

The Boston Symposium
Integration of Sensation: Clinical Innovations and Research
March 18-19-20

Lecture Presentations

Carl Anderson, Ph.D.

Assistant Professor of Psychiatry, Harvard Medical School & The Neuroimaging Center
McLean Hospital, Belmont, MA

Out of Balance: The Role of the Cerebellar Vermis In Human Health

The cerebellar vermis is a critical brain region coordinating human walking and balance. Emerging research also indicates a role for this brain region in developmental disorders such as Attention Deficit Hyperactivity Disorder and drug use in adults. The development of cerebellar vermis has broad implications for human health.

Christina and Matthew Bauer

Ten Tips for Sensory Parents

Strategies to support effective parenting for a child who learns and lives differently.

Teresa May-Benson, Sc.D., OTR/L

Clinical Director, OTA-Watertown & Research Director, The SPIRAL Foundation

&

Ellen Cohn, Sc.D., OTR/L

Clinical Professor, College of Health & Rehabilitation Sciences

Sargent College, Boston University, MA

The Relationship Between Parents' Sense of Competence and Behaviors Associated with Sensory Processing.

Given the established relationship between parents' self efficacy and characteristics of children, this study explored the relationship between parents' self efficacy (as measured by the Parent Sense of Competency scale) and behaviors thought to be associated with sensory processing disorders (as measured by the Sensory Profile, (Dunn, 1999). The main purpose of the study was to investigate the extent to which two dimensions of parents' self efficacy (satisfaction and efficacy) relate to parents' ratings of their children's behaviors thought to reflect sensory processing disorders. A secondary goal of the research was to identify which child behaviors best predict overall parents sense of competence, parental satisfaction and parental self efficacy. A third goal was to examine a measure that may be useful for documenting the parent-focused outcomes of occupational therapy using a sensory integration approach.

Teresa May-Benson, Sc.D., OTR/L

Clinical Director, OTA-Watertown & Research Director, The SPIRAL Foundation

&

Jane Koomar, Ph.D., OTR/L

Executive Director, OTA-Watertown

Incidence of Pre-, Peri-, and Post-Natal Birth and Developmental Problems of Children with Sensory Processing Disorder and Children with Autism Spectrum Disorder

As the diagnosis of sensory processing disorder (SPD) is advanced, it is important to investigate potential contributing factors to this disorder as well as early diagnostic signs. An exploratory descriptive study, utilizing retrospective chart review, was conducted to investigate the incidence of pre-, peri and post- natal, birth and developmental problems in a sample of 1000 children with SPD and of 467 children with autism spectrum disorder who also had SPD (ASD/SPD). This study revealed that although no one factor was strongly associated with SPD or ASD/SPD, an average of 7 events for children with SPD and 8 events for children with ASD/SPD occurred across categories.

Alice Carter, Ph.D.

Professor, Department of Psychology

University of Massachusetts, Boston, MA

Correlates and Stability in Sensory Sensitivities in a Representative Birth Cohort.

Andrea DeSantes, Ph.D., PT

Exploring an Integrative Model of Infant Behavior: The Relationship Among Temperament, Sensory Processing, and Neurobehavioral Measures.

Matthew Goodwin, Ph.D.

Director of Clinical Research

Autism & Communication Technology, MIT Media Laboratory, Cambridge, MA

Developing Innovative Ways to Measure and Communicate Autonomic Arousal in Autism Spectrum Disorders.

This presentation will briefly discuss the clinical utility of recording ANS responsivity in ASD, review findings to date in this area, describe some methodological issues, and demonstrate a novel platform being developed in the MIT Media Lab for sensing sympathetic and parasympathetic autonomic data comfortably off the wrist and ankle without wires or boxes. The system captures: (1) Electrodermal activity, which provides a sensitive measure of changes in sympathetic arousal associated with emotion, cognition and attention; (2) Heart rate and heart rate variability that provides information related to the sympathetic and parasympathetic branches of the ANS; (3) Temperature; and (4) Motor movement and posture changes through 3-axis accelerometry. The 3-axis accelerometer and temperature sensors provide information about a person's activity and account for the influence of motion and environmental temperature on electrodermal and cardiovascular signals.

Mary Kawar, MS, OTR/L,

A private practitioner in El Cerrito, California for over 40 years she has specialized in therapeutic programs for children and adults with sensory processing and motor control issues. As a well respected professional, Ms Kawar lectures throughout the US and internationally, addressing audiences in Europe, Australia, Africa, and Asia. Her particular expertise pivots around vestibular processing and its support for vision. Mary has a wealth of clinical expertise and has been particularly successful at designing precise treatment strategies and therapeutic tools to improve vestibular, visual, and auditory integration for physical, social, and cognitive engagement. She is co author of two book/CD combinations entitled *Core Concepts in Action and Astronaut Training*. *Sound Activated Vestibular Visual Protocol for Moving, Looking, and Listening*. She has also recently written a chapter in the book *Functional Visual Behavior in Children*.

