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PHOTOS BY GARY W. GREEN/ORLANDO SENTINEL

Jack Walter, 5, swings during a sensory-processing therapy session at Pediatric Potentials Rehab in Longwood recently.

MAKING SENSE OF THE **senses**

By Sandra Pedicini
Sentinel Staff Writer

Some children cover their ears in terror at the sound of a vacuum cleaner or blender. Others cry if they feel sand in their shoes, or scream when confronted with a new place.

The conduct is often described as anxiety or a behavioral problem. But some occupational therapists say it can have a physical cause: The brains of many of these children are different and can't correctly handle information.

The therapists call the condition sensory-processing disorder. An advocacy group is trying to get the American Psychiatric Association to include the condition in its official manual of mental disorders.

But for now, the label -- covering everything from clumsiness to picky eating -- remains controversial. So does treatment offered at clinics such as Pediatric Potentials Rehab in Longwood.

Therapists at the clinics oversee children who play on steps, swings and ladders. They say the play therapy is more complex than it appears, helping children's brains learn to handle sensations.

Kelli Arnone, co-owner of Pediatric Potentials Rehab, said the therapy matures children's nervous systems. "I'm trying to get the senses to work more efficiently," she said.

The therapy -- generally begun after an evaluation to determine whether the child has sensory processing disorder -- can be pricey -- often more than \$100 an hour. It's a cost that insurers will often, but not always, help pay.



PHOTOS BY Gary W. Green, Orlando Sentinel
Occupational therapist Kelli Arnone, Director and co-owner of Pediatric Potentials Rehab, Inc. in Longwood, works with Ty Crafton.

At first glance, the children at Pediatric Potentials Rehab look as though they are playing on playgrounds right out of a Salvador Dali painting.

One swing cradles children in a spandex cocoon that can calm them, but also give them opportunities to spin and pretend to fly. Five-year-old Jack Walter of Casselberry plays in another swing that brings to mind a Dr. Seuss hat.

Jack runs around the room with his arms outstretched. He doesn't answer when a therapist asks whether he would like to swing. "Yes or no," she prompts.

"I can't stop running," he said.

He then clammers onto another swing -- something he wouldn't do when he first went there, therapy assistant Kaela Hamm said, because the movement bothered him.

His mother, Julie, said Jack also had extreme reactions to noise and new situations. "Places like Chuck E. Cheese, he just could not handle," she said. Walter said she finally realized she needed to find help when she took Jack to a program at a gym and had to leave when he "screamed like it was the end of the world." Now, Walter said, "he seems to be able to take in new situations easier than before.

Arnone's 7-year-old clinic also includes treatment with "therapeutic listening" that she said stimulates nerves with tones and can encourage body awareness.

Therapy isn't for every child who displays some of the wide range of symptoms, therapists say. It's when the problems are chronic and disrupt everyday life that therapy is needed.

Still, what some therapists call sensory processing disorder could often be anxiety or behavioral problems, said Peter L. Heilbroner, a New Jersey child neurologist and author.

"To say 'My child has sensory issues' -- somehow that sounds more fashionable or exotic," he said.

Some pediatricians, though, have become believers -- including Dr. Mark Roque of Lake Mary Pediatrics, who brought his son Nathan, now 10, to Pediatric Potentials Rehab about a year and a half ago. Nathan had difficulty with handwriting and couldn't tie his shoes -- skills that his father said improved after therapy that included work with beads and shoelaces. "I think we're just scratching the surface when it comes to this stuff," Roque said.



PHOTOS BY Gary W. Green, Orlando Sentinel
Jack Walter, during a sensory-processing therapy session at Pediatric Potentials Rehab.

Roque acknowledges the controversy surrounding sensory processing disorder and its treatment -- "it's a nebulous kind of diagnosis," he said. "There's really no blood work or MRI that's going to tell you these certain things."

An occupational therapist and psychologist named A. Jean Ayres pioneered study of the disorder, then called sensory integration dysfunction, doing much of her work in the 1960s and 1970s. Now researcher Lucy Jane Miller, who studied under Ayres, has become a leading champion of the therapy.

Miller, a former associate professor of pediatrics at the University of Colorado's medical school, is leading the effort to get the disorder labeled an official mental condition.

She maintains that real differences exist between children with sensory-processing disorder and more typical kids.

In a book published last year, Miller detailed studies she has done with children put into a room designed as a spaceship. In this environment, children were hooked to electrodes that measure sweat on their hands and heart rates as different sensations were produced, such as chairs tipping backward and school bells sounding. Other research has measured brain activity with EEGs, Miller said.

Warning Signs

Experts say that simply exhibiting one or two symptoms does not necessarily indicate a problem; it is when symptoms are chronic and interfere with daily life that therapy may be recommended.

Here are a few symptoms:

- Shies away from touch.
- Covers ears and complains about loud noises.
- Has language processing problems, such as giving answers unrelated to questions.
- Runs, swings, spins, paces excessively or flaps hands when excited.
- Objects to changes in routine; falls apart during transitions.

SOURCE: Pediatric Potentials Rehab Inc.

More studies are needed so that the therapy won't be considered such a "voodoo thing," said occupational therapist Heather Gray. But Gray has seen growing acceptance, as pediatricians and other health professionals refer parents.

Many children deemed to have the disorder also suffer from more medically accepted conditions, such as autism and attention-deficit disorder.



PHOTOS BY Gary W. Green, Orlando Sentinel

Ty Crafton 2, of Howey-in-the-Hills climbs on top of a slide during a therapy session at Pediatric Potentials Rehab. Ty has sensory difficulties along with a pervasive development disorder.

Toddler Ty Crafton has sensory difficulties along with a pervasive development disorder "on the autism spectrum," his mother, Teri, said.

At Pediatric Potentials Rehab, Ty jumps on a bean bag. "Go, go, go," Ty gently urges Arnone, as the two rock together on a long brown swing that looks like a balance beam suspended from the ceiling.

He makes his way into a padded barrel. His mother said he used to plunge in head first, with no regard to safety.

"He's becoming more aware of his senses," she said.

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