A New Mind-Body Approach for a Total Healing of Fibromyalgia: A Case Report

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Abstract

Fibromyalgia is a severe, chronic and widespread pain syndrome with no definite treatment protocol. Various medications are currently in use to treat this condition. Various pharmacological treatments, as well as alternative mind-body therapies, have been directed towards reducing fatigue and pain, but these treatments have only resulted in a partial relief of symptoms with no long-term or permanent effects. This study shows the results obtained from four female patients suffering from fibromyalgia after undergoing a mind-body treatment in which Psychosocial Genomic postulates as well as ideodynamic hand movements were the main tools employed in their healing. It is suggested that a mind-body oriented treatment could generate stable and permanent changes that enable patients to experience a total recovery from fibromyalgia.

Keywords: Hypnosis, brain plasticity, fibromyalgia, ideodynamic, mind-body healing, psychosocial genomics.

Fibromyalgia (FM) is a chronic condition causing pain and pronounced fatigue (Price & Staud, 2005), characterized by sleep disturbances, stiffness, chronic headaches, anxiety and depression. The causes of these symptoms are currently unknown although psychological stressors are considered to be triggering factors during the initial stages of the disease (Bennett, 2004). FM accounts for 15-23% of rheumatology patients, of whom most are females between the ages of 20 and 50. In spite of this statistic, there is still no definite treatment protocol at present (Hadhazy, Ezzo, Creame, & Berman, 2000) with pharmacological treatment still the mainstay of therapy. Long-term studies have shown that for a complete and optimal intervention to occur the treatment approach should also include alternative methods such as diet, mild exercise, and cognitive behavior therapy (Chakrabarty & Zoorob, 2007).

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Several studies suggest that this disease may possess a genetic predisposition and that this predisposition is worsened by psychological and environmental factors. Propositions have been suggested that the anatomic and biochemical origins of FM begin with nociceptive changes, central sensitization, and a reduction in the pain threshold (Desmeules et al., 2003; Price & Staud, 2005; Staud, 2006). Other authors propose that FM is a sympathetically maintained neuropathic pain (Martinez-Lavin, 2004). There is general agreement amongst researchers that FM is essentially an anomalous modification of the nervous system. Common pain relievers, muscle relaxants, anti-inflammatory drugs, and antidepressants only cause the pain to wax and wane, so at present, there is no evidence to support the long-term efficacy of any of these aforementioned treatments (Hadhazy, Ezzo, Creamer, & Berman, 2000).

The effectiveness of various non-pharmacological and mind-body oriented therapies such as exercise, body therapies, acupuncture, meditation practice, and hypnosis have been supported by some studies. These have proved to be useful tools in decreasing the symptoms of the syndrome. Yet, again, the research demonstrates only partial control of symptoms (Arnold, 2006; Astin et al., 2003; Haanen et al., 1991; Hadhazy, Ezzo, Creamer, & Berman, 2000; Wik, Fischer, Bragee, Finer, & Fredrikson, 1999).

In recent studies Rossi (2002, 2004, 2005) has proposed various mind-body approaches based on the work of Milton Erickson which not only have shown to be effective in controlling certain symptoms in other diseases, but which may have also generated modifications at the neuro-physiological level that aid the healing process. Other studies have shown how cortical reorganization could serve as an explanation for different pain disorders (Flor et al., 1995; Melzack, Coderre, Katz, & Vaccarino, 2001). For example, Flor, Braun, Elbert, and Birbaumer (1997) have shown that an expansion of the somato-sensory cortex in chronic back pain patients suggest that enlarged cortical representations might contribute to the maintenance of a continuous experience of pain. Synaptic remodeling would be a mechanism that could partially explain cortical reorganization (Flor et al., 1995). Other authors have discussed how neural plasticity can contribute to the pathogenesis of pain hypersensitivity (Woolf & Costigan, 1999; Woolf & Salter, 2000). Accordingly, local plasticity changes in the nervous system could be the cause of functional mind-body changes (Rainville, Bushnell, & Duncan, 2001). Therefore, we speculate that if FM is produced by changes in the neural circuits, an ideodynamic approach using hand movements could generate new changes via brain plasticity, thereby facilitating healing.

