Evaluating the Effectiveness of the Jing Method™ of Advanced Clinical Massage in the Treatment of Chronic Musculoskeletal Leg Pain in Runners

Jacqui Bark

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

10th March 2026

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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 the Jing Institute of Massage and Complementary Medicine. 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".

Mrs Jacqui Bark: _____

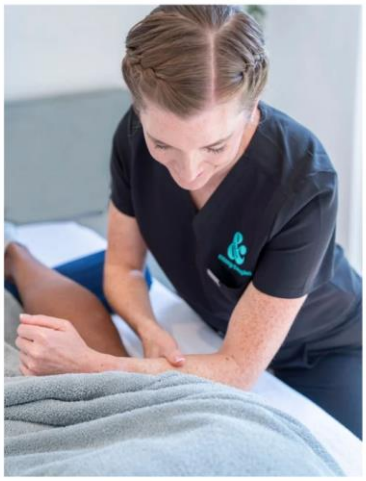
Date: 10th March 2026

I would like to thank all the fabulous participants who took part in this study for their time, commitment and openness throughout the research process

I am extremely grateful to all the wonderful teachers and staff at Jing for their knowledge, guidance and support which has been invaluable throughout the last three years.

Finally, the biggest thanks goes to my family and friends. Their unwavering support, patience and belief in me has got me through to the finish line. Their continued encouragement has been a constant source of motivation throughout this journey. Thank you.






Running has played an important part of my life for over ten years, but with it has come the challenge of managing injuries. Experiencing the frustration first-hand of being unable to train consistently due to persistent pain sparked my interest in supporting other runners facing similar challenges. This inspired me to investigate the role of advanced clinical massage, alongside rehabilitation and self-care, in the management of chronic leg pain in recreational runners.

ABSTRACT

Background

Chronic leg pain is a common and persistent issue among recreational runners, most often due to overuse caused by the repetitive mechanical loading placed on the lower limbs during running. Research has highlighted that approximately 40-45% of runners experience running-related injuries (RRI) or pain each year (Kakouris et al., 2021; Van Gent et al., 2007). Despite the widespread use of conservative management treatment strategies, long-term symptom relief remains a clinical challenge. This study aims to evaluate the effectiveness of the Jing Method™ of advanced clinical massage in the treatment of chronic musculoskeletal leg pain in recreational runners.

Method

A within-subjects design was used with eleven recreational runners who have been experiencing chronic leg pain for a minimum of eight weeks. Participants completed a six-week control period where they completed the Exercise-Induced Leg Pain Questionnaire (EILP-Q) each week. This was followed by six weeks of intervention where they received standardised, weekly hands-on massage treatments following elements from the Jing Method™ Leg, Knee and Foot and Hip and Pelvis protocols, as well as guided self-care and rehabilitation exercises.

Outcome measures included the weekly EILP-Q, weekly running mileage, number of runs completed, and self-reported mood and stress levels. A follow-up EILP-Q was completed four weeks post-intervention to identify any longer-term, sustained effect from the treatments.

Results

EILP-Q scores remained relatively stable during the control period and improved progressively during the intervention period, with further improvements observed post-intervention at week 16. Participants reported reduced pain-related functional limitations when beginning to run and after 15 minutes of running. Weekly running mileage increased, indicating improved tissue tolerance and training load. Qualitative feedback suggested enhanced confidence, improved understanding of their pain, and greater engagement with rehabilitation strategies.

Conclusion

The findings suggest that a multimodal approach, combining clinical massage treatment with self-care that focuses on rehabilitation (including strength and conditioning exercises), alongside client education, may be effective in improving functional outcomes and managing chronic leg pain in recreational runners. While results are promising, further research, with larger and more homogenous samples is required to strengthen the evidence base and explore long-term clinical applications.

