The HANDLE® Institute

CASE STUDY Seven-year-old girl with learning differences and anxiety

These case studies, each submitted by a Certified HANDLE® Practitioner, demonstrate outcomes achieved through implementation of an individualized HANDLE program. The acronym stands for the Holistic Approach to NeuroDevelopment and Learning Efficiency. The HANDLE paradigm for understanding behaviors and their root causes is thoroughly explained in *The Fabric of Autism: Weaving the Threads into a Cogent Theory*, by Judith Bluestone, the creator of HANDLE and the founder of The HANDLE Institute. For intimate insights into client and family experiences of HANDLE, see *The Churkendoose Anthology*, with commentary by Judith Bluestone.

For each of the clients in these Case Studies, the practitioner began with a comprehensive assessment, the findings of which led to a Neurodevelopmental Profile, which in turn formed the basis for a program of activities complex in their neuroscientific premises and very simple to implement. Thereafter the client's program was modified about monthly in accord with changes achieved in the interim. Each client participates in twelve to fifteen activities regularly; the practitioner, in writing up the case study, names those activities in brief without the full details and explicit information each client-family receives in why and how to implement the program. Go to **www.handle.org** for more information.

Referral Concerns

The client came to the HANDLE Institute at seven years old. She was a bright, articulate, compassionate and fun loving little person. She was also struggling in her first grade classroom.

Emotional reactivity and difficulty managing transitions were longstanding issues for the client, reported her mother. However, these became especially problematic when she started formal schooling. Her mother reported that her school days were punctuated with tears, and occasional show-stopping tantrums, as she could become overwhelmed by the sights and sounds of the classroom. The fast pace of the school day proved especially distressing for her and she would sometimes retreat into an imaginary world of her own. Stress was evident as she tore papers into tiny bits or chewed her hair at her desk.

The client's thinking was, at times, inflexible. She could get "stuck" on certain ideas, seemingly stubborn to those trying to help her. Once stuck, she had difficulty devising solutions to her problems until she was able to distance herself from them with time. Attempts to control her environment to reduce her anxiety were construed as oppositional by her teacher.

As if tantrums were not enough to isolate the client socially, her driving desire to touch things and others caused problems with her peers. "Busy hands," always on the move during instruction, made her appear as if she wasn't listening and fleeting eye contact made reading social cues difficult for the client.

Despite her apparent intelligence, the client was beginning to fall behind her peers academically. Of primary concern was her writing ability. Gifted with an active imagination, creating stories and songs was a source of pleasure for her. However, committing them to paper was excruciatingly slow and physically painful due to the death grip with which she held her pencil. Even rotating the pencil in her hand to shift from the graphite to the eraser was a task for the client. She would typically drop the pencil and pick it up again to gain access to the eraser.

She often flat-out refused to write. When she did write, legibility was difficult as her writing was filled with letter reversals, uneven spacing and poor letter formation. As the rest of the class began incorporating accurate spelling into their writing, the client didn't seem able to break away from the phonetic "invented" spelling techniques that were taught to her in kindergarten.

Reading and math were not as problematic, but she often invented distractions during work time as she could not read or work at near point tasks for very long. Weak motor skills and disorganization lead to additional frustration. Although her teacher appreciated her exuberance and cheery smile, the client was described as a highly distractible and sometimes difficult child.

Background Information

The mother reported no difficulty in the client's birth process and she described her as "an easy baby." She became independent at an early age, and her curiosity was evident. She met her developmental milestones early, walking and speaking in multi-syllabic words by nine months.

As the client progressed through toddlerhood, hints of a developmental derailing began to appear, only to be recognized by her parents in retrospect. Since the client was their first child, they did not realize that her inability to dress herself, inconsistent success with toilet training, inability to peddle her tricycle, indifference to books and puzzles and formidable tantrums regarding her car seat were signs of anything more than the client's temperament.

Although her general disposition was upbeat and happy, the client could reach emotional extremes. "Terrible twos" lingered into three, four and five. The client's mother recalls her preschool teacher commenting that, at any given moment, the client was either the happiest or unhappiest child in the school.

"Marching to her own drummer" was the theme of her kindergarten year, and it was recommended that the client repeat kindergarten to be given some extra time to mature socially and emotionally. Given an August birthday, this seemed like a reasonable idea. Although her second year of kindergarten was much smoother, the academic demands of first grade set off a downward spiral of poor conduct and poor scholastic achievement.

Wanting help with a child that they knew to be caring and kind, the client's parents sought the advice of a child psychologist, as well as the school. Hoping for insight into the motivation behind their daughter's behavior, they instead received recommendations for drugs, remediation and behavior modification. Rejecting all these approaches, they began to look for alternatives when an ad for The HANDLE Institute caught their attention. They attended a Community Information Night to hear more. The client's mother comments, "I learned more about my daughter in this group presentation than I had in six hours of private consultation specifically focused on my daughter."

