

The Effects of Manual Osteopathic Treatments on Fibromyalgia: a case study

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July 30, 2018

## Introduction

Fibromyalgia (FM) is a medical condition that causes widespread body pain, severe fatigue, sleep problems, problems with memory or thinking clearly, and tenderness to touch or pressure affecting skin, joints and muscles. It can also cause sensitivity to cold, severe headaches, digestive and urinary problems, temporomandibular disorder, and pelvic pain, and “Disproportionate response to treatment and exertion” (Cheshire, n.d.).

Although fibromyalgia has historically been a mystery to clinicians and the general public, it is “considered as a systemic problem involving biochemical, neuroendocrine, and physiologic abnormalities, leading to a disorder of pain processing and perception... [causing] a dysregulation of neurologic, immunologic, endocrinologic, and enteric organ systems.” (Physiopedia contributors, 2018) It often affects women over men at a ratio of 10:1. One of my research subjects is in an online FM support group with 104 members, and estimates the female prevalence to 95%. Probability increases with age and although causes are not known, it is noted that people who have fibromyalgia also have psychosocial problems or significant stress in their lives, or a history of assault, childhood abuse or other trauma. “Fibromyalgia is thought to originate from a traumatic experience, such as car accidents, illness, repetitive stress, or certain diseases” (National Institute of Health, July, 2014)

“The pathogenesis of FMS is theorized to be a malfunctioning of the central nervous system (CNS), characterized by central sensitization, which is a heightened pain perception accompanied by ineffective pain inhibition and/or modulation. This increased response to peripheral stimuli causes hyperalgesia, allodynia, and referred pain across multiple spinal segments, resulting in chronic widespread pain and decreased tolerance to sensory input of the musculoskeletal system.” (Physiopedia contributors, 2018). It has been noticed visceral pain can sometimes trigger fibromyalgia symptoms (Costantini, Affaitati, Wesselmann, Czakanski, & Giamberardino, 2017). FM is also correlated with Central Sensitization Syndrome, where “the nervous system goes through a process called wind-up and gets regulated in a persistent state of high reactivity. This persistent, or regulated, state of reactivity lowers the threshold for what causes pain and subsequently comes to maintain pain even after the initial injury might have healed.” (McAllister, March, 2013). Yet fibromyalgia is still poorly understood, and as a result of that, has often been treated as a psychosomatic problem, which has not offered sufferers validity in their own pain and disability. (Bhana, 2017) “Clinicians could more effectively diagnose and manage FM if they better understood its underlying mechanisms.” (Clauw, Arnold, & McCarberg, 2011) More often, western medicine cannot see the body as an interwoven system, whereas osteopathic manual practice could offer solutions to assist those with FM manage their disease.

Complementary and Alternative Medicine (CAM) has shown varying results to help with FM symptoms (National Center for Complementary and Integrative Health (NCCIH), 2017) but unfortunately osteopathy as a whole has not had much research into this area. Movement therapies such as yoga, tai chi, hydrotherapy (balenotherapy: pool exercise) and qi gong have been explored, as well as massage therapy, biofeedback, acupuncture, meditation and guided imagery. (Kurt, Kocak, Erdem, Tuncay, & Kelez, 2016). Craniosacral has been researched into fibromyalgia pain management: “Approaching fibromyalgia by means of craniosacral therapy

contributes to improving anxiety and quality of life levels in these patients.” (Matarán-Peñarrocha, et al., 2011) and in another study, Castro-Sánchez, et al.,(2011), found that with 92 patients receiving craniosacral therapy or placebo for 20 weeks, “Craniosacral therapy improved medium-term pain symptoms in patients with fibromyalgia.” Myofascial trigger points, treated in soft tissue therapy has been shown to reduce FM pain (Giamberardino, Affaitati, Fabrizio, & Costantini, 2011) and somewhat supported by Fernandez-de-la-Peñaz and Arendt-Neilsen., (2016): “There is preliminary evidence suggesting that management of TrPs is able to modulate the CNS and is effective for reducing pain in FMS, although results are conflicting”.

According to Morling (2018):

The vagus nerve has been attributed experimentally to influence pain in a variety of ways; deep breathing will augment vagal activity and has been shown to reduce pain.<sup>8</sup> In all cases, it appears that vagal stimulation influences central pain processing, rather than peripheral nociceptor activity.

Sign/Symptom	Prevalence (%)
Muscle pain (myalgia), tender points	99
Visual problems	95
Mental and physical fatigue	85
Morning stiffness, persisting >30 min	75
Mitral valve prolapse	75
Global anxiety	72
Cognitive (memory) problems	71
Irritable Bowel Syndrome	70
Headaches	70
Sicca Syndrome (dry eyes/mouth)	63
Hypersensitivity to noise, odors, heat/cold	50-60
Inflammatory Bowel Disease	50-60
Constipation	59
Sleep disturbances/morning fatigue	57
Dizzy or faint rising from sit-to-stand	57
Paresthesia(s)	50
Swollen feeling (joint, soft tissue)	50
Muscle spasms or nodules	50
Reactive hypoglycemia	45-50
Pelvic pain	43
Irritable bladder syndrome, female urethral syndrome	40
Hypotension (low BP, high HR)	40
Raynaud Phenomenon	38
Respiratory dysfunction	33
Lack of libido	33
Restless leg syndrome, nocturnal myoclonus	30-60
Diaphoresis	30
Auditory problems	30
Temporomandibular dysfunction	25
Depression	20
Allergies	Unknown
Skin discoloration	Unknown
Sciatica	Unknown

(Crush, 2017)

To determine subjective complaints for my own research as thoroughly as possible, I used the 1) Original Fibromyalgia Impact Questionnaire (FIQ) ((Burckhardt, Clark, & Bennett, 1997), 2) The Pittsburgh Sleep Quality Assessment Index (PSQI), and 3) most questions on the World

Health Organization Disability assessment schedule 2.0 (World Health Organization, n.d.). I did a thorough initial and follow-up assessment on spinal range of motion. The purpose of my study is to see if manual osteopathic joint mobilization, muscle energy technique, visceral and craniosacral therapy has any effect on fibromyalgia. I will not have any way to distinguish between the modalities and their specific efficacy but these will be the ones I will be utilising for the study. My original plan was a case study of one individual, but as the study went along, I needed to expand it to two. Although a record of family history and possible post trauma may have been a factor, and depression can be a significant symptom, this line of official questioning was omitted due to it being out of the scope of this practitioner (and maintenance of privacy of the subject).

