

WORKING WITH A FAMILY WITH CEREBRAL PALSY

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Introduction

This case history traces a period of work lasting about a year with a family whose child had been diagnosed with cerebral palsy. As the title suggests, I worked with the parents as well as the child. In the last twenty years it has become accepted wisdom amongst health care professionals [1] that in cases like this, it is just as important to support the parents and the familial relationships as to treat the child.

This is particularly relevant in working with cerebral palsy since the parents have an extra dilemma: Professor Andras Peto [2] has demonstrated that, by subjecting the child to an intense regime of daily exercise, almost military in its discipline, a child with cerebral palsy can really improve their ability to move. This regime needs to be continued daily for years but, if it is relaxed, the improvements usually disappear.

Typically, the child does not *want* to do this regime – it is hard work and no fun! So the parents have a difficult choice. Do they impose this tough discipline onto the child, in the hope that he will move better as an adult, or do they give him a relaxed and warm environment as a child, knowing that he will have less mobility?

A similar issue can occur in relation to the normal exercises prescribed by a physiotherapist. Because the parents are frequently stressed by the situation, they will often focus on the therapies and exercises being prescribed for the child and give less priority to developing his sense of wellbeing and warmth.

As Andrea Batterman [3] has pointed out in her work with brain damaged adults, the quality of touch special to Shiatsu can provide a way out of this quandry. Since Shiatsu touch is non-manipulative and contactful, she found her patients felt respected by it and were able to relax. Only then did she use the more challenging manipulations of physiotherapy and found that the range of movement in the stiffened joints was significantly greater than when she used physiotherapy alone.

With children, this approach is doubly important. The main thing that the child needs is to feel loved and accepted. If Shiatsu is used **in conjunction** with exercises, this puts the exercises into a context where the child feels (through the Shiatsu touch) loved and accepted as he is. Challenge exercises on their own can amplify the child's feeling of 'being wrong' and often stimulate a feeling of failure to change. Nick Pole [4] has also written of his success with teaching Shiatsu to parents of children with Cerebral Palsy.

This case history also shows how Shiatsu can complement physiotherapy, and, in addition, shows how Movement Shiatsu can work with an entire family dynamic.

What is Cerebral Palsy?

A baby develops complex movements through learning to combine reflex actions, which are 'hard-wired' in the lower brain. Unlike most animals, humans cannot perform complex integrated actions from birth. Instead, they develop through learning to integrate simple movements called 'primitive reflexes' into complex movements like crawling or walking. Bonnie Bainbridge-Cohen [5] calls these reflexes the 'alphabet of movement' and the process of infant movement development is therefore the formation of sensible 'statements' from these 'letters'.

Olaf Sporns and Gerald M. Edelman [6] propose that this process takes place through a form of natural selection. They propose that the brain has a module they call the 'value system' which chemically reinforces those neuronal connections which produce useful movement. This means that random and jerky movements are selected out, helping smooth and functional movements to dominate.

Athletes and musicians both have the experience of 'learning an action' where, at first, they have to consciously control the movement (with their motor cortex) and later can just do it, smoothly and automatically (movement programmed into lower brain). Babies also program the lower brain, not by consciously practicing movements, but through the integration of the primitive reflexes. In a sense the primitive reflexes are the teachers of movement, and as with any good teacher, they usually disappear once the lesson has been learnt.

However, in babies with cerebral palsy, it may be that, through brain damage, some of the reflexes are missing or are not inhibited. This distorts the natural selection process. For example, if the reflexes which show the brain how to do body flexion, such as the Babkin and Tonic Labyrinthine Reflexes, are missing, then the value system can only reinforce extensor movements in the torso and, gradually, these movements become so dominant that they produce spasticity. In addition, reflexes that are not inhibited when they have taught the baby their lesson also distort the natural selection process, because the reflexive movements get in the way of smooth voluntary actions and stop the latter being reinforced by the value system.

