Evaluating the effects of using the Jing Method of Advanced Clinical Massage to improve well-being in women with Fibromyalgia Syndrome.

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A dissertation submitted in partial fulfilment of the requirements of Jing Advanced Massage Training for the Professional Diploma in Advanced Clinical Massage and Sports Massage

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"I certify that this work has not been accepted in substance for any degree and is not concurrently being submitted for any degree other than that of the Diploma in Advanced Clinical Massage and Sports Massage being studied at Jing Advanced Massage Training. I also declare that this work is the result of my own investigations except where otherwise identified by references and that I have not plagiarised the work of others".

Elizabeth Snook: _____

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ABSTRACT

Background: Fibromyalgia Syndrome (FMS), presents as chronic widespread pain in the body, affecting 2-8 % of the population worldwide, displaying an array of fluctuating symptoms affecting daily life. A multi-disciplinary approach is key to managing the severity of symptoms and restrictions of the individual, helping to increase well-being and quality of life (QoL), addressing different aspects of the patient's symptoms. This study is set out to evaluate the effects of the Jing Method of Advanced Clinical Massage to improve well-being in women with FMS.

Method: 5 female participants with diagnosed Fibromyalgia by a GP, over the age of 18 took part in this 12-week study. Participants underwent a 6-week control period followed by a 6-week intervention period, which involved an individual 45-minute Advanced Clinical Massage treatment using the Jing Method. The revised Fibromyalgia Impact Questionnaire (FIQR) was used weekly throughout the 12-week study sent via email, with questions on their functional ability, overall impact of FMS and symptom severity. The FIQR was completed at week 16 to explore any lasting effects of intervention treatments.

Results: The results of this study demonstrated a positive result on the mean total FIQR score, improving functional ability, decreasing symptom severity, and decreasing the overall impact of FMS. The 16-week follow-up FIQR shows an improvement on the pre-intervention base line FIQR score.

Conclusion: The Jing Method of Advanced Clinical Massage presents as a suitable multi-modal approach to non-pharmacological intervention for FMS. Further studies would benefit from using a larger scale of participants, a questionnaire to include the types of stress and emotions participants had experienced each week and the addition of self-care strategies.

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ABBREVIATIONS

CBT - Cognitive behaviour therapy

CSS - Central sensitisation syndrome

FMS - Fibromyalgia Syndrome

FS - Fibromyalgia Severity

HFMAST - Heat, Fascial work, Massage, Acupressure, Stretching & Teaching.

MFR - Myofascial release

SSS - Severity symptom scale

QoL - Quality of life

WPI - Widespread pain index

LITERATURE REVIEW

Fibromyalgia Syndrome (FMS)

FMS presents as chronic widespread pain in the body, affecting 2-8% of the population worldwide (Siracusa et al., 2021). It is more common in women than men, developing at any age but is common in middle aged adults (Bhargava and Hurley, 2023; Siracusa et al., 2021; Ughreja et al., 2021). FMS displays fluctuating physical, psychological and social symptoms affecting well-being and quality of life (QoL). These symptoms may include; musculoskeletal pain, diffuse tender spots, headaches, tiredness, fatigue, unrefreshed or disrupted sleep, depression, anxiety, a hypersensitivity, paraesthesia, cognitive problems such as memory and concentration issues known as a 'fibrofog' (Bhargava and Hurley, 2023; Kravitz and Katz, 2015), an increase of symptoms in reaction to stress (Katz, 2017; Gomez-Arguelles,Moreno-Zazo and Maestu, 2022), and the inability to carry out daily activities (Baoum et al., 2023; Siracusa et al., 2021).

Diagnosis of FMS

Patients have usually seen numerous medical professionals before getting a diagnosis of FMS (Wilson et al, 2022; Wolfe, 2017). The symptoms are difficult to measure, qualitative and fall into categories of rheumatic, neurological, non-rheumatic, and mental health (Hauser, Sarzi-Puttini, and Fitzcharles, 2019). FMS may exist with other chronic conditions (Berwick, Barker, Goebal, 2022; Sluka and Clauw, 2016, Wolfe and Raske, 2021), and may also overlap with other central sensitisation syndromes such as irritable bowel syndrome, chronic fatigue syndrome, gastroesophageal reflux disease and temporomandibular disorder (Bhargava and Hurley, 2022; Mezhov, Guymer and Littlejohn, 2021). The American College of Rheumatology's 2016 diagnostic criteria includes symptoms of sleep, memory, concentration, and mood. A diagnosis using the criteria involves using a widespread pain index (WPI) and

severity symptom scale (SSS), with a report of generalised pain in at least four or five body regions, and symptoms are present for at least three months (Berwick, Barker, Goebal, 2022; Wolfe et al., 2016; Wolfe and Rasker, 2021).

Causes of FMS

Although musculoskeletal pain may be one of the symptoms, evidence shows no tissue inflammation. Symptoms often develop after infection, physical or emotional stressors/ trauma, but in many cases, there appears to be no obvious reason (Bhargava and Hurley, 2022; Kaleycheva et al., 2021; Siracusa et al., 2021).

Studies indicate there is a problem with regulating pain in the brain falling under Central Sensitisation Syndrome (CSS) in FMS (Bhargava and Hurley, 2022; Siracusa et al., 2021; Sluka and Clauw, 2016). There are alterations in how pain is processed in the central nervous system with signals to the brain and spinal cord being amplified, magnifying the perception of pain.

Goebel et al (2021), investigates the role of the immune system in pain amplification in FMS by infusing antibodies from FMS patients into mice. The hypothesis is that FMS may have an autoimmune basis, with the mice developing signs of CSS.

Liptan (2023) proposes a unification, connecting muscles and fascia abnormalities with the role of antibodies, expanding on his earlier evidence for a myofascial source of FMS pain (Liptan, 2010). A persistently hyperactive sympathetic nervous system leads to tense muscles and hyperalgesia (increased pain to normally non painful stimuli), an impaired tissue healing response, autoimmunity, and an excessive production of autoantibodies, affecting the sensory neurons which leads to CSS.

Treatment for FMS

Both pharmacological and non-pharmacological treatment are used in the management of FMS (Atzeni et al., 2019; Pfalzgraf et al., 2020). A combination of both has been shown to be more beneficial in the management (Albin, 2019; Pfalzgraf et al., 2020). Due to the array of symptoms, it is hard for one treatment/therapy alone to manage them all. A multi-disciplinary approach is key to managing the severity of symptoms and restrictions of the individual, helping to increase well-being and QoL, addressing different aspects of the patient's symptoms (Conversano et al., 2019; Maffei, 2020; Sarzi-Puttini et al., 2011).

