



CASE STUDY Neurodevelopmental Progress for Male Child with Down Syndrome, Nystagmus, Myopia and Severe Digestive Issues with Pica

Presented by Susan Haverty, Certified HANDLE® practitioner

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.

Male child MH aged six years and five months. M has Down Syndrome, nystagmus, myopia and had severe digestive issues with pica at the time of the assessment. He is the elder of two children. His sister is two years and nine months and was adopted nine months ago. He lives at home with both parents and is attending mainstream school with support.

Clinical history

Pregnancy

The pregnancy was extremely difficult. His mother had hyperemesis throughout the entire pregnancy. She was hospitalised for the first three months and placed on drips to maintain hydration levels. She was on medication (Stemetil and Promethazine) throughout. She had no net weight gain during the pregnancy. Initially there was weight loss. At the end of the pregnancy she was the same weight as at start.

Birth

M was distressed last 2-3 days of pregnancy due

to strangulation of umbilical cord. He was born eventually by emergency C-section under general anaesthetic as the spinal block did not work fast enough. His APGAR scores were 1 and 3. He was resuscitated for 30 minutes to establish breathing and heartbeat. He was on ICU for nine days and further three days in hospital.

Health

M was generally healthy. He had one ear infection requiring antibiotics. He underwent surgery for undescended testicle at 18 months. From birth his bowel movements were regular and once a day until a stomach bug at age four and a half. Since then he has had diarrhoea and loose stools with a complete loss of bladder and bowel control. He wears diapers and opens his bowels 5-15 times per day.

Nutrition

M eats a well-balanced diet with lots of vegetables and very little dairy as he is prone to congestion. He takes Omega oils and a children's multi-vitamin.

Treatments

He has had acupuncture, speech therapy, audiology input and has seen an eye specialist.

Schooling

M is behind his classmates academically and behind his peers who have Down Syndrome. He had been concentrating quite well in nursery but has fallen further behind since he contracted the stomach virus in his first weeks of school.

Referral to HANDLE

His mother had noticed changes in a client of hers who was on a HANDLE programme and wanted to see how it could help her son.

Referral Concerns

- To improve expressive language and clarity of speech
- To be able to regulate/modulate his strength.
- To follow rules and instructions better.
- To improve concentration in the classroom.
- To cope with transitions more easily.
- To go to sleep more easily, reduce sleepwalking and to stay asleep.
- To regain bladder and bowel control

Findings

Assessment Date: November 25, 2008

Age at assessment: six years and three weeks

M. eats anything that he can get into his mouth including faeces. He has a reduced sense of smell. He is very tactile sensitive around his face and hates having his face washed. He has difficulties with balance and is constantly on the move. He is a very poor sleeper and sleepwalks up to eight times per night. He has very low muscle tone and tires easily. M. has difficulty with expressive language and articulation and augments this with sign language. When assessed he had chronic diarrhoea and no bladder or bowel control. He dribbled a lot. He has difficulty sustaining visual focus and nystagmus. He had not yet begun to read or write.

Initial Programme

Crazy Straw and blowing activities to help with sphincter muscle control for bladder and bowel control and to aid digestion.

Face Tapping to reduce tactile sensitivity and to support muscle tone and articulation.

Vestibular activities to help strengthen his vestibular

system.

Hug and Tug to improve fine motor control, improve speech and Interhemispheric Integration.

Two-Finger Spinal Massage to help reduce stress

Peacemaker Massage to improve proprioception and aid sleep.

Back Thumping to help keep chest clear and aid vocalisation.

Accentuation Tap to help with language development and to enhance interhemispheric integration.

Review January 16, 2009

M is now fully toilet trained by being prompted to go regularly and has 1-2 well formed stools a day. He had an acupuncture treatment to address intestinal pathogens after his first HANDLE session. His articulation is improving slightly and the amount of dribbling has also reduced.

His mother reports that all the family were unwell over Christmas and that his sister has been unsettled recently. This has meant that only Crazy Straw and blowing activities have been performed regularly.

Since November the only change in terms of treatments has been the addition of HANDLE activities.

M has been reluctant to do a lot of the other activities and so his mother has been carrying them out on a toy dog for Mental Rehearsal. She has not been able to find time to do the activities anywhere near as much as she would like.

Hoop Mazes has been added to his programme to help support his proprioception and vestibular system.

Review April 1, 2009

His mother reports that the changes have been fantastic and that he is now accepting all the HANDLE activities.

M is now requesting the toilet himself and only had one "accident" in the past month.

His dribbling has now stopped and he rarely makes a mess when eating. He is using a fork or spoon most of the time instead of finger feeding.

His speech is improving in terms of articulation and increased vocabulary.

He now only sleep walks once or twice a night instead of 8-10 times.

School is delighted with the changes. He is concentrating for much longer and can sit through assembly. Previously M worked for 10 minutes then played for a while before returning to work. Now he wants to continue working.

He is beginning to recognise several words by sight and is writing the letter M and working towards writing his name.

He is able to remember instructions much better and has improved in being able to cope with transitions and is employing his own transitional strategies.

He has just begun to kick a ball and join the others playing soccer in the playground.

We did not add any new activities to his programme.

Comments from Practitioner:

For me this case is so unique by the way in which an 18-month history of chronic diarrhoea cleared up in 9 weeks allowing him to go from 5-15 diaper changes a day to being fully toilet trained with 1-2 bowel motions a day. For the first 2-3 months the majority of the activities were done via mental rehearsal with the exception of sucking and blowing. Since regaining bowel and bladder control he is now able to direct

more attention to learning and is now requesting more work when offered the chance to play. I am so looking forward to seeing the progress this young boy makes now that his digestive system has settled down and he has become fully toilet trained leaving valuable energy to be directed towards learning new skills.

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Susan Haverty, who is affiliated with the HANDLE® Institute International LLC in Seattle, Washington, USA, has been a certified HANDLE practitioner since April 2005, and a HANDLE instructor since May 2006. Susan has a HANDLE practice in Hertford UK and travels within Europe to see clients and present the HANDLE introductory and intermediate courses. Prior to starting her HANDLE training she qualified as a physiotherapist with a BSc (Hons) from Trinity College Dublin, Ireland in 1991 and has worked in clinical and community settings in paediatrics, learning disabilities, special seating, elderly care and neurology, with a special interest in vestibular rehabilitation.

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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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