

## **Evidence and Research Supports the *Sensory Connection Program***

The *Sensory Connection Program* is primarily a sensory modulation treatment program designed to help adults and adolescents in mental health to self-regulate. The *Sensory Connection Program* features worksheets, handouts, games and activities that can make implementation of sensory approaches more successful. It also offers self-regulation education and activities in the context of group treatment where people can learn about sensory strategies but also practice them and share ideas.

The research proving the efficacy of sensory modulation approaches is well documented and rapidly growing. Scanlan and Novak (2015) did a scoping review (summary of new research areas) regarding sensory approaches; a total of 17 studies were included in the final review. A range of sensory approaches were evaluated. In general, service users in all of the studies reported they were useful for self-management of distress. Positive outcomes demonstrated that adopting sensory approaches may help reduce behavioral disturbances, empower staff and consumers to build positive relationships and provide simple positive and inexpensive strategies that can be used post discharge. According to Sutton and Nicholson (2011) sensory based treatment has been identified as an effective treatment approach for clients who are distressed, anxious, agitated, or potentially aggressive and as an alternative for more coercive actions; they also determined that sensory modulation approaches are particularly helpful for people with trauma histories, PTSD, and self-harming behaviors.

To help regulate emotions, *Sensory Connection Program* uses sensory modulation practices featured in the studies reviewed by Scanlan and Novak (2015) and other studies that attest to the efficacy of these approaches. Practices include sensory screening and assessment, exploration of sensory tools and equipment, development of individualized sensory diets, creating personalized sensory kits, the use of sensory rooms and carts, modification of the environment and education of clients, families and care providers (Champagne, 2003, 2006; Champagne & Stromberg, 2004, Costa et al, 2006; LeBel et al, 2010, Lebel & Champagne, 2010; Lindley and McDaniel, 2005; Martin & Suane, 2012; Smith & Jones, 2014; Sutton & Nicholson, 2011).

The *Sensory Connection Program* has been grounded in the latest theory, research and literature since its conception. It began with an article by Lorna Jean King (1974) who spoke about the use of sensory modalities, including a group, with people with schizophrenia. I decided to try a sensory based group at the Worcester State Hospital, where I worked at the time. I became fascinated by the results of the sensory input: patients clearly enjoyed it, they began making better eye contact, postures improved and they started laughing and engaging with one another. Because of that experience I went on a quest to discover as much as I could about sensory interventions.

At the time there was no one, other than King, that I knew of using sensory techniques in mental health settings. I began attending lectures on sensory integration given by leaders in the field including Josephine Moore, Jane Koomar, and Stacy Szklut. I even had an opportunity to go to a conference with Lorna Jean King and Temple Grandin. Judith Reisman and Bonnie Hanchu were doing some exciting work using sensory techniques with people with developmental disabilities and I went to Hanshu's lectures.

Early on I came across the work of Mildred Ross who had developed a sensory group for people with developmental disabilities. Her group was broken up into stages including a movement section which seemed to enhance the group process. I experimented with the idea of stages and movement activities to create a sensory motor group that met the needs of people with mental health issues. That group was fine-tuned over the years and eventually became the Sense-ability Group featured in my first book, *The Sensory Connection Program: Activities for Mental Health Treatment*.

I was also very interested in the phenomenon of sensory defensiveness and attended many lectures by Pat and Julia Wilbarger. I eventually did a study with a small group of women who were referred because of very difficult issues with self-harming behaviors as well as symptoms of sensory defensiveness. That study was eventually published in *Occupational Therapy in Mental Health*. That research into sensory sensitivities translated into activities and educational information included in all three of the *Sensory Connection Program Books*:

- How to Identify Adverse Sensory Stimulation in the *Sensory Connection Program: Activities for Mental Health Treatment*
- Minimizing Bothersome Sensory Experiences in the *Sensory Connection Program: Self-Regulation Workbook*
- Dealing with Bothersome Sensory Experiences in the *Sensory Connection Program: Curriculum for Self-Regulation*

The Acute Psychiatric Unit where I worked at UMASS Memorial in Worcester was designed around a cognitive model. There I became very interested in Claudia Allen's Cognitive Screen and Allen's Cognitive Disabilities Model . I attended numerous conferences given by Claudia Allen and the Allen Cognitive Network. I was an active participation in an AOTF funded study on Allen Cognitive Level Tests and the relationship to function and placement of adults with psychiatric illness post discharge. This was a Worcester area study led by Alexis D. Henry, ScD, OTR/L and Professor Deane McCraith from Boston University Sergeant College. I studied the relationship of Allen Cognitive Level Screening results and demographics, diagnosis and disposition on the UMASS Acute Psychiatric Unit resulting in publication in the *American Journal of Occupational Therapy*. This research translated into the way groups are designed in the *Sensory Connection Program* and I believe is partly responsible for the success of those groups because they meet the cognitive capabilities of the participants and provide the support needed for them to engage effectively in sensory modulation activities. The Sense-ability Group is designed for ACLS 3.8 – 4.8. The Coping Through the Senses Group is designed for ACLS 5.0 and higher. *The SCP Curriculum for Self-Regulation* has a great deal of flexibility in the activities offered and can be used for people with a wide range of cognitive abilities ranging from ACLS 4.2 to 5.8. Background information on cognition and the ways it can support or interfere with treatment is provided in the *SCP: Activities for Mental Health Treatment* book and in the *SCP: Curriculum for Self-Regulation*.

