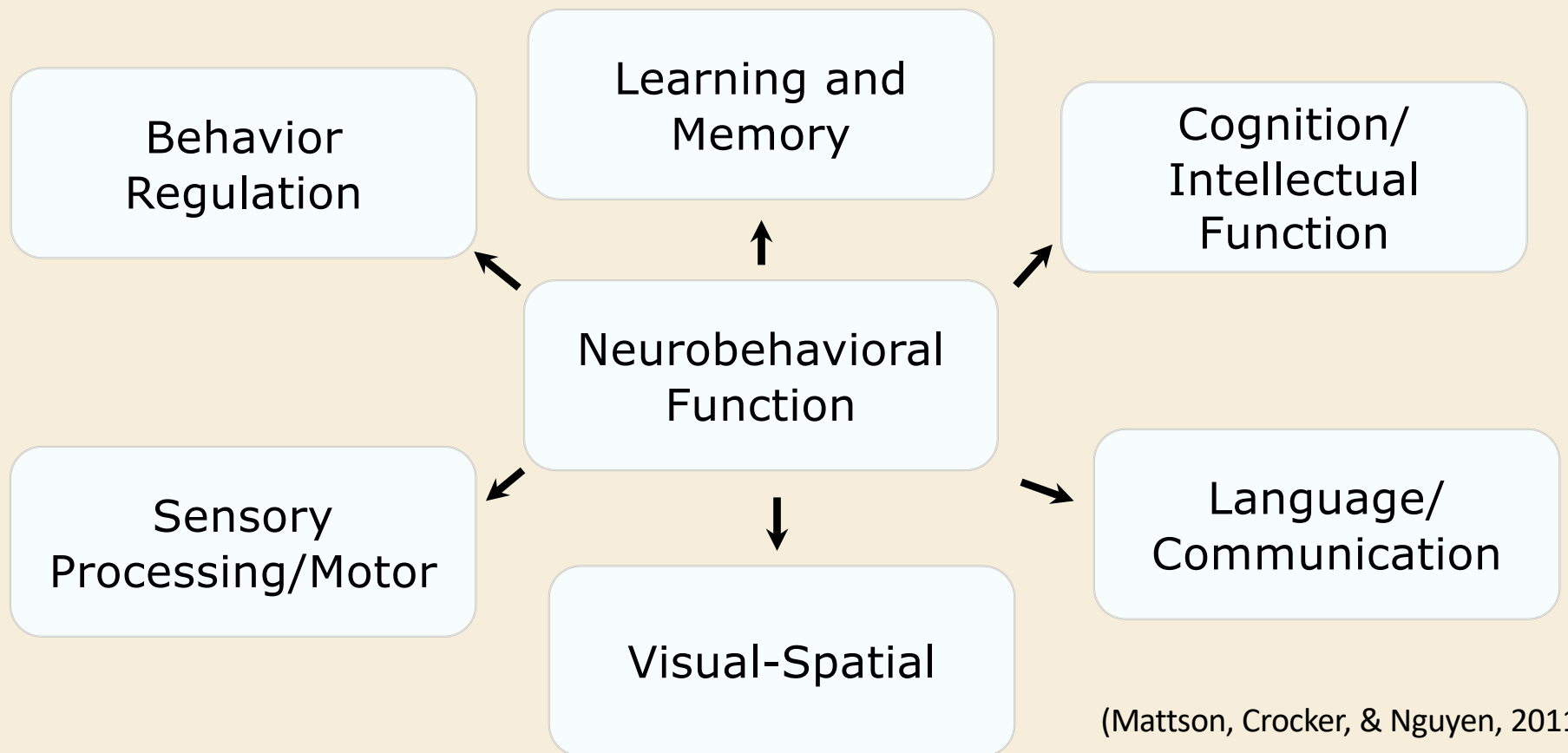
# It's never just alcohol

Among the first 2550 patients evaluated:

Other prenatal exposures (tobacco, illicit drugs, etc.)	93%
No prenatal care	33%
Parental learning disabilities	60%
Out of home placement	70%
Average number of home placements	3-6
Physical and/or sexual abuse	36%
Neglect	64%
Other syndromes	1%