The following case report presents the results obtained from the study of four female patients diagnosed with FM who underwent a mind-body oriented treatment based on Rossi’s Psychosocial Genomic theories.

**Case History**

The subjects were four females in a consecutive series, unrelated to each other, and all of them diagnosed with FM according to ACR criteria (Wolfe et al., 1990). The patients’ ages ranged from 33 to 42 years old and the sole cause of their
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selection was their diagnosed condition of FM. It was proposed to these patients that they undergo a mind-body treatment and their informed consent was obtained. The patients were asked to submit the standard Fibromyalgia Impact Questionnaire (FIQ) in four different stages: prior to treatment, after finishing treatment, during a follow-up test 4 months after treatment and finally during a follow-up test 24 months after treatment. We used the FIQ as a combined score with a range between 0-100 as a tool to evaluate the FM impact on the patients’ quality of life. The FIQ is divided into 10 items.

The first item contains 11 questions related to physical performance, with each question rated on a four-point Likert type scale. Items 2 and 3, respectively, assess the number of days in the previous week that the patient felt well and the number of days in the previous week that the patient was unable to work, including housework. Items 4 to 10 are horizontal linear scales graduated into 10 increments along which the patient rated difficulties with working, pain, fatigue, morning tiredness, stiffness, anxiety and depression (Bennet, 2005; Burckhardt, Clark, & Bennett, 1991; Rivera & Gonzalez, 2004). The patients were also evaluated for their absorption capacity using the TAS, the Tellegen Absorption Scale (Tellegen & Atkinson, 1974). Absorption, as measured by the TAS, correlates positively with hypnotizability (Glisky, Tataryn, Tobias, Kihlstrom, & McConkey, 1991). The TAS is a 34-item questionnaire which is dichotomously scored in its standard version based on the patient’s report of whether each item was true or false for them. One point for every “true” gives a range of 0-34 score, and a higher score correlates with a higher hypnotizability. The descriptive statistics on a normative sample showed a mean of 15.02 with a SD of 7.17; as for reliability the alpha coefficient was .88-.89 and the one-month test-retest stability was .91 (Dr. Tellegen’s personal communication). In the present study, for our four patients, the mean for the TAS was 25.25, with a SD of 9.31.

Case 1

The patient is 42 years of age and diagnosed as having suffered from FM since 1992. The patient is married and has two children. She was following a combined pharmacological treatment consisting of anti-depressants, sedatives, anti-inflammatory drugs and pain killers. It was also proposed to her by her physician that she use morphine which she refused. As a result of FM, the patient had been unable to undertake any working activity since 1998. This patient was the only one in this study who had been treated with hypnosis (for 18 months) prior to beginning our treatment and it had enabled her to control her pain in an efficient way. Nevertheless, she suffering from FM crises approximately every two months. The patient’s FIQ showed a score of 95 in the week prior to beginning treatment with a TAS score of 34.

Case 2

The patient is 35 years of age female diagnosed as having suffered from FM since 1997. The patient is married and she has a daughter. The patient had to stop working as a result of pain and fatigue. She was not using any medication with the exception of analgesics as she practiced meditation on a regular basis and had
found that this method helped her to gain partial control of the pain. During FM crises, the patient was unable to perform any kind of work including housework. Besides suffering from the typical symptoms of FM she also had a tendon defect in the ankle area of both feet which worsened her situation. Her physician proposed that she seek a surgical operation for her feet but she decided against this. The patient’s FIQ showed a score of 84 in the week prior to beginning the treatment with a TAS score of 12.

Case 3
The patient is a female, 38 years of age, and was diagnosed as having suffered from FM since 1995. The patient is married and she has two children. Throughout her illness, she experienced periods of lesser pain during which some degree of physical activity was possible between acute crises. In this case there seemed to be a clear relationship between stress triggered by working and the FM crises she experienced. She particularly reported to be suffering from frequent neck and back contractures. The patient was undergoing treatment with pain medication and anti-inflammatory drugs. The FIQ showed a score of 74 in the week prior to beginning the treatment with a TAS score of 21. At the time of our treatment, she was also diagnosed as suffering from arthritis.

