

December 14, 2011

David Hanekom, MD
Vice President of Medical Management
Blue Cross Blue Shield of North Dakota
4510 13th Ave S
Fargo, North Dakota 58121

RE: Draft Medical Policy - Sensory Integration Therapy

Dear Dr. Hanekom:

I am writing on behalf of the American Occupational Therapy Association, which represents the interests of 140,000 occupational therapy professionals in the United States, including researchers, educators, and practitioners. Occupational therapy practitioners provide a range of occupational therapy interventions including occupational therapy using a sensory integration approach to persons with developmental disabilities such as autism. A representative from the North Dakota Occupational Therapy Association (NDOTA) alerted us to the opportunity to submit comments regarding the Draft Medical Policy – Sensory Integration Therapy. AOTA is deeply concerned that the Draft Medical Policy does not reflect a comprehensive understanding of the concepts related to sensory integration. Further, we are also concerned that the Draft Medical Policy does not include relevant research supporting the use of a sensory integration approach. We disagree with the conclusion that “sensory integration is considered investigational.” We respectfully urge Blue Cross Blue Shield of North Dakota not to adopt the Draft Medical Policy in light of these concerns and additional evidence supporting sensory integration.

AOTA would like to provide our comments on the Draft Medical Policy along with additional evidence supporting occupational therapy using a sensory integration approach.

I. Description

The Draft Medical Policy states:

Sensory integration therapy has been proposed as a treatment of developmental disorders in patients with established dysfunction of sensory processing, e.g., children with autism, attention deficit hyperactivity disorder (ADHD), brain injuries, fetal alcohol syndrome, and neurotransmitter disease. Sensory integration therapy may be offered by occupational and physical therapists who are certified in sensory integration therapy.

AOTA’s view is that sensory integration therapy (SIT) treats the sensory processing and motor problems which may be comorbid with other developmental problems. This distinction is important and it is not made in the Draft Medical Policy. In terms of the examples in the text above, although sensory based interventions may be used with clients with brain injuries and neurotransmitter disease, these are not the targeted populations for sensory integration.

The Draft Medical Policy states:

Two organizations currently offer certification for SI therapy; Sensory Integration International (SII), a non-profit branch of the Ayres Clinic in Torrence, California...

AOTA requests that this section be updated; the Ayres Clinic is no longer in operation and SII is no longer in business.

AOTA would like to take this opportunity to provide additional information about “sensory integration.” With permission from Teresa May-Benson, ScD, OTR/L, we include the following information developed in response to a draft Medical Policy by UnitedHealthcare.

A. Jean Ayres, PhD , OTR, developed her sensory integration (SI) theory grounded in neuroscience and originating from the work of Sherrington (1906, cited in Ayres, 1972) as well as occupational science which is the core of occupational therapy (American Occupational Therapy Association, 2009; Ayres, 1972; Blanche & Parham, 2001; Bundy & Murray, 2002; Kraemer, 2001; Parham, 2002; Smith Roley & Jacobs, 2008). Recent work by Miller (Mangeot et al, 2001; Miller, Coll, & Schoen, 2007; Miller et al, 1999; Miller, Reisman, McIntosh, & Simon, 2001, McIntosh, Miller, Shyu, & Hagerman, 1999) and others (Davies & Gavin, 2007; Davies & Tucker, 2010) as well as a recent review of the neuroscience literature (Schaaf & Lane, 2010) supports the underlying theoretical premise of sensory integration theory that processing and integration of sensations is related to motor, behavior, emotion, and attentional responses...

Further, research on environmental enrichment (which involves provision of increased opportunities for sensory and motor activities) has found improved locomotor behavior and ventricular volume in mice (Kolodny, Berger-Sweeney, 2009) as well as increased dendritic growth and changes in behavior (Reynolds, Lane, & Richards, 2010). Further information on the foundations of Sensory Integration and how it is presently used in occupational therapy practice can be found in the Occupational Therapy Practice Guidelines for Children and Adolescents with Challenges in Sensory Processing and Sensory Integration (Watling, Koenig, Davies, & Schaaf, 2011) in the informational packet sent with this letter. This evidence-based practice guideline presents an overview of sensory integration theory and provides information on the occupational therapy process for children and adolescents with challenges in sensory processing and sensory integration.

AOTA urges Blue Cross Blue Shield of North Dakota to revise the description of sensory integration therapy included in the Draft Medical Policy. AOTA would be pleased work with Blue Cross Blue Shield of North Dakota and the North Dakota Occupational Therapy Association to draft a more contemporary description of sensory integration therapy to be included in a revised Draft Medical Policy.

II. Policy Criteria & Rationale

The Draft Medical Policy states:

Sensory integration therapy is considered investigational.

Members must consult their applicable benefit plans or contact a Member Services representative for specific coverage information.

AOTA is deeply concerned with the identification of sensory integration as investigational. AOTA would like to present recent additional evidence related to sensory integration/sensory

processing.

