

TRUE TALES

CASE STUDY SPOTLIGHT



Massage + Proprioceptive Dysfunction

When Rachel Benbow first started working with her client—a 5-year-old girl with high-functioning autism and proprioceptive dysfunction—she'd known the girl and her mother for a very long time. “I had detailed knowledge of the client’s development since birth,” she says. “I was well aware of both the joys and challenges the mother faced as she tried to help her child catch up with delayed developmental motor skills. I was also aware of the alarm proprioceptive dysfunction could cause the client.”

The Plan

The client's age and language delays meant she wasn't able to express desired goals for the massage therapy sessions, Benbow says, but her mother was interested in seeing if massage could help her child's autism, proprioceptive dysfunction and delayed gross motor skills. "She wanted to know if massage therapy would reduce the time it would typically take for the client to successfully learn and apply new gross motor skills," she adds.

With the client's mother, Benbow was able to create a list of potential testing activities that were challenging for the client. "The mother also helped choose Dr. Seuss and Curious George books that were read to the client before each pre- and post-massage testing period," she explains.

Eight 40-minute massage therapy sessions, consisting of 30 minutes of Swedish massage techniques and 10 minutes of foot reflexology, were administered twice a week over four weeks. "There was a minimum of one day between sessions so the client's body and neurological system had time to integrate the effects of the massage work," Benbow explains. "The protocol was designed to be simple and flexible because of the client's ASD special needs, and was initially comprehensive to allow for adaptation and elimination."

Most of the massage treatment protocol comprised a repetitive combination of compressive gliding strokes, transverse elongation strokes, kneading-torsion strokes and transverse lifting strokes, Benbow explains. "These firm pressure strokes were specifically chosen so the client's proprioceptive system could be stimulated via the activation of muscle spindles," she adds.

The Results

Proprioceptive abilities were monitored both pre- and post-massage using testing activities that included single-foot balancing, jumping rope, back-and-forth ball bouncing between client and therapist, and independent ball dribbling. Benbow made video recordings of the tests for post-testing analysis.

"Balance was tested using a rating scale of 1 to 5 designed to record the client's stability over every

five-second period she could stand on a single foot," Benbow explains. "The numbers in the scale related to the amount of lateral sway deviation from the midline using a postural analysis grid chart behind the client reference point."

Benbow was able to gauge the client's bilateral coordination, motor control, motor planning and postural stability by recording the number of times the client could successfully jump over the rope during a testing session. Postural stability was also tested by back-and-forth ball bouncing and independent dribbling, which also required the client be able to move her hand and arm through space to contact the ball.

"The client displayed significant improvement in proprioception with the application of eight regular massage sessions over a four-week duration," explains Benbow. "She learned tasks at a much faster rate than her usual learning curve of months or years. Proprioceptive progress was demonstrated by gains in gross motor skills pertaining to postural control, overall body coordination and use of force."

For example, Benbow adds, although the jump rope test was never able to provide statistical data because the client couldn't successfully jump the rope, within the eight massage sessions, the client moved from a completely maladaptive method of jumping rope to mechanics and posture that were almost correct.

Words of Wisdom

When working with children with autism and proprioceptive dysfunction, Benbow advises massage therapists be ready to adapt a massage therapy session and the techniques they use on the spur of the moment. "For such clients, sensitivities or tolerance to temperature, smells, light, sheet texture, lubricant amount and type, pressure of massage stroke, and areas that are being massaged are all variables that can change from day to day or even moment to moment within a massage session," she explains.

Remember, Benbow adds, that children with autism and proprioceptive dysfunction are often amazing and intelligent individuals. "They deserve our help, our respect and our love," she says. ☉



EXPERT PROFILE

Rachel Benbow, LMT, BA, MLIS, is a licensed massage therapist, craniosacral therapist and Reiki master. She is the Grand Prize Gold Award Winner of the 2015 Massage Therapy Foundation Case Report Contest, and hopes to soon have her case report, "Effect of Massage Therapy on the Proprioceptive System of an Autistic Child—A Case Study," published in a peer-reviewed journal. Benbow has her own private practice in Harrisburg, Pennsylvania.