

Assessing Sensory Integration & Processing in Individuals with Developmental Disabilities

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- PhD: Special Education in Early Childhood
- Master's: Occupational Therapy
- Bachelor's: Rehabilitation Services with a concentration in Counseling
- Diploma: Massage Therapy
- Over 20 years of experience in rehabilitation

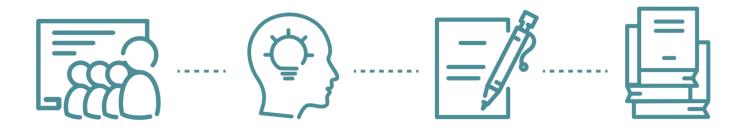
- RESNA, Certified Assistive Technology Professional
- IBCCES, Board-Certified
 Telepractice Specialist
- Florida Occupational Therapy
 Association, President 2019–2022
- American Occupational Therapy
 Foundation, Secretary 2022–2025

Assessment Consultant

I am an assessment consultant with Western Psychological Services. I am a salaried employee and have no additional relevant financial interests or conflicts of interest related to this presentation.

Objectives

- Discuss sensory integration and processing challenges in relation to developmental disabilities across the lifespan
- Provide an overview of the Sensory Processing Measure, Second Edition (SPM[™]-2) and its use in infancy through adulthood











Sensory Integration & Processing: Developmental Disability

Developmental Disability: Defined

- Group of conditions due to an impairment
 - Physical
 - Learning
 - Language
 - Behavioral
- Begin during early developmental period and last throughout the lifespan



Developmental Disability: Defined *(cont.)*



- Causes & Risk Factors
 - Genetics, parental health and behaviors during pregnancy, complications during birth, prenatal infections, exposure to environmental toxins