All other prenatal and postnatal risk factors, in addition to the alcohol, contribute to patient outcomes (Astley, 2010)

# Neurobehavioral Domains

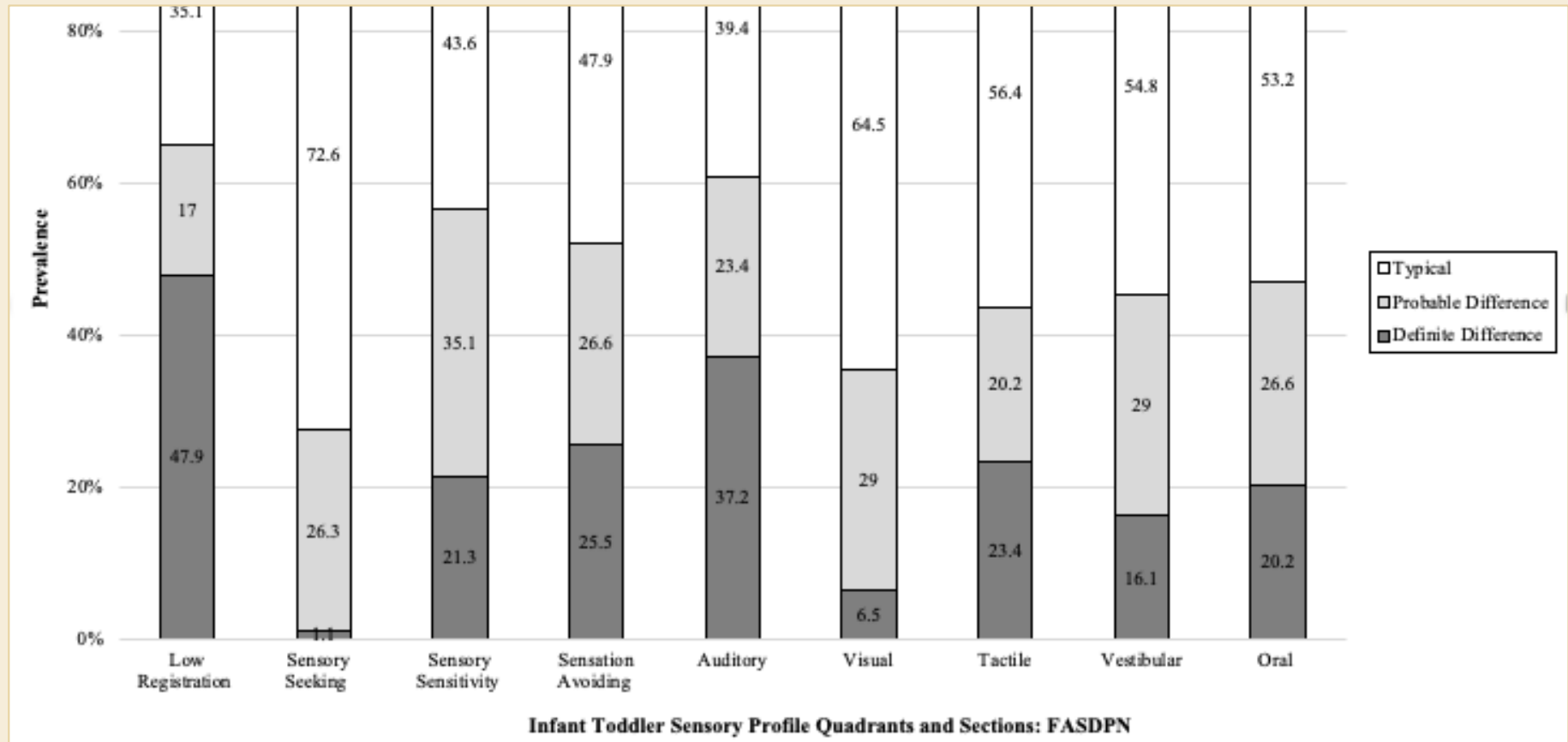


(Mattson, Crocker, & Nguyen, 2011)

