Pilates for Fibromyalgia

A Case Study

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Abstract

This paper is about my experience with fibromyalgia which began in 2001 when I was age 42. My symptoms were initially severe but they have now reduced to a more manageable level in great part due to Pilates.

The term Fibromyalgia (FM) comes from *fibro* “fibrous tissues” *myo* “muscle” and *algos* “pain”. So FM is essentially a term for pain in the muscles and connective tissue.

FM is a condition affecting 2-8% of the population (Clauw 2014) with women being about 8 times more susceptible than men (Bartels 2009, Hawkins 2013).

There are many possible FM symptoms people can experience but in this paper I’ll be considering my own primary FM symptoms which have been burning muscular soreness, unpleasant neural sensations, joint soreness, fatigue, anxiety and depression.

Though not fatal the prognosis for FM is that it’s incurable. Interventions for symptom control include psychological therapies, medications and exercise all of which I’ve tried.

The most effective approach for me to date has been a mind-body approach to relaxation and exercise. The BASI Pilates system with its foundational Ten Movement Principles has been ideal for me because it encompasses this approach.

This paper will look at my personal FM-related discoveries leading up to my introduction to Pilates in 2010 and specifically why and how I now use the BASI system to help reduce my symptoms.
Cause and Symptoms of Fibromyalgia

The cause of FM is officially still not known although Dr Frederick Wolfe the discoverer of FM stated it was not a disease but a physical reaction to stress and depression (Wolfe et al 1990). Other causes such as genetics, lifestyle, physical trauma and sleep disturbance have been looked into with no conclusive results (Wikipedia/Fibromyalgia). Doctor Bruce Taylor an Australian neurologist I was referred to in 2001 told me his FM patients were typically anxiety-prone and slept poorly which was certainly true of me.

In my experience my FM symptoms have always been exacerbated directly by any stress or excitement that causes a fixed state of muscular tension. I’m also aware that if I relax my body and breathing there is an immediate reduction in my symptoms.

Further to relaxation per se, in the next section I’ll discuss the success I’ve had with exercise that incorporates the principles of relaxed efficiency of movement, biomechanical alignment/integration and “pulsing” of the muscles. These principles relate to and underline the importance of the Ten BASI Principles in particular awareness, efficiency, flow, precision and harmony as defined in Rael Isacowitz’ book Pilates (Isacowitz 2006).

(Picture from Wikipedia/Fibromyalgia)
Approaches to Treatment

There is no known cure for FM. Medical professionals believe that once you have FM you have it for life. That said there are now improved treatments available for symptom management which include:

- Psychological therapies of which Cognitive Behavioural Therapy (CBT) is the most used.
- Medications
- Exercise

When used in combination the results have been shown to be better (Sommer et al 2012).

Factors Contributing to Improvement of My Symptoms

In 2001 I started having counselling sessions for stress reduction and in 2002 I attended a course for people suffering anxiety.

Also in 2002 I was prescribed a tricyclic antidepressant called Amitriptyline which still is a standard medical first response to FM (Moore et al 2012). Amitriptyline was furthermore described to me as having muscle relaxant and sleep promoting properties. I took Amitriptyline for one year and then quit because the drowsiness it caused became increasingly impossible to live with. Other side effects were weight gain which is a persistent condition to this day and psychological disturbance including elevation of suicidal feelings which subsided again when I went off the drug. The positive results for that year on the medication were good in terms of my ability to sleep, my anxiety levels and my muscle soreness.
Through the above psychological and pharmaceutical interventions, by 2002 I was able to recognise the direct correlation between my stress levels and FM symptoms which up to that point had been a mystery to me.

Coming off my medication in 2003 meant I was unable to keep my stress levels down anymore and my condition relapsed. This was despite continuing with my personal counselling appointments and exercise/stretching. Plus by this time I was using various relaxation techniques I’d been shown but they turned out not to work for me either.

1 Relaxation through Physical Support

Then in Dec 2004 I struck upon a way to help relax my body through focusing on the physical support given to me by the floor or a chair/bed underneath me and by applying weights to my body reminiscent of Temple Grandin’s “Squeeze Machine” she built to help her overcome her autism (Grandin 1992).