Sensory Integration & Processing: Defined

The organization and use of sensory information for everyday functioning

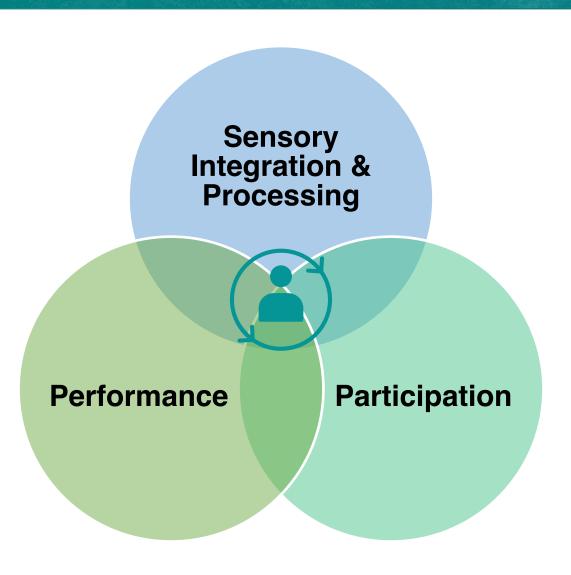




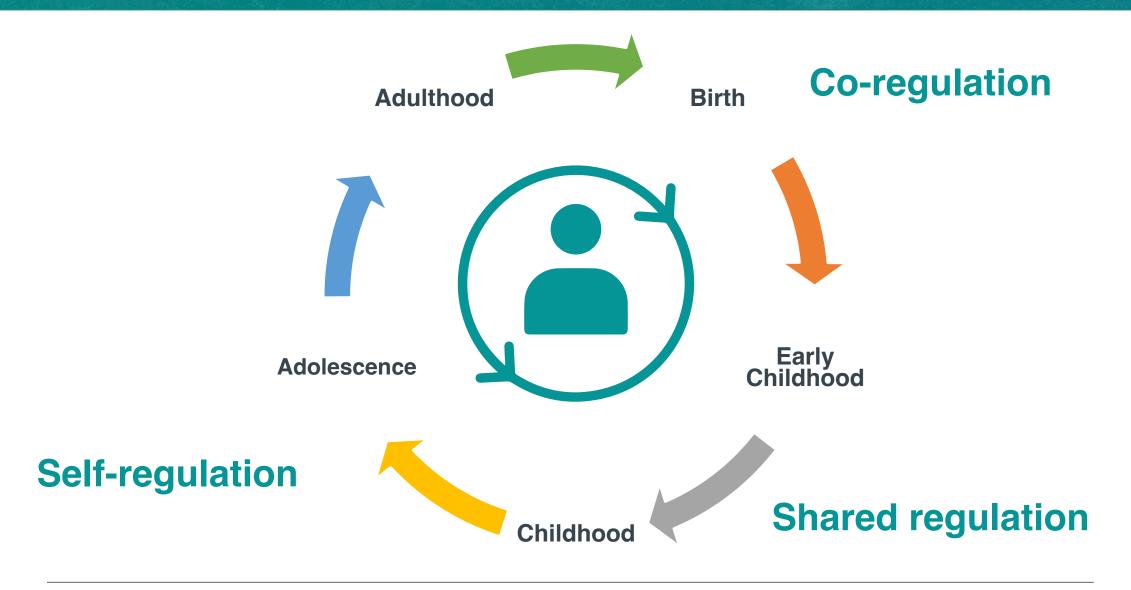




Sensory Integration & Processing: Developmental Disabilities



Sensory Integration & Processing Across the Lifespan

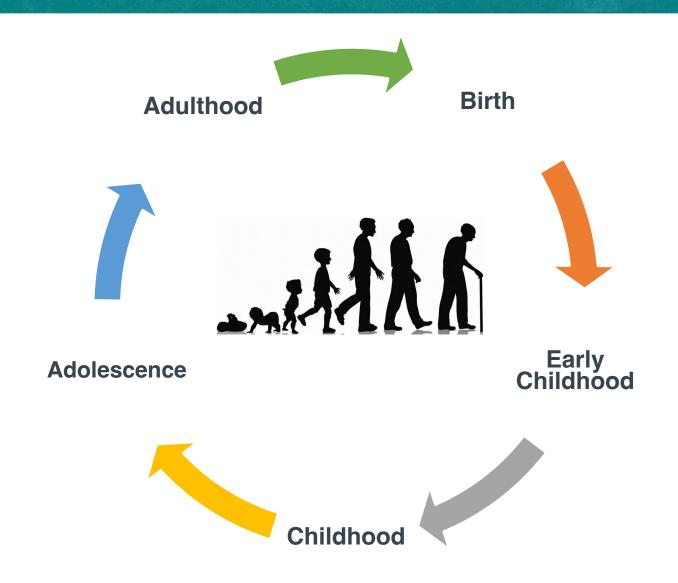




Assessment Across the Lifespan

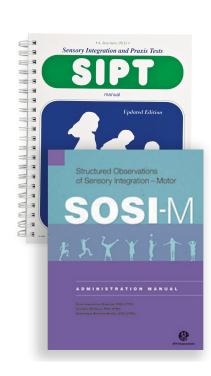


Assessment Across the Lifespan



Assessment: Sensory Integration & Processing

- Assessment
 - Rating scales
 - Sensory-based
 - Adaptive behavior
 - Performance-based assessments
 - Observation







Sensory Processing Measure, Second Edition (SPM™-2)



SPM-2 Authors



L. Diane Parham, PhD, OTR/L, FAOTA



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Heather Kuhaneck, PhD, OTR/L, FAOTA



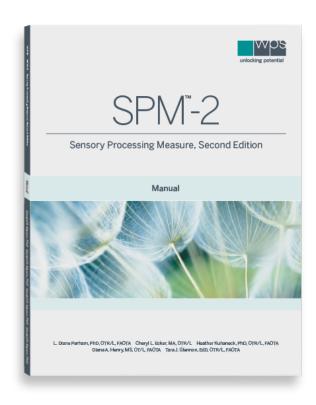
Diana A. Henry, MS, OT/L, FAOTA



Tara J. Glennon, EdD, OTR/L, FAOTA

SPM-2

- Easy to use
- Reliable
- Valid
- Time efficient
- Informative



SPM-2 Overview

- The SPM-2 is a revision and expansion of:
 - Sensory Processing Measure (2007)
 - Sensory Processing Measure— Preschool (2010)
- The SPM-2 expands the age range downward to include infants and toddlers and upward to include adolescents and adults





SPM-2 Overview (cont.)