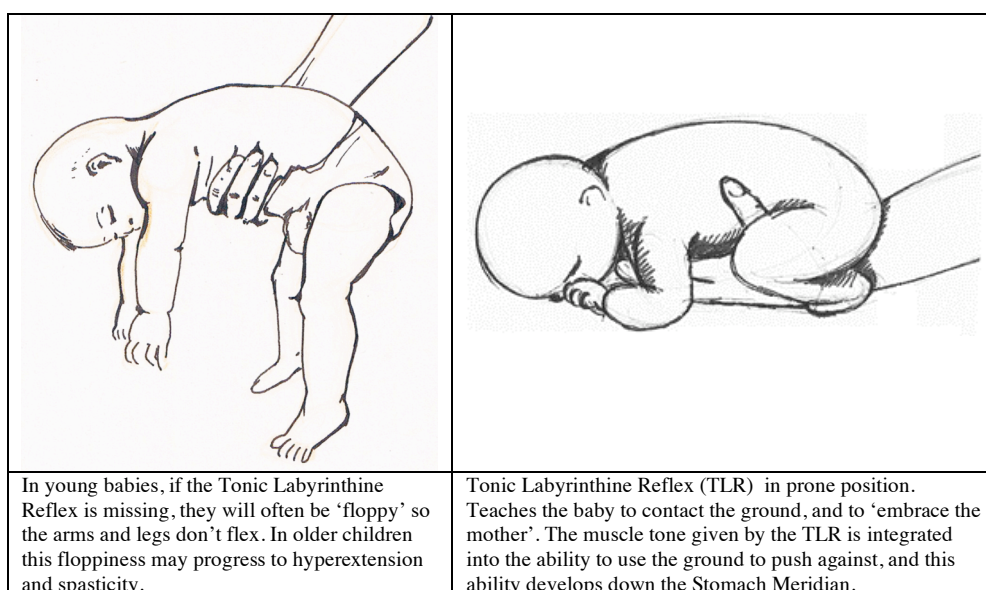
Movements are learnt through action not through sensation. So the manipulations of the physiotherapist will not, by themselves, train the lower brain. The child needs to be encouraged to move themselves. Bobarth physiotherapy and the Peto system try to do this, but usually, by the time a child enters those therapies, the nervous system has been programmed with dysfunctional movements and these are difficult to dislodge. It is unfortunate that a clear diagnosis of cerebral palsy cannot usually be made until it is almost too late for movement therapy to have a lasting effect.

Meridians and Development

My research from 1985-1995 [7,8,9] showed how the brain gradually integrated reflex movements into functional movement along lines which precisely mirror the Chinese meridian system. This, for me, was a surprising and deeply satisfying explanation of meridians. They are the lines along which we learn how to use our bodies as babies.

This discovery about meridians and development prompted me to explore whether working with meridians would help more 'natural' movements to develop. This case history illustrates one confirmation of this idea. Namely, that for young enough babies, a particular stimulation of the Yang Ming division [10] helps the baby to develop flexor tone in the torso, even when flexor reflexes are missing.

In a very young infant, the Stomach meridian in the torso acts as a focus of contact with the ground and with the mother. This tone is generated by the Tonic Labyrinthine Reflex when the baby is in prone position and provides a sort of 'cuddling into' movement which, early on, aids sucking, swallowing and digestion and, later, become a prelude to the act of pushing the body up [5].



Good tone along the Stomach meridian gives the infant an experience of being held up by the ground, just as an inflated airbed supports the body and stops it collapsing. It is tempting to go further and suggest that an 'inflated' Stomach meridian gives a baby the sense that the outer world is supportive and that a lack of tone contributes towards a sense of the outer world as unsupportive; in which all activity has to be done by the self. If this is true, then the Stomach meridian is an essential part of the development of the abilities to accept oneself and accept help from others. This is consistent with the Oriental view of its function and is one example of how the 'body skill' learnt through the developmental movement is analogous to the 'energy function' ascribed to the associated meridian by oriental medicine [8.9]

Even if the Tonic Labyrinthine reflex is missing, we have found that stimulation of the Stomach meridian while the baby is in prone position generates significant muscular tone in the flexors and therefore may contribute to the growing child feeling that he can relax and be accepted as he is. This case history provides support for this assertion.