Profile of the 1<sup>st</sup> 1,400 patients with FASD

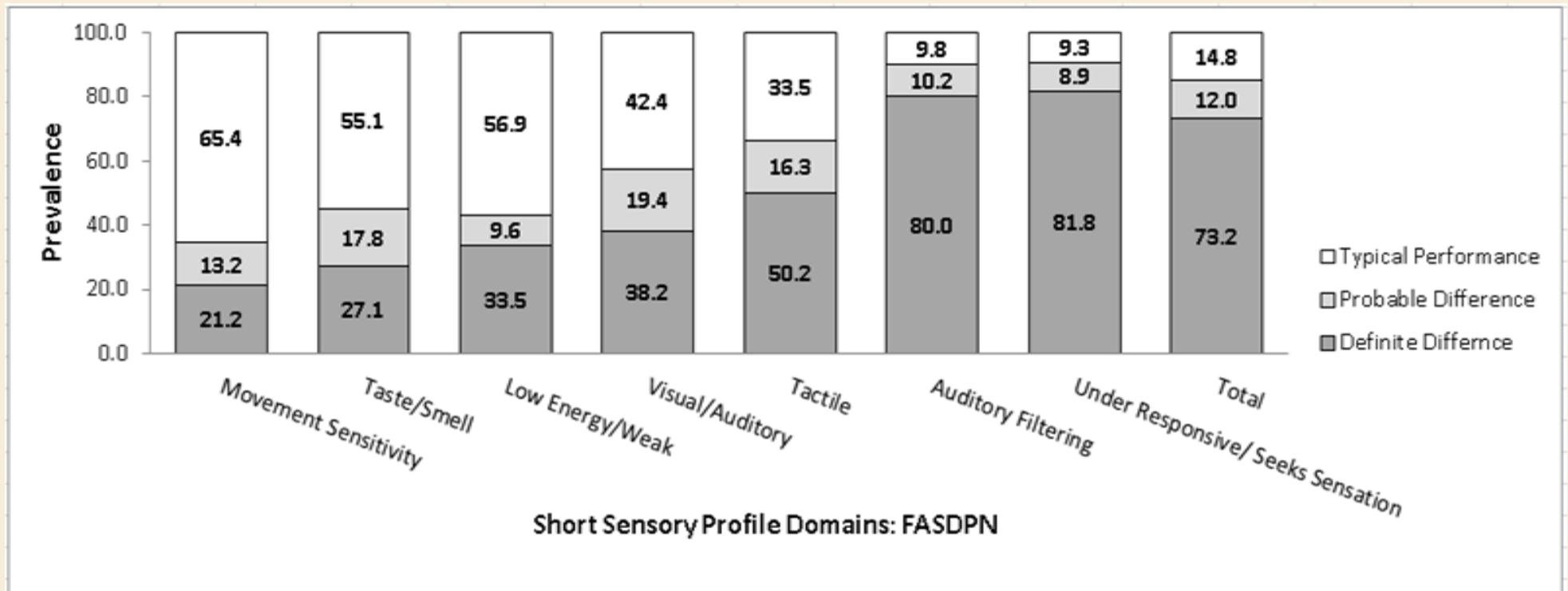
<http://depts.washington.edu/fasdnpn/pdfs/astley-profile-2010.pdf>

# Sensory Differences and FASD: Infants and toddlers



Pruner et al., 2023; FASDPN ( $n = 93$ )

# Sensory Differences and FASD: School-age children



Jirikowic et al 2020; FAS DPN (n=325)

# Sensory Behaviors That Occurred Frequently/Always on the SSP

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- Underresponsive/Sensation seeking
  - Seeks movement, touch, movement dysregulation
- Auditory Filtering
  - Listening and attention problems
- Touch
  - Distress during grooming
  - Difficulty standing close to others
- Taste/Smell
  - Picky eater