The side effects of pharmacological medications, or lack of effect, have seen patients seeking complementary and alternative therapies providing beneficial effects on their symptoms (Albin, 2019; Tzadok and Albin, 2020). In a study by Mohabbat et al (2019) with 310 FMS patients, 50% reported using massage and 39% aromatherapy massage as complementary therapies to help with managing symptoms.

Based on expert opinion, Kundakci et al (2022) suggests that cognitive behaviour therapy (CBT), sleep hygiene, aerobic exercise, stress management, mind-body exercise, mindfulness, and education, are key recommendations for four main symptoms of FMS (pain, fatigue, sleep, and depression). Other interventions such as periods of relaxation, pacing and goal setting are recommended for three out of four main symptoms of FMS (Table 1). Opinions were based on research evidence, their own knowledge and experience in treating patients with FMS.

Table 1. Accepted non-pharmacological interventions and percentage of agreement for pain, fatigue, sleep, and depression. Proportion of experts supporting each intervention for different symptoms in fibromyalgia (Kundakci et al., 2022).

Interventions	**Pain**	**Fatigue**	**Sleep**	**Depression**
Aerobic exercise	94%	94%	88%	94%
Education	94%	94%	88%	76%
Sleep hygiene	94%	100%	100%	76%
Cognitive behavioural therapy	94%	88%	88%	88%
Stress management	94%	88%	94%	88%
Mind-body exercise	94%	88%	76%	82%
Strengthening exercise	88%	71%	NR	NR
Periods of relaxation/enjoyment	88%	NR	76%	76%
Goal setting	82%	76%	NR	71%
Hot bath and local heat	82%	NR	71%	NR
Mindfulness	82%	76%	76%	71%
Pacing	82%	76%	82%	NR
Flexibility exercise	71%	NR	NR	NR
Music	NR	NR	76%	NR
Determination to build well-being/happiness	NR	NR	NR	71%

NR: not recommended.

The Jing Method of Advanced Clinical Massage

The Jing Method is a unique, outcome-based system for addressing chronic musculoskeletal pain using a fusion of evidence-based advanced body techniques from Eastern and Western modalities. Addressing the biopsychosocial model (BPS) the Jing Method takes into

consideration biological, psychological, and social factors that may be contributing to the pain experience. Each treatment incorporates **H**eat, **F**ascial release, **T**reatment of muscles and trigger points, **A**cupressure points, **S**tretching, and **T**eaching self-care and education (HFMAST), enhancing the treatment into a multi-modal approach. Fairweather and Mari (2015) describe this fusion being a greater benefit than using individual techniques alone, enhancing each other with greater outcomes.

The below research shows support to each element of the HFMAST and its benefits.

Heat

In a large-scale survey of over 2000 people with FMS, 74% rated heat as one of the most effective methods for symptom/pain management (Bennett et al., 2007). Experts in the field of FMS recommend heat for helping pain and sleep in FMS (Kundakci et al., 2022).

Fascial release

Myofascial release (MFR) is a hands-on technique using specific slow, guided, listening touch, directly or indirectly over the soft tissue, working on the connective tissue surrounding the muscles. The intention is to relieve pain, resolve structural dysfunction, restore function and mobility, and release emotional trauma (Fairweather and Mari, 2015).

MFR presents as a technique for different conditions (Ajimsha, Al-Mudahka and Al- Madzhar, 2015). Gozalo-Pascual et al (2023), used 40-minutes of MFR over four weeks, improving anxiety and central sensitisation. Ughreja (2021) and Yuan, Matsutani and Marques (2015), review the effects of MFR, demonstrating improvement on pain, sleep, and QoL in FMS patients, against sham or no treatment, although some of the studies used exercise in combination with MFR.

Massage therapy

Evidence shows that most styles of massage therapy have improved QoL in FMS patients (Yuan, Matsutani and Marques 2015). A systematic review by Li et al (2014) found evidence that a duration ≥5 weeks of massage therapy, improved pain, anxiety, and depression in patients with FMS and recommended that massage therapy should be a viable complementary and alternative treatment for FMS. However, follow-up on long term effect, and larger scale trials were needed.

Acupressure

Whilst there are studies supporting acupuncture as a multi-disciplinary approach for being effective for pain and maintaining well-being in FMS patients (Berger et al., 2021; Li et al., 2022; Valero-Cameron et al., 2022), the Jing Method uses acupressure by hands only, based on accessing the same energy points. Chen and Wang (2014) show that incorporating acupressure as an alternative therapy would be effective in relieving various body pains.

Stretching and Teaching self-care

Fairweather and Mari (2015) encourage self-care within the Jing Method as an important part of the treatment considering psychological and social factors, as well as biological factors, empowering the client to take control of the symptoms. Individual to the person, self-care may include education, general/strengthening exercise, relaxation methods, mindfulness, breathing exercises, self-acupressure/massage/myofascial release, advice and referral, goal setting and pacing, and the use of hot/cold for pain relief.

Low regular physical activity has been shown to reduce anxiety and pain symptoms and improve function in chronic pain (Lebert et al., 2022) and can prevent chronic pain occurring (Sluka et al., 2013). Using self-care including stretching exercises, instructions on well-being

and postural techniques have improved patient's functional scores of the Fibromyalgia Impact questionnaire (De Lorena et al., 2022). Self-myofascial release can help overall QoL in FMS, based on a regular practice (Ceca et al., 2017).

Aim of the study

The above research shows the benefits of a multi-disciplinary approach in managing FMS. This study is set out to evaluate the effects of using the Jing Method of Advanced Clinical Massage as a multi-modal approach to improve well-being in women with FMS. Previous small-scale studies using the Jing Method improved patient's well-being/QoL in FMS (Satchwell, 2015), depression, anxiety, and stress in individuals (Aherin, 2023; Martinez-Perez, 2023; Quayle, 2023).

METHOD

Prior to recruitment, research was collected on FMS and its symptoms, prevalence, diagnosis, treatment, and management. This research was collected from PubMed, Mendeley, Science Direct and Google Scholar.

Ethical approval was received by the Jing Institute prior to this study commencing (Appendix A).

Seven female participants with diagnosed FMS by a GP, over the age of 18 took part in this study. The exclusion criteria for this study were current pregnancy, being under the age of 18, and participants having started a new medication, therapy within 6 weeks prior to the 12-week study. Participants were recruited through a business social media post and email, word of mouth and personal social media posts. None of the participants had previously met the researcher. An initial consultation and health questionnaire were undertaken to screen for any health issues that may need further investigation by a GP and confirm eligibility for study inclusion.

