SIT, popular autism treatment, lacks scientific evidence

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(Medical Xpress)—One of the most popular intervention therapies for children with autism spectrum disorders (ASD) lacks scientific support according to a literature review published by University of Texas at Austin professor Mark O'Reilly and an international team of scientists.

The researchers reviewed 25 major studies on sensory integration therapy (SIT) to see if the current evidence base supports use of this therapy in the education and rehabilitation of children on the autism spectrum. Their conclusion that research does not support the use of SIT means providers who work with children with ASD will need to reassess their education and treatment strategies.

Many agencies serving children on the autism spectrum are mandated to use research-based, scientifically valid interventions, but several previous surveys indicate SIT remains one of the most common intervention choices. In one study, 99 percent of interviewed occupational therapists reported using it.

"According to the Diagnostic and Statistical Manual of Mental Disorders , or DSM, a person has to have severe communication and social deficits as well as restrictive and repetitive behaviors to be diagnosed with ASD," said O'Reilly, interim chair of the College of Education's Department of Special Education. "SIT was proposed as a way to help with these symptoms. Rigorous, methodologically sound studies do not indicate that it helps and, in fact, the majority of studies that were reviewed reported no benefits for children with ASD."

Because many children on the autism spectrum have abnormal responses to auditory, visual, tactile and oral stimuli, sensory integration therapy is designed to offer specific forms of sensory stimuli in the appropriate amounts, with the aim of improving how the nervous system processes sensory stimuli. Therapists who use SIT may have a child with ASD wear a weighted vest, swing, sit on a bouncy ball, or be compressed between pillows, said Dr. Russell Lang, lead investigator in the SIT literature review.

"Many researchers have pointed out that SIT may actually lead to an increase in undesirable behavior because it gives children who exhibit unwanted behavior access to fun activities, more attention from therapists and breaks from less desirable tasks like schoolwork," said Lang, executive director of Texas State University's Clinic for Autism Research, Evaluation and Support. "It also can undermine the effectiveness of research-based behavioral interventions that the therapist is administering at the same time."

According to experts, the only scientifically valid treatment and intervention for individuals on the autism spectrum is applied behavior analysis. The University of Texas at Austin's Department of Special Education, of which Lang is an alumni, is one of only a few in the nation that trains graduate students in this therapy. With applied behavior analysis, the therapist teaches children age-appropriate skills and offers systematic, repetitious positive reinforcement for desired behaviors.

"The American Academy of Pediatrics, the premier professional organization for pediatrics, recently issued a policy statement which offers similar cautions regarding a lack of research support for SIT with this population," said O'Reilly.

The literature review was published in the international journal *Research in* Autism Spectrum Disorders and was co-authored by scientists from

the United States, Ireland, Italy, New Zealand and The Netherlands.