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Abbreviations

BPS – Biopsychosocial

CLP – Chronic Leg Pain

CMLP – Chronic Musculoskeletal Leg Pain

DOMS – Delayed-Onset Muscle Soreness

EILP – Exercise-Induced Leg Pain

EILP-Q – Exercise-Induced Leg Pain Questionnaire

MFR – Myofascial Release

MSK – Musculoskeletal

MT – Massage Therapy

NSAID – Non-Steroid Anti-Inflammatory Drugs

PNF – Proprioceptive Neuromuscular Facilitation

ROM – Range of Movement

RRI – Running-Related Injuries

STR – Soft Tissue Release

TA – Therapeutic Alliance

TP – Trigger Points

Literature Review

Running is one of the most popular physical activities worldwide and is recognised for its role in promoting and maintaining better physical health (Oswald et al., 2020). Between November 2023 and November 2024, over 6.5 million people in England regularly participated in running (Statista Research Department, 2025) while 8.7 million NHS Couch to 5k runs were completed in 2024 (Department of Health and Social Care, 2024).

Despite its popularity, the repetitive mechanical load placed on the lower limbs makes runners particularly susceptible to injury and persistent pain (Koldenhoven et al., 2020; Reinking et al., 2013). Systematic reviews indicate that approximately 40-45% of runners experience running-related injuries (RRI) or pain each year, most commonly affecting the knee, lower leg, Achilles tendon and plantar fascia (Kakouris et al., 2021; Van Gent et al., 2007).

Naderi et al. (2024) reported the incidence of RRIs in recreational runners was 5.16 per 1000 hours of running, highlighting the ongoing clinical challenge of managing chronic leg pain (CLP), with many treatment approaches offering limited long-term effectiveness.

This review examines exercise-induced leg pain (EILP) in runners, focusing on current conservative management strategies, gaps in the evidence base, and the potential role of the Jing Method™ of advanced clinical massage in managing chronic musculoskeletal leg pain (CMLP) in this population.

Chronic Musculoskeletal Leg Pain in Runners

Multiple studies (Hreljac, 2004; Koldenhoven et al., 2020; Nielsen et al., 2012; Reinking et al., 2013) demonstrate that CLP is a persistent issue for runners due to repetitive strain and biomechanical overuse injuries associated with regular running. Approximately 50% of runners experience injuries annually (Fields et al., 2010; Kakouris et al., 2021). Prevalence data from the studies reviewed highlight the most common RRIs (Table 1) and their anatomical distribution (Table 2).

Table 1 – The ten most prevalent RRIs categorised by pathology, based on prevalence proportions reported in retrospective and cross-sectional studies

Table 1:

Top 10 Prevalence proportions of RRIs categorised by pathology

Ranking	Diagnosis	Prevalence %
1	Patellofemoral Pain Syndrome	16.7 %
2	Medial Tibial Stress Syndrome	9.1 %
3	Plantar Fasciitis	7.9 %
4	Iliotibial Band Syndrome	7.9 %
5	Achilles Tendinopathy	6.6 %
6	Stress Fracture	5.7 %
7	Ankle Sprain	5.7 %
8	Quads / Hamstring Tendinopathy	3.6 %
9	Patella Tendinopathy	2.9 %
10	Meniscal Injury	1.7 %

Adapted from data by Kakouris, Yener and Fong (2021).

Table 2 – Prevalence proportions of RRIs by anatomical location, based on retrospective and cross-sectional studies

Table 2: **Prevalence proportions of RRIs categorised by anatomical location**		
Ranking	**Injury Location**	**Prevalence %**
1	Knee	31.2 %
2	Lower Leg	20.1%
3	Foot / Toes	14.4%
4	Ankle	13.3 %
5	Hip / Groin	7.0 %
6.	Thigh	6.9 %
Adapted from data by Kakouris, Yener and Fong (2021)		

Although many studies report injury occurrence, fewer focus on pain-specific outcomes. Prevalence data consistently demonstrate predominance of lower limb injuries, though incidence rates varied (Table 3). More standardised and targeted research is needed to better understand MSK pain in runners.

Table 3 - Relative incidence of RRIs by anatomical location, based on prospective studies

Table 3: **Relative incidence of RRIs by anatomical location**		
Rank	**Anatomical location**	**Incidence pattern**
1	Knee	Highest incidence reported
2	Lower Leg	High incidence
3	Foot / Toes	Moderate incidence
4	Ankle	Moderate incidence
5	Thigh	Lower incidence
6	Hip / Groin	Lower incidence
Adapted from prospective cohort studies synthesised in Kakouris et al. (2021)		

EILP refers to leg pain triggered by physical activity and is common in active individuals involved in competitive or endurance sports, including running (Bosnina et al., 2023). EILP typically presents as pain that worsens during activity and subsides with rest.