The Case History

I started seeing Damian when he was 11 months old. He had been diagnosed as having cerebral palsy, probably from brain damage due to lack of oxygen at birth. Both his parents, Jo and Graham, came with him. Damian's back was continually over extended and he was starting to develop hyperflexion of the wrists

Damian was quite agitated when he first entered the room and would not tolerate being put down. Jo tried to calm him by jiggling him, holding him under his arms.

"He's always like this when we go to see the physiotherapist", she said. I asked her what they did there.

"She tries to mobilize Damian's arms and legs and teaches me exercises and stretches to do with him", Jo replied "He has a whole routine that we have to do every day"

I asked her to demonstrate some of the routine, which she did. Damian didn't seem to like it very much. I enquired whether she would be willing to do an experiment and, when she agreed, I performed the movements of the routine on Jo herself.

"How did that feel to you?" I asked.
"Like being in an army training camp", she said.

I said that I thought that the techniques themselves had a definite therapeutic value, but that maybe they gave Damian a feeling that he could not simply BE himself. Because they were so challenging, he might be feeling that he was not good enough and had to improve to be acceptable

Graham dryly agreed with this: "It's like that at home in general, we're all in the training camp".

Damian was starting to make a thin raspy sound and he was arching his back, looking very uncomfortable.

I suggested that Jo lie down on her back and place Damian face down on her chest. He was arching his back so much that it was hard for him to balance, I suggested to Jo that she expand her breathing to press against him as she inhaled and to make a humming sound as she breathed out, trying to focus the vibration of the hum into the point of contact with Damian.

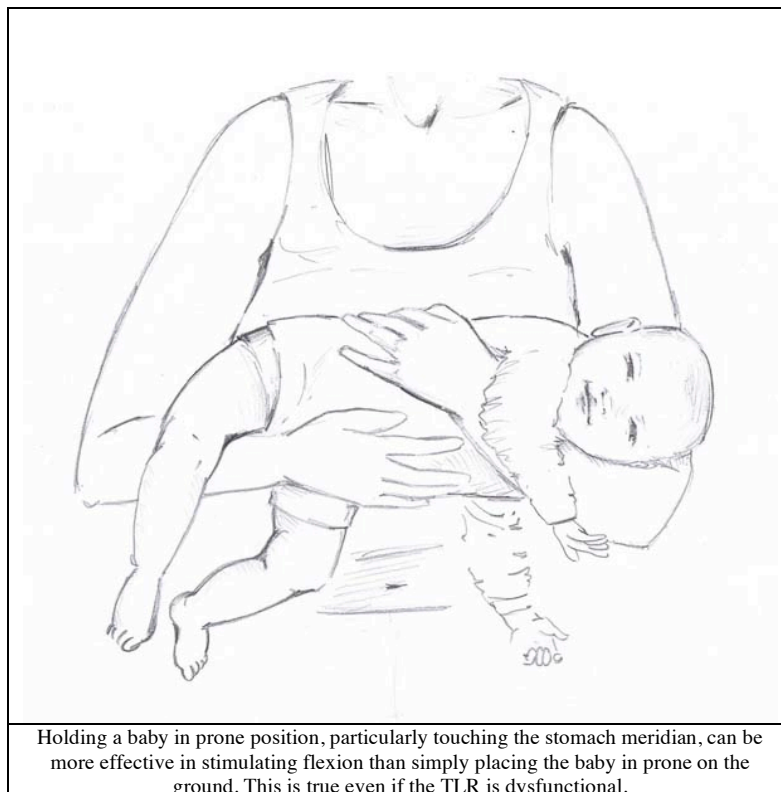


Immediately, his extension reduced and, after a short while, he actually curled forwards and cuddled into her. Jo burst into tears.