 Used in many different settings where assessment of an individual's developmental abilities, strengths, and weaknesses is useful



SPM-2 Uses

- The SPM-2 supports identification and treatment of sensory integration and processing difficulties
- Developed by occupational therapists and is appropriate to be used by various professionals
- May be used alone or as a screening instrument in conjunction with other assessments



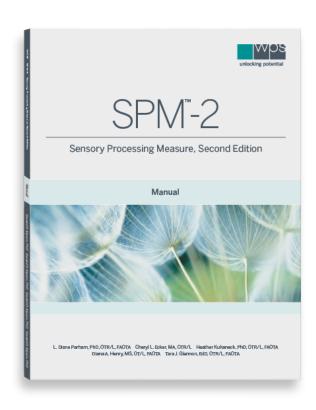
SPM-2: Use in Telehealth

- https://pages.wpspublish.com/telepractice-101
- platform.wpspublish.com
- Online administration
 - WPS[®] Online Evaluation System™ (OES)



SPM-2: What's New

- Expanded age range includes infants, toddlers, preschool- and school-age children, adolescents, and adults
- Updated norms based on new, nationally representative standardization samples
- Assess and compare across daily environments with new forms, including driving forms





SPM-2: What's New (cont.)

- Updated SPM-2 Quick Tips[™] now organized by additional sensory, cognitive, and behavioral objectives to develop intervention strategies for home, for school, for work, and in the community
- Compare the sensory needs of individuals to those of the caregiver, parent, teacher, or other adult
- Updated item content reflects changes in technology for children's play and activities



Coming Soon

SPM-2 Quick Tips (Infant/Toddler, Adolescent, Adult)

SPM-2 Key Features

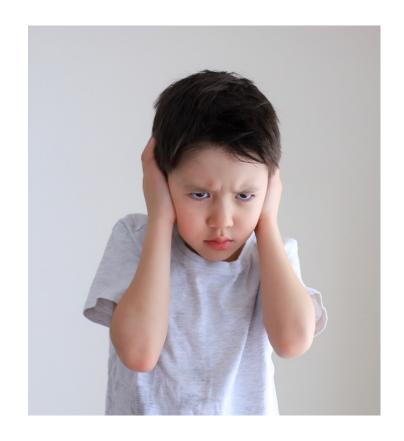
- Assessment of sensory systems:
 - T-scores provide norm-referenced indexes of function
 - Visual, auditory, tactile, olfactory, gustatory, proprioceptive, and vestibular sensory systems
 - Integrative functions of praxis and social participation





SPM-2 Key Features (cont.)

- Assessment of sensory integration vulnerabilities:
 - The SPM-2 items provide descriptive clinical information on processing vulnerabilities within each sensory system, including
 - Under- and over-reactivity
 - Sensory-seeking behavior
 - Difficulties with perception





SPM-2 Key Features (cont.)

- Assessment across multiple environments and raters:
 - Forms at each age level of the SPM-2 are designed for maximum flexibility in choosing and comparing among environments and raters, such as:
 - 12 main forms
 - Multiple caregivers



SPM-2 Components

- Print and digital materials on the WPS Online Evaluation System (OES)
- Manual
- Various forms across the lifespan for completion by caregivers, teachers, and self-report:
 - Infant/Toddler
 - Preschool
 - Child
 - Adolescent
 - Adult
 - Environment Forms
- Quick Tips for respective age group



SPM-2: Components (cont.)