The sense of the body “letting go into a greater supportive force” has been a theme for my recovery ever since that time. Interestingly this had also been a principle taught to me during my Shiatsu training in 1995-8 (Sergel 1989) but I didn’t properly understand it until that 2004 break through point.

Up to this time I’d forced myself to exercise though it was painful and extremely slow. I had made myself walk and stretch for five hours a day doing things that would take a healthy person less than an hour to accomplish. When I began relaxing better I ceased all exercise and stretching which I came to view as counterproductive.
By using my “relaxation through support” method, bit by bit my pain reduced, energy levels rose and anxiety reduced. The process felt extremely slow but I estimate I had a very long way to come back from.

By 2009 I was ready to return to stretching this time without forcing my body and by 2010 I started Pilates.

The results of my efforts with stretching and exercise since then have always been consistent in the following regard. When I force my body my symptoms flare up and when I allow unnecessary, counterproductive tension to leave my body as I move my symptoms tend to subside and my energy levels tend to rise.

When doing Pilates I think it’s vital to notice the support of the machinery or mat underneath us or we discredit the genius of the exercise. We also need to notice the support structures existing within our own bodies. Each “segment” of our bodies is designed to integrate with and support the others around it (Newbery 1995). For me awareness of the support matrix my body is interwoven into is an essential element for letting go of the rigid muscular tension causing my FM symptoms.

Good results from exercise are more assured and enhanced if I observe the “pulsing” and alignment principles explained next.

2 The Contract-Relax “Pulse” and the Body’s Alignment

I later discovered that “pulsing” my body during exercise increases my energy levels. A contract-relax pulse approach helps promote a rhythmic energy flow that results in a feeling of muscles aliveness rather than soreness. However this is true only when I observe a good postural alignment so the energy flow is free and unobstructed otherwise I can still be left
feeling sore and exhausted. I think energy follows the lines of our body that we most use and if those lines are distorted our energies have to fight against those distortions to achieve a free path. We can unwittingly set up an internal conflict of forces which can result in soreness and exhaustion. Poor alignment also compartmentalises our body so the body segments have to fight individually to hold their structure whereas good alignment assists them to co-operate with efficiency in a mutually supportive, harmonious fashion.

This is why I think good form is such an important aim. The better the form and the more rhythmically the muscles can pulse, the more the body is functioning in the way it was designed to function. In this way the inducted energy, not the tension of the muscles performs the exercise for us.

3 BASI Principles

I was initially drawn to BASI Pilates for several reasons one being Rael’s insistence upon utilizing the free flow of energy through the body during exercise and statements like this one from his book Pilates.

_I have an internal agreement with myself when performing the work: the more difficult and demanding the movements are, the more consciously relaxed I become._

(Isacowitz 2006, emphasis mine)

I was also increasingly drawn to BASI because of its precision of form, a requirement for the unobstructed flow of energy.

The Ten Movement Principles which Rael has described as “foundational” to the BASI “mind-body system” (Isacowitz 2006) have all been illuminating for me. Medically speaking
FM ideally requires interventions for both mind and body (Sommer et al 2012) which these Principles relate to.

4 Breaking Poor Habits

I think habits of the mind and body are what shape us. Here are three habits I’m trying to break with good effect on my tension levels.

First as a westerner I feel I’ve been conditioned somewhat to think if I’m not achieving something the solution is to push harder. Whereas sometimes all of us need to push out in a healthy way we also need to relax and attune to the supportive forces within our bodies and around us and this latter approach can be the harder discipline for a post-industrial westerner like me. Both inside and outside the Pilates studio I think it’s important to notice and challenge a knee-jerk, ingrained “push harder” mentality.

Second, I’m sure most of us all too often find ourselves measuring our lives by our productivity more than our quality of experience and long term health. I think it’s important to perform a Pilates exercise with quality and precision, learning how the exercise can benefit our body’s needs a little more with each repetition.

Third, in our modern world we’ve lost our postural integrity from living in a synthetic environment with chairs and computers and from wearing constrictive footwear. Poor posture produces lines of tension and stress throughout the body. According to the principle “form follows function” we do well to progressively remove some of our modern world supports so our everyday movements and rest positions can become more like they are for people in less developed parts of the world. Pilates additionally is a guiding force because it gives us a model (Isacowitz 2008) and a feel for what good posture is.
In this section I’ve looked at factors contributing to the improvement of my FM symptoms.