The incidence of EILP among athletes ranges between 12.8% and 82.4% (Bosnina et al., 2023; Rajasekaran et al., 2012). However, it has not been reported for the general population.

Similarly, Lopes et al. (2011) highlighted that many recreational runners participate in races despite experiencing MSK leg pain. Given that such pain is often linked to overuse injuries, it is suggested that over 20% of these runners may be dealing with ongoing overuse conditions whilst remaining active.

Conventional Treatments for Chronic Leg Pain

Previous research highlights various approaches regarding conventional treatments for CLP. El-Tallawy et al. (2021), identifies commonly used interventions such as physiotherapy, non-steroid anti-inflammatory drugs (NSAIDs) corticosteroid injections, exercise rehabilitation, and in severe cases, surgery. A more detailed overview of these approaches is provided in Table 4.

Table 4 – Conventional Treatments for chronic leg pain

Table 4: **Conventional Treatments for CLP**		
Treatment Category	**Examples / Modalities**	**Use in Runners**
Pharmacological	NSAIDs, paracetamol, muscle relaxants, Opioids (e.g. Codeine, Tramadol)	These are often used short term and are non-curative. Potential risk of side effects with prolonged use
Physical Therapy	Strength and Conditioning, Stretching, Manual Therapy	This forms a core part of MSK management but should be tailored to an individual's biomechanical needs
Activity Modification	Load Management, Pacing, Training adjustments, footwear changes, cross training	Required for injury management and avoiding aggravating symptoms further
Education Models	PEACE & LOVE (Protect, Elevate, Avoid Anti-Inflammatories, Compression, Educate / Load, Optimism, Vascularisation, Exercise)	Evidence-based framework, guiding patient self-centred care and recovery timelines
Manual Therapies	Trigger Point Therapy Cupping Myofascial Release (MFR) Massage Acupuncture Dry Needling	Mixed evidence for its effectiveness but may help with pain modulation and muscle tension and trigger points
Electrotherapy	TENS Ultrasound Shockwave Treatment	Often used as an adjunct to other treatment options

While these approaches may offer symptomatic relief – particularly in cases of acute injury, they often fail to address the complex, multifactorial nature of chronic pain. Conventional

methods tend to focus predominantly on biological mechanisms (Van Dijk et al., 2023), overlooking the psychological and social components (Thompson et al., 2018) emphasised in Engel's Biopsychosocial (BPS) model (Engel, 1977).

This restricted focus reinforces the need for more integrative approaches. This study aims to address this gap by exploring CLP in runners through a holistic lens, considering both physical symptoms and wider BPS contributors to persistent pain.

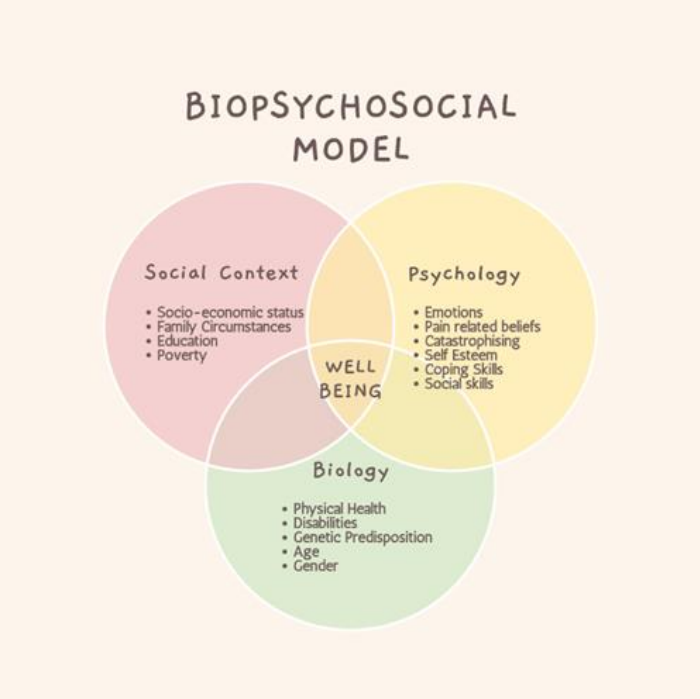

Figure 1 – Representation of Engel's Biopsychosocial model recreated by Jacqui Bark