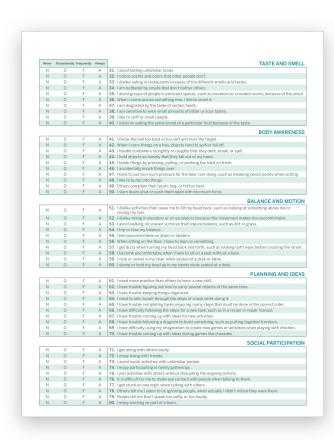


Age Level	Primary Forms (Long Forms)	Secondary Forms (Environment)*
Adult 21–87 years	Rater Report Form Self-Report Form	Driving Rater Report Form Driving Self-Report Form
Adolescent 12–21 years	Home Form School Form Self-Report Form	Driving Rater Report Form Driving Self-Report Form
Child 5–12 years	Home Form School Form	School Environment Forms: Art, School Bus, Cafeteria, Music, Physical Education, Recess/Playground
Preschool 2–5 years	Home Form School Form	
Infant/Toddler 4–30 months	Infant Form Toddler Form Caregiver Self-Report Form	

*Environment forms included FREE

SPM-2 Scales

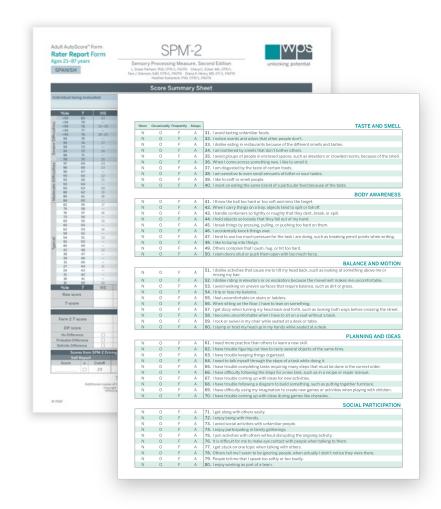
- Vision (VIS)
- Hearing (HEA)
- Touch (TOU)
- Taste and Smell (T&S)
- Body Awareness (BOD)
- Balance and Motion (BAL)
- Planning and Ideas (PLN)
- Social Participation (SOC)





SPM-2: Scales (cont.)

- SPM-2 Sensory Total (ST)
 - The ST is a composite of six sensory scales:
 - VIS, HEA, TOU, T&S, BOD, and BAL
 - Not included:
 - PLN and SOC
 - Represent higher level integrative processes influenced by cognitive, contextual, and multisensory information





