Healing Children Who Have Attentional, Emotional, and Learning Challenges

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There is an epidemic in our society. More and more children are being assigned more and more labels, labels such as Attention Deficit Disorder (ADD), Attention Deficit Hyperactivity Disorder (ADHD), receptive or expressive language disorders, learning disabilities that include visual or auditory processing disorders, and the autistic spectrum disorders like Pervasive Developmental Delay (PDD), Asperger's syndrome, and autism, to name only a few. What is happening to our children? What do these labels really mean?

While I was growing up, my brother was diagnosed as autistic at a major university center in California when he was 2 1/2 years old. He had fine motor and gross motor delays, made poor eye contact, cried a lot from frustration, and didn't speak words. When he finally started to talk, around age four, he wasn't so frustrated anymore, he became more social, and he no longer fit the definition of autism. So his diagnosis was changed to a speech and language disorder, especially since his speech was so difficult to understand. He still became frustrated when trying to communicate. He had trouble expressing his ideas and getting others to understand his speech. Because he had many temper tantrums during those early years and seemed to be in constant motion, he was also given the label of Minimal Brain Dysfunction (the word used in the 1960s for Attention Deficit Disorder) and placed on medication.

When my brother started school, he struggled with reading and writing. He had a brilliant mind and could remember almost everything that was said to him, but he couldn't write his ideas down on paper and he had difficulties with spelling and handwriting. Book reports and papers were hard to write, and he was labeled lazy by his teachers throughout grade school. It wasn't until college that a professor realized how gifted he was, and how difficult it was for him to express his ideas in writing. He was reevaluated at that same university center and now labeled as having a non-verbal learning disability.

All of these labels affected my brother's self esteem. I believe he saw himself as not being normal or smart enough. As he grew older, he lacked the confidence to follow his dreams and the courage to risk failure because he felt he had failed so many times. Because of his experience, I have never believed in labels. Labels place children into boxes from which they can't easily escape. Labels are meaningless to me when a child like my brother could move from one box to another while the experts couldn't agree on which box to put him in.

During my fellowship training in behavioral and developmental pediatrics, I learned that 70% of children labeled with Attention Deficit Disorder also have some form of auditory or visual learning disability, but no one can explain why. Most of the therapies given to these children were what I call "sit down therapies." Movement therapy, like occupational therapy, was seen as a way to get children from the door of the classroom to their chairs. Once the children were seated, I was taught that the brain could be educated through speech therapy, practicing phonics, or drilling math concepts. These children were often placed in special education classes. Regardless of their intelligence, however, I never saw these children get out of special education classes. I watched while they fell behind their peers and their self-esteem suffered.

The birth of my son really taught me to look more closely at what was beneath all of these labels. First of all, because my son never crept on his belly and had a persistent stiff neck after his c-section birth, other parents convinced me to take him to a gifted osteopathic physician for Biodynamic Cranial Therapy. Next, it was my son's Waldorf-trained preschool and kindergarten teachers who first taught me about the importance of movement in the development and healing of neurological pathways. My son had a gifted kindergarten teacher who worked with him after school for 2 hours, twice a week, for 1 1/2 years, doing lots of harmonious, noncompetitive, rhyth-

mic movements. It was calming to be in her presence. She lived in the present. When she sliced apples for the children to make applesauce, the thoughts of her mind, feelings in her heart, and the actual movements of her body were all aligned with the task of slicing apples. In her speech and in all of her movements, her mind, heart, and body were as one. My son went from grasping a crayon with his fist and scribbling at the age of 4 1/2 years to finger knitting and weaving during the next 1 1/2 years. He went from being unable to catch even large balls easily to juggling tennis balls with her across the room. His balance, auditory processing, and speech articulation all dramatically improved. He became a social being who could relate to and play imaginatively with his peers while his oversensitivity to touch seemed to disappear.

