



OUTREACH SERVICES OF INDIANA

INTELLECTUAL DISABILITIES / DEVELOPMENTAL DISABILITIES FACT SHEET

CATEGORY: HEALTH AND SAFETY

TOPIC: SENSORY PROCESSING DISORDERS (SPD)

Introduction: This information is being provided by Outreach Services of Indiana to assist persons with intellectual/developmental disabilities to lead safe, healthy and happy lives. It is general information and will not necessarily be pertinent to each person's individual circumstances based on other contributing factors.

Fact Sheets can be found at www.iidc.indiana.edu/training

Objectives: Individuals will learn the definition of Sensory Processing and the symptoms of disorders of sensory processing. Also addressed will be the method to obtain a sensory processing evaluation. A general overview of treatment and other strategies.

Definitions: A sensory processing disorder is when an individual's brain does not process the incoming information from the senses (vision, hearing, taste, smell, touch or movement) normally in order to produce an "adaptive response".

Facts:

Sensory processing is present in all individuals throughout their lifetime. A newborn must learn how to use the incoming sensory information to act on their environment. In infancy often a parent must help a child to learn to calm themselves (self regulation). As the child progresses they learn to calm themselves as well as to use the incoming sensory information to explore and learn about their own bodies and the world around them. This process is called sensory integration or sensory processing. How a person processes information varies from person to person based on their experience, and preference. Although our brain receives a great deal of information from our senses, we are aware of only about 5% of the incoming information at one time. A person with normal sensory processing is able to attend to the important information in order to respond to environmental demands. Everyone will experience problems with integrating incoming information at times due to lack of sleep, over stimulation, stress, illness or other factors. In most cases a person with normal sensory processing will modify their behavior or the environment to allow them to function in that situation. However, a person with Sensory Processing Disorders has difficulty with making these "adaptive responses" and as a result will display one or more of the following **TYPES/SYMPTOMS:** 1) **HYPERSENSITIVITY** or **DEFENSIVENESS** is difficulty tolerating certain types of sensation (i.e. Touch, taste, sound, movement or visual input); 2) **MODULATION** or **REGULATION** is difficulty recognizing or focusing on the important information in order to interact with others or the environment (i.e. Poor attention span, fixation, trouble transitions from activity to activity or difficulty coping with even minor changes in routine); 3) **Under REGISTRATION** or **SENSORY BASED MOTOR DISORDER** is difficulty moving their body in order to complete tasks in a functional or coordinated manner when compared to other's their cognitive level (trouble with coordinating movement for gross motor tasks such as catching a ball or maintain balance; or for fine motor tasks such as writing or cutting). Sensory processing disorders can range from mild where the individual is able to function with the implementation of strategies or environmental modifications to severe where it affects all areas of their life, and severely impairs their quality of life.

Sensory Impairment versus Sensory Processing Disorder:

Individual who has visual or hearing loss, cerebral palsy, spinal cord injuries are not considered as having sensory processing disorders, but they often have symptoms which are similar due to impaired or lack of sensation.

If a Sensory Processing Disorder is suspected:

Make a list of symptoms you observe to share with healthcare professionals. If the individual is functioning below what is expected for their age/cognitive level or their quality of life is significantly affected by their ability to interact with others or the environment, a sensory processing evaluation is recommended. You need to obtain a referral from your physician to receive an occupational therapy evaluation. Make sure that it specifies that a sensory processing evaluation is needed. It is recommended that the occupational therapist have advanced training in sensory processing disorders, as well and experience in treating individual within the individual's age range.

What should the evaluation include?

Informal or standardized testing; interview of the individual as well as parents or caregivers; and observation of the individual's response to different types of sensory input (if possible observation in their natural setting); Make sure to get a copy of the completed report and ask the therapist questions if you don't understand the results or recommendations. Ask the therapist if there are things you can do to modify the individual's environment to improve function and comfort within the home and other settings.

What kinds of services are available?