Psychological and Social Viewpoint

A growing body of evidence highlights the significant role of psychological involvement in the development and persistence of chronic pain (El-Tallawy et al., 2021). Linton et al. (2018), argues that chronic pain cannot be fully understood or effectively managed without considering the cognitive, emotional and behaviours that accompany it. Crofford (2015) similarly notes that "chronic pain and psychological distress frequently coexist" (p. 154).

However, research exploring these factors in runners with CLP remains limited. Runners often demonstrate performance-driven behaviours, continue running despite pain and may use running for their mental health, potentially influencing pain persistence.

The Jing Method™

The Jing Method™ (Fairweather and Mari, 2015) is a structured, outcome-based approach for treating chronic MSK pain, combining Eastern and Western techniques – including trigger point (TP) therapy, myofascial release (MFR), acupressure, stretching and client education. It integrates therapeutic alliance (TA) and clinical reasoning within a framework informed by the BPS model and contemporary pain science.

A strong TA has been associated with improved outcomes in chronic musculoskeletal pain (Ferreira et al., 2013; Hall et al., 2010; Kinney et al., 2020). Fairweather and Mari (2015) emphasise the importance of thorough consultation in establishing this alliance, allowing patients to feel heard and understood, while Gillingham (2017) highlights the importance of therapist-client interaction when applying the Jing Method™ to low back pain. However, research specific to CLP in runners remains limited.

The Jing Method™ is structured using the HFMAST framework, a mnemonic representing Heat, Fascia, Muscles, Acupressure, Stretching and Teaching (Table 5).

Table 5 – HFMAST – Understanding the role of HFMAST within a Jing Method™ Treatment

Table 5: **HFMAST Approach**	
H	The use of Heat or Cold: The use of heat is highly beneficial for relaxing and warming the soft tissues, activating the parasympathetic nervous system, and aiding relaxation
F	The use of Fascial techniques: Both direct and indirect methods are used to help with restoring mobility to the connective tissue and fascia surrounding the muscles and joints.
M	Treating Muscles with precise trigger point therapy: Specifically treating ALL the muscles around an affected joint to release trigger points.
A	Treating relevant Acupressure points
S	Stretching: Using techniques such as static stretching, proprioceptive neuromuscular facilitation (PNF), soft tissue release (STR) or active isolated stretching (AIS).
T	Teaching the client self-care strategies that lie within the massage therapist's scope of practice. This would include, for example, self-trigger point treatment, simple breathing techniques, stretching, strengthening or mobilisation exercises.

Thermal Therapy

Various studies have recognised the benefits of thermal therapy in relieving chronic pain (Freiwald et al., 2021; Shi and Wu, 2023a) with emerging evidence suggesting that heat therapy may also reduce central sensitisation (Nadler, 2004). However, its long-term effects on pain reduction, functional improvement, and quality of life, remains unclear due to limited sample sizes. Ellis (2018) identified that hot stone massage showed improved symptoms in females experiencing mental stress, suggesting potential psychosocial benefits of thermal interventions.

Myofascial Release (MFR) Techniques

A systematic review by Chua et al. (2022) highlights MFR as an effective treatment for MSK pain, reporting improvements in flexibility, pain, and disability. Similarly, Castro-Sánchez et al. (2011) concluded that MFR may serve as a valuable complementary therapy, reducing pain, enhancing physical function, and alleviating clinical severity.

Massage Therapy (MT) and Trigger Points (TP)

Although MT has been widely studied in athletic populations, much of the focus has been on recovery and injury prevention. Sports massage has demonstrated effectiveness in reducing delayed-onset muscle soreness (DOMS) and improving perceived recovery (Davis et al., 2020; Trofa et al., 2020). However, support for its use in treating chronic MSK pain in athletes, particularly runners, remains limited and less conclusive (Poppendieck et al., 2016). A

systematic review by Best et al. (2008) highlighted inconsistencies in outcomes, largely due to variations in massage techniques and study design.