A participant consent form was required from each participant prior to the study (Appendices B and C). The study was made of two groups, the first group of four participants started on the week of 28th August and the second group of three participants started on the week of 11th September, all following the same control period and receiving the same intervention treatment individually.

At week 8, one participant had a minor knee operation which excluded her data from the study, as recovery may have intervened with the results. At week 11, the study lost another participant due to family problems, being unable to proceed, leaving five female participants between the ages of 56 and 65 that completed the 12-week study.

The study uses a within subject design where participants are exposed to the same control period and intervention. The advantage of using this design is that it only requires a small sample of participants, with no effects from variations in individual differences to observe accurate statistics. The Fibromyalgia Impact Questionnaire Revised (FIQR) was used every week with every participant (Appendix D), and the scores were compared. The FIQR is a validated and reliable instrument, rating the QoL in FMS patients (Bennett et al., 2009; Lee, 2021). It has a simple scoring system for both patients and researchers, taking a few minutes to complete based on the ability to carry out common activities, how much FMS has impacted the participant and how severe the symptoms have been in the last 7 days. Each participant was able to make their own report of their own experience of FMS. Consisting of 21 questions in three domains; Function (9 questions), Overall Impact (2 questions), Symptom Severity (10 questions). All questions are based on an 11-point numeric rating scale of 0 to 10, with 10 being at its worst within the context of the last 7 days.

At weeks 1-6 of the study, participants were sent via email the FIQR questionnaire to complete and return to the researcher. This was the control stage where no intervention was given, to find a base line of the participants FMS severity.

On weeks 7-12, participants attended an individual 45-minute hands-on Advanced Clinical Massage treatment using the Jing Method in a clinical environment used for massage. The protocol used was a shortened version of the stress and chronic pain protocol by Jing Advanced Clinical Massage (Fairweather and Mari, 2015) (see Appendix E). The protocol consisted of breathing, grounding amma, heat, fascial release, treatment of muscles, acupressure and mobilisations. This protocol was replicated for 6 treatments. The same massage medium was used for each treatment, and the same music was played.

In weeks 7-12, 6 days after each intervention treatment the participants completed the FIQR questionnaire, the day before their next intervention treatment.

Although no self-care advice was given for this study, a follow-up FIQR questionnaire was sent to the participants at week 16 to evaluate any lasting effects of the intervention treatments.

All the participants agreed that if their health, medication, or therapy changed in the 12-week study they would make the researcher aware.

RESULTS

To find the FIQR score the summed score for function (range 0 to 90) is divided by 3, the summed score for overall impact (range 0 to 20) is not changed, and the summed score for symptoms (range 0 to 100) is divided by 2. The total maximum FIQR questionnaire score is 0-100.

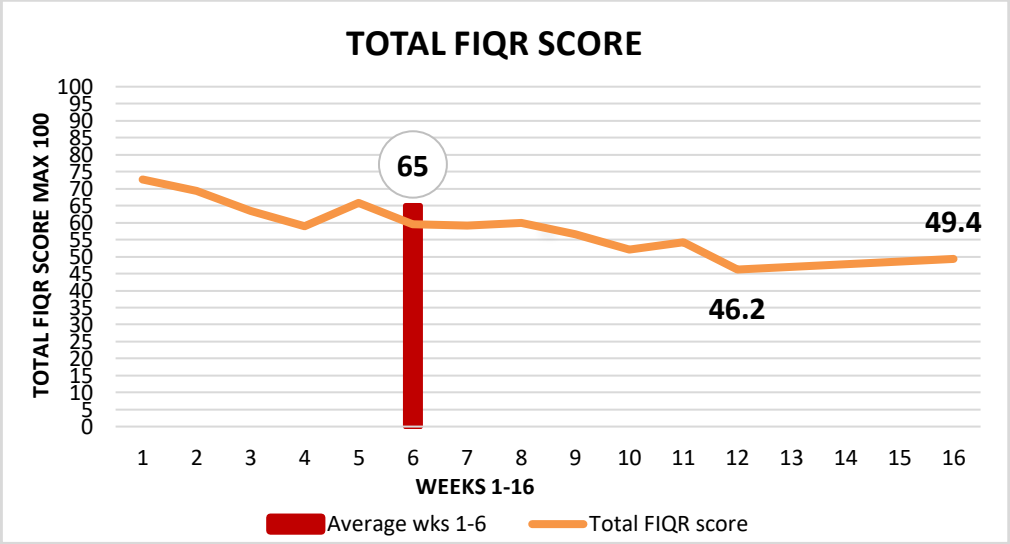

Figure 1. Total FIQR scores weeks 1-16. A higher score indicates a greater severity of FMS.

The base line at week 6 was calculated by an average of the FIQR score over weeks 1-6.

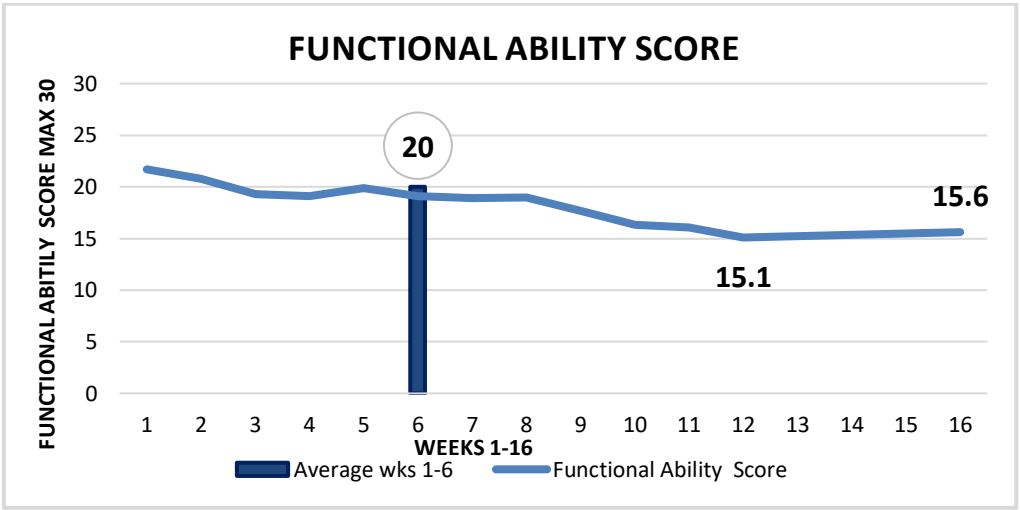

Figure 2. Functional ability score of FIQR. A higher score indicates a greater disability to activities.