Administration and Scoring



SPM-2: Administration





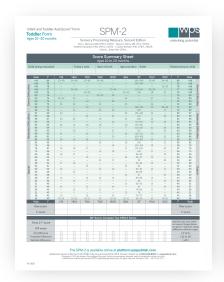


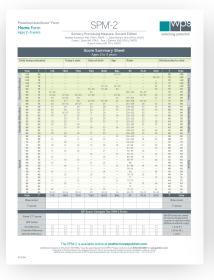


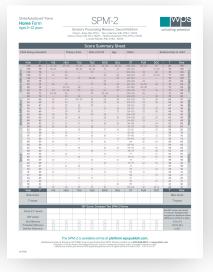


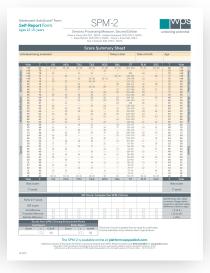


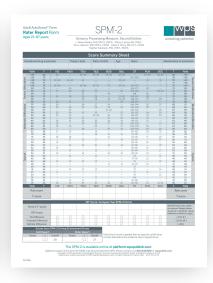












Infant/Toddler 4–30 months

Preschool 2–5 years

Child 5–12 years

Adolescent 12–21 years

Adult 21–87 years



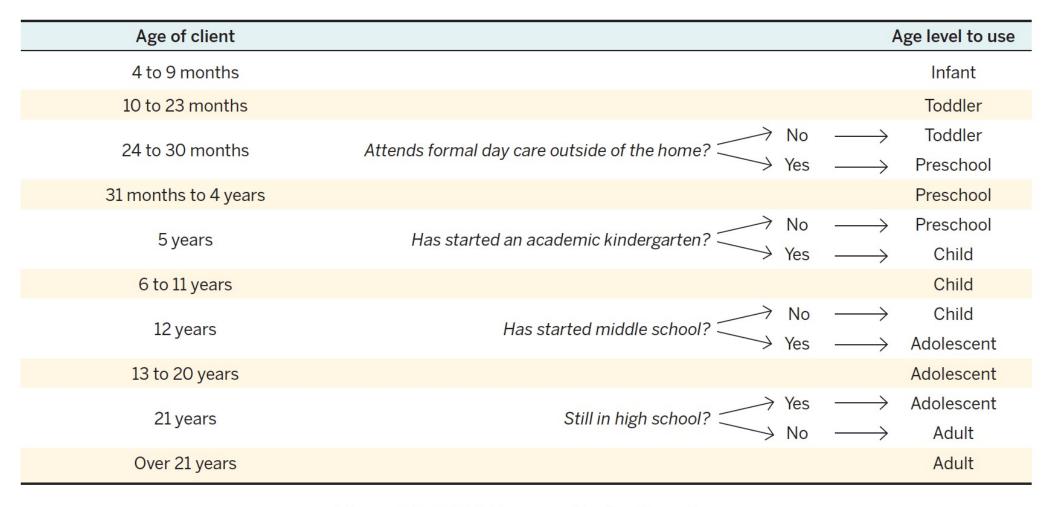


Figure 2.1. SPM-2 Forms to Use by Client Age



Environment forms

- Art (ART)
- School Bus (BUS)
- Cafeteria (CAF)
- Music (MUS)
- Physical Education (PHY)
- Recess/Playground (REC)
- Driving
 - Adolescent
 - Adult





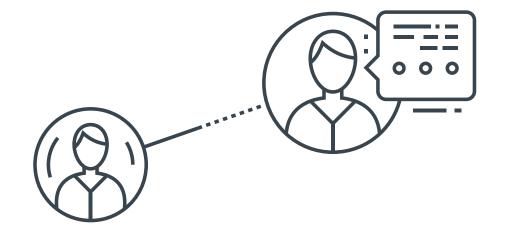
- Items rated based on frequency of a specific behavior
 - Never
 - Occasionally
 - Frequently
 - Always



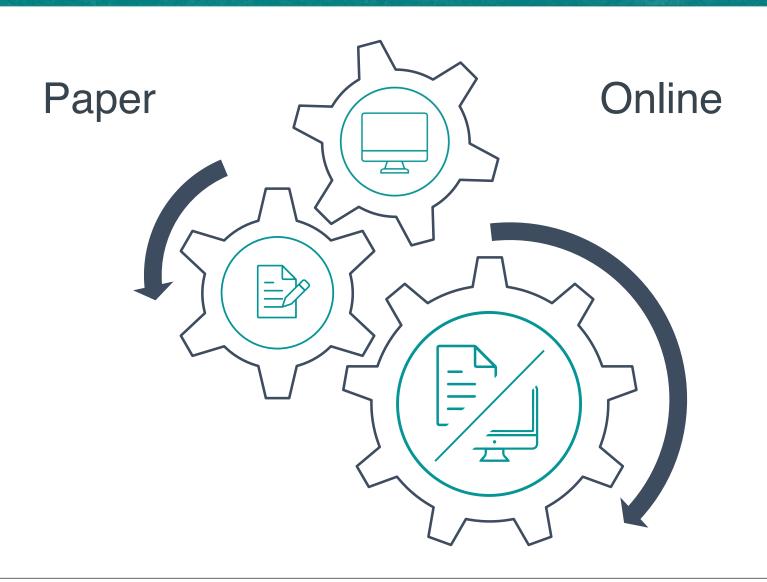


SPM-2: Administration (cont.)