In the next section I’ll present a BASI conditioning program based on these factors.
BASI Conditioning Program

Using the BASI block system I’ve made a compilation of exercises which help set me up for the experience of head to toe alignment and energetic connection between body segments. I hope this Pilates program can help other FM sufferers who are at a beginner to intermediate level.

For all exercises in this routine I would emphasise the following six points. These points convey the method for applying factors discussed in the previous section.

1. A sense of *allowing* the body to “open” rather than using tension to force the body to expand and lengthen out from its centre. To do this we can visualise our muscle fibres letting go and opening rather than contracting. We can practise this visualisation for example when doing Side Reach on the Cadillac. This is an exercise performed on the in-breath. The in-breath is significant because as the chest expands we can sense *where* tension is resisting expansion. By relaxing in those places, the chest and the arm will open out naturally and the air will be *allowed* to enter our lungs naturally without force. This principle of letting go to create space is a metaphor we can apply to the whole body as well. We can allow the whole body to “breathe” by allowing our muscles to relax and open so that space and energy can flow in, using only the minimum effort necessary and releasing all constrictive unnecessary tension.

2. A sense of *lightness* when making an ascending movement or holding a difficult posture. Focusing on lightness helps free the mind and therefore the nervous system and muscles of a perceived weight and effort involved which is in most cases
overestimated. This principle can be applied to mat exercises like Twist, Back Extension and Forward with Drops for example.

3. A sense of “heaviness” into or from a supporting structure when relaxing. For example in a standing position have shoulders and arms feeling heavy and falling out to the sides of the body and shoulder blades hanging like a heavy overcoat from the “coat hanger” of the shoulder girdle. Notice when we allow these body parts to fall into the embrace of gravity, there is a tendency for the chest to lift and open naturally. Taking the Chest Lift as a second example, if we allow our sternum to feel heavy and relaxed down into the support of the mat (my BASI instructor Joleen Watson suggested imagining a pebble resting on the sternum), not only does this relax the chest but it creates opportunity for the thoracic spine to flex more easily and the upper thoracic spine to lift naturally off the mat. Both these examples point to how aligning and letting go into gravity in the right way can produce desirable, efficient unforced lift and openness.

4. Trying to maintain a feeling of a) alignment and b) of the whole body working together connectedly during the exercises. For example in Reformer Footwork we can lengthen out through our spine simultaneously as the legs extend so there is aligning and connecting activity throughout the whole length of our body. The alternative is to have a body that is compartmentalised into segments which struggle to perform independently which is not how our bodies were designed to function. A compartmentalised body is more likely to develop chronic tension (Newberry 1995) which in my experience has been the trigger for my FM symptoms.
5. Using **a combination of effort and relaxation** in exercises to “pulse” the body to further free muscles from rigidity. The contract-relax technique has been found to be effective for inducing relaxation in muscles so they can be stretched more easily (Laughlin 1995) and is a technique used in “progressive muscle relaxation” developed by Edmund Jacobson in the 1920’s (Jacobson 1938). I simply extend the contract-relax principle to enhance exercise as well. Muscular contractions of short duration can help push out tension which then helps throw the muscles into a more expanded, relaxed, oxygen and energy rich state which powers them to work for longer and with less soreness and exhaustion afterwards. “Pulsing” can be little squeezes applied at the momentary **pause points** in exercises such as in Reformer Footwork when the legs are fully extended. Here the legs and spine can be reached out in opposite directions with a burst of extra effort before being released back to their more relaxed efficient state of movement. In his description of the Principle of **flow** Rael cites people who have “an effortless flow in their movements” also appear to have an optimal muscle firing sequence (Isacowitz 2006). I think with practise “pulsing” can add to our ability to experience this same sequence and flow Rael is referring to.