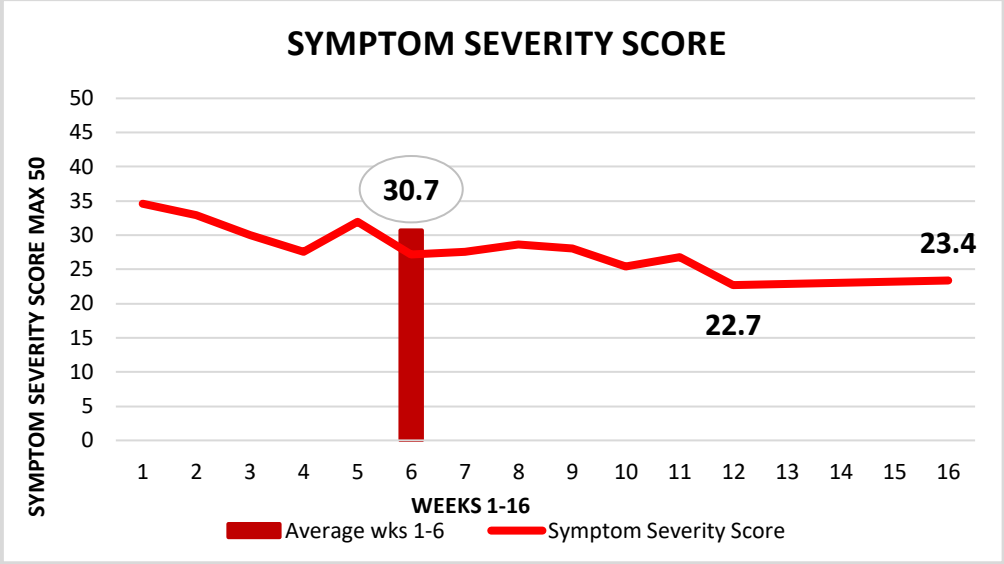

Figure 3. Symptom severity score of FIQR. A higher score indicates a greater severity of symptoms.

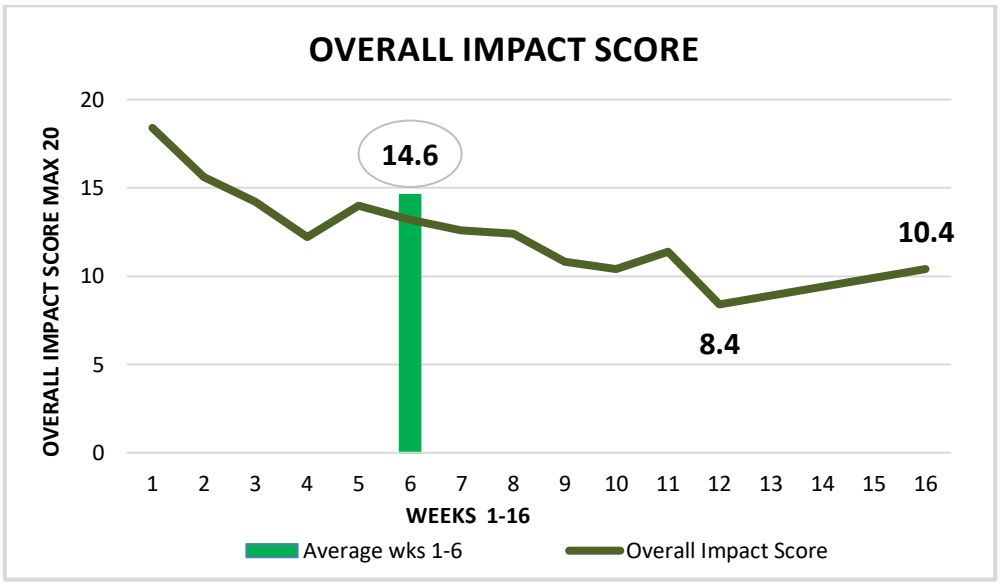

Figure 4. Overall impact score of FIQR. A higher score indicates a greater impact on QoL.

The results show improvements to the overall total FIQR score (Figure 1), and each of its domains of Functional ability (Figure 2), Symptom severity (Figure 3), and Overall impact (Figure 4), over 12 weeks.

Table 2. Symptom categories from symptom severity domain of the FIQR.

	Depression	**Anxiety**	**Pain**	**Sleep**	**Energy**	**Stiffness**	**Memory**	**Touch**
Mean wks. 1-6 pre intervention	4.8	5.4	7.7	7.7	6.7	7.3	5.5	6.8
Wk. 12 post intervention	3.6	3.6	5	5.6	5	5.8	4	5.2
Decrease in points post intervention	-1.2	-1.8	-2.7	-2.1	-1.7	-1.5	-1.5	-1.6
Percentage of improvement post intervention.	25%	33%	35%	27%	21%	19%	22%	23.5%

A higher score indicates higher levels of depression, anxiety, pain, stiffness and memory problems, less rested sleep, less energy, and more sensitivity to touch.

DISCUSSION

Key results

The result of this study demonstrates a positive result on the mean total FIQR score post intervention, decreasing the score from a baseline of 65 to 46 (29%), (Figure 1). This demonstrates that 45-mins of Advanced Clinical Massage using the Jing Method over 6 weeks can improve well-being/QoL in FMS patients, improving functional ability by 24.5% (Figure 2), decreasing symptom severity by 26% (Figure 3) and decreasing the overall impact of FMS by 42.5% (Figure 4). Advanced clinical Massage presents as a multi-modal approach to treating FMS. This correlates with Satchwell (2015) which demonstrated a 5% improvement on the FIQR score improving QoL in FMS. The study used the same measurement questionnaire, over the same number of weeks, using one element of the Jing Method (Myofascial release).

Within the Symptom Severity domain of the FIQR, symptoms included levels of depression, anxiety, sleep quality, pain and energy levels, stiffness, memory problems, and sensitivity to touch, which all demonstrated improvement (Table 2). The primary symptoms of this domain to make the biggest improvements were pain (35%), anxiety (33%), sleep (27%) and depression (25%). This correlates with Li et al (2014) in that ≥5-weeks of massage therapy improves pain, anxiety, and depression in patients with FMS. This is further supported by Gozalo-Pascual et al (2023) where 40-minutes of MFR once a week for 4 weeks, improved anxiety and secondly central sensitisation. This was evaluated against placebo treatment, using various measurement tools across the studies to measure the symptoms.

The 16-week follow up questionnaire, explored any lasting effects of the intervention treatments on the participant's well-being. The results show a slight deterioration in scores at week 16 compared to week 12 on the total FIQR score of 5%, However, the data shows some

lasting effects of the intervention, with the FIQR score at week 16 still demonstrated a 24% improvement on the pre-intervention base line FIQR score.