“This is awful”, she sobbed “I feel so guilty. When Damian arches away from me it’s like he’s rejecting me and I get angry. All I want is to cuddle my baby”.

I explained that Damian’s extension movements were only dominant because he did not know how to contact his flexor muscles along the front of the body. The physiotherapy routine might be useful in keeping his joints mobile but he also needed to learn how to use his front muscles.

I asked her to notice that, by giving him a warm and definite sensation in his front he was able to flex into her and then showed her how to hold Damian face down, with her hands and fingers contacting his Stomach Meridian, but not trying to do anything to him. He remained flexed and quiet. Soon he was asleep.



I suggested that she find as many opportunities as possible to hold him like this or in any other way in which his front was facing downwards and in which gravity would provide a non-manipulative pressure that he could sense. While continuing with the physiotherapy, she would be giving him the opportunity to just feel accepted, to relax into her and, in the process to learn to contact his flexor muscles.

During the next few sessions, we continued with the theme of teaching Jo and Graham simple Shiatsu to do with Damian before they started the exercises. Damian, at least, seemed to really like it! But Jo started to feel her chronic state of stress. The focus on action during the physiotherapy had provided an outlet for the stress and had allowed it to remain unconscious. The still nature of the Shiatsu, on the other hand, was in contrast to her tension, and brought her distress to the surface.

Graham also started expressing his personal feelings. Jo felt disappointed and critical of Graham for not giving her more support in Damian's exercise regime. Graham, on the other hand, felt resentful that Jo did not appreciate the work that he did to finance the family and his differing ideas of how to deal with Damian. His response was to withdraw, which made Jo all the more angry and Graham more depressed.

As with much family work, when the person who is seen as 'ill' starts to feel better, stresses in the family dynamic that have been suppressed through the focus on the 'problem' start to come into the foreground. Often, the solution is to facilitate contact and dialogue in the family members rather than trying to resolve grievances. Contact and dialogue allow the group system to integrate and to find its own dynamic equilibrium, which is more stable than a contrived truce.

I believe that this philosophy is true at all scales: in the large scale, in national conflicts, setting up protocols through which two sides can dialogue may be more effective than imposing peacekeeping forces. At a smaller scale, dancers and athletes have found that learning to be active in both agonist and antagonist muscle groups creates much more grace and efficiency than focusing solely on the power of the agonists. In practice, this means that the antagonistic muscles should learn to actively release, rather than just being passively stretched by the action. By creating a sense of interconnection between different segments, movements naturally include the whole body and are more powerful as a result, in contrast to movements where only one part of the body performs the action and the rest is held still.

This physical ability to let go of stiff control, to create connection and dialogue between the different parts of the body and to use the whole body is learnt by children through movements associated with the Shao Yang and Jue Yin Divisions.

What are Shao Yang and Jue Yin?

The **Jue Yin Division** combines the Heart Protector and Liver meridians [10]. The developmental movements, such as the Babkin and Amphibian Reflexes, which are focused in the Jue Yin, tone and strengthen the deep postural muscles and the core abdominal muscles. These posturally bind the limbs to the torso and help us feel ourselves to be a single whole, rather than separate bits..



The Babkin Reflex, which tones deep flexor muscles and binds the head and arms to the torso. It is stimulated by pressure on Pericardium 8 in the palms of the hand. The Pericardium and Liver meridians together form the Jue Yin which binds the periphery to the centre and creates a sense of integration.