6. Equipment spring tension should be set to optimize facilitation of the above points.
<table>
<thead>
<tr>
<th>BLOCK</th>
<th>Exercise</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm Up</td>
<td>Fundamental Mat Warm Up</td>
<td>With emphasis on basics of integrating whole body so one part isn’t over stressed and integrating breathing as an additional supportive mechanism</td>
</tr>
<tr>
<td>Foot Work</td>
<td>Reformer footwork series</td>
<td>Reformer maximises support for the body helping the FM sufferer start to get a feel for supported movement</td>
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<tr>
<td>Abdominal Work</td>
<td>SB 2 The Reach, 4 Spine Twist Supine</td>
<td>Reach assists our sense of alignment from head to toe, SB Spine Twist opens chest and reinforces the integral working of the body around the spine</td>
</tr>
<tr>
<td>Hip Work (strap work)</td>
<td>25-27 Reformer Hip Work Series</td>
<td>With emphasis on lengthening out through spine and resting into the support of the carriage this assists relaxation and reinforces the fundamental spine-pelvis-leg integration and alignment of the body</td>
</tr>
<tr>
<td>Spinal Articulation</td>
<td>Reformer 34 Semi Circle (or 30 Bottom Lift if too hard)</td>
<td>With some instructor hand support this exercise is one of the best for gaining awareness of the body’s overall spinal, core and leg workings and movement thru space</td>
</tr>
<tr>
<td>Stretches</td>
<td>Reformer 35 Standing Lunge Cad 30 Shoulder Stretch (if time)</td>
<td>Good introduction to HF &amp; HS stretches with maximum support (hence potential for relaxation) for the body. Shoulder Stretch particularly applies to Fibromyalgia sufferers who typically have sore shoulder joints. The client could start by take an easier position on the table with body to side away from hand holding the bar and with arm on a lower angle toward hips. Instructor squeezing and rotating arm muscles to increase blood flow if not too painful.</td>
</tr>
<tr>
<td>Full Body Integration 1</td>
<td>Reformer 45 Down Stretch Cad 32 Side Stretch</td>
<td>When practised Down Stretch can teach movement without effort. Side Stretch opens the body which is typically compressed in FM sufferers</td>
</tr>
<tr>
<td>Arm Work</td>
<td>37-41 Cadillac Standing Series</td>
<td>A wonderful series for teaching connection right down to the feet and toes while moving the upper body and keeping shoulders connected to the core via the Lats</td>
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<tr>
<td>Full Body Integration 2</td>
<td>none</td>
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<tr>
<td>Additional Leg Work</td>
<td>Box 53-55 Gluteal Kneeling Series, 56 Adductor Lift</td>
<td>Fantastic body awareness exercises that teach fundamentals of a straight open spine and controlled movement of the hips and knees while reinforcing connection of shoulders to the core and opening of the chest under some load</td>
</tr>
<tr>
<td>Lateral Flexion / Rotation</td>
<td>WC 29 Side Stretch</td>
<td>Ideal for toe to head lengthening and opening of the whole body while gradually exploring its natural ability for opening into lateral flexion with support from the pedal. Spring support can gradually be reduced</td>
</tr>
<tr>
<td>Back Extension</td>
<td>Reformer 92, 93 Pulling Straps 1 &amp; 2 (or WC 32 Swan Basic if too hard)</td>
<td>Wonderful exercises for experiencing the full length and openness of the body along the structural lines of the spine, legs and arms through maintaining good connection of the shoulders with the body. Swan Basic is a great supported intro exercise for opening and lifting the chest to gain flexibility in the thoracic spine.</td>
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Conclusion

After discovering the relationship between constant, rigid, physical tension in my body and the symptoms of FM, I came across ways to alleviate that causal tension and move toward restored functionality.

The first step was realising how my body relaxed automatically when I noticed it being physically supported. The second step was learning how to stretch and move my body while maintaining that same sense of support and relaxation in my body. The third step was discovering that muscles love to cycle through a state of contraction and relaxation literally pulsing energy and fluids along them refreshing, repairing, and powering them. The fourth step was becoming aware of the importance of alignment and integration of body segments during exercise so that energy flow could be transmitted efficiently without encountering resistance along the way.

BASI Pilates offers a precise, detailed exercise repertoire effective for the above mentioned alignment and integration needs of my entire body. The Ten Movement Principles correlate with and add to my other above findings. For these reasons BASI has helped transform a state of resistive tension in my body into a state of harmony where FM symptoms have less hold.
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