Observations

When observing the mean total FIQR score (Figure 1), interestingly over the control period prior to any intervention taking place, the score decreased. Anecdotally, FMS participants of this study reported a lack of support and regular support groups during the initial consultation. According to a study by Wilson et al (2022), a difficulty in accessing services, limited support from healthcare professionals and difficult patient-provider relations are reported by FMS patients. Prior to this study an initial consultation was undertaken and the researcher introduced themselves. Research has shown that positive interactions between client and practitioner have improved healthcare outcomes regardless of treatment received, this is known as therapeutic alliance (Kelley et al, 2014; Fairweather and Mari, 2015). A sense of collaboration, positive expectation or support between client and therapist may have shown an impact on the FIQR scores, feeling a sense of being heard, therefore initially improving the FIQR score in the control period.

Considerations

With spikes in the weekly total FIQR scores (Figure 1), it may have been helpful to know what the participants had experienced in their week and their thoughts and feelings, to observe any correlations to the FIQR scores. Gomez- Arguelles, Moreno- Zazo, and Maestu, (2022) and Katz (2017) state, it can be challenging for someone living with FMS as symptoms appear to change or increase with a description of a 'flare up'. Frequent triggers for a flare up may include stress, physical overexertion, climate changes, insomnia, infections, hormonal changes, and dietary. Lives change day to day with changes to health, work stress, family situations, financial

problems with some days or weeks being busier or more stressful than others with less rest and may be triggers to spikes in FIQR scores.

Katz (2017) used a questionnaire to include the types of stress participants had experienced in their week and the effects on their pain. Kim, Dowgwillo, and Kratz (2023), investigate the role of positive and negative emotions in times of fatigue, stress, and anger, highlighting the need to evaluate these in addition to depression and pain to find associations in FMS. An addition of these questionnaires alongside the FIQR, would help to identify the possible connections to the FIQR scores.

Research suggests that self-care should be tailored to the specific needs of an individual's FMS symptoms and their limitations. (Conversano et al., 2019; Maffei, 2020; Sarzi-Puttini et al., 2011). The Jing Method encourages self-care as part of the treatment, providing management of symptoms, empowerment, and education. The researcher made the decision not to include self-care within this study as each participant presented with different functional ability and symptoms. Furthermore, it would have been harder to control the frequency and accuracy of how self-care was undertaken between intervention treatments by the participants. Self-care alone without treatment has proved to help FMS (De Lorena et al., 2022; Ceca et al., 2017). Katz (2017) states that managing stress should be an important goal in decreasing pain in FMS. Providing stress management strategies may have been introduced into self-care, utilising breathing exercises, meditation, mind-body exercise, and journaling. Including self-care to use in-between intervention treatments may have further improved the FIQR scores, also providing longevity of the intervention treatments between weeks 12 and 16, therefore the researcher regrets not using self-care strategies.

Research shows that addressing psychological, social, and biological factors all have an impact on pain experience, addressing these factors together is known as the BPS model of pain. Emotions, pain-related beliefs, catastrophising, lack of support from family, friends, work, and stress related situations all have an impact on health and pain. Addressing this model, encouraging positive thoughts, beliefs and coping mechanisms all have a key part in treating pain (Fairweather and Mari, 2015). Outside of a research project this aspect could have been explored further individually.

During the intervention stage, one participant reported improved range of movement (ROM) of the shoulders and neck, however this was not assessed in this present study. ROM measurements could have been taken prior to the study commencing to assess further benefits of Advanced Clinical Massage.

Strengths

The FIQR questionnaire used within this study, is a validated and reliable instrument, rating the QoL in FMS patients (Lee, 2021, Bennett et al., 2009). With a simple scoring system for both participants and researcher, each participant was able to make their own report of their own experience of FMS. Participants reported not only on their symptoms but their functional ability to carry out common activities.

Including a follow up questionnaire four weeks after the intervention stage at week 16, provided a further insight into the lasting effects of the intervention treatments on the participant's well-being.

With FMS presenting with multiple symptoms a multi-disciplinary approach is key to managing different aspects of the patient's symptoms (Conversano et al., 2019; Maffei, 2020; Sarzi-Puttini et al., 2011). This present study used a 45-minute protocol following a multi-

modal approach, by using more than one element of the HFMAST. A previous study by Satchwell (2015) explored the effects of a 30-minute Indirect Myofascial Release protocol on FMS patients, over 12 weeks, using the same instrument (FIQR). The study demonstrated an improvement in the total FIQR score by 5%. Myofasial release is just one aspect of the Jing Method when following the HFMAST approach. This present study demonstrated a larger improvement on the FIQR scores, compared to using a 30-minute protocol of myofascial release techniques alone. This correlates with Fairweather and Mari (2015) in that a fusion of techniques are greater than one technique used alone for the treatment of chronic pain.

Limitations

This was a small-scale study with a limited number of participants, with two participants not completing the 12-week study due to external factors, the results may not represent a broader scale of FMS sufferers. Although the researcher had control over the control phase and intervention stage other areas of life are less controllable. These include stress with work, personal life, family situations, overexertion and not being able to rest when needed and the use or need for other interventions (pharmacological or non-pharmacological) over 12 weeks, when managing fluctuating symptoms. To treat a person specifically using the BPS model as advocated by the Jing Method, more details on what may contribute to the participant's well-being may be relevant to collect in an initial consultation, as each person will be individual.

Potential

From a female perspective, a peer social support network provides positive impacts on well-being/QoL, providing empowerment and education, emotional support, and a social aspect (Reig-Garcia et al., 2021). Not all participants reported being part of a support network or group. Each aspect of the HFMAST can be applied for use by the participants outside of a hands-on massage, as self-care. The use of heat packs, self-myofascial release/massage using

foam rollers and massage balls, self-acupressure points, stretching, education and empowerment. This gives the potential to work in a group setting with support groups to empower and educate FMS patients helping to take control and help manage the symptoms.

CONCLUSION

The data from this study demonstrates that using an individual 45-minute Jing Method Advanced Clinical Massage once a week, over 6 weeks, improves well-being/QoL in FMS patients. Improving functional ability, symptom severity and overall impact of FMS. Utilising a 16-week FIQR questionnaire showed some lasting effects of the intervention treatments, the FIQR score showed a slight deterioration of 5% between weeks 12-16 when the intervention stage had finished. However, the FIQR score at week 16 still demonstrated a 24% improvement on the pre-intervention base line FIQR score. The Jing Method of Advanced Clinical Massage using the HFMAST approach presents as a suitable multi-modal approach to non-pharmacological intervention for FMS and should be considered as a complementary and alternative treatment.

