Therapeutic Insight

# MFR in Pediatrics— One Therapist's Story

**By Diane Weis, PT**

Think about your favorite childhood story, the one that began with "Once upon a time . . . " Remember how it made you feel? You really loved that story, didn't you?

As adults, we know that "Once upon a time" stories usually aren't about real events and people. They deal in events from one's imagination, where fantasy reigns, disbelief is suspended, and the improbable happens. Such stories have such enormous appeal precisely because the dull constraints of reality don't apply, and anything, absolutely anything is possible. So unlike real life, right?

"Of course," you say to yourself, and so did I, until a couple of years ago, when I finally allowed myself to consider that just maybe, anything *is* indeed possible.

Let me tell you a story:

Once upon a time, there was a therapist— me. I had decided while I was in PT school that I wanted to concentrate my career in the area of pediatrics, and for the past 15 years, I have done just that, specializing in the treatment of patients with cerebral palsy and traumatic brain injury. The major educational goal I set for myself at the start of my career was to obtain certification in the Neurodevelopmental Treatment Approach. After being on a waiting list for several years, I was finally accepted into the eight-week course and received certification.

Both before and after this point, I focused my continuing education activities on courses that would enhance my knowledge of normal/abnormal movement components and of neurodevelopmental treatment techniques. I have to admit that I never looked twice at an article in the professional literature that had the word "myofascial" in its title. After all, no course I had taken or read about contained information on the fascial system. No article in the *Totline* or the *NDTA Newsletter* ever mentioned it. I didn't even know what that was, and didn't think it applied to what I was doing anyway. Myofascial release was for therapists treating patients with chronic pain and orthopedic problems.

Then, two years ago, at a meeting of the NDT study group I belonged to, a therapist gave an inservice on myofascial release techniques. She had just attended a John Barnes Myofascial Release I seminar, and had begun using the techniques with her pediatric patients, including infants in the NICU. She

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admitted to us that she really couldn't explain why, but the techniques produced changes that she had not been able to obtain with NDT. Very fussy infants with poor sleep patterns quieted and fell asleep; breathing patterns improved following a respiratory diaphragm release (whatever that was).

Another therapist I knew was also taking myofascial release and cranio sacral therapy courses, and was finding that the techniques were applicable to her pediatric patients.

Even though I personally felt the idea of fascial, and especially cranial bone movement belonged in a fairy tale, the experiences of these two therapists sparked my interest. For some time I had the feeling that while treating my cerebral palsy patients, there was something I wasn't getting to with NDT techniques, that facilitating/inhibiting movement shouldn't be as difficult as it sometimes seemed to be. The lack of carryover from treatment was very frustrating. Maybe, I thought, I just wasn't skilled enough to get better results.

Deciding that maybe there was something here that might apply to pediatrics, I took John Barnes' Myofascial Release I Seminar a few months later. By the middle of the second day, I found myself remembering what the instructor of my NDT certification course had given us as the prerequisites for normal movement— normal muscle tone, normal sensory system, and normal *range of motion.*

Well, the light, as they say, began to dawn, along with a growing awareness of the possibilities of combining myofascial release with NDT. After all, I focus a great deal of attention in treatment on helping my patients obtain mobility in preparation for movement. I pay attention to changing tone, muscle length, joint range of motion, and to proper alignment. I now realize I had failed to pay attention to the common denominator of all those things— mobility of the fascial tissue! It seemed to me that cerebral palsy children most certainly develop fascial restrictions. It can't be otherwise, since the neuro-musculo-skeletal system is surrounded by, supported by, and imbedded in fascial tissue. The fascial system was that "something else" I felt I had been missing when treating patients.

Since that time, I have taken advanced level myofascial release courses and other courses directed at integrating myofascial release with the Neurodevelopmental Treatment Approach. I have worked at incorporating the techniques of each into pediatric treatment. I have had the priveledge, during the past year, of learning from two highly talented NDT instructors, Regi Boehme, OTR, and Margaret Smith, OTR. Their separate experiences, as well as mine, have been that the two approaches complement each other in an extraordinary manner. Myofascial release provides a means to obtain tissue mobility. Then NDT techniques are used to facilitate active, goal-directed movement on the part of the patient— movement which utilizes that new mobility. As the therapist, you find yourself releasing restrictions and facilitating movement virtually simultaneously. Using both approaches is essential; neither one is a replacement for the other.

Myofascial release techniques produce changes in tissue mobility that could not be

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obtained with NDT.[1] Fascial releases produce tonal and sensory changes as well.[2] By changing fascial mobility, muscle and tendon length, bony alignment ligamentous structures are affected, thereby changing the patient's potential for active movement.

