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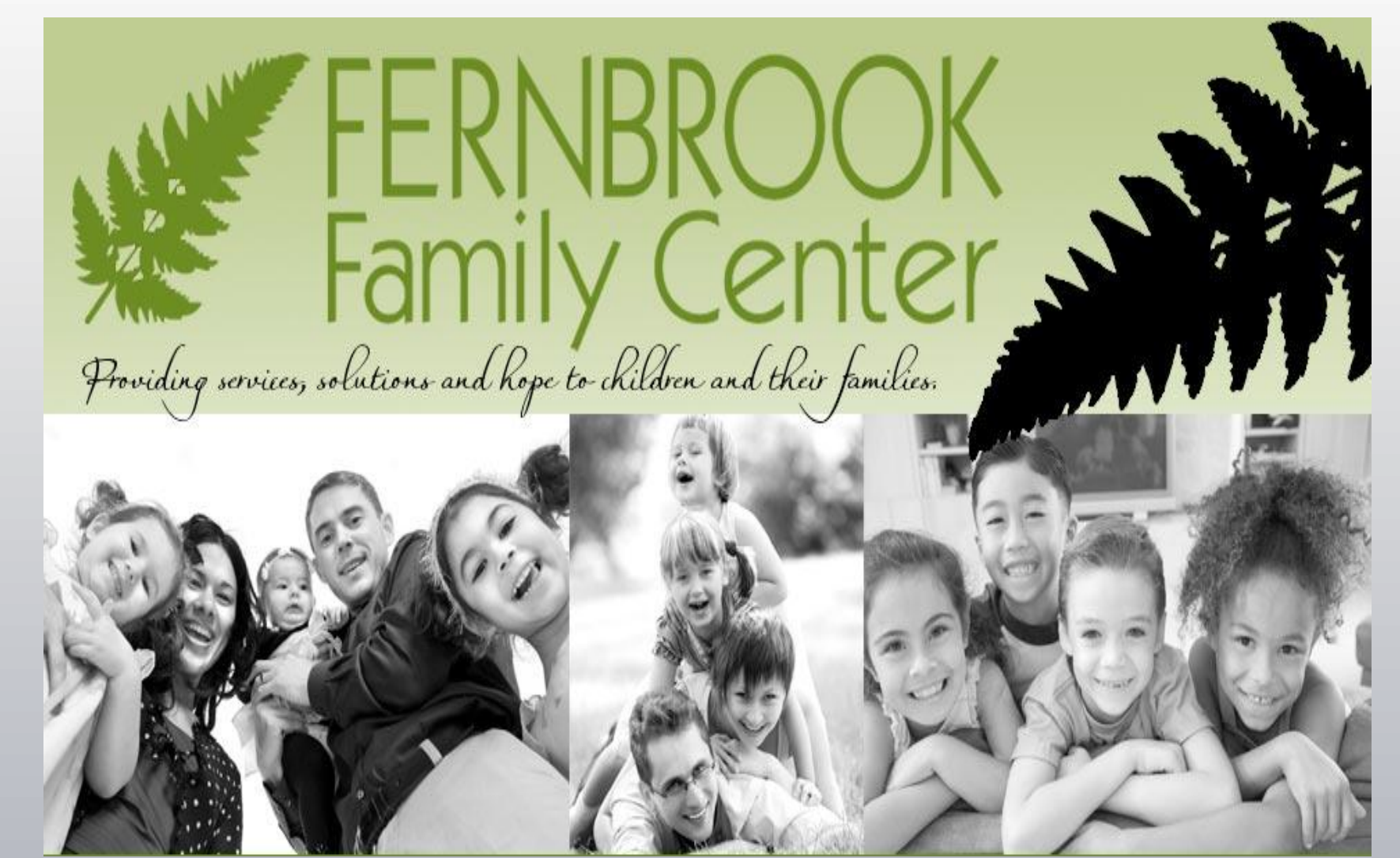
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Evidence Based Practices for Sensory Stimulation Seeking Impulsive Diagnosis

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Statement of Purpose

The purpose of this project is to identify evidence based practices that can be used in the treatment of Sensory Stimulation Seeking Impulsive Disorder (430.0). Identification of these practices will more effectively meet the therapeutic needs of the children diagnosed with this disorder.

Methodology

A limited systematic review of the literature to identify interventions that have an identified evidence base in working with children 0-3 diagnosed with sensory stimulation seeking, impulsive.

- #Data was collected by searching peer-reviewed journal articles published within the years 2000-2010.
- #All appropriate peer-reviewed articles were read and information was organized by sub-topic for review.
- #Results of the literature review was compiled and information extrapolated then organized into table format depicting symptoms, sensory systems targeted and identified evidence based interventions.