Further studies would benefit from using a larger scale of participants representing a broader scale of FMS sufferers, a questionnaire to include the types of stress and emotions participants had experienced each week to know whether this was reflected in the FIQR scores. The use of ROM joint tests alongside the FIQR may provide further effects of Advanced Clinical Massage. The addition of self-care for clients to continue well-being during the intervention stage would help manage life situations, maintain stress levels, encourage physical well-being, may increase ROM, and further maintain the improvement made through the intervention treatments. Providing guided self-care group sessions using the HFMAST approach, provides scope to collaborate with FMS support networks to help maintain well-being/QoL.

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APPENDICES

Appendix A Ethics Form

	CHECKLIST OF INSTRUCTIONS FOR STUDENTS	✓
1	Complete Section 1 to Section 13	
2	Electronically sign and date	
3	Participation information form	
4	Participation consent form	

Jing BTEC Research Ethics Form

BTEC Level 6 – Professional diploma in advanced clinical sports massage

Section 1: to be completed by student.

Student's name:	Elizabeth Snook
BTEC Year-group:	2022 - 2024
Date of application:	May 2023
Student email address:	Lizs06@hotmail.co.uk
Title of research project:	**Evaluating the effects of using the Jing Method of Advanced Clinical Massage to improve well-being in women with Fibromyalgia Syndrome**

Section 2:

Does your project involve any primary research using human subjects?

	YES	NO
Does your project involve any primary research using human subjects?	X	
If yes, does it involve children under 16?		X
If yes, does it involve children under 18?		X
Other vulnerable populations (i.e. mental illness, aged subjects)?		X
Does your project involve NHS patients, NHS staff or Local Authority Service Providers? *If yes, you must obtain 'external ethics approval' for your proposal before the form can be signed-off by 'Jing' and before you can start your fieldwork.*		X
Are you planning to use deception?		X
Are you collecting sensitive personal data such as sexuality, mental health data, etc?		X
Does your project make use of a validated questionnaire?	FIQR Fibromyalgia Impact Questionnaire Revised	
Does your project make use of a new/adapted questionnaire or semi-structured interview checklist?		X

Section 3:

Where is your research being undertaken? In a private room within a clinic used for massage purposes.		
If your research is being undertaken outside of your own premises, do you have written confirmation from the establishment involved? If yes, please provide evidence.	YES X Approval attached	NO

Section 4:

How will you recruit subjects for this research study?

From existing clientele who have Fibromyalgia.
By word of mouth of work colleagues and current clients.
Promote with business social media posts. (Facebook and Instagram.)
Mailchimp email through the salon.

Section 5:

How will you manage participant confidentiality? Ensure that the information refers to GDPR and is compliant with this legislation.

- Data held will be in accordance with the General Data Protection Regulation (GDPR) (EU) 2016/679
- Only collect data that is needed for the purpose of the project, not storing for any longer than needed.
- Data is stored in a secure filing system password protected on a personal computer.
- It is made clear to participants that data is not passed on to anyone else or a third party.
- Only the researcher will have access to participant's details collected and will keep this confidential.
- Client identities are anonymised by using numbers rather than their names when storing data.

Section 6:

1. Outline your project procedure.

- To recruit participants to evaluate the effects of using the Jing Method of Advanced Clinical Massage stress and chronic pain protocol to improve overall wellbeing in women with fibromyalgia.
- Provide an initial consultation where participants will be informed of what the study involves, obtain consent, and then gather a history of health of the participant.
- Participants will need to provide a name, contact details, age, time of diagnosis, duration, and symptoms.
- Weeks 1-6 the participants will be sent, once a week the revised Fibromyalgia Impact Questionnaire (FIQR) via email, for a 6-week control period prior to a 6-week intervention period (weeks 7-12). The participants will need to complete the questionnaire and return to the researcher. The results will provide a baseline level of the participants wellbeing prior to the intervention stage.
- After the 6 weeks control period, for weeks 7-12, a 45 min hands on intervention treatment will follow, once a week up to week 12.
- The treatment will include breathing and grounding, heat, fascial work, effleurage, acupressure, stretching and mobilisations.
- Participants will be sent the FIQR questionnaire 6 days after each intervention treatment prior to the next.
- On week 12 the questionnaire will be sent 6 days after treatment.
- On week 16 the questionnaire will be sent to gather any long-term benefits.

2. Briefly describe **what your participants** have to do.

- Prior to the 12 weeks study the participants will be required to attend an initial consultation, the study will be explained, and any questions will be answered prior to giving consent.
- Participants will provide consent via an online consent form with name, contact details, age, time of diagnosis, duration of symptoms.
- Participants will be required to complete the FIQR questionnaire once a week for 12 weeks via email. The questionnaire should take no more than 5 minutes to complete. For weeks 1-6 they will complete the questionnaire weekly with no intervention. This will form the control period.
- Weeks 7-12, participants will need to attend once a week for an individual, hands on 45 min intervention treatment in a private room used for clinical massage.
- During the intervention stage the FIQR questionnaire will be sent via email, 6 days after each treatment prior to the next treatment. Participants will be required to complete this questionnaire before they can have the intervention treatment.
- On week 16 the FIQR questionnaire will need to be completed to gather any long-term benefits.
- Participants will inform the researcher of any changes to medication or the inclusion of a new therapy or treatment; should it be needed in the 12 weeks of participation in the study.

Section 7:

What sort of materials or stimuli will your participants be exposed to?		
	YES	**NO**
Questionnaires	X	
Pictures (will you take a photo of participants)		X
Sounds	X non vocal spa music from a play list. Same playlist for each participant.	
Words	X	
Other	Advanced Clinical Massage	

If using a questionnaire, you are required to attach an example.

- FIQR questionnaire attached at the end of this document.

For 'Other' please elaborate:

A shorter version of the stress and chronic pain protocol from Fairweather & Mari (2015) Massage Fusion. Sample protocol attached at the end of this document.

Section 8:

What sort of people will the subjects be?

Women with medically diagnosed Fibromyalgia over the age of 18.

To be included in this study participants require:

- A medical diagnosis of Fibromyalgia.
- To be a woman over 18 years of age.
- To inform the researcher of any change to existing medication or therapy during the 12-week study period.
- Inform the researcher of any new diagnosis during the study period.

Exclusion criteria.

- Pregnancy.
- Under the age 18 years old.
- Participant having started a new medication or therapy within the last 6 weeks prior to the study.

Section 9:

If your research study involves minors, how will you obtain participation permission and who is the responsible adult?