Two randomized studies that AOTA adduces as evidence were conducted by Pfeiffer, Koenig, Kinnealey, Sheppard, and Henderson (2011) and Fazlioglu and Baran (2008). These studies included 37 and 30 children with autism spectrum disorder (ASD), respectively, with random assignment to either a several-week sensory integration treatment condition or a control condition (a fine motor intervention or standard care control). In each of these studies, both pre-tests and post-tests were undertaken and important benefits for the SIT group were reported. Significant intervention effects included a reduction in sensory problems (Fazlioglu & Baran, 2008), diminished autistic mannerisms (Pfeiffer et al., 2011), and improvement in therapeutically identified goals in the areas of sensory processing, motor skills, and social functioning (Pfeiffer et al., 2011). While we acknowledge that the study by Pfeiffer and colleagues (2011) resulted in no difference between groups for the Quick Neurological Screening Test (QNST) as well as some of the sensory processing scales, improvements on the Goal Attainment Scaling represents improvements in functional performance on client-directed goals. It is noteworthy that these positive outcomes were not only statistically significant, but were also in some cases quite large in magnitude of effect (with Cohen's *d* exceeding 1.0). Therefore, based on these two studies alone, it is clear that SIT should not be deemed "investigational."

The positive conclusion regarding SIT's efficacy that stems from the above randomized controlled studies is further buttressed by a within-subjects ABAB-type experimental investigation conducted by Smith, Press, Koenig, and Kinnealey which, although published in 2005, was also not included in either the two systematic reviews mentioned in the draft proposal (Case-Smith & Arbesman, 2008, May-Benson & Koomar, 2010). In this study, 7 children were administered a control intervention (tabletop activities) or SIT for 30 minutes daily during alternating weeks over a four-week period. During the SIT phases, in comparison to the control phases, the participants engaged in fewer self-stimulating behaviors as recorded over a 15-minute period commencing one hour following the experimental sessions. In considering the evidence for sensory-based approaches, it is important to note that SIT, as commonly administered by occupational therapists, is typically applied for a minimum of several weeks (with multiple sessions per week) and involves systematically directed individualized participation in a variety of sensory-enriched activities (e.g., tactile, vestibular, proprioceptive).

This recent information shows that experimental investigations have demonstrated that sensory-based treatment approaches, like those utilized by occupational therapists, produce favorable outcomes in children with ASD. This new evidence supports SIT as an intervention with positive outcomes that enhances the lives of children and families, and that it should be supported, particularly as a treatment option for children with ASD. Consequently, it would be a disservice to label sensory integration as investigational.

AOTA supports the work of its members who provide occupational therapy intervention using a sensory integration approach. It is our belief that there is value in sensory integrative practices to enhance the lives of some individuals with disabilities such as autism spectrum disorder, ADHD, dyslexia, learning disabilities, prematurity, fetal alcohol syndrome, fragile X syndrome, and specific language disorder. We believe that it is unfortunate that the Draft Medical Policy on sensory integration did not include significant valuable research findings available regarding

occupational therapy and sensory integration. We hope that you will consider the full scope of this additional research and we respectfully request Blue Cross Blue Shield of North Dakota not to adopt the Draft Medical Policy.

We bring this information to your attention in hopes that there will be a continuing dialogue about this issue that considers all relevant current and emerging research to develop the best policies to meet the needs of children and families covered by Blue Cross Blue Shield of North Dakota.

III. Practice Guidelines and Position Statements

The last section of the Draft Medical Policy includes information about practice guidelines and position statements. We appreciate the reference to the AOTA document *Providing Occupational Therapy Using Sensory Integration Theory and Methods in School-Based Practice*. AOTA's statement recognizes sensory integration "as one of several theories and methods used by occupational therapists and occupational therapy assistants working with children in public and private schools to improve a child's ability to access the general education curriculum and to participate in school-related activities." We would like to take this opportunity to state that AOTA further believes that occupational therapy using a sensory integrative approach is effective and reliable across a variety of settings including in homes and the community and can be provided throughout the lifespan.

AOTA Press recently published the AOTA Practice Guideline *Occupational Therapy Practice Guidelines for Children and Adolescents with Challenges in Sensory Processing and Sensory Integration*. We have included a copy of this new guideline as a resource for Blue Cross Blue Shield of North Dakota as it considers the Draft Medical Policy.

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Thank you for the opportunity to provide comments on the Draft Medical Policy – Sensory Integration Therapy. AOTA requests that due consideration be given to these comments and to the articles and practice guideline that we have submitted.

AOTA requests Blue Cross Blue Shield of North Dakota not to adopt the Draft Medical Policy in light of these concerns and additional evidence supporting sensory integration.

We urge Blue Cross Blue Shield of North Dakota to engage in a dialogue about the Draft Medical Policy – Sensory Integration Therapy with representatives from the North Dakota Occupational Therapy Association. Representatives from AOTA, including experts in the evidence supporting occupational therapy using a sensory integration approach, would be pleased to join a discussion about the policy if that would be helpful.

Please contact me at 301/652-6611, extension 2019 or via email at cwillmarth@aota.org if you have questions or need additional information.

Sincerely,



Charles Willmarth
Director, State Affairs and Reimbursement & Regulatory Affairs

References

American Occupational Therapy Association. (2009) Providing Occupational Therapy Using Sensory Integration Theory and Methods in School-Based Practice. *American Journal of Occupational Therapy*, 63, 823–842.

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