- Language & Literacy
 - Written at approximately the eighth-grade reading level
 - Can be read to respondent
 - Must read questions exactly as written
 - Available in Spanish



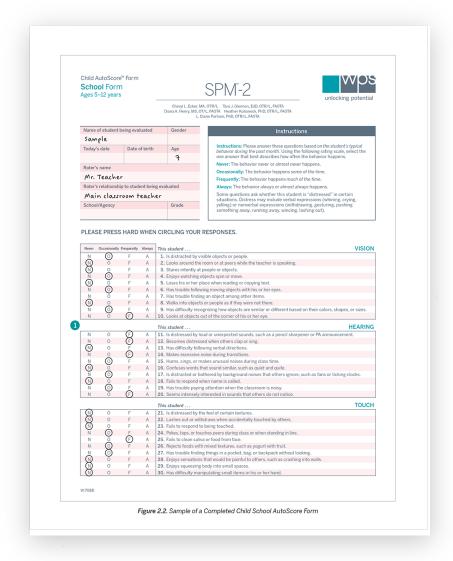
SPM-2: Scoring







- Paper
 - AutoScore[™] Form





Missing items

- Main form: If a total of <u>eight or more</u> missing responses, or <u>four or</u> more missing responses on any single 10-item scale, do not proceed with scoring and interpretation of that form
- Substitutions: If a total of <u>seven or fewer</u> missing responses, or <u>three</u> <u>or fewer</u> missing responses on any single 10-item scale, you may proceed with scoring and interpretation, substituting median values for the missing responses



Online

WPS Online Evaluation System (OES)







- Raw Scores
- Scales
- Sensory Total



Figure 2.2. Sample of a Completed Child School AutoScore Form



- Interpretive Ranges
 - Typical
 - Moderate Difficulties
 - Severe Difficulties
- T-Scores
- Percentiles
- Environment Cutoff Scores
- Difference Scores

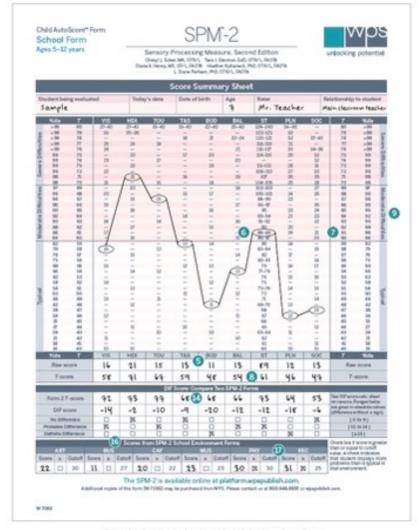
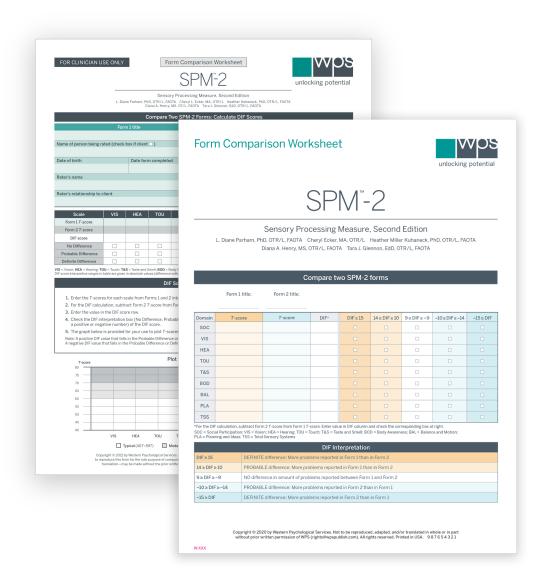