Subject 1 is a 48 year old married female with three mostly grown children. She has had fibromyalgia for about 21 years. This began after a series of medical issues such as sarcoidosis of the lungs while pregnant, gallbladder removal, thyroid deficiency, hernia, blood clot and a death of a close family member, all of which happening within close succession. As fibromyalgia usually presents after trauma, this subject seemed to be a likely candidate. She has a physical job that she can go to, or not, depending on her limitations of the day. She takes Synthroid, iron due to plummeting levels if not supplemented, as well as over the counter pain medication: Advil and Aleve. She also suffers from chronically sore low back, neck and knee, and has a history of medial epicondylitis on the right, as well as right shoulder pain (glenohumeral joint). She likens living with FM as on a ration or points basis: You get an allotted amount per few days or week, and life is determined on how those rations of energy are utilised. And then there are other times where this analogy is out the window, and she just has to live her life according to whatever whim her body decides. "...normal massage or deep tissue treatment will bring days of pain and inflammation; expending too much energy will result in days of not having any energy at all or even not being able to get out of bed." (Cheshire, n.d.).

Subject 2 is a 40 year old married female with three mostly grown children. She has had symptoms of FM for about two years but only was diagnosed officially six months ago. She may also have chronic fatigue syndrome. She has had a history of severe depression, grief from multiple family deaths, marital strife, and was overworked at a physical job. Again, seeing as FM presents after trauma and significant stress, this subject also seemed to be a likely candidate. She has finished working and takes Amitriptyline, Diclofenac, and CBD oil. She says she fibromyalgia makes her feel like a stranger in her own body.

Before treatments began, both subjects were given:

### **Sleep Quality Assessment (PSQI):** (See appendix)

- Subject 1 scored a 6, slightly indicative of poor sleep quality (over 5 is indicative)
- Subject 2 scored a 16, which is indicative of very poor sleep quality.

**World Health Disability Assessment Schedule (WHODAS 2.0)**, (see appendix) although it doesn't have a numbered score:

- Subject 1 scored poorly in ability to get around, household tasks, financial, social and pleasurable activities, with fibromyalgia interfering with all activities in all 30 of the past

30 days. She did however score well (none to mild) on understanding and communicating, and getting along with others.

- Subject 2 scored very poorly in all areas, including understanding and communicating, getting around, life activities, and participation in society, but did manage to score well in getting along with others.

**Original Fibromyalgia Impact Questionnaire (FIQ 1991)** (see appendix) “Higher scores indicate greater impact of fibromyalgia on functioning” (American College of Rheumatology, n.d.):

- Subject 1 scored 60/80, which would put the subject at 75% impact
- Subject 2 scored 75/80, placing her at 93.75%.

### **Subject 1 Observation**

Subject 1 had a hyperlordosis, lower right shoulder with standing posture (subject is right handed) and neck angled to the right.

#### Cervical Active Range of Motion

##### First Treatment

Flexion: 90%

Extension: 50%

Right lateral flexion: 90%

Left lateral flexion: 90%

Right rotation: 90%

Left rotation: 90%

##### Prior to final treatment

Flexion: 100%

Extension: 100%

Right Lateral Flexion: 100%

Left Lateral Flexion: 100%

Right Rotation: 100%

Left Rotation: 100%

#### Lumbar Active Range of Motion

##### First Treatment

Flexion: 100%

Extension: 60%

Right lateral flexion: 50%

Left lateral flexion: 40%

Right rotation: 60%

Left rotation: 60%

##### Prior to final treatment

Flexion: 95%

Extension: 10%

Right lateral flexion: 25%

Left lateral flexion: 20%

Right rotation: 95%

Left rotation: 95%

**Subject 1 methodology consisted of:**

Visceral (all supine)

- diaphragm
- liver
- small intestine
- ascending colon
- descending colon
- uterus
- stomach
- spleen

In the first treatment, the right diaphragm was quite hypertonic, but all others seemed in good form.

Iliolumbar spine assessment:

- Active range of motion (results elsewhere)
- Standing PSIS SI jt test
- Posterior facet irritation test
- Spinous process static joint play: P2A (P2A=Posterior to anterior), Lat/Med same segment, Lat/Med alt segments

In the first treatment, the standing PSIS tests were negative. The posterior facet irritation test elicited irritation on L L5, and B sacrum.

Iliolumbar spine joint mobilizations and muscle energy techniques:

- Catwalk IL-L1
- Sacral Nutation
- Sacral Counternutation
- Traction
- Pisi to Pisi Rotations
- Sacral, ilium, L5-L1 pelvic lifts, L/R
- Sidelying TVP P2A L5-L1 L/R
- Supine traction with double leg lift
- Psoas L/R

During the first treatment, the subject was feeling sensitive, so I ended up not doing the sidelying TVP joint mobilization.

Hip muscle energy techniques

- Internal and external rotation

Cervical spine joint mobilizations and muscle energy techniques

- TVP P2A C7-C2
- SP P2A C7-C2
- oscillations
- figure 8's
- traction
- rotation with contact on ipsilateral TVPs
- cervical extensor METs
- cervical lateral flexion METs
- cervical rotation METs
- suboccipital METs

#### Craniosacral

- Pelvic, respiratory, thoracic, hyoid, occipital diaphragms
- Still point
- Frontal lift
- Spheno-basalar de/compression
- Medial compression of parietals
- Suboccipital/parietal/occiput
- Caudal traction of parietals
- Still point again

After the first treatment, Subject 1 felt some definite pain. This pain persisted significantly to four days post treatment. Subject 1 was ready to quit. I had to enlist Subject 2, and hoped for more positive results.

After the second (gentler) treatment, Subject 1 still had significant low back pain after treatment to the point of taking medication to relieve it, but subsequent days saw a reduction in the pain from the previous treatment, and even some cervical relief!

During the third and final treatment, I opted to not do any prone lumbar P2As, with or without rotation. Instead I finally did the sidelying TVP P2A L5-L1 L&R, and this seemed better on the client possibly due to her hyperlordosis. The end of the treatment saw Subject 1 moving easier than the ending of the other treatments, but still with some stiffness. She reported afterwards feeling okay, no pain medicine required.

#### **Subject 2 Observation**

Subject 2 had quite good posture, with slight shoulder depression on the left (unusual because subject is right hand dominant), and had internally rotated shoulders.

Cervical Active Range of Motion

First treatment

Flexion: 80%

Extension: 100%

Right side flexion: 80%

Left side flexion: 100%

Right rotation: 90%

Left rotation: 90%

Prior to final treatment

Flexion: 100%

Extension 100%

Right side flexion: 100%

Left side flexion: 100%

Right rotation: 100%

Left rotation: 100%

Lumbar Active Range of Motion

First treatment

Flexion: 80%

Extension: 100%

Right side flexion: 90%

Left side flexion: 90%

Right rotation: 90%

Left rotation: 90%

Prior to final treatment

Flexion: 100%

Extension: 100%

Right side flexion: 100%

Left side flexion: 100%

Right rotation: 100%

Left rotation: 100%

**Subject 2 methodology included:**

Visceral as above

Craniosacral as above

Iliolumbar joint mobilizations and muscle energy techniques as above

Some peripheral joint mobilizations because this subject had most pain in these areas:

- Hip internal/external rotation, prone
- Hip medial to lateral with leg lift
- Hip superior to inferior with leg lift
- Hip long axis traction
- Hip P2As
- Knee long axis traction
- Knee medial to lateral/lateral to medial



- Ankle subtalar joint distraction
- Ankle navicular glide
- Ankle tib/fib spread
- Toe traction, all joints
- Shoulder long axis traction
- Shoulder P2A
- Elbow lateral to medial/medial to lateral
- Wrist, hand, finger, distal radioulnar joint tractions
- Wrist, hand soft tissue therapy

After the first treatment, Subject 2 had far more positive things to say. She felt she had much more ease of movement and a reduction in pain, especially in her hips.