The **Shao Yang Division** combines Gall Bladder and Triple Heater meridians. When a young infant is rolled over, their body will stiffen into a cylinder, and roll as one block. This is called the Primitive Body on Body Reaction, or BOB. As the muscles along the Shao Yang and Jue Yin become stronger and differentiated, this rolling motion develops into a spiral, which means that the baby can start to roll itself. The primitive BOB has matured into the spiral BOB which remains throughout life.



This also strengthens the abdominal and 'postural' muscles, and provides a foundation for creeping and crawling. In effect, the baby uses spiral movements to develop integration of the body segments and these spirals follow the Shao Yang precisely. The Shao Yang traces the joining points of many extensor/flexor pairs of muscles in agonist/antagonist relationship, thus providing the points at which dialogue can develop between these complementary forces. The development of the Shao Yang is essential for athletic skill and, if it is blocked, creates internal conflict and contraction.

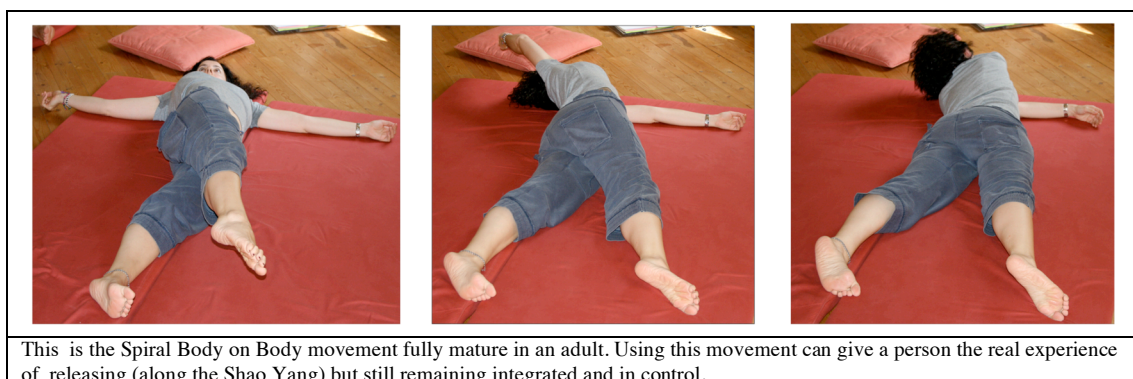
So both divisions are concerned with integration, centering and dealing with conflict. Often, friction in a relationship is a projection of internal conflict in the individuals, so working with internal dialogue through these divisions can form a foundation for external bridge-making.

Working with the parents

In family therapy, I usually work with the individuals one by one, with the others present, helping each to be aware of their internal vulnerabilities and conflicts. I find that this helps mutual compassion to develop rather than stimulating the expression of grievances.

Jo felt that she was the responsible one in the family and that she carried the heavy weight of caring for Damian. Physically she was extremely tense. Emotionally, she was highly strung and became easily irritated when things didn't go the way she expected.

Her energy was tense and controlling, rigid and reactive, which is the result of trying to take responsibility for too much. She wanted Graham to take more responsibility, but was not able to allow him to do it in his way. She was exhibiting the bound control state of the immature Shao Yang. Therefore, I started some work to activate the Shao Yang through movements, which might give her the experience of releasing control without feeling that she was opening the door to chaos.



To do this, I asked her to lie down and suggested to Graham that he pull her limbs in various directions which would roll her over. At first she resisted the pull and then after the strength of pull became

greater, she pushed herself over like a solid log rolling, just as in the primitive BOB reaction. I then suggested that Graham start with a gentle pull on an arm and I touched the side of her ribs where the pull was starting a stretch. I instructed her to just be aware of that place and to try to find a way of releasing it, helping her sensation by gently pushing the ribs in the direction of release.

After a short while she said: " I don't know how to let go. I don't want to let go!".

