

Healing Our Children with Attentional, Emotional and Learning Challenges

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There is an epidemic in our society. More and more children are being assigned to more and more labels. Labels such as Attention Deficit Disorder (ADD), Attention Deficit Hyperactivity Disorder (ADHD), receptive and/or expressive language disorders, learning disabilities that include visual and/or auditory processing disorders, and the autistic spectrum disorders like Pervasive Developmental Delay (PDD), Aspergers 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 at a major University Center in California as being Autistic 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 he didn't speak words. When he finally started to talk around age four, he wasn't so frustrated anymore, and he became more social and 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 very frustrated when trying to communicate. He had trouble expressing his ideas and getting others to understand his speech. Because he had a lot of temper tantrums during those early years and always seemed to be in constant motion, he was also given the label of Minimal Brain Dysfunction (the word used in the 1960's for Attention Deficit Disorder) and was 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 as being lazy by his teachers all through 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 re-evaluated 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 think he saw himself as not being normal or smart enough. As he grew older he seemed to lack the confidence to follow his dreams and the courage to risk failure because he felt he had failed so many times. Therefore, I have never believed in labels. Labels place children into boxes that they can't escape from very easily. Labels seem so meaningless to me since a child like my brother could move from one box to another while the "experts" couldn't seem to agree on what 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 would also have some form of auditory and or visual learning disability but no one could explain why. Most of the therapies given to these children were

what I called “sit down therapies”. Movement therapy, like occupational therapy, was seen as a way to get children from the door of the classroom to their chair. Once the child was 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 but I never saw these children get out of special education classes, and I watched while they academically fell further behind their peers, and their self-esteem suffered.

It was the birth of my son who 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, non-competitive, rhythmic movements. It was calming to be in her presence. She lived in the present moment. 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 that could relate and play imaginatively with his peers while his oversensitivity to touch seem to disappear.

I had to know what his Waldorf preschool and kindergarten teachers knew about the relationship of movement to brain development. I had already completed 4 years of medical school, 3 years of pediatric residency and 3 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 transform in his development, I completed the 3 year Waldorf Teacher Training 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 Hanaford, who works with Brain Gym. What I have learned from all of these experiences is that movement forms the neurological pathways in the 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 (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 with a tendency to drool and lisp during speech, then working with movement and specifically balance will strengthen that child’s overall muscle tone and improve the articulation of consonants.

There is also a relationship between proprioception (the 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 yet. During the first 7

years of life, the child's mind needs to make a map of 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 the mind of the child can't locate the different parts of the body when sitting still, then the child will need to actively move the muscles or sit on his or her feet in order for the 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 is continuing to wiggle in his or her chair while gazing at the teacher will often be seen as not paying attention and be 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, these children with proprioceptive difficulties often get 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 to tactile stimulation. These are the children who want the labels removed from the back of their clothing or want their socks turned inside out so they don't feel the seams. They often don't like wearing long pants, long sleeves or jackets because they constantly 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 their hair brushed or combed. They don't like their nails being 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 and that 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 100 times.

In general, children with any of these sensory integration issues often will 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 communication is mostly non-verbal, their peer relationships suffer.

In addition, because these same children with one or more sensory integration difficulties are always multi-tasking, their nervous system is constantly stressed. These children live in their "fight and flight" sympathetic nervous system just to survive each day. Children predominately functioning in this stress nervous system 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 that are often labeled as being hyperactive. Their pupils are often dilated, their hands and feet are often cool, they are hypervigilant 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 also are extremely sensitive to the effects of sugar and caffeine and have temper tantrums and melt downs throughout the day. A mind that is stressed is functioning in survival mode. In this survival state, a child can't access its 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. A child labeled with ADD has a poorly integrated proprioceptive system and this may also create visual processing disorders. A child labeled with auditory processing problems, especially if they forget what they are supposed to do when moving their body, may have vestibular difficulties. A child labeled with Autism will have severe impairment of their proprioceptive, vestibular and tactile systems in addition to having a weak metabolism and potentially, "leaky" intestinal tract.

When a child has had a history of frequent antibiotic use (especially in the first 2 years of life), 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 now be overgrown by yeast organisms which cause inflammation and loss of integrity of the intestinal wall. Now 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 now 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, non-competitive movement activities like walking, hiking, and swimming. I support movement therapies that strengthen balance, proprioception, and touch. These movement therapies that are done to help integrate the child's sensory system must be gentle and slow. Care must be taken not to further activate the sympathetic, "stress", nervous system. If the movement therapies are done too quickly or too competitively then 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 done like a cookbook or 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 neuro-pathways. Next, it is time to stop just 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 the very young child overstimulate and activate the "stress" nervous system. Sugar filled 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 (where children ride in cars instead of walking) are all making 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 activities 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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