After the second treatment, Subject 2 again felt looser and had a reduction in pain.

After the third and final treatment, she also felt more ease of movement in spine, hips and right arm.

This research seems to confirm the prevalence of females, and that significant stress through many ordeals can trigger fibromyalgia. This can cause considerable impact into daily life, as noted from the questionnaire responses. The two subjects presented somewhat differently, but this is a multifaceted condition and therefore that is not unusual. They also had very different reactions to the treatments, but it is unfortunately yet unknown whether or not this is an anomaly. In one instance, manual osteopathy appears to help with pain reduction, ease of movement, and increases active joint range of motion; however, in the other example, osteopathic techniques increased some feelings of pain, made some movement more difficult, and decreased some active joint range. It appears that this introductory data suggests that manual osteopathic techniques can offer some relief for the fibromyalgic patient, but more research is needed.

## References

American College of Rheumatology. (n.d.) Fibromyalgia Impact Questionnaire (FIQ). Retrieved May 24, 2018 from <https://www.rheumatology.org/I-Am-A/Rheumatologist/Research/Clinician-Researchers/Fibromyalgia-Impact-Questionnaire-FIQ>

Bhana, Suleman. (2017, March) Fibromyalgia. Retrieved May 7, 2018 from <https://www.rheumatology.org/I-Am-A/Patient-Caregiver/Diseases-Conditions/Fibromyalgia>

Castro-Sánchez AM, Matarán-Peñarrocha GA, Sánchez-Labraca N, Quesada-Rubio JM, Granero-Molina J, Moreno-Lorenzo C. (2011, January 25). A randomized controlled trial investigating the effects of craniosacral therapy on pain and heart rate variability in fibromyalgia patients. [Abstract]. Retrieved June 25, 2018 from <https://www.ncbi.nlm.nih.gov/pubmed/20702514>

Cheshire, Anne. (n.d.). Fibromyalgia and Chronic Fatigue. Retrieved July 2, 2018 from <http://www.traumarecoveryclinic.com/trauma-symptoms/fibromyalgia-and-chronic-fatigue>

Clauw, Daniel J., Arnold, Leslie M. & McCarberg, Bill H., (2011, December 23) The Science of Fibromyalgia.(Abstract). Retrieved May 17, 2018 from <https://www.sciencedirect.com/science/article/pii/S0025619611652233>

Costantini R, Affaitati G, Wesselmann U, Czakanski P, Giamberardino MA. (2017, October) Visceral pain as a triggering factor for fibromyalgia symptoms in comorbid patients. [Abstract]. Retrieved June 25, 2018 from <https://www.ncbi.nlm.nih.gov/pubmed/28683025>

Crush, Jaclyn. (2017, April 16) Signs/Symptoms and prevalence of patients with FMS [Online Image]. Retrieved July 16, 2018 from <https://www.physio-pedia.com/Fibromyalgia>

Fernandez-de-la-Penas, Cesar, and Arendt-Neilsen, Lars. (2016, June 14). Myofascial pain and fibromyalgia: two different but overlapping disorders. [Abstract]. Retrieved from <https://www.futuremedicine.com/doi/full/10.2217/pmt-2016-0013>

Giamberardino MA, Affaitati G, Fabrizio A, & Costantini, R. (2017, October). Effects of Treatment of Myofascial Trigger Points on the Pain of Fibromyalgia. Retrieved June 25, 2018 from <https://www.ncbi.nlm.nih.gov/pubmed/21541831>

Kurt EE, Kocak, FA, Erdem, HR, Tuncay, F, & Kelez F. (2016, April 6) Which Non-Pharmacological Treatment is More Effective on Clinical Parameters in Patients With Fibromyalgia: Balneotherapy or Aerobic Exercise? [Abstract]. Retrieved July 6, 2018 from <https://www.ncbi.nlm.nih.gov/pubmed/29900959>

Matarán-Peñarrocha GA, Castro-Sánchez AM, García GC, Moreno-Lorenzo C, Carreño TP, & Zafra MD. (2011). Influence of craniosacral therapy on anxiety, depression and quality of life in patients with fibromyalgia. [Abstract] Retrieved June 25 2018 from <https://www.ncbi.nlm.nih.gov/pubmed/19729492>

McAllister, Murray J. (2013, March 23). *What is Central Sensitization?* Retrieved July 18, 2018 from <http://www.instituteforchronicpain.org/understanding-chronic-pain/what-is-chronic-pain/central-sensitization>

Morling, Greg. (2018, June 19) *Visceral Massage: the mind gut interaction and the role of the Massage Therapist*. Retrieved July 6, 2018 from <https://www.massagetherapycanada.com/technique/visceral-massage-the-mind-gut-interaction-and-the-role-of-the-massage-therapist-4123>

National Center for Complementary and Integrative Health (2017, September). *Mind and Body Practices for Fibromyalgia*. Retrieved July 6, 2018 from <https://nccih.nih.gov/health/providers/digest/fibromyalgia-science#heading1>

National Institute of Arthritis and Musculoskeletal and Skin Disorders. (2014, July 30). *Fibromyalgia*. Retrieved July 6, 2018 from <https://www.niams.nih.gov/health-topics/fibromyalgia#tab-causes>

Physiopedia. (2018, May 19). *Fibromyalgia*. Retrieved July 17, 2018 from <https://www.physio-pedia.com/Fibromyalgia>

World Health Organization (n.d.) *WHO Disability Assessment Schedule 2.0* Retrieved May 24, 2018 from <http://www.who.int/classifications/icf/whodasii/en/>

## Appendices

- Research Subject 1 Intake form initial including active range of motion
- RS 1 Fibromyalgia Impact Questionnaire (FIQ)
- RS 1 Sleep Quality Assessment (PSQI)
- RS 1 WHODAS 2.0
- RS 1 Follow up active range of motion
- Research Subject 2 Intake form initial including active range of motion
- RS 2 Fibromyalgia Impact Questionnaire (FIQ)
- RS 2 Sleep Quality Assessment (PSQI)
- RS 2 WHODAS 2.0
- RS 2 Follow up active range of motion

# CONFIDENTIAL PATIENT HISTORY FORM

SMART, SAFE, EFFECTIVE HEALTH CARE

WHITEHORSE MASSAGE THERAPY CLINIC

Date: June 15/18  
 Name: RESEARCH SUBJECT #1  
 Address: \_\_\_\_\_

Birth Date \_\_\_\_\_  
 Family Doctor \_\_\_\_\_  
 Referring Professional \_\_\_\_\_

Postal Code \_\_\_\_\_  
 Phone (home) \_\_\_\_\_  
 (cell) \_\_\_\_\_  
 (work) \_\_\_\_\_