Depending on the severity, services may be provided through 1) consultation to assist in implementing strategies or a sensory diet* or 2) direct treatment in therapy. It may be helpful to observe therapy so that activities may be continued within the home or other natural settings. It is always helpful to have follow up for consultation services to ensure the strategies or sensory diet is having the desired effect/results.

* a "sensory diet" is prescribed activities at specific times of the day to meet the individual's sensory needs. A sensory diet should be individualized and therefore should not be used with other individuals.

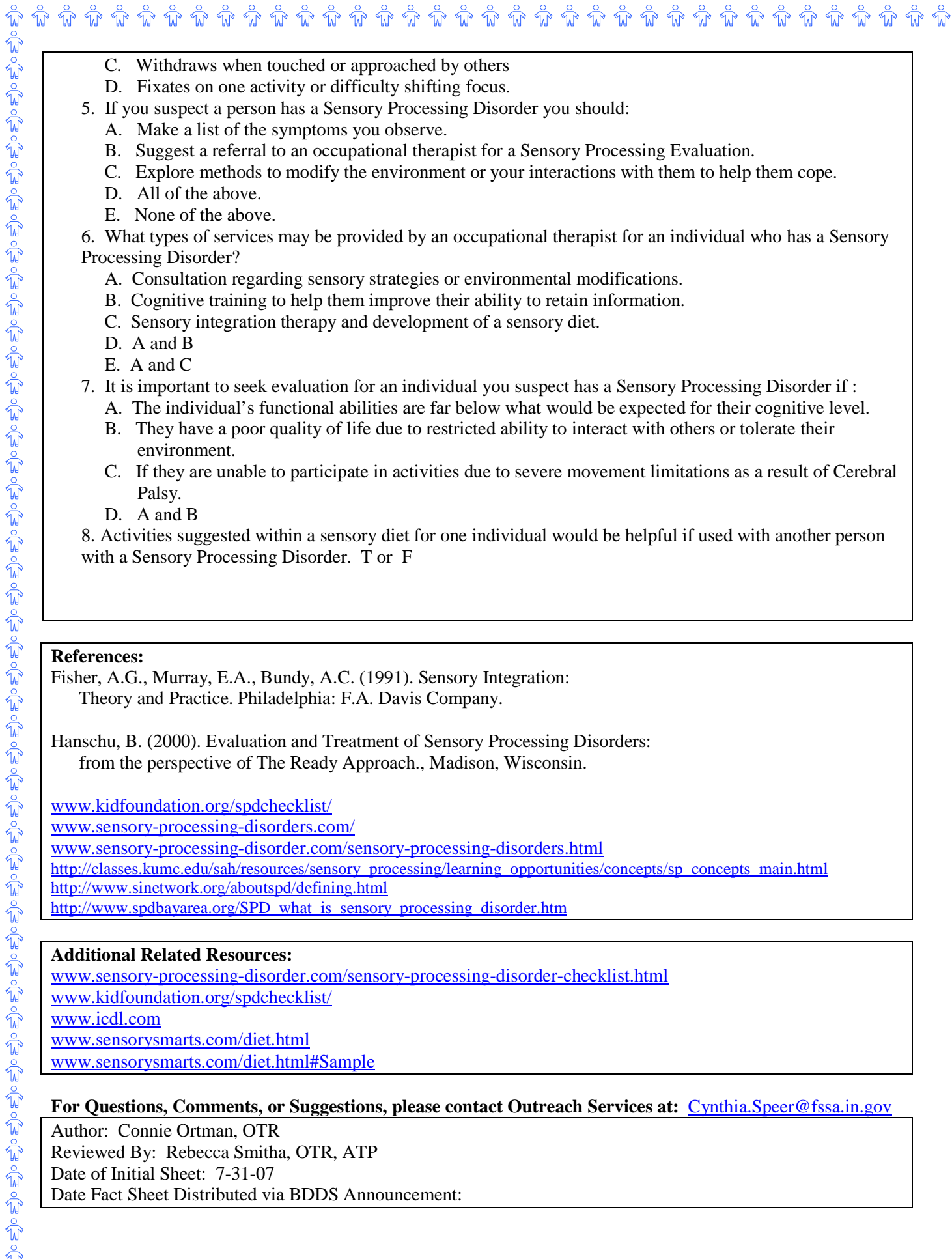
What types of activities may be included in treatment?