Recent research has explored the role of MT in chronic conditions. Middleton-Smith (2025) and Murdoch (2023), reported that clinical MT may be a useful adjunct to conventional treatment for chronic shoulder pain, while Steed (2024) observed similar benefits in individuals with chronic hip pain.

While short-term pain relief has been supported (Middleton-Smith, 2025; Shi and Wu, 2023), the long-term effectiveness, optimal treatment duration, frequency, and technique remain unclear. Overall, inconsistencies in the literature highlight the need for more rigorous, standardised research in CLP among runners. A comparative study of 13 runners by Softly (2017) found that both massage with TP therapy and massage alone reduced pain, with no significant difference between approaches.

Acupressure

Evidence specific to acupressure for CLP in runners is lacking. However, broader research suggests it may reduce pain intensity and improve functional outcomes in chronic MSK pain conditions (Godley and Smith, 2020).

Despite positive findings, Singhania (2024) highlighted heterogeneity across studies, short intervention durations and inconsistent methodologies, limiting generalisability.

Stretching

Evidence regarding the effectiveness of stretching for injury prevention remains conflicting. Thacker et al. (2004) concluded that there is insufficient evidence to support the routine use of pre- or post-exercise stretching for injury prevention in competitive and recreational athletes.

However, certain stretching approaches, such as Proprioceptive Neuromuscular Facilitation (PNF), have shown to improve pain and function in individuals with chronic pain (Areeudomwong and Buttagat, 2019). Similarly, Ridwan, Parwati and Nanda (2024) reported that PNF training significantly reduced knee and ankle pain while improving range of motion (ROM), highlighting its potential to enhance lower-limb function in runners and other athletes. Trybulski et al. (2026) also identified the effectiveness of eccentric stretching for tendinopathy management.

Teaching

Patient education is central to effective MSK pain management. Teaching clients about their condition and integrating self-care strategies, such as gradual stretching and strengthening exercises, supports rehabilitation and recovery (Mata Diz et al., 2017; El-Tallawy et al., 2021). De Silva (2011) found that self-management approaches for persistent MSK pain can improve pain levels and quality of life. The Jing Method™, emphasises educating clients on the importance of self-care, including pain science and the BPS model, which form a key component of facilitating their recovery (Fairweather and Mari, 2015; Louw et al., 2016; Rufa et al., 2019)

Gaps in the literature and rationale for the study

Despite the prevalence of CLP in runners, few studies evaluate long-term, multimodal treatment strategies. While MT may provide short-term pain relief, (Bender et al. 2019), evidence is limited by narrow treatment focus, and a lack of follow up. Broader reviews support multidisciplinary approaches to MSK pain (El-Tallawy et al. 2021), yet structured, integrative models remain under-researched.

The Jing Method™, offers an outcome-led approach, integrating three key components: the heart (client-centred care), the head (clinical reasoning grounded in pain science and BPS model), and the hands (a comprehensive toolkit of techniques).

Despite its widespread use in clinical practice, the Jing Method™ has yet to be fully evaluated in the context of CLP in runners. Although Wigmore (2023) demonstrated positive results for lumbopelvic pain in runners, the small study size limits generalisability. This study aims to address this gap by exploring CLP management through the Jing Method™'s multimodal approach.

Method

Ethical Approval

Ethical approval for this study was obtained from the Jing Institute of Massage and Complementary Medicine (Appendix 1). All participants provided written, informed consent prior to participation (Appendix 2). This study evaluated the effects of advanced clinical massage on recreational runners experiencing CLP for a minimum of eight weeks.

Participants and Recruitment

Participants were recruited via social media posts on Facebook and Instagram, direct contact with local running clubs, and distribution of leaflets within the researcher's treatment clinic and a local physiotherapy clinic (Appendices 3-4).

Fourteen individuals (5 males and 9 females), aged between 31 and 62 years, expressed interest in participating. Of these, 12 met the inclusion criteria and were enrolled in the study. One participant withdrew at the end of week 1 for personal reasons, leaving a final sample of 11 participants.