As an example, I am currently treating a four-year-old child with cerebral palsy, who moves his entire body in total patterns of either flexion or extension. He shows the classic "blocks" to movement at both the shoulder and pelvic girdles. One day I was working on sacral mobility (a novel idea in the treatment of cerebral palsy children, don't you think?). My patient was lying prone and up on elbows. As I worked, his very restricted sacrum began to have some mobility caudad and rotationally between the ilia. I then began to introduce a slight lateral weight shift through the pelvis with my hand still on the sacrum, and I increased the range of the weight shift (which I could do because the tissue mobility now existed to allow it), and this child, who previously moved his legs and pelvis as a unit, actively flexed one leg up while the other remained extended, as in an amphibian response. His trunk and head aligned appropriately with the weight shift, and the tone in the rest of his body, which usually increased when he attempted any active movement, did not. I had not specifically worked on truncal elongation/ shortening or righting reactions, or lower extremity separation. Yet all three of those very desirable actions happened by first getting the sacral mobility, something I would not have thought to work on coming solely from an NDT perspective. I would have worked for pelvic mobility, but not specifically the sacrum. The changed movement he showed in that treatment session happened very smoothly and I hadn't had to work very hard either.

Consider the following:

"I have integrated myofascial release techniques with NDT in the treatment of cerebral palsy and other central nervous system problems. The results have been tremendous. Releasing fascial restrictions has consistently accelerated the effects of inhibition of spacticity. There is a significant reduction in the "rebound" of spacticity with improved carry-over in between treatment sessions. Since the tissue is continuous from the top of the head to the bottom of the feet, the use of myofascial release has a generalized affect on the whole body of the child. Facilitation of more fluid movement comes easier for both the patient and myself when I use this integrative treatment approach. There are modifications in the actual application of the techniques taught by John Barnes, PT, in that young patients need to be treated as they move, since they lack the sensory motor base of normal movement that is available to the adult chronic pain patient. However, the transition from this seminar experience to pediatric treatment is an easy one."[3]

*Regi Boehme, OT, Certified NDT Instructor, Milwaukee, Wisconsin*

The Myofascial Release Treatment Approach has taught me something else that, surprisingly, I did not get in any of my other training. It has taught me how to truly feel with my hands, to tune into the motion of the patient's body, to go with that motion instead of trying to control it, which was what I had been trying to do. Needless to say, my

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previous feeling of having an inadequate skill level is quickly disappearing.

The viewpoint from which I now work when facilitating movement has broadened to include a greater appreciation for subtle motion in the myofascial-skeletal system. I have found myself relearning anatomical connections and visualizing structural attachments deep within the body. I have come to the realization that NDT therapists could greatly benefit from working with manual therapists who have in-depth knowledge of the biomechanics of movement. Conversely, the manual therapist may benefit from the NDT therapist's knowledge of movement facilitation.

Well, that is my story: I allowed for the possiblity, and the things which I considered improbable happened, for my patients and for myself, with wonderful results! I urge all of you who treat neurodevelopmental dysfunction to learn and use myofascial release because it has tremendous significance to the enhancement of human motion.

After you take the course, give yourself the time to integrate your new knowledge. Don't expect something different from yourself and your patient. Talk to, and most importantly, work with other therapists combining myofascial release and NDT, to enhance your confidence and skills. Join or form a study group with other pediatric therapists. Continue to upgrade your knowledge of both treatment approaches.

Most of all, allow for possibilities. Oh, and you may live happily ever after!

**REFERENCES**

1. Lecture notes; "Myofascial Release— Its Integration Into Pediatric and Adult Treatment," presented by Donna Stewart-Bullock, MS, PT and Margaret M. Smith, OTR, N.Y.C., December, 1988.

2. Ibid.

3. Newsletter of the Neurodevelopmental Treatment Association; p.3, July, 1987.

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Diane's insights from her extensive experience highlight the importance of myofascial release with pediatrics.

As Diane points out, myofascial release is to be utilized in combination with other appropriate techniques, acting as a facilitator of treatment, enhancing the total effectiveness and permanancy of results.

The increased sensitivity and skill of your hands that develop naturally through the use of myofascial release enables you to be far more accurate in both your evaluatory and treatment regimens.

The importance of an entire physiological system, the fascial system, has been virtually ignored in our training and/or performance. With the emergence of this important information, it is essential that we investigate this valuable therapeutic approach for the benefit of our patients (both child and adult).

Consider the possibilities!

**John F. Barnes, PT**

**Please send your suggestions, case histories, and questions to John F. Barnes, PT, "Therapeutic Insight," c/o Physical Therapy Forum/Occupational Therapy Forum, 251 W. DeKalb Pike, Suite A-115, King of Prussia, PA 19406.**