Sensory integrative therapy uses many types of equipment to provide sensory input. Swings, ball pits, mini trampoline, vibrators, therapy balls are commonly used. Activities that include pushing, pulling, lifting and carrying provide "heavy work". If the individual is defensive specific treatment involving therapy brushes and joint compression may be incorporated in treatment and taught to care providers to use at home. Active participation and the "just right" challenge are important components to sensory integration therapy.

What is the goal or desired outcome of treatment? The overall goal is to improve the individual's ability to function within their environment, but is specific to the individual. These might include decreased anxiety or fear, increased independence in self care, improved communication, improved coordination, or greater flexibility and ability to adapt to change.

Learning Assessment (Questions that can be used to verify a person's competency in the material contained in this Fact Sheet):

1. Sensory Processing occurs in all people throughout their lifetime. T or F
2. Identify the statement that is **FALSE** when referring to normal sensory processing.
 - A. People with normal sensory processing can have periods of time when they feel overwhelmed by incoming sensory information.
 - B. Normal sensory processing results in a "maladaptive response".
 - C. It is normal for infants to have difficulty with self regulation.
 - D. Illness, lack of sleep, stress, or alcohol may impair a person's sensory processing.
3. Examples of activities that may be used in therapy include all but one of the following:
 - A. Swinging, bouncing on a mini trampoline, crawling through a ball pit
 - B. "Heavy work" pushing, lifting, or carrying objects
 - C. Brushing with a sensory brush and joint compressions
 - D. Activities that are too challenging for the individual to complete successfully
4. Which is NOT a symptom of a Sensory Processing Disorder?
 - A. Blindness
 - B. Becomes upset with even minor changes in routine.

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- C. Withdraws when touched or approached by others
D. Fixates on one activity or difficulty shifting focus.
5. If you suspect a person has a Sensory Processing Disorder you should:
A. Make a list of the symptoms you observe.
B. Suggest a referral to an occupational therapist for a Sensory Processing Evaluation.
C. Explore methods to modify the environment or your interactions with them to help them cope.
D. All of the above.
E. None of the above.
6. What types of services may be provided by an occupational therapist for an individual who has a Sensory Processing Disorder?
A. Consultation regarding sensory strategies or environmental modifications.
B. Cognitive training to help them improve their ability to retain information.
C. Sensory integration therapy and development of a sensory diet.
D. A and B
E. A and C
7. It is important to seek evaluation for an individual you suspect has a Sensory Processing Disorder if :
A. The individual's functional abilities are far below what would be expected for their cognitive level.
B. They have a poor quality of life due to restricted ability to interact with others or tolerate their environment.
C. If they are unable to participate in activities due to severe movement limitations as a result of Cerebral Palsy.
D. A and B
8. Activities suggested within a sensory diet for one individual would be helpful if used with another person with a Sensory Processing Disorder. T or F

References:

Fisher, A.G., Murray, E.A., Bundy, A.C. (1991). Sensory Integration: Theory and Practice. Philadelphia: F.A. Davis Company.

Hansch, B. (2000). Evaluation and Treatment of Sensory Processing Disorders: from the perspective of The Ready Approach., Madison, Wisconsin.

www.kidfoundation.org/spdchecklist/

www.sensory-processing-disorders.com/

www.sensory-processing-disorder.com/sensory-processing-disorders.html

http://classes.kumc.edu/sah/resources/sensory_processing/learning_opportunities/concepts/sp_concepts_main.html

<http://www.sinetwork.org/aboutspd/defining.html>

http://www.spdbayarea.org/SPD_what_is_sensory_processing_disorder.htm

Additional Related Resources:

www.sensory-processing-disorder.com/sensory-processing-disorder-checklist.html

www.kidfoundation.org/spdchecklist/

www.icdl.com

www.sensorysmarts.com/diet.html

www.sensorysmarts.com/diet.html#Sample

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