Sensory Integrated Imagery

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Sensory integration (SI) refers to how people use the information provided by all the sensations coming from within the body and the external environment. We usually think of senses as separate channels of information, but they actually work together to give us a reliable picture of the world and our place in it. The human brain uses information about sights, sounds, textures, smells, tastes, and movement in an organized way that will create and assign meaning to the sensory experiences. Thus one will know how to respond and behave accordingly.

As a natural part of typical development, children process, interpret and respond to sensory information. Well-regulated sensory systems can contribute to important developmental outcomes in social-emotional-physical communication, self-care and cognitive-adaptive skill development.

For most of us, sensory integration occurs without conscious thought or effort. For others, sensory integration happens inefficiently. A sensory processing disorder is a condition in which the brain has trouble receiving and responding to information that comes in through the senses. The neurological disorganization resulting in SI occurs in three different ways:

1. The brain does not receive messages due to a disconnection in the neuron cells;

2. Sensory messages are received inconsistently; or sensory messages are received consistently, but do not connect properly with other sensory messages.

3. When the brain purely processes sensory messages, inefficient motor, language, or emotional output is the result.

People with sensory integration dysfunction have great difficulty figuring out what is going on inside and outside their bodies. There's no guarantee that the sensory information they're working with is accurate and they are oversensitive to things in their environment. Common sounds may be painful or overwhelming. The light touch of a shirt may chafe the skin. Others with sensory processing disorder may:

* Be uncoordinated

* Bump into things

* Be unable to tell where their limbs are in space

* Be hard to engage in conversation or play
The presence of a sensory integration disorder is typically detected in young children. While most children develop SI during the course of ordinary childhood activities, which helps establish such things as the ability for motor planning and adapting to incoming sensations, others' SI ability does not develop as efficiently. When their process is disordered, a variety of problems in learning, development, or behavior become obvious.

According to Sensory Integration International (SII), a non-profit corporation concerned with the impact of sensory integrative problems on people's lives, the following are some signs of sensory integration disorder (SID):

* oversensitivity to touch, movement, sights, or sounds
* underactivity to touch, movement, sights, or sounds
* tendency to be easily distracted
* social and/or emotional problems
* activity level that is unusually high or unusually low
* physical clumsiness or apparent carelessness
* impulsive, lacking in self-control
* difficulty in making transitions from one situation to another
* inability to unwind or calm self
* poor self-concept
* delays in speech, language, or motor skills
* delays in academic achievement

While research indicates that sensory integrative problems are found in up to 70% of children who are considered learning disabled by schools, the problems of sensory integration are not confined to children with learning disabilities. SID transfers through all age groups, as well as intellectual levels and socioeconomic groups. Factors that contribute to SID include: premature birth, autism and other developmental disorders; learning disabilities; delinquency and substance abuse due to learning disabilities; stress-related disorders; and brain injury. Two of the biggest contributing conditions are autism and attention-deficit hyperactivity disorder (ADHD).

In my view, as a physical and health educator, Health-Fitness Education is one of the most important educational subjects to influence, maintain and improve people’s (any
age) physical, emotional and learning abilities (Experience your body the way it is meant to be).

Motor skill training methods that normally consist of adaptive physical education, movement education, and gymnastics are often used by occupational and physical therapists. While these are important skills to work on, the sensory integrative approach is vital to treating SID. This approach is guided by one important aspect—one’s motivation in selection of the activities. By being actively involved in choosing and exploring activities that provide sensory experiences most beneficial for a target population, they become more mature and efficient at organizing sensory information.

The era of health care reform has placed a great emphasis on brief therapies, behavioral health, and alternative practices involving the cooperative relationship of the therapist, and the active participation of the client (Elliott, 2003). It appears that interaction among genetic, biochemical, environmental and psychosocial factors may play a role in learned adaptive responses, which can be unlearned, and what has been forgotten can be remembered. When one’s body and brain can communicate well about information coming from any of the seven senses, the input becomes clear and resourceful. With improvement of the sensory motor learning abilities, one can develop skills and knowledge not to fight, but to meet the challenges of life without fear and uncertainty.

“Imagination is more important than knowledge. Knowledge is limited while imagination embraces the entire world-----Albert Einstein.”

Resources:


4. Sensory Integration International/ The Ayres Clinic. 1514 Cabrillo Avenue, Torrance, CA 90501-2817.