# OT Frameworks and FASD

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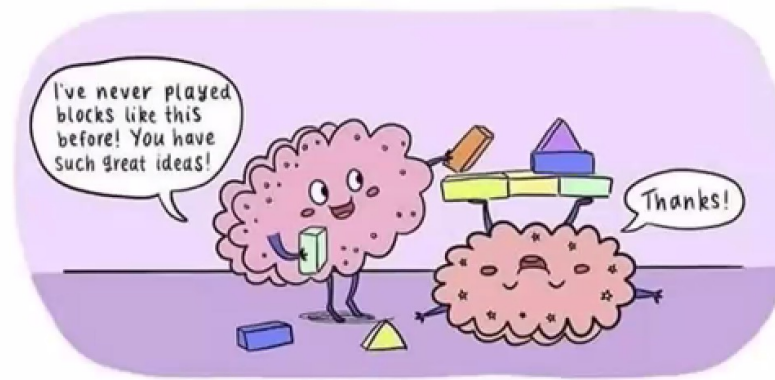
## Neurodiversity affirming

- Differences, not deficits
- Use their words
- Validate their experiences – “sensory differences are real!”
- Celebrating interests and all the cool ways their brain works

# Neurodiversity affirming

ALL brains are EQUALLY important.

Sometimes people think that neurotypical brains are the best ones, just because they are the brains that lots of people are used to.



The truth is- the world NEEDS people who think differently, otherwise things would never change.

NeuroWild

# OT Frameworks and FASD

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## Person centered

- Focus on individual and family goals

## Trauma-informed

## Strengths-based



# Harnessing strengths

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*" A strengths-based approach invites us to consider each person's **unique strengths and abilities**, that everyone has knowledge about their individual circumstances to inform solutions, that people are **resilient**, that the environment is critical, and finally that services be **client and family centered**."*

***Winnie Dunn and colleagues, 2013***

# Research and Strengths: Infants and toddlers




children



*Article*

## Concerns and Strengths: Caregiver Perceptions of Their Infant/Toddler with Prenatal Alcohol Exposure <sup>†</sup>

Misty Pruner <sup>1,\*</sup> , Tracy Jirikowic <sup>2</sup>, Carolyn Baylor <sup>2</sup> and Susan Astley Hemingway <sup>3</sup>

<sup>1</sup> Center on Human Development and Disability, University of Washington, Seattle, WA 98195, USA

<sup>2</sup> Department of Rehabilitation Medicine, University of Washington, Seattle, WA 98195, USA

<sup>3</sup> Department of Epidemiology, Department of Pediatrics, University of Washington, Seattle, WA 98195, USA

\* Correspondence: mpruner@uw.edu

<sup>†</sup> This is a part of a Ph.D. Thesis by Misty Pruner in the University of Washington.



# Research and Strengths: Infants and toddlers

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She is a  
happy baby

He is friendly  
& social

My child is  
so lovable

Curious &  
tries everything

Smart &  
bright

# Research and Strengths: Across the lifespan

Received: 26 July 2021 | Accepted: 21 October 2021

DOI: 10.1111/acer.14733

**CRITICAL REVIEW**



## Balancing the story of fetal alcohol spectrum disorder: A narrative review of the literature on strengths

Katherine Flannigan<sup>1</sup> | Andrew Wrath<sup>1</sup> | Chantel Ritter<sup>2</sup> | Kaitlyn McLachlan<sup>1,2</sup> |  
Kelly D. Harding<sup>1,3</sup> | Alanna Campbell<sup>4</sup> | Dorothy Reid<sup>1</sup> | Jacqueline Pei<sup>1,5,6</sup>