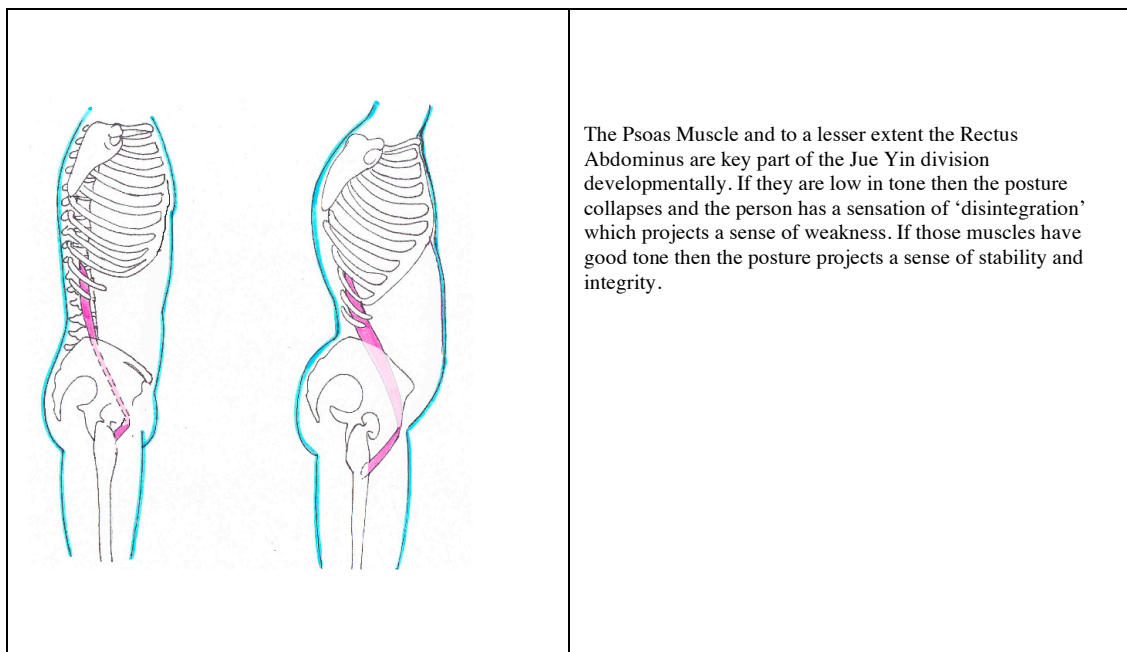
I suggested that she actively resist the movement. Sometimes, if there is internal conflict, positively affirming the resistance does more to help it release than trying to force oneself to let go. By amplifying the direction in which energy is already moving (in this case 'resistance'), the client can feel respected and make a choice to release. Sometimes the nervous system is like a sulky person, if you try to persuade it to do something different, it digs its heels in. In Jo's case, actively resisting the pull on her arm made her able to feel the muscles, which showed her what to do to release her ribs. We repeated the process a few more times, each time in more detail until she could open the complete ribcage bone by bone.

The stretch then extended into the hip. She found this more difficult so I did some work with the pelvis, mobilizing the Sacro-Iliac and the Sacro-Lumbar joints and teaching her to move her pelvis as part of the movement of breathing. Returning to the experiment, she was able to continue to release her body into her hips and thence along the entire Gall Bladder meridian. This was an example of using a meridian to re-learn a developmental lesson – in this case to develop the mature BOB reaction using the Gall Bladder meridian as a focus for the active release into the spiral movement.

Even in the first session she realized that the problems she found with this exercise felt connected to her emotional inability to let go of control. Graham expressed his feeling of love and contact, which he felt when she managed to release. He realized that when she *acted as a reaction to her stuckness* he felt alienated and unappreciated but when she expressed her frustration with her own sense of blockage, he felt compassion and warmth. Jo still felt tense but also felt the contact between them increase when she was able to give up control. She was motivated to continue with this experiment in further sessions.