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I had to know what his Waldorf preschool and kindergarten teachers knew about the relationship of movement to brain development. I had already completed four years of medical school, three years of pediatric residency, and three years of a fellowship, training in behavior and developmental pediatrics. I had learned how to identify the various pathways of learning, whether auditory, visual, or kinesthetic, but I didn't learn anything about sensory integration. After watching my son's transformation, I completed a three-year Waldorf teacher education program, and then spent another year studying sensory integration with Ingun Schneider, a physical therapist and sensory integration specialist at Rudolf Steiner College. I attended numerous workshops by neuropsychologists like Judith Bluestone of the HANDLE Institute and Carla Hannaford, who works with Brain Gym. What I have learned from all of these experiences is that movement forms the neurological pathways in a child that are later used for reading, writing, spelling, mathematics, focusing of attention, and creative thinking.

There is a relationship between the development of the vestibular system, which includes balance and muscle tone, and auditory processing, which includes the ability to understand and follow verbal instructions. If a child whose hearing is normal still has difficulty with auditory processing following verbal instructions, then strengthening his or her balance will help. If a child has low muscle tone and a tendency to drool and lisp during speech, then working with movement, specifically balance, will strengthen that child's overall muscle tone and improve the articulation of consonants.

There is also a relationship between proprioception—a child's ability to know where his or her body is in space—and the child's ability to sit still and pay attention. A child will have difficulty focusing his or her attention if the proprioceptive system is not fully formed or integrated. During the first seven years of life, a child's mind needs to map the location of pressure receptors within the muscles, tendons, and joints of the entire body. You might say that there is a universal law that the mind must know where the body is at all times. If a child's mind can't locate the different parts of his or her body when sitting still, then the child will need to actively move the muscles or sit on his or her feet in order for his or her mind to feel connected to the body while the child is looking at the blackboard and paying attention to the teacher. Unfortunately, a child who wiggles in his or her chair while gazing at the teacher will often be seen as not paying attention and, perhaps, labeled as having Attention Deficit Disorder.

In addition, this same child, who hasn't developed a sense of spatial awareness and doesn't feel where his or her body is in space, also lacks an inner sense of movement when looking at abstract forms like letters or numbers. The child's eyes will follow the movement, the lines and curves of the letters and numbers, but the forms won't imprint. The child will forget the shapes and not remember which way the number 2 or 3 goes or which letter is "b" and which is "d." In addition to being labeled as having ADD, a child with proprioceptive difficulties often gets labeled as having visual processing and visual memory types of learning disabilities.

Finally, if a child's sense of touch is not fully integrated, which can happen after a rapid vaginal birth, a c-section delivery, or the use of suction forceps, then the child will be hypersensitive and sometimes even hyposensitive—relatively

unresponsive—to tactile stimulation. Such a child wants the labels removed from the back of his or her clothing or he or she wants socks turned inside out so he or she doesn't feel the seams. Such children often don't like wearing long pants, long sleeves, or jackets because they feel the wrinkling of the fabric against their skin when they move their arms or legs. Their scalp is hypersensitive and they don't like to have their hair brushed or combed. They don't like their nails to be clipped. These are the children who often withdraw from a group of peers and appear shy because they are afraid of being inadvertently touched by another child. A simple touch can sometimes feel like a hit or slap. Sometimes these children appear aggressive, hitting other children in what they perceive as self-defense after being touched or bumped into by another child. It is as if this gentle touch or bump is magnified one hundred times.

In general, children with any of these sensory integration issues often have difficulties with peer relationships. Their minds and eyes are too busy just trying to help them maintain balance, figure out where they are in space, and avoid bumping into other objects and other people. These children are multi-tasking, and they do not have the luxury or the freedom of their minds and thinking to pay attention to the subtle non-verbal cues of other children around them. Since much communication is non-verbal, their peer relationships suffer.