Extended Medical Insurer \_\_\_\_\_  
 WCB or Auto Insurer? ☐ No ☐ Yes  
 Claim # \_\_\_\_\_

Occupation \_\_\_\_\_

How did you hear about our clinic? \_\_\_\_\_

## Current Condition

Please describe your current condition & symptoms:

neck, knee, low back  
(flanks)

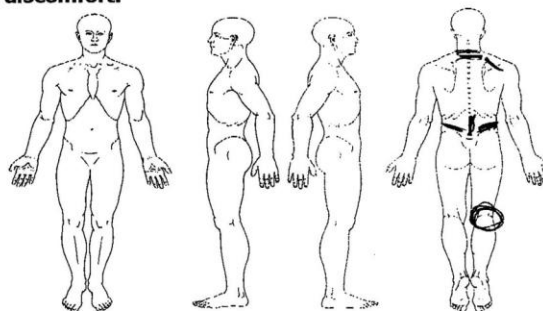
How long have you had this condition? \_\_\_\_\_

How did it begin? \_\_\_\_\_

What aggravates it? \_\_\_\_\_

What relieves it? \_\_\_\_\_

Please indicate on the diagram areas of pain or discomfort.



Please check any of the following conditions that apply to you:

- |                                                    |                                                     |                                                 |
|----------------------------------------------------|-----------------------------------------------------|-------------------------------------------------|
| <input type="checkbox"/> Heart Condition           | <input type="checkbox"/> Osteo/Rheumatoid Arthritis | <input type="checkbox"/> Fractures/Dislocations |
| <input type="checkbox"/> Stroke (CVA)              | <input checked="" type="checkbox"/> Fibromyalgia    | <input type="checkbox"/> Menstrual Problems     |
| <input type="checkbox"/> High/Low Blood Pressure   | <input type="checkbox"/> Spinal Injury              | <input type="checkbox"/> Skin Condition         |
| <input type="checkbox"/> Respiratory Conditions    | <input type="checkbox"/> Loss of Sensation/Tingling | <input type="checkbox"/> Contagious Condition   |
| <input type="checkbox"/> Cancer                    | <input type="checkbox"/> Seizures                   | <input type="checkbox"/> Headaches (recurrent)  |
| <input type="checkbox"/> Tumours/Cysts             | <input type="checkbox"/> Dizziness                  | <input type="checkbox"/> Backaches              |
| <input type="checkbox"/> Diabetes                  | <input type="checkbox"/> Digestive Disorder         | <input type="checkbox"/> Other _____            |
| <input checked="" type="checkbox"/> Varicose Veins | <input type="checkbox"/> Pregnancy                  |                                                 |

Medications you are presently taking: synthyroid, Advil, Alere, iron

Allergies: hay fever

Major accidents, illnesses or surgeries: gallbladder, sarcoidosis, hernia, blood clot

Stress level: ☐ None ☒ Slight ☐ Moderate ☐ Severe leg x 2 - varicose

Physical activity: ☐ None ☐ Low ☒ Moderate ☐ High

Are you also seeing: ☐ Chiropractor ☐ Physiotherapist ☐ Naturopath ☐ Other \_\_\_\_\_

We require **24 hours notice** if you are cancelling your appointment. You will automatically be charged the full fee for your appointment if such notice is not received. Please understand that **we cannot bill WCB or your insurer for missed appointments.**

By my signature below, I authorize the collection, use and disclosure of personal information, as defined in the *Personal Information and Protection Act (PIPA)*, required for treatment and/or any related administrative purpose. I understand that all my personal information is confidential, and must be treated in accordance with PIPA.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**For Therapist Use**

RS#1 Initial  
Assessment and Treatment Report

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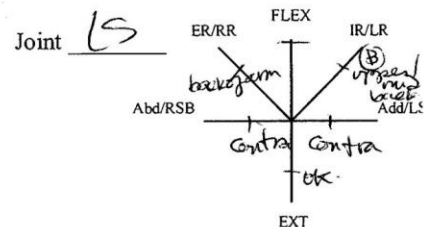
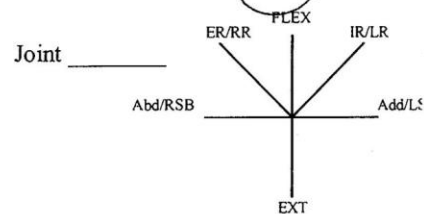
523

524

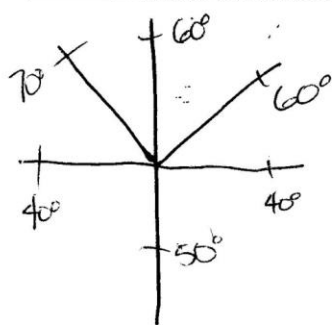
525

52

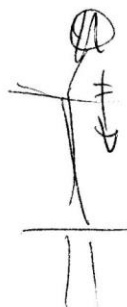
Range of Motion: (Active/Passive)



hyperlordosis



CS.



Knee ok squat test ok!

## ORIGINAL FIBROMYALGIA IMPACT QUESTIONNAIRE (FIQ)

Last name: *RESA RECA SUBJECT #1*

First name:

Age: *48*Today's date: *JULY 15/18*Duration of FM symptoms (years): *21 yrs*

Years since diagnosis of FM:

*click prep... hernia blood clot, death in family, thyroid, gall bladder, sarcoidosis = ethymylosom = pitting edema*

## Question 1

**Directions:** For questions "a" through "k", please check the number that best describes how you did overall for the *past week*. If you don't normally do something that is asked, place an 'X' in the 'Not Applicable' box.

Were you able to:	Always	Most	Occasionally	Never	Not Applicable
a. Do shopping?	<input type="checkbox"/> 0	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
b. Do laundry with a washer and dryer?	<input type="checkbox"/> 0	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
c. Prepare meals?	<input type="checkbox"/> 0	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
d. Wash dishes / cooking utensils by hand?	<input type="checkbox"/> 0	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
e. Vacuum a rug?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
f. Make beds?	<input checked="" type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
g. Walk several blocks?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
h. Visit friends or relatives?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
i. Do yard work?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
j. Drive a car?	<input checked="" type="checkbox"/> 0	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
k. Climb stairs?	<input type="checkbox"/> 0	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
<b>Sub-total scores (for internal use only)</b>	<input type="text" value="0"/>	<input type="text" value="6"/>	<input type="text" value="8"/>	<input type="text" value=""/>	<input type="text" value=""/>
<b>Total score (for internal use only)</b>	<input type="text" value="14"/> ÷ 11 × 3.33 = 4.24				

2. Of the 7 days in the past week, how many days did you feel good?

☐ 0   ☐ 1   ☒ 2   ☐ 3   ☐ 4   ☐ 5   ☐ 6   ☐ 7

Score

3. How many days last week did you miss work, including housework, because of fibromyalgia?

☐ 0   ☐ 1   ☐ 2   ☒ 3   ☐ 4   ☐ 5   ☐ 6   ☐ 7

Score

(Continued)

(Continuation) RS # 1

**Directions:** For the remaining items, mark the point on the line that best indicates how you felt overall for the past week.