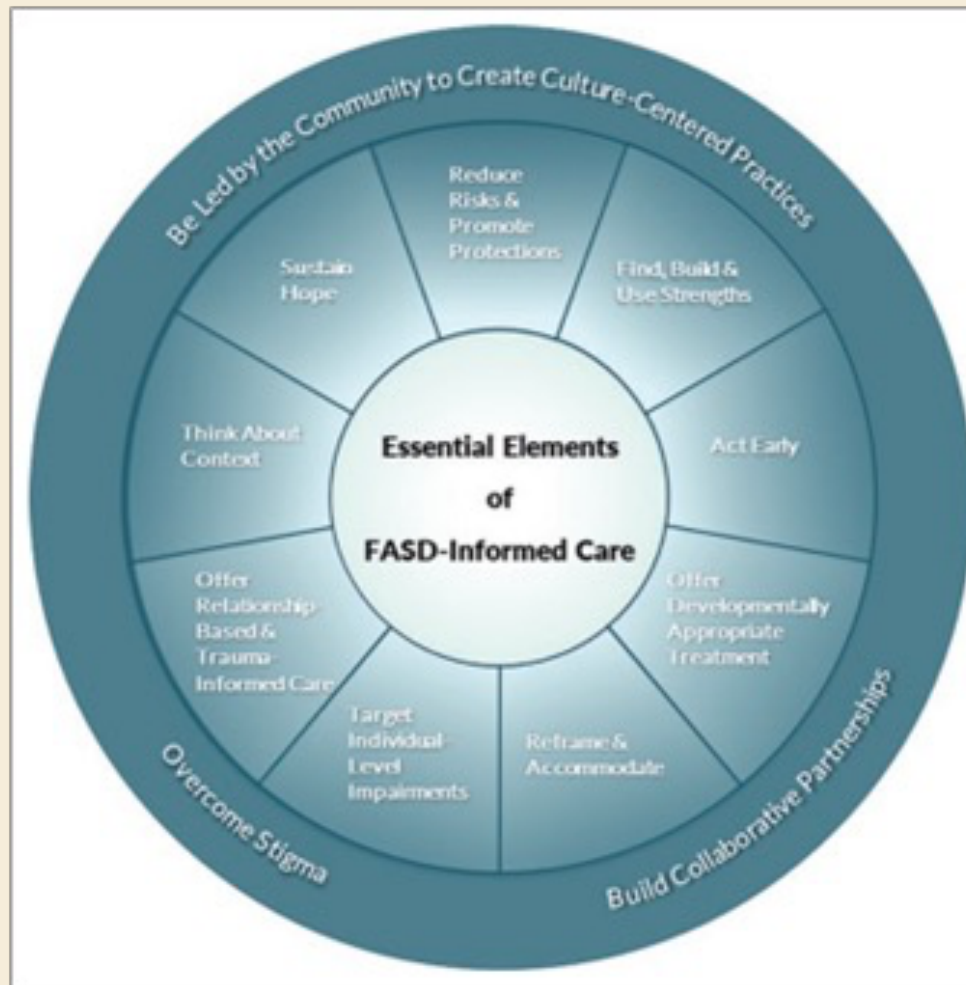
# Research and Strengths: Across the lifespan

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- Strong self-awareness
- Receptiveness to support
- Capacity for human connection
- Perseverance through challenges
- Hope for the future



# FASD-informed care



# Addressing stigma

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FASD-informed treatment may be limited by pressures of stigma. “An overarching essential element of FASD-informed care is to overcome stigma— first recognizing that it exists, and then tackling it— no matter how large the task. To sustain hope, it is necessary to overcome stigma so that advocacy can succeed, and doors can be opened to identification, diagnosis, service eligibility and intervention.” (Olson et al 2023)

<https://fasdunited.org/stamp-out-stigma/>



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# Dakota – 2 years old

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- Confirmed PAE
- Loves to dance and listen to music
- 3<sup>rd</sup> home placement

## **Parent primary concerns:**

- Uses less words than peers
- Bothered by sounds (e.g., baby brother crying)
- Bothered feel of certain clothing and foods
- Sleep
- Difficulty adjusting to daycare



# Dakota – 2 years old

- Referred to early intervention & FASD diagnostic evaluation

## OT role:

- Part of the interdisciplinary diagnostic team
  - > Assess motor, sensory processing + adaptive skills
  - > Learn child strengths, interests, + parent goals
  - > Recommendations for care in community
- OT in community
  - > Used a relationship-based, trauma informed approach
  - > Daily routines observed, & some adapted
  - > Regular & predictable sensory input added



