Success for Children with Severe Neurodevelopment Disorders

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would like to share our experiences working with children having various developmental problems while treating them with MNRI®.

We are therapists of the Kashubian Foundation for the Rehabilitation of the Disabled and provide MNRI® therapy at three Centers for Rehabilitation, Education, and Early Childhood Development. Under the supervision of the Foundation, there are 59 pupils with a variety of developmental disorders including multiple and profound disabilities, Autism







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Spectrum Disorder, Down syndrome, and cerebral palsy. In addition, the Power-Assisted Early Development Foundation includes another 25 children. Working with these children are 24 therapists, teachers, speech therapists, and psychologists. All have taken at least one training program with MNRI®, with most having completed 3 or 4 training sessions. All the above personnel of the Foundation implement the therapeutic program based on MNRI® and, in each of the children, we see visible and positive developmental improvements in physical, cognitive, emotional, and language development. Through the case history of these four children, Nadia, Paulina, Krzysztof, and Zosia, we would like to show the effects of MNRI® therapy. The basic therapeu-

tic programs used with these children are Tactile Integration Therapy, Oral-Facial and Visual-Auditory Reflex integration, Dynamic and Postural Reflex integration, Re-patterning, and integration of Dysfunctional and Pathological Reflexes.

Nadia

Nadia is a little girl who was born prematurely with low birth weight (24 week pregnancy; birth weight of 650 g. or 1½ lbs.) with impaired vision from retinopathy of prematurity. She stayed in an incubator for a few weeks and was hospitalized for a long time after birth. Nadia underwent two unsuccessful eye operations and was revived several times, and is now blind. During our first meeting with Nadia, we



Beginning therapy was difficult for Nadia; she reacted to the sensation of being touched.

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observed extreme reactions to touch and in the orientation of her body in space. She seemed to be afraid of everything, over-reacted to stimuli and, during our meetings, clinged to her mother and father. According to the opinion of her parents, Nadia very often responded to many various stimuli by screaming, crying, or scratching and biting people who were close to her. At the age of two years was not able to sit alone, turn from her back to her stomach (and vice versa). She presented with many of the most difficult consequences of extreme prematurity. Prior to 2011, Nadia's parents had taken her to an Early Development Support Rehabilitation at a resort. There, Nadia received therapy from a variety of methods including NDT-Bobath, however, they saw no positive effects.



Nadia: in January, 2014, she practiced walking intensely.

She began to attend our Center for Early Development Support in Pierszczewie when she was 2 years of age in October 2011. When we met Nadia, she did not trust anyone. Our early attempts at communication with her were very difficult. She only wanted to be alone with her Mom. She struggled, screaming, scratching, and biting. The team of therapists (speech therapist, psychologist, and physiotherapist) and parents decided that for awhile Nadia should be limited to only attending classes at the resort run by our Foundation. Her parents resigned from therapy in other centers so she could focus on getting stable here. With this decision, it was possible to start building a sense of security in Nadia. Our therapy was based on the MNRI® method. Nadia regularly came 3 times a week (about 3 hours), at the same time each day, in the same room, and with the same therapist.

At the very beginning of our program with Nadia, Tactile Embracing Squeezing was primarily used. When we started using this, thanks to regular classes, we saw changes in her. She became calmer. We later were able to work in a sitting position, then it was possible to position Nadia on a massage table. Currently, she works with us very well and lies quietly, listening to requests. She has begun to communicate, "yes" answers "aaa" or "er"; when she wants to eat, she says "amm". When she objects and wants to convey the message "no", she just shakes her head. In addition to Tactile Therapy, we are giving her a priority of correction techniques for Re-patterning Reflexes and Oral-Facial Reflex integration. After regular therapy for 3 years, we have achieved very good results. Nadia sits alone, moves from a simple sitting position on the ground, and, with the help of a walker, moves around. She firmly holds objects in her hands. She is much calmer now, not screaming even when she is in a new place. She is cheerful, smiling, greets everyone, and takes our hand. She no longer shows aggressive or self-harming behavior and conducts herself appropriately to the situation when a stranger wants to take her in their arms. Now she is 5 years old and attends preschool group at the Rehabilitation Education Center for Children in Pierszczewie. She seems to feel safe among her peers and rides the bus to the resort by herself, without Mom. She began to attend classes at the pool for Halliwick method therapy and she is very fond of classes in this group.

Paulina

Paulina is an eight year old with a hernia oponowa-core, with hydrocephalus. She started attending the Rehabilitation Education Center in Pierszczewie when she was 3 years old. We saw that Paulina seemed to be largely developmentally stuck in her upper limbs, which we saw as a base from which to develop to her other spheres of autonomy. But Paulina showed a high sensitivity in her hands. She gave great resistance to various activities such as painting and touching different textures. She could not hold a spoon or cup during meals, sit well alone, or rotate her body.

Paulina was introduced to the MNRI® therapeutic program using re-patterning techniques and integration of MNRI® reflexes. For five days a week before each occupational therapy and meal we worked on the integration of Robinson's Grasp Reflex and developed all phases of this reflex. Other reflexes we worked on were Hands Supporting (parachute), Hands Pulling,



At occupational therapy, Paulina at first protested and required a lot of help.

PORTAL TO NEURODEVELOPMENT AND LEARNING



Paulina, after therapeutic effects of MNRI®, began to enjoy tactile and sensory stimulation.