Table 6 - Inclusion and Exclusion Criteria for the study

Table 6:	
Inclusion Criteria:	**Exclusion Criteria:**
• Aged 18 years or older • History of leg pain related to their running, which has persisted for a minimum of eight weeks • Run regularly, at least two times per week for at least the past 6 months	• Acute musculoskeletal injuries and currently unable to run • Recent lower limb surgery (within the past 6 months) • Neurological conditions affecting gait or leg function • Participants already engaged in another study or treatment protocol

Study Design

A within-subjects design was used, suitable for small-scale studies where participants are their own control. Participants completed the *Exercise-Induced Leg Pain Questionnaire* (EILP-Q), also referred to as the EILP-BR (Nauck et al., 2015), a validated 10-item self-report measure assessing pain-related functional limitations during exercise (Appendix 5). Items are scored on a 5-point Likert scale ranging from 0 (“cannot perform”) to 4 (“no difficulty”), with total scores ranging from 0 to 40. Higher scores indicate better function and lower pain-related limitation. The EILP-Q was selected due to its established validity and reliability in assessing exercise-related leg pain, making it suitable for use with recreational runners experiencing CLP.

In addition, participants reported weekly stress and mood levels on a 10-point scale (0 = low, 10 = high), along with the number of runs completed and total running distance for each week (Appendix 6).

Screening and Control Period

Participants received an information letter outlining the study and subsequently attended an initial one-to-one Zoom consultation. During this session, the study procedures were explained, a medical history and leg pain assessment were conducted, the EILP-Q introduced, and eligibility was confirmed.

Following written consent, participants completed a six-week control period, during which they submitted weekly EILP-Q scores electronically to establish a baseline measure of pain-related functional limitation, alongside the additional measures of mood, stress and running activity.

Participants were requested to refrain from receiving other massage or bodywork and to avoid altering existing, or introducing new medications without informing the researcher, helping ensure variables were controlled as far as reasonably possible.

Intervention

Weeks 7-12 consisted of six weekly hands-on massage sessions. Each session followed a progressive standardised 50-minute treatment protocol based on elements from the Jing Leg, Knee and Foot, and Hip and Pelvis protocols (Fairweather and Mari, 2015).

Treatments progressed from general, broad techniques such as amma and effleurage applied to the entire leg, to more focused interventions to the lower and upper leg, including more specific techniques such as TP therapy, soft tissue release (STR), PNF, and focused stretching in later sessions (Appendix 7).

Questionnaires were completed 6 days after each treatment session. A follow-up EILP-Q was completed at week 16 to assess any longer-term effects of the six-week intervention.

Self-Care

Participants were given a pre-determined, standardised self-care programme to complete at home three to four times per week between treatment sessions (Appendix 8). To ensure consistency, each participant was provided with the same trigger-point massage ball for self-care. Compliance was self-reported during weekly check-ins but was not formally recorded.

Results

The primary outcome of this study was to evaluate the effectiveness of the Jing Method™ of Advanced Clinical Massage in the management of CLP in recreational runners over a 16-week period. Eleven participants took part, and scores from all returned questionnaires were included.

The EILP-Q, consisting of 10 items, was used to assess functional limitations related to EILP. Higher scores reflected better function and less symptom impact. Weeks 1-6 formed the baseline control period, followed by the intervention phase in weeks 7-12, with a follow-up EILP-Q at week 16 to assess any longer-term changes.