# Casey – 10 years old

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- FASD diagnosis
- “larger than life” personality
- Lives with birth mother and older brother
- Talented at most ball sports

## Parent primary concerns:

- ↓ independence with grooming + dressing
- ↓ emotional/behavioral regulation (at home and during organized sports)
- Falling behind with written work at school





# Casey – 10 years old

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- Has an IEP, receives OT

## School-based OT role:

- Evaluation
  - > Assessed fine motor, sensory processing + executive functioning skills
  - > Interview teacher + parent (learn child strengths, interests, + goals)
- Intervention (direct + indirect)
  - > Accommodations
  - > Sensory breaks + strategies
  - > Organization support (e.g., visual schedules)
  - > Promote understanding of students with different brain styles in the classroom





# Sarah – 16 years old

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- FASD diagnosis
- Lives with adoptive family
- Especially close with grandmother
- Loves to swim, create art

## **Parent primary concerns:**

- ↓ attention at school
- ↓ initiation in household tasks, hygiene
- Impulsive and shows poor judgement when with friends



# Sarah – 16 years old

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- Receives OT in community

## **Community-based OT role:**

- Evaluation
  - > Assessed adaptive, sensory processing (self-report), executive functioning skills
  - > Interview Sarah + parents (strengths, interests, goals, and barriers to participation)
- Intervention
  - > Art class with strong adult mentorship + positive peer experiences
  - > Work on self-advocacy skills (e.g., at school)
  - > ↑ Sarah's understanding of her unique brain style
  - > ↑ self-regulation and EF skills



# Learning Objectives

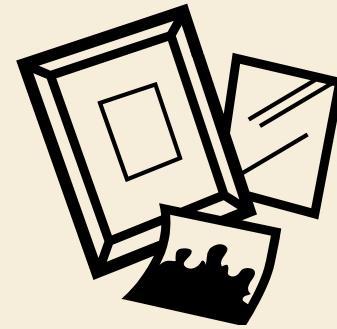
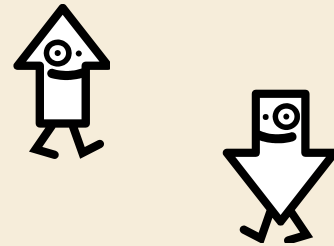
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# Sensory-based Strategies as Positive Behavior Supports

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- Education-reframing behavior
- Changing the environment
- Sensory tools for behavior regulation



# Education: Remains an essential part of reframing

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Intervention begins with understanding

- “Until I understood tactile defensiveness, I didn’t know how to explain sudden playground attacks.”
- “Poor body awareness explains how he kept knocking over glasses of juice and unintentionally bumping into kids when running across the play area...”

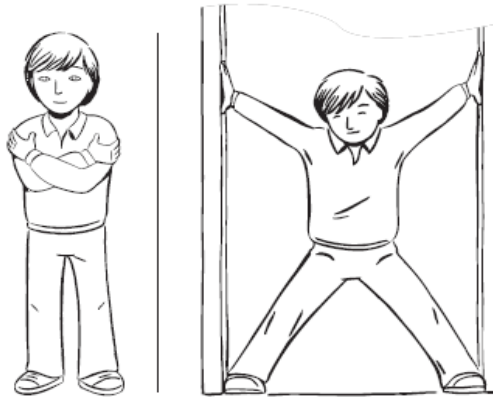


# Changing The Environment

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# Sensory Stories



Sometimes people don't like having their teeth brushed.  
I can do special things before my teeth are brushed.  
I can get my body ready by giving myself a big hug  
and doing a power push. These activities help me to relax.



I can press my hand hard against my mouth.  
This gets my mouth ready for the tooth brush.



Then the toothpaste goes on the toothbrush.  
The toothbrush goes up and down in my  
mouth to brush each tooth.