Spinal Galant, Spinal Perez, and Spinning. After several weeks of intense work with Paulina, we saw good progress. She became more independent and began to take different actions. Today, she eats her meals by herself with her own utensils. Food now gives her pleasure. The effects of MNRI® are also visible during occupational therapy; she enjoys painting with her hands and playing with different textures (eg., starch, jelly) – she does not complain and it even gives

her satisfaction and joy.

Paulina has also begun to sit alone, turn, and crawl. She has become more active in her wheelchair. She's now smiling, cheerful, and talkative. She is very active and likes group activities such as the activities in *Original Play* by Fred Donaldson.

Krzysztof

Krzysztof was brought to classes in Early Development Support beginning in May, 2012 at the age of 4 years old with a diagnosis of Autism Spectrum Disorder. At this time he had major difficulties in establishing and maintaining social relationships and communication (especially verbal) and did not maintain eye contact. He also had a lot of self stimming behavior. Most of the time Krzysztof did not know how to play with toys – he just screamed and cried. Krzysztof also screamed and cried in new places and unfamiliar situations. He displayed the typical difficulties of children with autism. Until May 2014, Krzysztof was given the therapeutic program based on the MNRI® method. He went to therapy regularly, 2 hours per week in classes with a speech therapist and a psychologist. The intervention included techniques from such therapeutic MNRI® programs such as Repatterning, Visual-Auditory Reflexes, and Oral-Facial Reflexes integration with a special focus on Robinson's Hands Grasp, Babinski, and Babkin Palmomental.

The effects of this therapy surprised his parents, therapists, and teacher. Now, in December 2014, Krzysztof is $6\frac{1}{2}$ years old and does not differ significantly from his peers. He attends a compulsory pre-school in a normal public kindergarten. In September 2015, he will begin the first grade. Krzysztof is successfully communicating with others, asking questions, and talking about current events. He maintains eye contact with the participants of his conversations and has a rich vocabulary. He has established friendships with his schoolmates. He no longer shows fear in new places and situations.

Historically, Krzysztof did not tolerate other people's music but, today, there is no trouble with this. Formerly, he was terribly afraid to go to church (probably difficulty with sound over-stimulation which reverberated in the church building). His problems associated with auditory hypersensitivity have been resolved. To-

day, he has no problem participating in weekly worship services with his family. Moreover, Krzysztof's ability to read and write simple words surpasses many of his peers. The only areas that require some support are some minor obsessions and atypical eating habits (a less varied diet). It is worth noting that these issues do not impede the free functioning of Krzysztof with his family and school. According to current diagnostic criteria, Krzysztof today shows no symptoms of his original diagnosis of autism.

Zosia

Zosia is a 7 year old girl who is very social, likes music, having fun, and the sea. After birth, there was no indication that Zosia would have any serious problems. She was a strong, healthy infant and met her developmental milestones on time. Then, at the age of two years, her parents



Zosia holds and lifts the glass from the table, keeps it in her hands, and tilts it to her mouth.

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saw some worrying signs and began to suspect Rett syndrome. After several medical tests, the diagnosis of Rett Syndrome was confirmed when she was 4. According to literature, a person with Rett syndrome person loses their motor skills with age. Thus, due to the significant loss of purposeful hand functions, Zosia was referred to as a "girl without hands."

When she was 6 years old, she began to attend our Rehabilitation Educational Center in Strzepczu. Despite its serenity, Zosia struggled for a long time with difficulties regarding functioning in everyday life. Due to the low efficiency of her fine motor system—primarily using her hands, she did not cope well with basic functions, such as eating food. She could not drink alone because holding a glass was impossible for her. Large amounts of food would fall out of her hands while eating, so she needed the constant assistance of an adult. The very use of her hands required great effort, but Zosia had a lot of motivation. One of her favorite activities was looking at picture books. Unfortunately, trying to turn pages caused the closing of the entire book or remaining still on the same page and any attempt to grab toys also



But that's not all ... today Zosia can spend time in a way that she likes most — now she can also browse through a book and turn the pages one by one!

ended in failure. With her physical awkwardness, she often wiped most items off the table. Low efficiency of her fine motor system prevented many other activities because of all of the time and assistance needed for her. But Zosia was interested in the world and wanted to learn new things so she persevered.

From the beginning of her stay at the Center, Zosia was given therapy techniques aimed at integrating her Robinson's Grasp Reflex with MNRI® methods. For two years, the so-called 'exercise sticks' were her everyday therapeutic practice. It should also be noted that a key program for Zosia was also Tactile Reflex therapy. Zosia is currently undergoing Phase III of Rett syndrome. According to the literature, this period is followed by the largest fine motor regression. However, Zosia's case shows that this is not necessarily the case. In the opinion of therapists and her parents, she has seen significant fine motor improvement. Today, Zosia copes well with food and is able to drink from a glass. She requires only a little help with the removal of glasses from a table.

It is clear that she continually needs to have therapy. However, we also believe that, by using the MNRI® program, Zosia will have further positive improvement and achieve more successes.

Conclusion

Here we have highlighted the progress and improved development of Nadia, Paulina, Krzysztof, and Zosia to illustrate the substantial progress and positive trends which are marked by the introduction of the therapeutic MNRI® method. These children's stories are an example of the success that we have observed with great satisfaction and have also seen with children in our other wards at the Foundation.

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We thank all our children and their parents! We are enthusiastic and hopeful for improvements for all in our rehabilitation centers. They are all Winners and work very hard to gain new skills.

– Authors