Precise Vestibular-Cochlear and Oculomotor Activation for Optimal Performance

Therapeutic Vestibular-Cochlear and Oculomotor Activities for the Clinic, School and Home

Jane Koomar, Ph.D., OTR/L

Executive Director, OTA-Watertown

&

Teresa May-Benson, Sc.D., OTR/L

Clinical Director, OTA-Watertown & Research Director, The SPIRAL Foundation

Evidenced-Based Practice in Sensory Integration

Charles Krebs, Ph.D. & Lydia Knutson, DC, MM

Lydian Center for Innovative Medicine, Cambridge, MA 02138

From Structure to Function: Building a Healthy Whole Brain

This presentation will discuss how physical injury - even long forgotten - can have profound impact on cerebellar (dis)integration. Signs and symptoms for diagnosis and proposed course of treatment through non-force chiropractic and comprehensive brain integration will be explored.

Shelly J Lane, PhD, OTR/L, FAOTA

Professor, Department of Occupational Therapy

Assistant Dean of Research, SAHP

Virginia Commonwealth University, Richmond, VA

&

Stacey Reynolds, Ph.D., OTR/L

Assistant Professor

Department of Occupational Therapy

Virginia Commonwealth University, Richmond, VA

Sensory Processing Physiology and Behavior

Linking the behaviors associated with sensory over-responsiveness to physiologic measures has been a major focus of the research in the Sensor Processing and Stress Evaluation lab at Virginia Commonwealth University. Working with typical children, as well as children with autism and attention deficit disorder, we have measured physiologic (cortisol and electrodermal activity)

responses to the sensory challenge protocol, and have examined the link between these measures and behavioral reflections of sensory processing and anxiety. In this presentation we will discuss findings to date, and future directions.

Diane Levinson, MS, OTR/L

Senior Therapist and Specialty Listening Coordinator, OTA-Watertown, MA

The Power of Listening Therapies: Review of Current Listening Programs and their Use at home, School and in the Clinic.

Zoe Mailloux, MA, OTR/L

Executive Director of Administration and Research
Pediatric Therapy Network, Torrance, CA

Verification and Clarification of Patterns of Sensory Integrative Dysfunction

Participants will be able to describe the body of research that has led to the identification of patterns of dysfunction in sensory integration. Understand the patterns of sensory integration dysfunction identified in this study using data from the Sensory Integration and Praxis Tests and the Sensory Processing Measures. Explain how an understanding of patterns of sensory integration dysfunction informs intervention planning.

Fred H. Previc, Ph.D.

Best selling author of 'The Dopaminergic Mind in Human Evolution and History'

Rising Dopamine Levels in Our Society and the Clinical Consequences

Sarah Schoen, Ph.D., OTR/L

Director of Applied Research
Sensory Processing Dysfunction Foundation & Clinical Services Advisor
STAR Center, Greenwood Village, CO

The Assessment of Sensory Modulation using the Sensory Processing Scales

This presentation will provide an introduction to the development of the Sensory Processing (SP) Scales. In particular the speaker will discuss use of the SP Scales to measure Sensory Over-Responsivity, Sensory Under-Responsivity and Sensory Seeking/Craving. Videos will be used to demonstrate specific items.

Martin Teicher, MD, Ph.D.

Associate Professor of Psychiatry, McLean Hospital, Belmont, MA

Developing Biobehavioral Markers for the Assessment of Attention Deficit Hyperactivity Disorder.

Anne Trecker, MS, OTR/L

Occupational Therapist, Sensory Integration Specialist, Boston Public Schools.

Aubrey Rubin MS, CCC-SLP

Speech Therapist, Boston Public Schools.

SPOT: Speech and Sensory Integration based Occupational Therapy working together in classrooms for students with ASD

This workshop describes the use of sensory integration techniques and low and high tech communication aids to improve self-regulation and communication in school children with ASD.

SPOT (Speech/OT groups) are frequently used in school settings to successfully meet both occupational therapy and communication goals. The presenters will discuss the ways they have worked together in designing an exercise group for autistic students that addresses functional goals in both areas.

Mary Sue Williams, OTR & Sherry Shellenberger, OTR

Internationally acclaimed authors of the Alert Program ®

Re-energize Your Engine! Alert Program® Research and Implementation Updates

In this session, exciting new Alert Program® best practices and research will be shared. Learn how therapists, teachers, and parents have succeeded in implementing the program, school-wide and district-wide, using the newest Alert Program songs, games, and materials. Of course, we practice what we preach, so your adult engine (and self-regulation needs) will be supported in this session to easily stay alert for learning.