In addition, because children with one or more sensory integration difficulties are always multi-tasking, their nervous systems are constantly stressed. These children live in their "fight and flight" sympathetic nervous system just to survive each day. Children predominantly functioning under this stress are by definition not in the present moment. They can't pay attention or focus on just one stimulus at a time because their survival depends upon being able to pay attention to many different things in their body and in their environment all at the same time. These are the children who are often labeled as hyperactive. Their pupils are often dilated, their hands and feet are often cool, they are hyper-vigilant and easily distracted, they are hypersensitive to sounds, and they have difficulty focusing their attention. Their movements are jerky and mechanical and their digestion is compromised. They are also extremely sensitive to the effects of sugar and caffeine and have temper tantrums and melt-downs throughout the day. In this survival state, such children can't access their higher centers of learning, and therefore new pathways and neurological connections are not easily formed.

Labels like ADD, ADHD, speech and language disorders, learning disabilities, and the autistic spectrum disorders may actually represent an increasing severity of sensory integration dysfunction. Children labeled with ADD have poorly integrated proprioceptive systems and this may also create visual processing disorders. Children labeled with auditory processing problems, especially if they forget what they are supposed to do when moving their bodies, may have vestibular difficulties. Children labeled with autism will have severe impairment of their proprioceptive, vestibular, and tactile systems, in addition to having weak metabolisms and, potentially, leaky intestinal tracts.

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When a child has a history of frequent antibiotic use, especially in the first two years of life, has a diet high in simple sugars, or has undergone lots of stress, then he or she may be missing most of the healthy intestinal bacteria. The intestine may be overgrown by yeast organisms that cause inflammation and loss of integrity of the intestinal wall. Partially digested proteins from various foods, like soy, gluten from wheat, and casein from milk, are absorbed through the inflamed, leaky intestinal wall instead of being eliminated with bowel movements. These partially digested proteins are broken down inside the body and their toxic by-products can pass across the blood-brain barrier into the central nervous system, affecting speech centers and other sensitive areas of the brain.

So what can be done to help and heal our children's nervous systems? First, I support rhythmic, harmonious, noncompetitive movement activities like walking, hiking, and swimming. I support movement therapies that strengthen balance, proprioception, and touch. These movement therapies, which are done to help integrate a child's sensory system, must be gentle and slow. Care must be taken not to further activate the sympathetic nervous system. If the movement therapies are done too quickly or too competitively, then proper pathways can't form. The child needs to be in the relaxed, parasympathetic nervous system in order to make new pathways. The child needs to be fully engaged in the moment, full of love and enthusiasm for what he or she is doing. Movement therapies cannot be prescribed like recipes from a cookbook or items from a list. The therapist needs to be present to the child's movement and fully engaged with the child in a loving way so that child can relax, move, and create neural pathways.

Next, it is time to stop medicating our children with stimulants. These stimulant medications may dampen or inhibit pathways competing for a child's attention, but we still don't know what these drugs may be doing to that child's future capacity for learning.

I also support an educational environment that teaches our children about the world using all of their senses, including vision, hearing, and, especially, hands-on learning experiences. Our culture and even some educational institutions, with their reliance on television, computers, and videogames for teaching, are not developing our children's minds and senses. Competitive sports in very young children overstimulate and activate the sympathetic nervous system. Sugary foods, a lack of essential omega 3 fatty acids (found in cod liver oil, fish, walnuts, flax seed oil, algae, dark green leafy vegetables, and breast milk), inadequate sleep, a sedentary lifestyle all make it hard for children's neurological pathways to be myelinated and formed. In addition, toxins in our environment, including mercury in some of our vaccinations, also may have affected these sensitive pathways.

It is time to stop labeling our children and putting them on medications that just alter their neurohormone levels. It is time to slow down and focus on being in the present moment. It is time to start promoting a healthy lifestyle including nutritious foods, adequate sleep, and turning off televisions, videos, and computers. It is time to provide lots of healthy rhythmic movement for our children to do at home, in school, and out in nature. It is time to start healing our children.

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