Figure 2.2. Sample of a Completed Child School AutoScore Form



Comparisons

- Time
- Dyads
- Contexts
- Raters
- Individuals



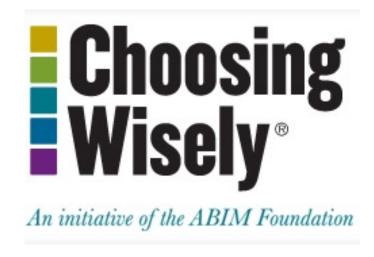


Sensory Integration & Processing: Intervention Across the Lifespan



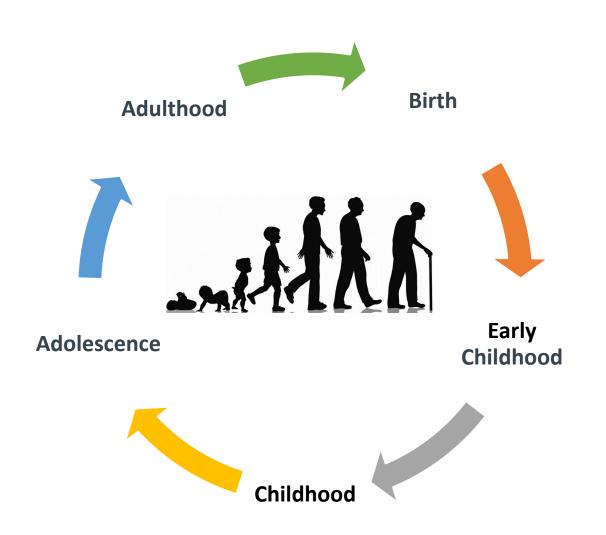
Choosing Wisely: Sensory Processing & Integration

Don't provide sensory-based interventions to individuals without documented assessment results of difficulties processing or integrating sensory information



https://www.choosingwisely.org/clinician-lists/aota-sensory-based-interventions-for-children-without-assessment/

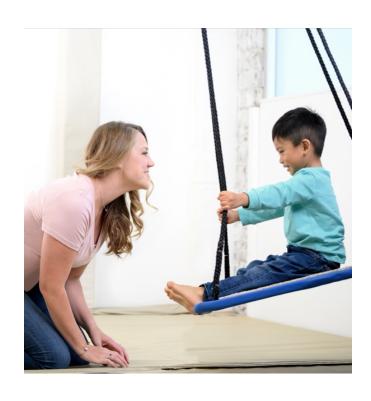
Intervention Across the Lifespan





Intervention: Sensory Processing/ Sensory Integration

- Intervention
 - Ayres Sensory Integration®





Intervention: Sensory Processing/Sensory Integration *(cont.)*

- Intervention
 - Sensory-based strategies









Sensory Processing Measure, Second Edition (SPM-2) Quick Tips™

SPM-2 Quick Tips: What's New

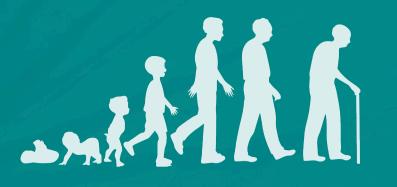
- Quick Tips across the lifespan
 - Infant/Toddler
 - Preschool
 - Child
 - Adolescent
 - Adult



Coming Soon

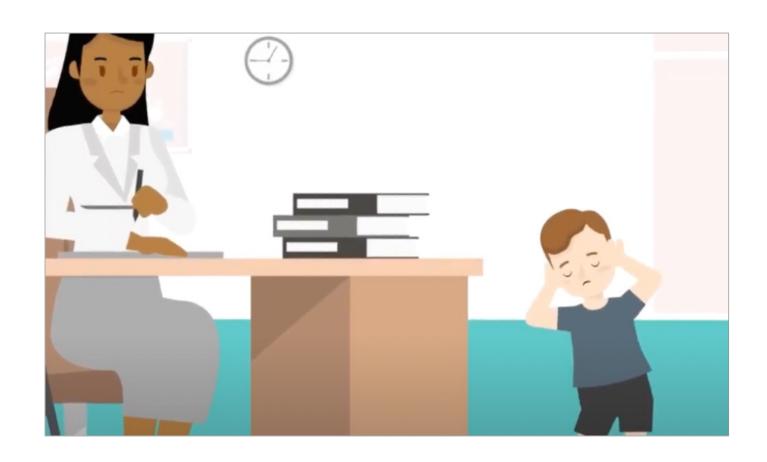
SPM-2 Quick Tips (Infant/Toddler, Adolescent, Adult)