4. When you worked how much did pain or other symptoms of your fibromyalgia interfere with your ability to do your work, including housework?	No problem with work  -----X-----  Great difficulty with work	(for internal use only) 7 Score
5. How bad has your pain been?	No pain  -----X-----  Very severe pain	6 Score
6. How tired have you been?	No tiredness  -----X-----  Very tired	8 Score
7. How have you felt when you get up in the morning?	Awoke well rested  -----X-----  Awoke very tired	10 Score
8. How bad has your stiffness been?	No stiffness  -----X-----  Very stiff	10 Score
9. How nervous or anxious have you felt?	Not anxious  X-----  Very anxious	0 Score
10. How depressed or blue have you felt?	Not depressed  X-----  Very depressed	0 Score
		41 Sub-total
		60/80 FIQ TOTAL

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All rights reserved FIQ-AU2.1\_eng-USori.doc

Name RESEARCH SUBJECT #1Date July 15/18**Sleep Quality Assessment (PSQI)****What is PSQI, and what is it measuring?**

The Pittsburgh Sleep Quality Index (PSQI) is an effective instrument used to measure the quality and patterns of sleep in adults. It differentiates "poor" from "good" sleep quality by measuring seven areas (components): subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medications, and daytime dysfunction over the last month.

**INSTRUCTIONS:**

The following questions relate to your usual sleep habits during the past month only. Your answers should indicate the most accurate reply for the majority of days and nights in the past month. Please answer all questions.

**During the past month,**

- When have you usually gone to bed?
- How long (in minutes) has it taken you to fall asleep each night?
- What time have you usually gotten up in the morning?
- A. How many hours of actual sleep did you get at night?  
B. How many hours were you in bed?

10PM - 11PM  
> 5m  
7-8AM  
7-8PM 3x wake ups More w/o px meds  
mcsc

5. During the past month, how often have you had trouble sleeping because you	Not during the past month (0)	Less than once a week (1)	Once or twice a week (2)	Three or more times a week (3)
A. Cannot get to sleep within 30 minutes	✓			
B. Wake up in the middle of the night or early morning				✓
C. Have to get up to use the bathroom				✓
D. Cannot breathe comfortably	✓			
E. Cough or snore loudly	✓			
F. Feel too cold		✓		
G. Feel too hot	✓			
H. Have bad dreams		✓		
I. Have pain				✓
J. Other reason (s), please describe, including how often you have had trouble sleeping because of this reason (s):				
6. During the past month, how often have you taken medicine (prescribed or "over the counter") to help you sleep?			✓	
7. During the past month, how often have you had trouble staying awake while driving, eating meals, or engaging in social activity?	✓			
8. During the past month, how much of a problem has it been for you to keep up enthusiasm to get things done?				✓
9. During the past month, how would you rate your sleep quality overall?	Very good (0) ✓	Fairly good (1)	Fairly bad (2)	Very bad (3)

**Scoring**

- Component 1** #9 Score  
**Component 2** #2 Score (<15min (0), 16-30min (1), 31-60 min (2), >60min (3))  
 + #5a Score (if sum is equal 0=0; 1-2=1; 3-4=2; 5-6=3)  
**Component 3** #4 Score (>7(0), 6-7 (1), 5-6 (2), <5 (3))  
**Component 4** (total # of hours asleep) / (total # of hours in bed) x 100  
 >85%=0, 75%-84%=1, 65%-74%=2, <65%=3  
**Component 5** # sum of scores 5b to 5j (0=0; 1-9=1; 10-18=2; 19-27=3)  
**Component 6** #6 Score  
**Component 7** #7 Score + #8 score (0=0; 1-2=1; 3-4=2; 5-6=3)

C1 0  
 C2 8  
 C3 8  
 C4 0  
 C5 1  
 C6 2  
 C7 3

Add the seven component scores together 6Global PSQI 6**A total score of "5" or greater is indicative of poor sleep quality.****If you scored "5" or more it is suggested that you discuss your sleep habits with a healthcare provider**



RESEARCH SUBJECT #1

**WHODAS 2.0**

WORLD HEALTH ORGANIZATION DISABILITY ASSESSMENT SCHEDULE 2.0 36-item version, self-administered

This questionnaire asks about difficulties due to health conditions. Health conditions include diseases or illnesses, other health problems that may be short or long lasting, injuries, mental or emotional problems, and problems with alcohol or drugs. Think back over the past 30 days and answer these questions, thinking about how much difficulty you had doing the following activities. For each question, please circle only one response.

In the past 30 days, how much difficulty did you have in:						
<b>Understanding and communicating</b>						
D1.1	Concentrating on doing something for ten minutes?	None	Mild	Moderate	Severe	Extreme or cannot do
D1.2	Remembering to do important things?	None	Mild	Moderate	Severe	Extreme or cannot do
D1.3	Analysing and finding solutions to problems in day-to-day life?	None	Mild	Moderate	Severe	Extreme or cannot do
D1.4	Learning a new task, for example, learning how to get to a new place?	None	Mild	Moderate	Severe	Extreme or cannot do
D1.5	Generally understanding what people say?	None	Mild	Moderate	Severe	Extreme or cannot do
D1.6	Starting and maintaining a conversation?	None	Mild	Moderate	Severe	Extreme or cannot do
<b>Getting around</b>						
D2.1	Standing for long periods such as 30 minutes?	None	Mild	Moderate	Severe	Extreme or cannot do
D2.2	Standing up from sitting down?	None	Mild	Moderate	Severe	Extreme or cannot do
D2.3	Moving around inside your home?	None	Mild	Moderate	Severe	Extreme or cannot do
D2.4	Getting out of your home?	None	Mild	Moderate	Severe	Extreme or cannot do
D2.5	Walking a long distance such as a kilometre [or equivalent]?	None	Mild	Moderate	Severe	Extreme or cannot do
In the past 30 days, how much difficulty did you have in:						
D3.1	Washing your whole body?	None	Mild	Moderate	Severe	Extreme or cannot do
D3.2	Getting dressed?	None	Mild	Moderate	Severe	Extreme or cannot do
D3.3	Eating?	None	Mild	Moderate	Severe	Extreme or cannot do
D3.4	Staying by yourself for a few days?	None	Mild	Moderate	Severe	Extreme or cannot do
<b>Getting along with people</b>						
D4.1	Dealing with people you do not know?	None	Mild	Moderate	Severe	Extreme or cannot do
D4.2	Maintaining a friendship?	None	Mild	Moderate	Severe	Extreme or cannot do
D4.3	Getting along with people who are close to you?	None	Mild	Moderate	Severe	Extreme or cannot do
D4.4	Making new friends?	None	Mild	Moderate	Severe	Extreme or cannot do
D4.5	Sexual activities?	None	Mild	Moderate	Severe	Extreme or cannot do
<b>Life activities</b>						
D5.1	Taking care of your household responsibilities?	None	Mild	Moderate	Severe	Extreme or cannot do
D5.2	Doing most important household tasks well?	None	Mild	Moderate	Severe	Extreme or cannot do
D5.3	Getting all the household work done that you needed to do?	None	Mild	Moderate	Severe	Extreme or cannot do
D5.4	Getting your household work done as quickly as needed?	None	Mild	Moderate	Severe	Extreme or cannot do