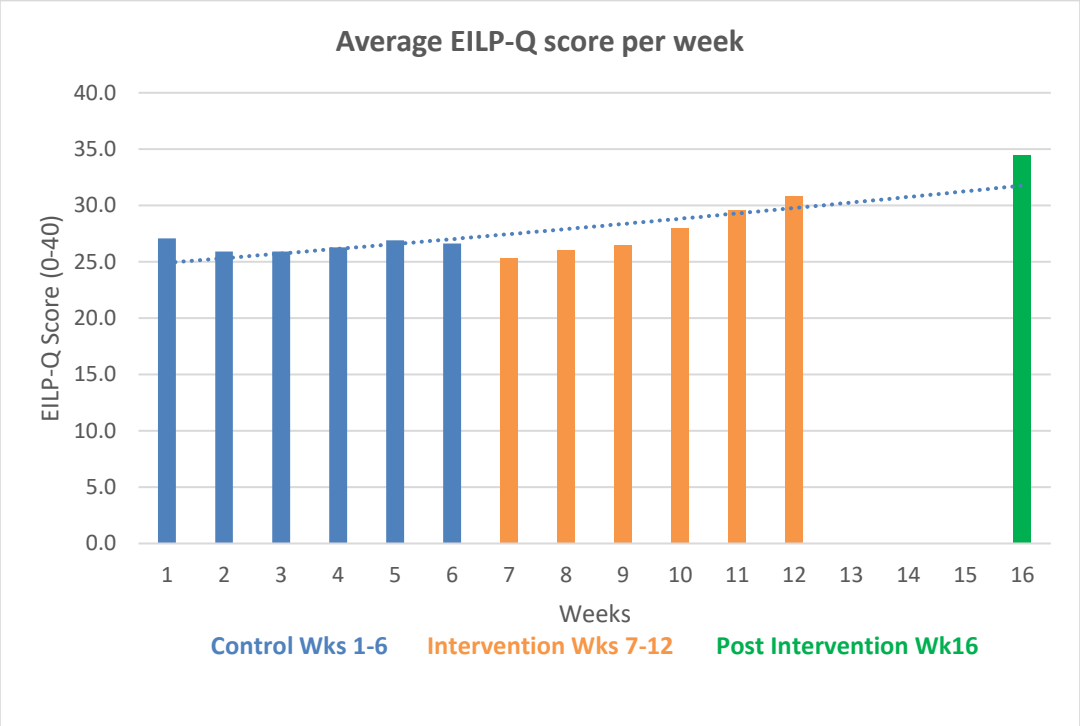

Figure 2 - Mean Average EILP-Q Score Weeks 1-16 (Higher scores represent improved symptoms).

EILP-Q scores remained relatively stable throughout the control period and early intervention, before showing a clear improvement from week 10 onwards. Scores at week 16 continued to rise, suggesting sustained benefits beyond the treatment phase (Figure 2).