Case 4
The patient is a female 33 years of age and was diagnosed as having suffered from FM since the year 2000. She was also diagnosed with rheumatoid arthritis. The patient is married and she has a son. She commented that she could not tolerate being touched by her husband as a simple touch caused her intense pain. Due to acute FM she had also been forced to stop all physical activity. The patient reported having frequent “extra sensorial experiences,” in the form of premonitory dreams and anticipated phone calls or visits. This patient was advised to try this mind-body approach by her medical doctor who was privy to the initial results of this trial. The patient’s pharmacological treatment consisted of a combination of anti-depressants, sedatives, anti-inflammatory drugs, and pain killers. The FIQ showed a score of 79 in the week prior to beginning the treatment with a TAS score of 34.

Treatment
An ideodynamic approach was used on the Four-Stage Creative Cycle Process (Rossi, 2002; Rossi & Rossi, 2006). The treatment consisted of six sessions, each for a 2-hour duration once a week. Patients were treated individually in hypnosis. At the beginning of session 1 we asked the patient to place her hands face down and some inches above her lap. The patient was asked to set her unconscious mind free so as to recover any memories, images, thoughts, or emotions which could be key factors in solving her problem (Stage One of Rossi’s creative cycle process).

We asked the patient to visualize her neural circuits in the brain as electronic circuits where not only how our bodies feel, but also how our bodies function throughout our entire lives, are recorded (Stage Two). We asked the patient to try to recover the operational capability of those neural circuits which had been used by her mind-body prior to FM when she had been healthy and feeling strong and positive. The patient was also asked to search within herself for her inner creative resources in order to allow the whole process to work. The patient confirmed that she had found those inner creative resources shown by one of her hands drifting down of its own volition.

After this ideodynamic confirmation of the retrieval of those inner resources, the
patient was asked to use them as healing tools (Stage Three). This was shown by her other hand drifting down of its own volition thereby allowing her unconscious mind to take the necessary time to generate beneficial changes in her brain until healing could be verified (Stage Four). Then we asked her unconscious mind to ensure, before coming back to a full awakening, that she would be able to continue this work during the following hours, days, and even nights, while dreaming.

The same process was repeated during session 2 but this time using the palms-up approach with her hands some inches above her lap in a receiving attitude (Rossi, 2002). We asked the patient to let her unconscious mind search for a particular moment in her life when she had felt healthy, strong, and positive as a reference point in order to recover the healthy function of those neural circuits. The patient confirmed she had found this moment in her life shown by one of her hands drifting down of its own volition. Then we asked the patient to let her unconscious mind make any change she needed to do in order to recover the healthy function of those neural circuits which she had commonly used when she had felt healthy, strong, and positive prior to the onset of FM. We asked her to confirm that she had found the inner creative resources to make those changes again shown by her other hand drifting down of its own volition. Then, we asked her unconscious mind to take the necessary time to make those changes before coming back to a full awakening. In session 3, we used the palms-facing-each-other approach, in which the patient put her hands some inches above her lap, one in front of the other and, at the same time, we asked her to try to focus on her memories, feelings, and thoughts (Rossi, 2002) while we talked to her about how her mind could modulate the physiology of her body to facilitate healing. We supported whatever changes in sensations, feelings, or thoughts the patient experienced at that moment. At the end of the session we told the patient that when her unconscious mind knew that she could continue with this work in the hours and the days to follow, even at night while dreaming, then she would feel well and come back to a full awakening.

In session 4 we used finger signaling to communicate with the patient’s unconscious mind, coding one finger as “yes,” another finger as “no” and another one as “I can’t answer at this moment.” We directed her to a time in the future, one year ahead of treatment, after she had recovered her health and felt fine, strong and positive, just as she had done before FM. We supported any change in sensations, feelings, or thoughts the patient experienced and asked her unconscious mind to maintain the function of those healthy neural circuits that she was using at that moment. At the end of the session, after redirecting her to the present time, we told her unconscious mind that when she knew that she would be able to continue with this work, in the hours and the days to follow, even at night, while dreaming, and when she could maintain those beneficial changes that would allow her to recover her health, then she would feel well and come back to a full awakening.

