Theoretical Foundations of Sensory Integration

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The theory of sensory integration as used in the therapeutic professions originated with the work of Dr. A. Jean Ayres in the 1960’s. Dr. Ayres laid the groundwork for evidence-based practice by creating a theory, a model, assessments and intervention strategies focusing on the sensory contributions to human occupation. This presentation will review the current state of sensory integration theory including significant examples of current research. It will include a critique of models of sensory integration and sensory processing function and dysfunction that guide occupational therapy practice.

Clinical reasoning - Assessment and intervention using Ayres Sensory Integration®  
Systematic assessment and analysis of assessment findings is essential when applying the OT/sensory integrative approach to determine the appropriate intervention for clients. This presentation will present an evidence-based strategy that supports the interpretation of assessment findings to identify patterns of sensory integrative dysfunction and determine the type of intervention used with the client. Case analyses will include formulating hypotheses from observations, testing the hypotheses with additional assessment data to identify a child’s strengths and weaknesses, and creating relevant intervention plans for the client including the setting, duration and expected outcomes.

Sensory integration patterns in autism spectrum disorders: a link to understanding occupational performance difficulties  
Increased awareness of sensory integration and praxis difficulties in autism creates an increased demand for occupational therapy services. This retrospective study analyzed occupational therapy assessment data from 141 children with an Autism Spectrum Disorder (ASD) between the ages 4.0 and 12.0 years that included the Sensory Integration and Praxis Tests (n=89); the Sensory Processing Measure – Home questionnaire (n=48), and the Sensory Processing Measure-Main Classroom questionnaire (n=25). Assessment results in this sample were compared to typically developing children (n=20) and children referred for learning and behavior difficulties (n=60). Patterns of irregular sensory reponsiveness and deficits in tactile discrimination, vestibular-proprioceptive processing, postural and motor skills and praxis emerged in the ASD population and correlated highly with social participation deficits. Occupational therapists specializing Ayres Sensory Integration® (ASI) have the expertise to provide assessment and intervention for these difficulties, including early identification of these sensory, motor and praxis issues.