Literature Review-Findings

Sensory Stimulation Seeking, Impulsive is a childhood diagnosis outlined in the DC: 0-3R. This diagnosis is characterized by sensory reactivity patterns, motor patterns, and behavioral patterns, leading to child appearing aggressive, destructive, recklessness, and disorganized appearing behaviors. This disorder is generally observed in the proprioceptive, vestibular and tactile sensory systems. The proprioceptive system is made up of the muscles, joints, ligaments, tendons, and connective tissue (Downing, Aldrich & Shelley, 2006). These receptors are stimulated by movement and gravity indicating muscle use, bending and stretching. This system assists in motor control allowing the individual to move efficiently. The vestibular system is located in the inner ear, and receives information through movement and gravity (Downing, Aldrich, Shelley, p. 54, 2006). This system affects muscle tone, balance and equilibrium alerting the individual to where they are in relation to the earth, telling them one whether they are moving, standing still and the speed and direction of the movement. (Lynch & Simpson, 2004). The tactile system has two components. The protective system warns of impending doom which may result in the fight or flight response. The discriminative system tells the individual when to suppress or activate the protective systems. Often times this is the origin of tactile dysfunction, an inability to distinguish between benign and dangerous touch (Lynch & Simpson, 2004).

Research indicated that accurate identification of sensory seeking tendencies is vital to improving behavioral difficulties. The key to the screening and assessment of sensory processing integration is focusing on how a child processes sensory information and manages environmental challenges. Sensory dysfunctions are related to the process involved in interpreting the sensory stimulation. A list of standardized tools available to screen and assess symptoms was compiled.

Standardized Questionnaires		
The Sensory Profile • Dunn, 1999 • Ages between 3 and 10 years, assesses sensory systems, activity level, movement, and emotional social functioning (highly studied)	The Infant and Toddler Symptom Checklist • DeGangi & Poisson, 1995 • Ages between 7 and 30 months, assesses self-regulation, attention, sleeping, eating, dressing, bathing, movement, language, vision, and emotional functioning	The Short Sensory Profile • McIntosh, Miller, Shyu & Dunn, 1999 • Abbreviated Sensory Profile, solid psychometric properties. Assesses sensitivity: tactile, taste/smell, visual/audio, movement, under-responsive/seeks sensation, auditory filtering, low energy/weak

Standardized Instruments		
The Early Coping Inventory • Zeitlin, Williamson, & Szczepanski, 1988 • Ages 4 to 36 months, psychometrically sound tool, sensitive assessment of sensory-based self regulation • Can be administered by any professional with a background in child development	The Test of Sensory Functions in Infants • DeGangi & Greenspan, 1989 • Infants and Toddlers, diagnostic criterion-reference assessing regulatory disorders, developmental delay, learning disorders risk • Administered by professionals trained in child development and sensory processing.	The Miller Assessment of Preschoolers • Miller, 1988 • Ages 2.9-5.8 years, Based on extensive research, Provides information on developmental level • Professionals licensed to work in the health care field or trained in education and working with parents to assess children

Research was utilized to develop an intervention list specific to various behaviors which correlated with specific sensory system symptoms. This table will provide intervention tools and options for utilization in direct practice.

Intervention Table

Sensory System	Symptomatic Behaviors	Intervention Activities
Sensory Seeking- General information	Very Active, continuously engaging and excitable to add movement, touch, sound, and visual stimuli to their daily experiences Explorers of the world Motivated to move by a desire to touch, taste, smell, see and hear everything around them Often move until they drop and may not nap at the same time everyday Parents of sensory seekers find themselves worn out by the end of the day from chasing these explorers	Provide intense sensory experiences Plan activities that alternate between active and passive Have them move chairs Have them help to clean Look for ways for them to push, pull, kick, hang, jump and lift Change the usual location of objects
Tactile System- touch (protective, discriminative)	A child who pushes or bumps into others when in a small space, bothered by random touch from others Distraction with touch sensation, interfering with learning, tackles others, Often misinterprets touch	Allow Child to manipulate various textured items silly putty, play dough, silk, sand, water, rice, fidget Provide deep pressure activities using sleeping bags, large beach balls, stretchy material, vibrating massage
Vestibular System- inner ear, gravity (where we are in relation to the earth)	Seek intense, fast spinning movement, thrill seeker, enjoy being upside down, fidgets, rocks, trouble staying seated, Clumsy or uncoordinated, labeled as destructive, poor eye movement, poor reading acquisition, and language disorders	Activities that requires the child's head to be upside down (head shoulders, knees and toes) Obstacle courses and activities providing climbing equipment, swings, balancing equipment (t-stools, teeter totters) Gentle roughhousing Slow rocking is soothing
Proprioceptive System- Muscles, joints, tendons, connective tissue	Chews cuffs/collars, Poor body awareness, problems with smoothly graded movement, poor motor control, clumsiness and frustration, cracks knuckles, sits of feet Speech production, articulation	Carry heavy loads (boxes of blocks, sand bags), pushing and pulling (wagons, boxes, tricycles) utilized crash pads, or tire inner tubes to provide deep pressure, pounding activities, calming spaces

Recommendations

- #Utilization of semi-structured interview process assessing regulatory disorders.
- #Implementation of screening tools to be used as a part of the diagnostic assessment process.
- #Development of evidence based interventions/activities to be utilized in the home or office setting with children determined to have sensory regulation disorders.
- #Increase access to information and training in observation, identification and treatment of regulatory disorders.
- #Increase parent, professional and community education regarding the identification, impact and treatment of regulatory disorders.