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# Curriculum and Programs to Support Self-Regulation

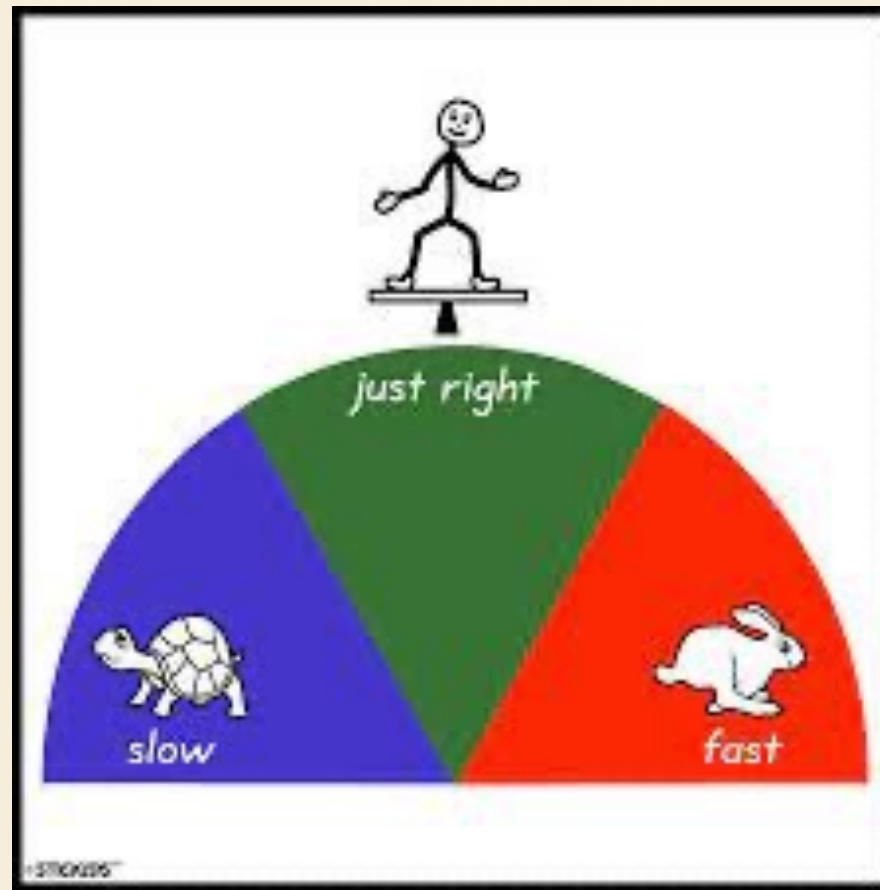


Zones of Regulation (Kuypers, 2011)



# Curriculum and Programs to Support Self-Regulation

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# Note about Evidence-Based Interventions

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Designed to improve self-regulation and executive function using sensory-based and cognitive strategies.

Research findings with children with FASD (ages 8-12 years)

- Improvements in parent-rated child behavior & emotional regulation (Nash et al., 2014)
- Positive changes observed in brain regions critical for self-regulation (Soh et al., 2015)

# Social skills and Friendship Training

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## Children's Friendship Training

- Social skills intervention (12 sessions) designed to improve social interaction skills (children aged 6–12 years)
- Sessions on practicing social interaction skills, facilitating playdates, and fostering parental involvement in social coaching.
- Key outcomes improved social skills knowledge child self-concept.

(Frankel et al., 2006; Hilly et al., 2023)

# Community Participation: A good way to go

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# Finding an OT for Your Child and Family

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## Access

- Availability, insurance, location

## Training & Intervention

- BA, MS, OTD, PhD
- Experience and specialties
- Primary frameworks & treatment modalities

Their MO – method of operating!

# Considerations for Finding the Right OT

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## Goal setting

- Led by the child and parent
- Focus on both necessary activities and preferred activities
- Goals should be meaningful and rewarding

Nurtures a positive sense of identity

Believe children and teens need time to have fun and play freely

Therapy should happen in natural contexts, be play-based whenever possible and enjoyable!

# Conclusion

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- OTs focus broadly on what's most important for each individual and their family.
- OTs can provide unique perspectives that add to team-based care for individuals with FASD.
- Interventions vary across the lifespan and environments.
- OT providers and care can be accessed through different settings.





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