In session 5 we helped the patient develop self-hypnosis skills using a muscle relaxation approach. We began by asking the patient to relax her feet muscles, then her leg, back and abdomen muscles, and then her neck and arm muscles. At the same time, we asked the patient to let her unconscious mind free so as to recover any memory, thought, feeling, or inner creative resource, that could be useful in solving the problem that she had. Then we asked her unconscious mind to be sure that she would be able to repeat this experience whenever she wanted to, or needed to, and that when she knew that she would be able to continue this work she would feel fine and come back to a full awakening.

In session 6, the patient was instructed in the use of ultradian rhythms (Rossi, 2002) and taught how to use the ultradian healing response effectively on a daily basis and several
times a day in order to reframe symptoms into signals and problems into opportunities for accessing her inner resources (Rossi, 2002). In order to do this, we used the same muscle relaxation approach from session 5 asking the patient to relax her feet muscles, then her leg, back and abdomen muscles, and then her neck and arm muscles and told the patient that the mind-body goes through natural ultradian cycles of 90-120 minutes every day and even at night. Furthermore, we explained that at the end of each cycle she would experience a 20-minute period in which the mind-body gives signals of the need to rest. We told the patient that she should follow these signals to use the ultradian healing response instead of ignoring them because ignoring them would convert them into an ultradian stress syndrome.

Results and Follow up

Case 1
At the end of the treatment the patient reported an outstanding improvement in her own perception of pain. Fatigue symptoms disappeared as well as depression. After treatment her FIQ’s decreased from 95 to 2. In the 4-month follow-up period the FIQ score was 1; as a result, the patient was able to stop all medication, including anti-depressants, under the advice of her physician. In the second follow-up test, 24 months after treatment, the patient’s FIQ score remained at 1. Since then the patient has not experienced any FM symptoms for a period of 32 months and recently she has even returned to work in a job that demands great physical effort.

Case 2
This patient showed substantial relief of pain, decreased fatigue, and experienced a general state of well-being after treatment. Her FIQ score decreased from 84 to 14 and in the first follow-up test 4 months after treatment her FIQ score was as low as 24. The patient was able to return to work even though her job involved great physical energy. During the second follow-up test 24 months after treatment her FIQ score was 18. This score was consistent with a persistent pain that was due to a tendon defect in her ankle areas of both feet and unrelated to FM symptoms. At present, the patient has remained in a good state of health and has been FM symptom-free for a period of 28 months.

Case 3
This patient reported excellent results after treatment with a complete remission of pain and a remarkable decrease in fatigue and psychological distress. After treatment her FIQ score had decreased from 74 to 22. This state of well-being continued up to the 4-month follow-up test when she reported a FIQ score of 20. This score was consistent with morning tiredness and anxiety. In the follow-up test 24 months after treatment, the patient reported a FIQ score of 21. At present, she has completely changed her lifestyle by giving up her former job which was highly stressful for her and setting up a new business venture with her husband.

Case 4
This patient showed a remarkable recovery, with results similar to those results seen in case 1. The patient experienced a total absence of pain, fatigue, and any sleeping disorder. Her FIQ score decreased from 79 to 8 after treatment and in the first follow-up test 4 months afterwards her FIQ was 2 even after having stopped all medication under the advice of her doctor. After a period of 24 months the FIQ score was 0. The patient has experienced such excellent health that she finally decided to have another baby which would
have been impossible prior to treatment due to FM, and after experiencing a normal pregnancy, she delivered a healthy male child (at the time of this writing the child is 1 year old). The patient remains FM symptom-free to date.