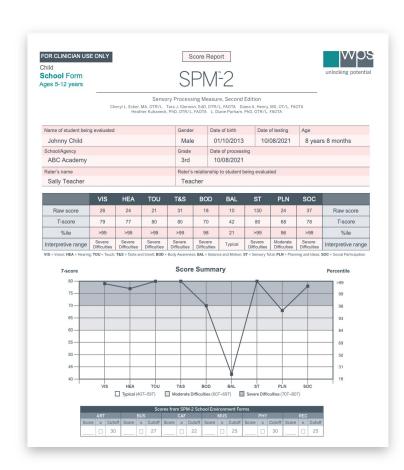
SPM-2 Case Example: Johnny

SPM-2: Johnny



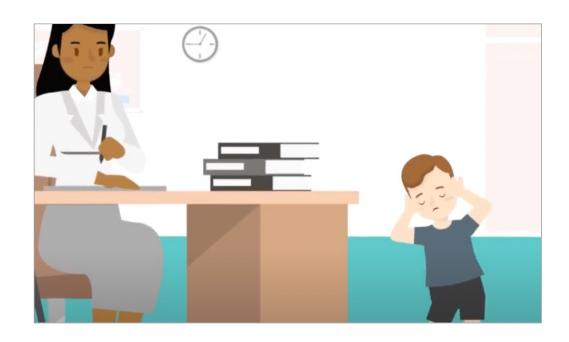
SPM-2: Johnny's Report

- Raw scores
- T-Scores
- Percentiles
- Environment Cutoff Scores
- Difference Scores





SPM-2: Johnny's Report (cont.)















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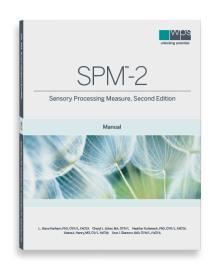


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- Enjoy 10% OFF* any SPM-2 or SPM-2 Quick Tips kits, easels, forms, or manuals! Use code WPSXSPMW at checkout.
- Available in print and online at <u>wpspublish.com/spm-2</u>

*Offer expires March 31, 2022



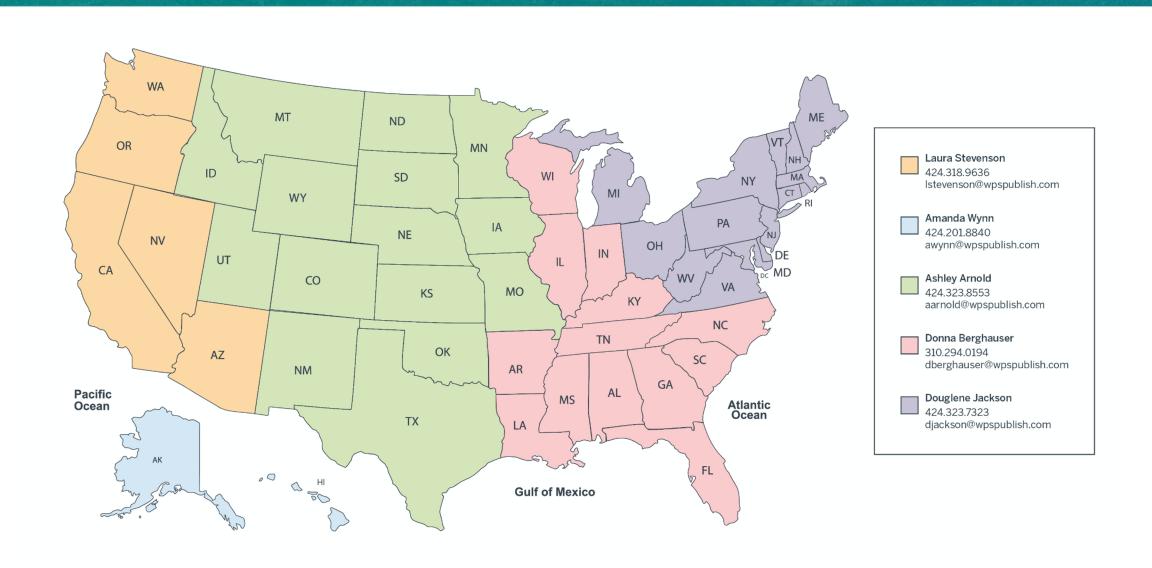




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The Autistic Experience Across the Lifespan: Considerations for Improved Clinical Practice

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Webinar Date:
Wednesday,
April 6, 2022

Webinar Time:
11 a.m.–12:30 p.m. PT