# Manual Osteopathy on Fibromyalgia

RS #1

If you work (paid, non-paid, self-employed) or go to school, complete questions D5.5–D5.8, below. Otherwise, skip to D6.1.						
Because of your health condition, in the past 30 days, how much difficulty did you have in:						
D5.5	Your day-to-day work/school?	None	Mild	Moderate	Severe	Extreme or cannot do
D5.6	Doing your most important work/school tasks well?	None	Mild	Moderate	Severe	Extreme or cannot do
D5.7	Getting all the work done that you need to do?	None	Mild	Moderate	Severe	Extreme or cannot do
D5.8	Getting your work done as quickly as needed?	None	Mild	Moderate	Severe	Extreme or cannot do
Participation in society						
In the past 30 days:						
D6.1	How much of a problem did you have in joining in community activities (for example, festivities, religious or other activities) in the same way as anyone else can?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.2	How much of a problem did you have because of barriers or hindrances in the world around you?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.3	How much of a problem did you have living with dignity because of the attitudes and actions of others?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.4	How much time did you spend on your health condition, or its consequences?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.5	How much have you been emotionally affected by your health condition?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.6	How much has your health been a drain on the financial resources of you or your family?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.7	How much of a problem did your family have because of your health problems?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.8	How much of a problem did you have in doing things by yourself or relaxation or pleasure?	None	Mild	Moderate	Severe	Extreme or cannot do
H1	Overall, in the past 30 days, how many days were these difficulties present?	Record number of days 30				
H2	In the past 30 days, for how many days were you totally unable to carry out your usual activities or work because of any health condition?	Record number of days 4				
H3	In the past 30 days, not counting the days that you were totally unable, for how many days did you cut back or reduce your usual activities or work because of any health condition?	Record number of days 15				

**This completes the questionnaire. Thank you!**

COMPLETED BY: RESEARCH SUBJECT #1

DATE: July 15/18

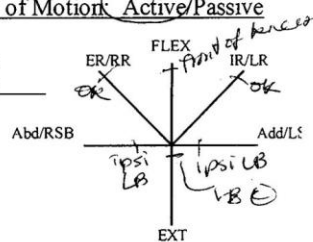
RESEARCH SUBJECT #1 - JULY 29/18  
For Therapist Use

Assessment and Treatment Report

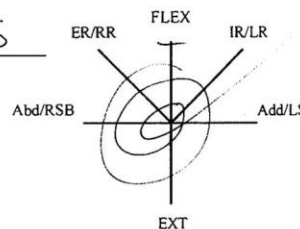
- FOLLOW UP

Range of Motion: Active/Passive

Joint LS



Joint CS



ⓐ Squat test  
OK  
ⓑ knees good  
form

*[Handwritten signature]*

# CONFIDENTIAL PATIENT HISTORY FORM

SMART, SAFE, EFFECTIVE HEALTH CARE

WHITEHORSE MASSAGE THERAPY CLINIC

Date: \_\_\_\_\_  
 Name: RESEARCH SUBJECT #2  
 Address: \_\_\_\_\_  
 Postal Code: \_\_\_\_\_  
 Phone: (home) \_\_\_\_\_  
 (cell) \_\_\_\_\_  
 (work) \_\_\_\_\_  
 Occupation: \_\_\_\_\_

Birth Date: \_\_\_\_\_  
 Family Doctor: \_\_\_\_\_  
 Referring Professional: \_\_\_\_\_

Extended Medical Insurer: \_\_\_\_\_  
 WCB or Auto Insurer? ☐ No ☐ Yes  
 Claim #: \_\_\_\_\_

How did you hear about our clinic? \_\_\_\_\_

## Current Condition

Please describe your current condition & symptoms:

cl have fibromyalgia ~  
possibly chronic fatigue

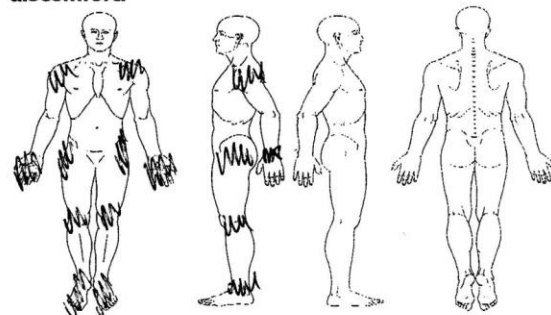
How long have you had this condition? few years

How did it begin? slowly, didnt  
notice till it was super bad

What aggravates it? stress

What relieves it? CBD oil, sleep,  
rest.

Please indicate on the diagram areas of pain or discomfort.



Please check any of the following conditions that apply to you:

- |                                                  |                                                     |                                                 |
|--------------------------------------------------|-----------------------------------------------------|-------------------------------------------------|
| <input type="checkbox"/> Heart Condition         | <input type="checkbox"/> Osteo/Rheumatoid Arthritis | <input type="checkbox"/> Fractures/Dislocations |
| <input type="checkbox"/> Stroke (CVA)            | <input checked="" type="checkbox"/> Fibromyalgia    | <input type="checkbox"/> Menstrual Problems     |
| <input type="checkbox"/> High/Low Blood Pressure | <input type="checkbox"/> Spinal Injury              | <input type="checkbox"/> Skin Condition         |
| <input type="checkbox"/> Respiratory Conditions  | <input type="checkbox"/> Loss of Sensation/Tingling | <input type="checkbox"/> Contagious Condition   |
| <input type="checkbox"/> Cancer                  | <input type="checkbox"/> Seizures                   | <input type="checkbox"/> Headaches (recurrent)  |
| <input type="checkbox"/> Tumours/Cysts           | <input type="checkbox"/> Dizziness                  | <input type="checkbox"/> Backaches              |
| <input type="checkbox"/> Diabetes                | <input type="checkbox"/> Digestive Disorder         | <input type="checkbox"/> Other _____            |
| <input type="checkbox"/> Varicose Veins          | <input type="checkbox"/> Pregnancy                  |                                                 |

Medications you are presently taking: Effexor, Modafinil, amitriptyline (50mg), Diclofenac (100mg)

Allergies: local anesthetics

Major accidents, illnesses or surgeries: Breast reduction

Stress level: ☐ None ☐ Slight ☒ Moderate ☐ Severe

Physical activity: ☐ None ☒ Low ☐ Moderate ☐ High

Are you also seeing: ☐ Chiropractor ☐ Physiotherapist ☐ Naturopath ☐ Other \_\_\_\_\_

We require **24 hours notice** if you are cancelling your appointment. You will automatically be charged the full fee for your appointment if such notice is not received. Please understand that **we cannot bill WCB or your insurer for missed appointments.**

By my signature below, I authorize the collection, use and disclosure of personal information, as defined in the *Personal Information and Protection Act (PIPA)*, required for treatment and/or any related administrative purpose. I understand that all my personal information is confidential, and must be treated in accordance with PIPA.