Observations

Vestibular (inner ear) irregularities surfaced quickly, including the need to move frequently in a rotating pattern, and nystagmus coupled with a sense of dizziness when using her eyes to track.

When asked to don a pair of glasses with one red lens and one blue lens, the client's view was red in one area, blue in another, in rather rapid succession, The client saw the white objects in the room as alternating from red to blue, indicating that both eyes were not teaming well. Additional tests revealed that the visual functions of tracking and binocularity were not operating optimally. Her eyes tended to move in a jerky fashion throughout the tracking test and they tired easily when focusing at near point. An auditory sequencing task indicated a decrease in processing upon hearing specific sounds, and it was noted that she retained last segments best.

Overflow movements of her fingers, head and mouth were detected and whole body responses were observed. The client lost track of her writing when her eyes were closed and she was unable to internalize, through muscle memory, a simple repetitive, movement pattern. The assessment revealed a weakness in the integration of the two hemispheres of the brain.

Conclusions

Several factors were suspected to contribute to the client's difficulties. Central was a history of multiple ear infections and associated high fevers, which probably caused weakness in the vestibular system. The vestibular system supports and regulates audition, balance, dynamic use of our eyes, feeling at ease with our bodies in space (proprioception), and having an appropriate state of readiness in our resting muscles. The client's history of motion sickness, as well as problems with balance, proprioception and visual functioning confirmed the conclusion that the vestibular system was underdeveloped.

For the client, this translated to physical awkwardness and she displayed timidity in the performance of motor activities. Consequently, she avoided many typical childhood games, retreating instead to the safety of solo fantasy play. In this, she missed important opportunities for social learning and did not stretch herself to enhance vestibular functioning as most children do naturally through play.

Among other causations, the client did not spend a significant amount of time in the crawling stage, a crucial period for the development of strong integration between the two hemispheres of the brain. This weakness was contributory to the many emotional shifts that the client experienced, and was holding her back from reaching her full learning potential.

The client also had unresolved tactile hypersensitivities, many of which interfered with normal grooming. It was not uncommon for the client to hit or act aggressively toward other children as a preschooler. She was particular about what she wore, seeking out comfortable clothing rather than fashionable ones. Socks often came home in her backpack rather than on her feet.

Tactile and kinesthetic irregularities were also found to impact the client's ability to express her thoughts in writing. She had difficulty sensing where her hand was and what movement it had made unless she monitored each movement visually. If she paid close attention to her hand, then she became frustrated at losing the ideas she had wanted to capture.

A weak suck reflex as an infant, coupled again with vestibular weakness, interfered with the healthy development of her visual functions. Academically, she sometimes lost her place while reading, her eyes tired quickly and she reversed letters and numbers. The systems supporting vision and her sense of position in space were not strong enough to support reading, math and general organization in an efficient way. Visual inefficiencies also caused the client to be somewhat oblivious to her surroundings. This, coupled with reduced muscle tone, diminished her ability to interpret facial expression and body language so integral to social interaction.

Recommendations

The client and her parents were taught a program specifically designed to address the observed irregularities. The program was dynamic, changing over time to accommodate the client's progress, and incorporating many treatment techniques.

Feeling validated for her struggle, and eager to have things going better for her, the client began her program immediately, and cheerfully.

Follow-Up

For the client, the downward spiral that began in first grade slowed, then stopped, and then gradually shifted direction. Tears and temper tantrums began to diminish. By the end of first grade, her reading skills began to flourish and she could read for longer periods of time. By summer, the child, who previously cried at the prospect of getting her face wet in the tub, was jumping off of the diving board and swimming. She learned to ride a bike without training wheels, and an 800-mile car trip was noticeably devoid of pit stops for carsickness. With the foundation set, she and her parents decided to give the local public school another try in the upcoming fall.

Starting second grade the client reported that "second grade is a lot calmer," but clearly it is she who is calmer. Hair chewing and paper tearing disappeared. Instead she is listening, reading, writing and computing. Writing is still her biggest challenge, and so she continued with specific HANDLE activities to strengthen this skill.

In the words of her mother, "Coming to HANDLE was the bright spot on an otherwise dreadful first grade year. She is doing fabulously in second grade. She's poised for growth socially, emotionally and academically; working hard to catch up—and doing it! I've been watching closely as she puts the pieces together, and peace of mind has replaced worry for me as a parent. So, as I watch my daughter ride her two-wheeler down the street yelling, 'Look Mom, no hands,' I think of [HANDLE] with a small curse and huge thank you."

The HANDLE Institute presents these case studies to demonstrate the successes of the HANDLE approach and pique the interest of researchers and funders in engaging in clinical studies to further examine the efficacy of these interventions. For more information about The HANDLE Institute, go to **www.handle.org.**

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