**Discussion**

To our knowledge, these data are unique, in that this is the first time that total and long-term recovery of health and wellness arising from a mind-body oriented therapy has ever been reported in FM syndrome. Scientific literature scarcely mentions the use of hypnosis for FM treatment purposes (Arnold, 2006; Haanen et al., 1991; Hadhazy, Ezzo, Creamer, & Berman, 2000; Wik, Fischer, Bragee, Finer, & Fredrikson, 1999). While the use of hypnosis in therapy has been shown to decrease pain and to bring about a certain improvement in the patient’s quality of life, no substantial evidence of systematic and permanent healing from FM has been offered. In the present case study four unselected patients who suffered FM for variable periods of 3 to 11 years experienced a positive response to the technique applied and also achieved a complete recovery of health and wellness by the end of the treatment with no secondary or negative side effects.

The four female patients were not using pharmacological treatment and underwent medical treatment so far in the past that they could not serve as an explanation for this dramatic change. Rossi (2002) notes that the neuro-anatomical rationale for using the ideodynamic approaches with hand movements is that the larger sensory-motor areas of the hands in the body-brain maps of the neo-cortex allow these areas to receive implicit associations from other areas of the brain, thereby engaging them in the creative therapeutic process. It is our opinion that selecting Rossi’s mind-body approaches was the key to the success of our treatment since other therapies (e.g., exercise, body therapies, acupuncture, meditation, and pharmacological treatments) have only resulted in partial alleviation of FM symptoms.

The metaphor used to refer to the neural circuits which are able recover their healthy function and the present data allows only speculation regarding the possibility that long-term neural changes occurred in the brain in connection with our treatment. However, we encourage further empirical research in related neuroscience technology, such as DNA microarrays, functional Magnetic Resonance Imaging (fMRI) and Positron Emission Tomography (PET), in larger controlled studies could well provide convincing evidence in support of Rossi’s theories (Rossi, 2004; 2005/2006; Rossi, Iannotti, Cozzolino, Castigliaone, Cicatelli, & Rossi, 2008). For example, PET has been used to demonstrate how the brain becomes activated in response to hypnotic-induced pain (Derbyshire, Whalley, Stenger, & Oakley, 2004). Other authors have used PET to show how hypnotic suggestions can modulate pain affect (Rainville, Duncan, Price, Carrier, & Bushnell, 1997; Rainville, 2002). Wik, Fischer, Bragee, Finer, and Fredrikson (1999) showed how rCBF changes during hypnotic analgesia in FM patients and also found differences between rCBF in FM patients compared with healthy controls (Wik, Fischer, Bragee, Kristianson, & Fredrikson, 2003). We could use PET to determine brain activity before our treatment and the induced modifications, if any, after treatment. Although this is the first time that healing of FM via a brain plasticity model has been proposed, this possibility has previously been put forward for stress-related and psychosomatic diseases (Rossi, 2002; Rossi, 2005/2006; Rossi & Rossi, 2006).

We should point out that cases 1 and 4 both presented the highest absorption, as measured by the TAS, and the best response to treatment. Several questions come to mind. For example, might there be a connection between higher hypnotizability and a predisposition to generating negative changes that could result in FM? If so, might that same “sensitivity” also serve as a healing tool in the reversal of FM symptoms?
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This multiple case study does not allow us to draw conclusions based on this line of reasoning and that needs to be clear to the reader. However, there is research available which indicates a link between hypnotic susceptibility and a genomic influence on FM. Some studies have demonstrated that the polymorphism met/met of the COMT gene correlated with a high hypnotizability in women alone (Lichtenberg, Bachner-Melman, Ebstein, & Crawford, 2004; Lichtenberg, Bachner-Melman, Gritsenko, & Ebstein, 2000). This fact is not explained by the authors, but it is interesting that, in an independent study, Gursoy et al. (2003) found that the met/met polymorphism was more frequent in women with FM. Moreover, the met allele was also previously associated with improved cognitive performance (Blasi et al., 2005; Egan et al., 2001; Malhotra et al., 2002), but showed diminished regional µ-opioid system responses to pain (Zubieta et al., 2003) and lower emotional resilience in negative mood states (Smolka et al., 2005). Thus, it is possible that some women with a genomic predisposition and high hypnotizability could be more liable to the FM syndrome, and if this is true, we hypothesize that the same high hypnotic susceptibility would make the ideodynamic approach to the Four-Stage Creative Cycle Process mind-body therapy especially promising for FM patients.

References
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