N/A

Section 10:

Special Issues. Give brief details of other special ethical issues and the controls you will put in place to minimise ethical risk.

- All participants are free to opt out of the study at any point in time over the 12 weeks.
- Participants know the purpose, and the benefits of the study before informed consent is given. Informed consent by each participant will be given and received prior to this study taking place.
- The researcher will respect participants decisions and use a green cross code to check in with clients during treatments. It is made clear that hands-on treatment can be stopped at any time if they are not comfortable.
- The researcher will refer participants to other resources should issues arise outside of my remit.
- The protocol being followed in this study will be using techniques that I am qualified, insured and have experience in using, therefore participants will not be subjected to harm.
- Participants dignity will be kept, ensuring safe draping and communication throughout the treatment. Clients will be made comfortable before treatments start.
- The researcher will have respect for anonymity and confidentiality of each participant by not disclosing any names or personal information to anyone but myself and keeping any data collected anonymous, storing any data in a secure filing system.

Section 11

What procedures will you follow in order to guarantee the confidentiality of your participants' data?

- Only the researcher will have access to participant's details collected and will keep this confidential.
- Data is stored in a secure filing system password protected on a personal computer.
- Details with not be stored longer than needed and deleted when finished.
- Participants identities are kept anonymous by using numbers rather than their names when storing data.
- The researcher will use participants first name only whilst undertaking treatment intervention.

Section 12

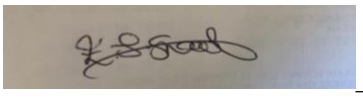
Does any of the following apply to your research study?	YES	NO

It requires participants to give information of a personal nature	X	
It involves minors or other vulnerable individuals;		X
It involves paying participants or an alternative incentive to participate		X
It could put you or someone else at risk of injury.		X

Section 13:

I understand that I can only start my project once this ethical application has been approved. This applies to ALL projects, whether using human participants or not.	YES X	NO

Student's handwritten signature:



(To be completed, once ethical approval has been provided)

Print Name: Elizabeth Snook

Date: June 2023

IMPORTANT

Consent

Informed consent must be obtained from all participants before they take part in your project. The Consent Form (example below) should clearly state the parameters and content of the research. It should explain what is expected of the participants and what they will be doing. It should draw specific attention to any elements that could conceivably cause subsequent objections, and the measures you are taking to ensure the confidentiality of their data. It should also state that the participants are free to withdraw from the study at any time. Studies carried out in schools require the permission of the head-teacher, and of any responsible adults as per the head teachers' recommendation. Minors aged over 14 years should also sign an individual consent form themselves. If you are planning to carry out a project whereby you will be in contact with minors, you must establish from the head-teacher or other responsible adult whether the work proposed will require you to have the relevant DBS disclosure. Please seek advice from your Local Authority.

You must complete a consent form for every participant involved in your study.

Appendix B. Information for Participants.

PROJECT TITLE:
Evaluating the effects of using the Jing Method of Advanced Clinical Massage to improve wellbeing in women with fibromyalgia.

STUDENT NAME: Elizabeth Snook
STUDY LOCATION: Beautyworks, 2 Burlington Parade, Portslade, Brighton, BN41 2DJ
Tel:07803811917
email: lizs06@hotmail.co.uk

INFORMATION FOR PARTICIPANTS

Important
Please be advised that you can withdraw your participation from this study at any time. There is no need to submit a reason and there will be no consequences to you as a result of withdrawing.

What will be expected of you, the participant?

- Prior to the 12 weeks study the participant will be required to attend an initial consultation over the phone to provide name, contact details, age, time of diagnosis, duration of symptoms and a history of health. The study will be explained, and any questions will be answered prior to giving consent.
- The participant will provide consent via an online consent form prior to the 12-week study starting.
- The participant will be required to complete the FIQR questionnaire once a week for 12 weeks via email. The questionnaire should take no more than 5 minutes to complete.
- Week 1-6 the participant will complete the FIQR with no intervention.
- Weeks 7-12, the participant will need to attend once a week for an individual, hands on 45 min intervention treatment in a private room used for clinical massage.
- The participant will be required to complete the FIQR questionnaire 6 days after each intervention treatment before they can have the next treatment.
- The participant will complete the FIQR questionnaire at week 16 to gather any long-term benefits.
- The participant will inform the researcher of any changes to medication or the inclusion of a new therapy or treatment; should it be needed in the 12 weeks of participation in the study.
- The participant is over 18 years of age and not pregnant.

What does the initial consultation and research study involve?

- An initial consultation will be undertaken to collect the participants name, contact details. DOB, time of diagnosis, duration of symptoms, a history of health. The consultation will explain the study and answer any questions the participant may have.
- A letter will be sent to the participant via email to explain what is expected prior and during the 12-week study.
- A consent form will be sent to the participant via email and returned to the researcher prior to the study starting.

- Participants will be required to complete the FIQR questionnaire once a week for 12 weeks. The FIQR is 21 questions about function, overall impact, and symptoms. All questions are graded using a 0-10 numeric scale. The questionnaire should take no more than 5 minutes. The questionnaire will be sent via email.
- Weeks 1-6 the questionnaire will be completed with no intervention. This will form the control period. The results will provide a baseline level of the participants wellbeing prior to the intervention stage.
- Weeks 7-12, participants will need to attend weekly for an individual, hands on 45 min intervention treatment using the Jing Method of Advance Clinical Massage in a private room used for clinical massage.
- During the intervention stage the FIQR questionnaire will be sent via email, 6 days after each treatment prior to the next treatment. Participants will be required to complete this questionnaire before they can have the intervention treatment.
- On week 12 the questionnaire will be sent 6 days after treatment.
- On week 16 the questionnaire will be sent to gather any long-term benefits.
- Data will be collected, and scores will be compared between pre and after intervention treatments to see if there has been an improvement in overall wellbeing in Fibromyalgia clients.

Are there any risks involved?

I am fully qualified and insured to use all the techniques in the intervention, however, sometimes people can feel a bit achy or tender after a treatment and may have an Increased thirst.

Data and confidentiality will be protected.

A treatment will stop should pain or discomfort arise.

What are the potential benefits to you, the participants?

To help improve your wellbeing, using the Jing Method by calming the central nervous system in a pain free treatment.

How will the results of the study be used?

Your data will be mathematically analysed together with all the other participants' data, and the findings from this analysis will be communicated to the project supervisor and possibly other practitioners. Communication of the findings may be in the form of all / any of the following: a dissertation, reports in scientific journals, articles in newsletters, and presentation at a conference.