Many of the studies that support the efficacy of sensory approaches for self-regulation and restraint and seclusion reduction emphasize the importance of educating staff about sensory modulation theory and treatment so that they can feel comfortable and competent using sensory techniques and also support safe use of these modalities (Champage, 2006; Champagne and Stromberg, 2004, Lee, et al 2010; Martin

& Suane, 2012; Sutton & Nicholson, 2011). All *Sensory Connection Program* books provide background information on the senses, information on self-regulation and a plethora of real life examples and stories to help with the education of staff and clients. The *SCP: Activities for Mental Health Treatment* provides a training packet including a training outline. In the *SCP: Workbook for Self-Regulation*, learning segments are provided to help users understand concepts such as self-regulation and crisis intervention. Besides the background information and leader preparation components, the *SCP: Curriculum for Self-Regulation* features a “Teaching Focus” section for each group activity to help group leaders and to model ways to convey the information to group participants.

Work of Stephen Porges is highly integrated into the *Sensory Connection Program* approach to treatment. It helps inform the latest thinking about self-regulation and arousal. I became interested in the work of Porges because it expanded old ways of thinking regarding arousal and the stress response system. His social engagement theory made sense to me because it reflected the approaches to self-regulation suggested by occupational therapists including Oetter, Ritcher and Frick in their book *MORE: Integrating the Mouth with Sensory and Postural Function*. The work of Porges also supports the theory and research behind Frick’s Therapeutic Listening and other sound based interventions. Porges (2001) recent advances in neurophysiology explain why “top down” cognitive strategies and verbal de-escalation have been shown to have limited effectiveness and “bottom-up” approaches like sensory strategies and body oriented therapies are effective when people are in emotional crisis (Sutton et al, 2013). The “Pause-Connect-Engage” strategy to teach self-regulation used in the *SCP: Curriculum for Self-Regulation* is designed around the latest research of Porges ( Porges, 2004; Porges, 2007; Porges, 2009; Porges, 2011).

All of the sensory strategies recommended throughout the *Sensory Connection Program* books have been carefully chosen based on information from leaders in the field of Sensory Integration including Jean Ayres (1979). Much of our initial understanding of vestibular stimulation and its impact on therapy comes from Ayres. Shiela Frick and her colleagues (1994) have led the way in occupational therapy with sound interventions, research that is also supported by Stephen Porges (2008). Oetter, P., Richter, E., & Frick, S. (1995) have informed us of oral motor interventions and how they impact our ability to self-regulate. Weight interventions, especially the weighted blanket, have been studied by Tina Champagne and others (Mullen, et al, 2008; Olson, & Moulton, 2004a & b; Walker & McCormack, 2002; Vandenberg, 2001). Temple Grandin (1992) with her work with Lorna Jean King and the “squeeze machine” has informed us about the power of deep pressure touch. These are just a few examples of the research behind the individual senses and how they can be used for sensory modulation purposes. See my full list of references to see the extensive list of references on internal and external sensory stimulation.

Feedback from facilities and programs using the *Sensory Connection Program* has been very positive and therapists and staff members feel the activities are easy to use and effective as ways to implement sensory approaches to treatment.

Even though there has been a fair amount of research supporting the use of sensory modulation treatment there are no studies as of yet entirely devoted to the *Sensory Connection Program*. One difficulty is that the program is not intended to stand alone as a single intervention in mental health. It is

designed to complement and enhance other interventions. The focus of the *Sensory Connection Program* is on self-regulation skills and stress management. One potential way to measure efficacy would be to show that the *Sensory Connection Program* groups and activities make clients feel more competent in their ability to self-regulate. The newest addition to *Sensory Connection Program* products, The *SCP: Curriculum for Self-Regulation* would be the easiest to measure in this regard and includes several rating scales for that purpose. There has been interest in doing studies on the SCP in this country and in Australia and New Zealand, but to the author's knowledge, nothing has been published.

For more information on the research supporting sensory approaches see the article, **Following the Evidence: Sensory Approaches in Mental Health** available on the *Sensory Connection Program* website.