Signature: Research Subject #2 Date: July 20/18

PS #2

For Therapist Use

Assessment and Treatment Report

2 yrs ago - hand & feet hurt all the time. th of depression (severe) Joint CS  
sleep problems. Started getting severe fatigue. Worked physical job a lot, grief from multiple family deaths, troubles with immediate family/spouse.

Diagnosis - finished work but did not recover from px - MD magically diagnosed FM immediately.

Meds helped

Not working. Freedom more so on D. feels like a stranger in own body

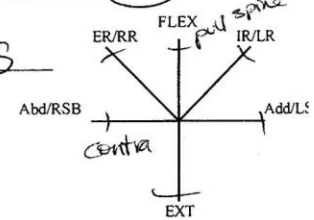
Spinal test ok -

knees feel weak after

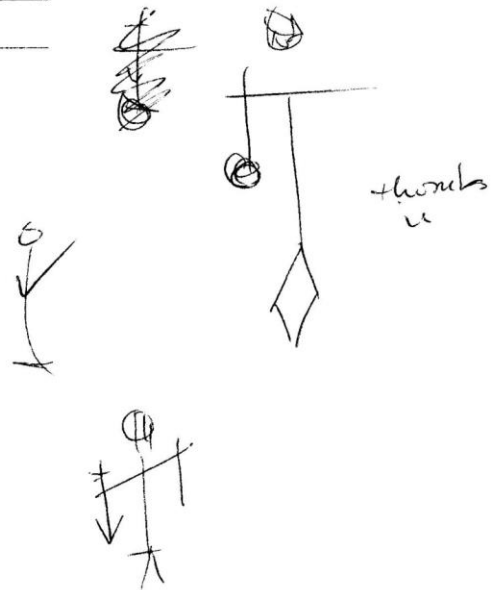
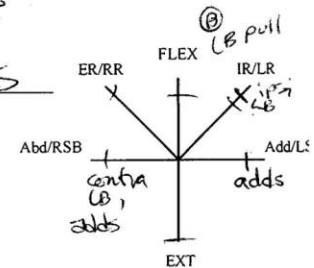
all ROM okay

L4/5 @ spine

Range of Motion: Active/Passive



Joint LS



## ORIGINAL FIBROMYALGIA IMPACT QUESTIONNAIRE (FIQ)

Last name: Research Subject #2 First name: \_\_\_\_\_ Age: 40 Today's date: July 20/18  
 Duration of FM symptoms (years): 2 yrs Years since diagnosis of FM: 6 mos

**Question 1**  
**Directions:** For questions "a" through "k", please check the number that best describes how you did overall for the *past week*. If you don't normally do something that is asked, place an 'X' in the 'Not Applicable' box.

Were you able to:	Always	Most	Occasionally	Never	Not Applicable
a. Do shopping?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
b. Do laundry with a washer and dryer?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
c. Prepare meals?	<input type="checkbox"/> 0	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
d. Wash dishes / cooking utensils by hand?	<input type="checkbox"/> 0	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
e. Vacuum a rug?	<input type="checkbox"/> 0	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
f. Make beds?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4
g. Walk several blocks?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4
h. Visit friends or relatives?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4
i. Do yard work?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
j. Drive a car?	<input type="checkbox"/> 0	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
k. Climb stairs?	<input type="checkbox"/> 0	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
<b>Sub-total scores (for internal use only)</b>	<input type="text" value=""/>	<input type="text" value="5"/>	<input type="text" value="3"/>	<input type="text" value="3"/>	<input type="text" value=""/>
<b>Total score (for internal use only)</b>	<input type="text" value="11"/>				

2. Of the 7 days in the past week, how many days did you feel good?

☐ 0 ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7

Score:

3. How many days last week did you miss work, including housework, because of fibromyalgia?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☒ 7

Score:

(Continued)

RS#2

(Continuation)

**Directions:** For the remaining items, mark the point on the line that best indicates how you felt overall for the past week.

4. When you worked how much did pain or other symptoms of your fibromyalgia interfere with your ability to do your work, including housework?	<div> <div>No problem with work</div> <div></div> <div>Great difficulty with work</div> </div>	<div>(for internal use only)</div> <div>7</div> <div>Score</div>
5. How bad has your pain been?	<div> <div>No pain</div> <div></div> <div>Very severe pain</div> </div>	<div>9</div> <div>Score</div>
6. How tired have you been?	<div> <div>No tiredness</div> <div></div> <div>Very tired</div> </div>	<div>7</div> <div>Score</div>
7. How have you felt when you get up in the morning?	<div> <div>Awoke well rested</div> <div></div> <div>Awoke very tired</div> </div>	<div>9</div> <div>Score</div>
8. How bad has your stiffness been?	<div> <div>No stiffness</div> <div></div> <div>Very stiff</div> </div>	<div>7</div> <div>Score</div>
9. How nervous or anxious have you felt?	<div> <div>Not anxious</div> <div></div> <div>Very anxious</div> </div>	<div>7</div> <div>Score</div>
10. How depressed or blue have you felt?	<div> <div>Not depressed</div> <div></div> <div>Very depressed</div> </div>	<div>9</div> <div>Score</div>
		<div>55</div> <div>Sub-total</div>
		<div>75/80</div> <div>FIQ TOTAL</div> <div>93.75%</div>

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Name Research Subject #2Date July 20/18**Sleep Quality Assessment (PSQI)****What is PSQI, and what is it measuring?**

The Pittsburgh Sleep Quality Index (PSQI) is an effective instrument used to measure the quality and patterns of sleep in adults. It differentiates "poor" from "good" sleep quality by measuring seven areas (components): subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medications, and daytime dysfunction over the last month.

**INSTRUCTIONS:**

The following questions relate to your usual sleep habits during the past month only. Your answers should indicate the most accurate reply for the majority of days and nights in the past month. Please answer all questions.

**During the past month,**

1. When have you usually gone to bed?
2. How long (in minutes) has it taken you to fall asleep each night?
3. What time have you usually gotten up in the morning?
4. A. How many hours of actual sleep did you get at night?  
B. How many hours were you in bed?