Confidentiality

All data and personal information will be stored securely in accordance with the terms of the General Data Protection Regulation (GDPR), 2018, and will be accessible only by **Elizabeth Snook.** After completion of the study, all data will be made anonymous (i.e. all personal information associated with your data will be removed). Your data will be anonymous in any written reports, articles, and presentations of the results of the study.

What to do now you have decided to participate

If you would like to participate, please return a completed consent form to **Elizabeth Snook**.
If you have any further questions, please contact **me** on the telephone number or email address above. Thank You.

Appendix C: Participant Consent Form

PARTICIPANT CONSENT FORM

Title of study:

Evaluating the effects of using the Jing Method of Advanced Clinical Massage to improve well-being in women with Fibromyalgia Syndrome.

Name of student: Elizabeth Snook

- I have read the information sheet about this study.
- I have had an opportunity to ask questions and discuss this study.
- I have received satisfactory answers to all my questions.
- I have received sufficient information about this study.
- I understand that I am / the participant is free to withdraw from this study:
    - At any time (until such date as this will no longer be possible, which I have been told)
    - Without giving a reason for withdrawing
    - That I am free to refuse to answer any question without saying why.
    - That the services I am receiving will not be affected whether I participate or not.
- I understand that my research data may be used for a further project in anonymous form, but I am able to opt out of this if I wish, by ticking here.
- I agree to take part in this study.

Signed (participant)	Date
Name in block letters	
Signed (parent / guardian / other) (if under 18)	Date
Name in block letters:	
Elizabeth Snook	

Section 3: Jing 's assessment (to be completed by Jing)

EITHER:
This project is not designed to include fieldwork with human participants. Insofar as secondary data are to be used, I am confident that appropriate procedures are in place for data protection and non-disclosure of any personal or confidential data.

Signature: .....date: .....

OR:
This project is designed to include fieldwork with human participants.
(please circle yes or no)

YES All necessary statutory, legislative or other formal external approvals have been obtained (e.g., permissions, police checks, external research ethics and governance approvals in the case of research involving NHS staff or patients or Local Authority service providers or users).

YES The design of this study ensures that the dignity, welfare and safety of the participants will be ensured and that if children or other vulnerable individuals are involved they will be afforded the necessary protection.

YES I am confident that participants will be given all necessary information before the study, in the consent form, and after the study if necessary.

YES I am confident the participants' confidentiality will be preserved.

YES I consider that any risks involved to the student, the participants, and any third party are minimal.

YES I consider that Departmental approval should be given, since ethical risks have been appropriately addressed in the proposal and I am confident that steps will be taken to minimise any risks.

Signature: ...  **Date: 9.7.23**

If a second opinion was sought from a research ethics expert, the advisor should also sign this form below:
Advisor's name (please print):

Advisor's signature: ..... date: .....
Once the Jing's signature has been obtained, the student must return the completed form to the Jing Office.

Appendix D: Fibromyalgia Impact Questionnaire Revised (FIQR)

The Revised Fibromyalgia Impact Questionnaire

Domain 1 directions: For each of the following nine questions, check the one box that best indicates how much your fibromyalgia made it difficult to do each of the following activities over the past 7 days:

Brush or comb your hair	No difficulty □□□□□□□□□□□ Very difficult
Walk continuously for 20 minutes	No difficulty □□□□□□□□□□□ Very difficult
Prepare a homemade meal	No difficulty □□□□□□□□□□□ Very difficult
Vacuum, scrub, or sweep floors	No difficulty □□□□□□□□□□□ Very difficult
Lift and carry a bag full of groceries	No difficulty □□□□□□□□□□□ Very difficult
Climb one flight of stairs	No difficulty □□□□□□□□□□□ Very difficult
Change bed sheets	No difficulty □□□□□□□□□□□ Very difficult
Sit in a chair for 45 minutes	No difficulty □□□□□□□□□□□ Very difficult
Go shopping for groceries	No difficulty □□□□□□□□□□□ Very difficult

Domain 2 directions: For each of the following two questions, check the one box that best describes the overall impact of your fibromyalgia over the past 7 days:

Fibromyalgia prevented me from accomplishing goals for the week	Never □□□□□□□□□□□ Always
I was completely overwhelmed by my fibromyalgia symptoms	Never □□□□□□□□□□□ Always

Domain 3 directions: For each of the following 10 questions, check the one box that best indicates the intensity of your fibromyalgia symptoms over the past 7 days:

Please rate your level of pain	No pain □□□□□□□□□□□ Unbearable pain
Please rate your level of energy	Lots of energy □□□□□□□□□□□ No energy
Please rate your level of stiffness	No stiffness □□□□□□□□□□□ Severe stiffness
Please rate the quality of your sleep	Awoke rested □□□□□□□□□□□ Awoke very tired
Please rate your level of depression	No depression □□□□□□□□□□□ Very depressed
Please rate your level of memory problems	Good memory □□□□□□□□□□□ Very poor memory
Please rate your level of anxiety	Not anxious □□□□□□□□□□□ Very anxious
Please rate your level of tenderness to touch	No tenderness □□□□□□□□□□□ Very tender
Please rate your level of balance problems	No imbalance □□□□□□□□□□□ Severe imbalance
Please rate your level of sensitivity to loud noises, bright lights, odors, and cold	No sensitivity □□□□□□□□□□□ Extreme sensitivity

Scoring: Step 1. Sum the scores for each of the three domains (function, overall, and symptoms). Step 2. Divide domain 1 score by three, divide domain 2 score by one (that is, it is unchanged), and divide domain score 3 by two. Step 3. Add the three resulting domain scores to obtain the total Revised Fibromyalgia Impact Questionnaire score.

Appendix E: Stress and Chronic Pain Protocol (45 minutes).

Client in prone position, over drape: Grounding work- with client and 3 deep breaths from client. In through nose out through mouth.

Amma-Palming of erector Spinae over drape.

Acupressure-Back Shu points on bladder channel.

Myofascial - Cross hand stretches to upper and lower back.

Apply light oil. Power effleurage- with stones starting at client's upper arms, glide down either side of spine to low back, light return.

One stone figure of 8 either side, gliding over QL, and around upper trapezius.

Amma- down whole-body using palms, finish at feet at Kidney 1 acupressure point.

Client in supine position.

Stone placements on solar plexus, and belly.

Fascial leg pull.

Fascial arm pull.

Acupressure- Ht 8.

MFR pelvic transverse plane release.

Conception vessel prayer position, work down centre of sternum. Rocking

Acupressure point Conception Vessel-CV 17.

Posterior cervical work.

Cervical mobilisation.

Acupressure-Governing Vessel. GV20

Holding head and grounding.