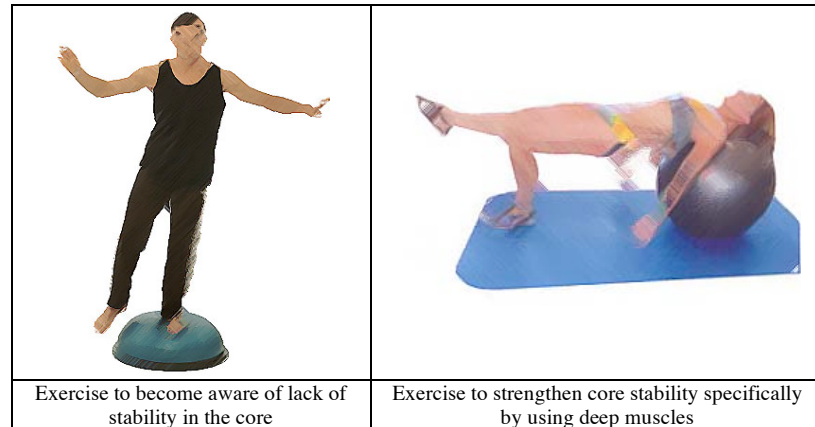
Working with Graham

Graham's issue was that he felt he couldn't stand up for himself. Jo was expert at putting her point of view in such a way that he felt he had no answer. When he initiated something, he was too easily pulled off balance by her stronger power.



I observed that Graham's posture was loose and that his postural muscles had low tone (see picture), which projected a sense of weakness and passivity. The musculature along the Jue Yin, in particular

the psoas muscle, was under-developed. I started by using a physio-ball, doing exercises which threw him off balance. His response was to use his back and limbs to force himself upright. I then gave him exercises where he could not use these parts of his body and, at the point at which he moved out of balance touched points on the Liver and Gall Bladder meridians to give him awareness of the pelvic and abdominal muscles. By moving him slowly in and out of balance I showed him how to use these muscles to maintain equilibrium.



At first he found this hard, his core musculature was under-used and weak. But he could experience that this sense of 'being a pushover' on the physio-ball was similar his weakness in relation to Jo's power. This motivated him to try a system of exercises, which I gave him, to strengthen his core. After some weeks of doing these, he was able to maintain balance in increasingly challenging positions.

As his core became stronger, I started doing meridian stretches which took up the slack in all four meridians of the Jue Yin and Shao Yang, to give him a sense of how the limbs and the head were connected to the core and also used therabands to evoke the sensation of elastic binding that a strong Jue Yin can give. This enabled him to feel how his distal actions were supported and stabilised by the centre.



Working with therabands to stimulate sensation of the elastic binding power in the Jue Yin.

We then brought Jo into his work by asking her to push or pull him off balance. She could sense how his strengthened core gave him a flexible stability, which she instinctively respected. Once the pull or the push reached his centre, she felt her motivation to fight him dissolve. Instead she wanted to feel the support of his strength. They did some good wrestling, which turned into laughter and mutual closeness.

As the therapy continued, Jo and Graham devised protocols they could use in their relationship based on these principles. When Graham felt Jo was over-controlling he was able to ask her to let go and allow him to take responsibility. She was able to use the physical experience of releasing muscles to let go of her control. For Graham, he was able to use his growing sense of core strength to notice when he was being pulled off balance by Jo and to maintain his position without becoming hard and reactive.

Conclusion

This family has real difficulties that will not go away because Damian's cerebral palsy will probably mean that he will always be, in some sense, disabled. However, the great work that they did gave them a physical experience of the skills taught by the Yang Ming, Shao Yang and Jue Yin. Jo learned to release control, Graham learned to stand up for what he believed and Damian learned that even his 'deficient' parts were loved and respected. Instead of dealing with difficulties in a hard, tense fashion, they have learned to be flexible and remain in dialogue. They are focusing on *enabling* each other rather than criticising their disabilities. I hope this allows them to knit into a contactful, warm family, which has the resilience to deal smoothly with the challenges ahead.

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