10pm  
15-60 min  
7:30 AM + nap @ 10  
12-16 hrs/night  
12-16 hrs/day

5. During the past month, how often have you had trouble sleeping because you	Not during the past month (0)	Less than once a week (1)	Once or twice a week (2)	Three or more times a week (3)
A. Cannot get to sleep within 30 minutes			✓	
B. Wake up in the middle of the night or early morning				✓
C. Have to get up to use the bathroom				✓
D. Cannot breathe comfortably				✓
E. Cough or snore loudly				✓
F. Feel too cold				✓
G. Feel too hot				✓
H. Have bad dreams	✓			
I. Have pain				✓
J. Other reason (s), please describe, including how often you have had trouble sleeping because of this reason (s):				
6. During the past month, how often have you taken medicine (prescribed or "over the counter") to help you sleep?				✓
7. During the past month, how often have you had trouble staying awake while driving, eating meals, or engaging in social activity?				✓
8. During the past month, how much of a problem has it been for you to keep up enthusiasm to get things done?				✓
9. During the past month, how would you rate your sleep quality overall?	Very good (0)	Fairly good (1)	Fairly bad (2)	Very bad (3)

**Scoring**

- Component 1** #9 Score  
**Component 2** #2 Score (<15min (0), 16-30min (1), 31-60 min (2), >60min (3))  
 + #5a Score (if sum is equal 0=0; 1-2=1; 3-4=2; 5-6=3)  
**Component 3** #4 Score (>7(0), 6-7 (1), 5-6 (2), <5 (3))  
**Component 4** (total # of hours asleep) / (total # of hours in bed) x 100  
 >85%=0, 75%-84%=1, 65%-74%=2, <65%=3  
**Component 5** # sum of scores 5b to 5j (0=0; 1-9=1; 10-18=2; 19-27=3)  
**Component 6** #6 Score  
**Component 7** #7 Score + #8 score (0=0; 1-2=1; 3-4=2; 5-6=3)

C1 3  
 C2 4  
 C3 0  
 C4 0  
 C5 3  
 C6 3  
 C7 3

Add the seven component scores together 16Global PSQI 16**A total score of "5" or greater is indicative of poor sleep quality.****If you scored "5" or more it is suggested that you discuss your sleep habits with a healthcare provider**



**WHODAS 2.0**

RESEARCH SUBJECT #2

WORLD HEALTH ORGANIZATION DISABILITY ASSESSMENT SCHEDULE 2.0 36-item version, self-administered

This questionnaire asks about difficulties due to health conditions. Health conditions include diseases or illnesses, other health problems that may be short or long lasting, injuries, mental or emotional problems, and problems with alcohol or drugs. Think back over the past 30 days and answer these questions, thinking about how much difficulty you had doing the following activities. For each question, please circle only one response.

In the past 30 days, how much difficulty did you have in:						
<b>Understanding and communicating</b>						
D1.1	Concentrating on doing something for ten minutes?	None	Mild	Moderate	Severe	Extreme or cannot do
D1.2	Remembering to do important things?	None	Mild	Moderate	Severe	Extreme or cannot do
D1.3	Analysing and finding solutions to problems in day-to-day life?	None	Mild	Moderate	Severe	Extreme or cannot do
D1.4	Learning a new task, for example, learning how to get to a new place?	None	Mild	Moderate	Severe	Extreme or cannot do
D1.5	Generally understanding what people say?	None	Mild	Moderate	Severe	Extreme or cannot do
D1.6	Starting and maintaining a conversation?	None	Mild	Moderate	Severe	Extreme or cannot do
<b>Getting around</b>						
D2.1	Standing for long periods such as 30 minutes?	None	Mild	Moderate	Severe	Extreme or cannot do
D2.2	Standing up from sitting down?	None	Mild	Moderate	Severe	Extreme or cannot do
D2.3	Moving around inside your home?	None	Mild	Moderate	Severe	Extreme or cannot do
D2.4	Getting out of your home?	None	Mild	Moderate	Severe	Extreme or cannot do
D2.5	Walking a long distance such as a kilometre [or equivalent]?	None	Mild	Moderate	Severe	Extreme or cannot do
<b>In the past 30 days, how much difficulty did you have in:</b>						
D3.1	Washing your whole body?	None	Mild	Moderate	Severe	Extreme or cannot do
D3.2	Getting dressed?	None	Mild	Moderate	Severe	Extreme or cannot do
D3.3	Eating?	None	Mild	Moderate	Severe	Extreme or cannot do
D3.4	Staying by yourself for a few days?	None	Mild	Moderate	Severe	Extreme or cannot do
<b>Getting along with people</b>						
D4.1	Dealing with people you do not know?	None	Mild	Moderate	Severe	Extreme or cannot do
D4.2	Maintaining a friendship?	None	Mild	Moderate	Severe	Extreme or cannot do
D4.3	Getting along with people who are close to you?	None	Mild	Moderate	Severe	Extreme or cannot do
D4.4	Making new friends?	None	Mild	Moderate	Severe	Extreme or cannot do
D4.5	Sexual activities?	None	Mild	Moderate	Severe	Extreme or cannot do
<b>Life activities</b>						
D5.1	Taking care of your household responsibilities?	None	Mild	Moderate	Severe	Extreme or cannot do
D5.2	Doing most important household tasks well?	None	Mild	Moderate	Severe	Extreme or cannot do
D5.3	Getting all the household work done that you needed to do?	None	Mild	Moderate	Severe	Extreme or cannot do
D5.4	Getting your household work done as quickly as needed?	None	Mild	Moderate	Severe	Extreme or cannot do

# Manual Osteopathy on Fibromyalgia

If you work (paid, non-paid, self-employed) or go to school, complete questions D5.5–D5.8, below. Otherwise, skip to D6.1.

Because of your health condition, in the past 30 days, how much difficulty did you have in:

D5.5	Your day-to-day work/school?	None	Mild	Moderate	Severe	Extreme or cannot do
D5.6	Doing your most important work/school tasks well?	None	Mild	Moderate	Severe	Extreme or cannot do
D5.7	Getting all the work done that you need to do?	None	Mild	Moderate	Severe	Extreme or cannot do
D5.8	Getting your work done as quickly as needed?	None	Mild	Moderate	Severe	Extreme or cannot do

**Participation in society**

In the past 30 days:

D6.1	How much of a problem did you have in joining in community activities (for example, festivities, religious or other activities) in the same way as anyone else can?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.2	How much of a problem did you have because of barriers or hindrances in the world around you?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.3	How much of a problem did you have living with dignity because of the attitudes and actions of others?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.4	How much time did you spend on your health condition, or its consequences?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.5	How much have you been emotionally affected by your health condition?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.6	How much has your health been a drain on the financial resources of you or your family?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.7	How much of a problem did your family have because of your health problems?	None	Mild	Moderate	Severe	Extreme or cannot do
D6.8	How much of a problem did you have in doing things by yourself or relaxation or pleasure?	None	Mild	Moderate	Severe	Extreme or cannot do

H1	Overall, in the past 30 days, how many days were these difficulties present?	Record number of days 21
H2	In the past 30 days, for how many days were you totally unable to carry out your usual activities or work because of any health condition?	Record number of days 7
H3	In the past 30 days, not counting the days that you were totally unable, for how many days did you cut back or reduce your usual activities or work because of any health condition?	Record number of days 10

**This completes the questionnaire. Thank you!**

COMPLETED BY: Research Subject #12

DATE: July 20/18

For Therapist Use

July 29/18

RESEARCH SUBJECT #2

Follow up

Assessment and Treatment Report

Range of Motion Active/Passive