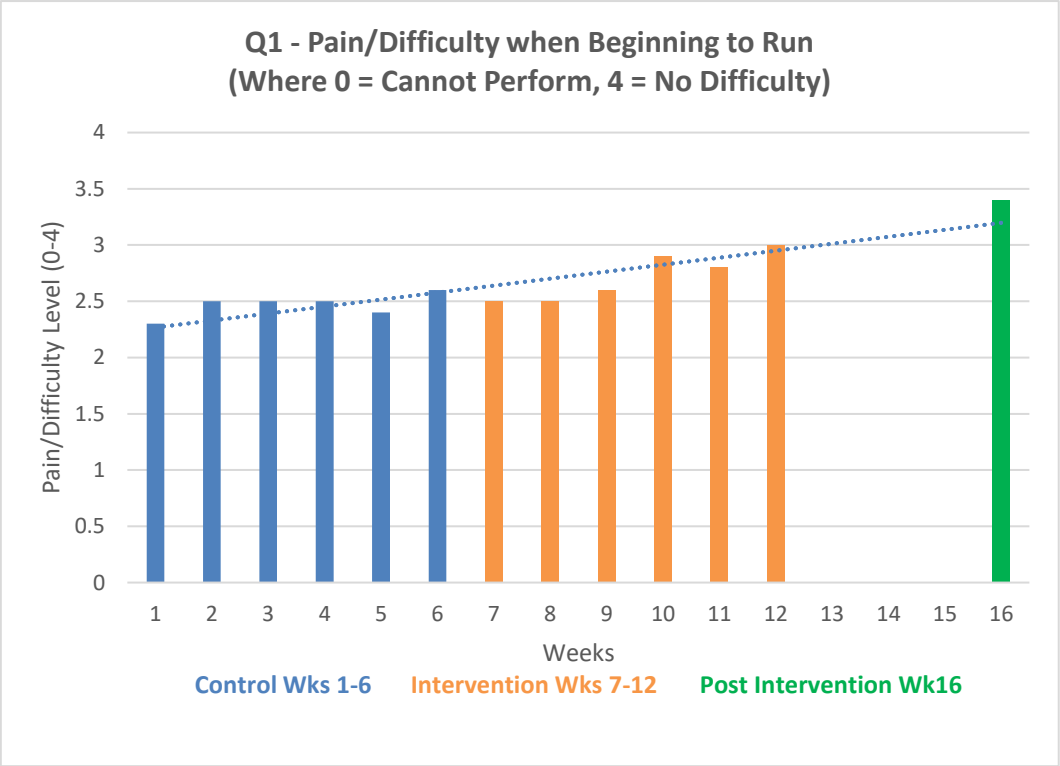

Figure 3 - Mean Average Pain/Difficulty score when beginning to run.

Participants demonstrated gradual improvements in pain and difficulty when beginning to run, with mean scores increasing from 2.3 at week 1, to 3.0 at week 12 (+30.4%) and further to 3.4 at week 16, (+47.8% from baseline) (Figure 3). Similar improvements were observed after 15 minutes of running, with scores increasing from 2.6 at baseline to 3.2 at week 12 (+23.1%) and 3.5 at week 16 (+34.6%) (Figure 4). These findings indicate improved early-load tolerance and sustained running capacity.

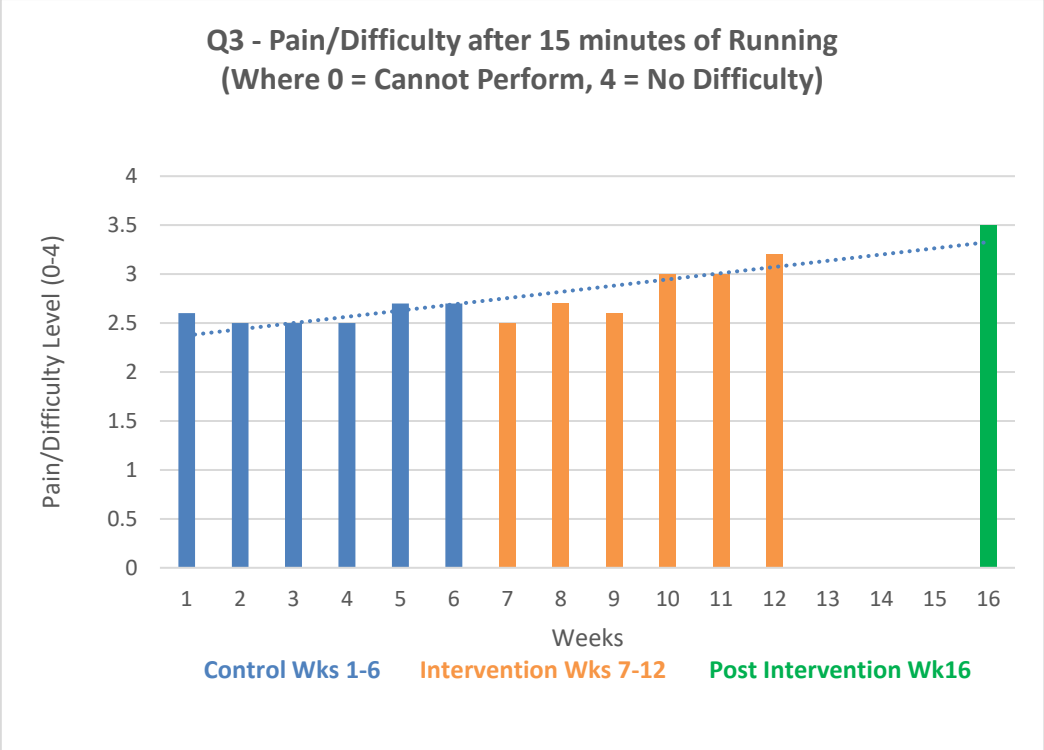

Figure 4 – Mean average Pain/Difficulty level after 15 minutes of running.

Weekly running mileage also increased during the intervention phase, rising from an average of 14.1 miles during the control period to 17.3 miles during weeks 7-12 (+22.7%), suggesting enhanced training tolerance and reduced symptom interference.

Some participants showed substantial individual improvements, including one participant who increased their running mileage by +183% during the intervention period.

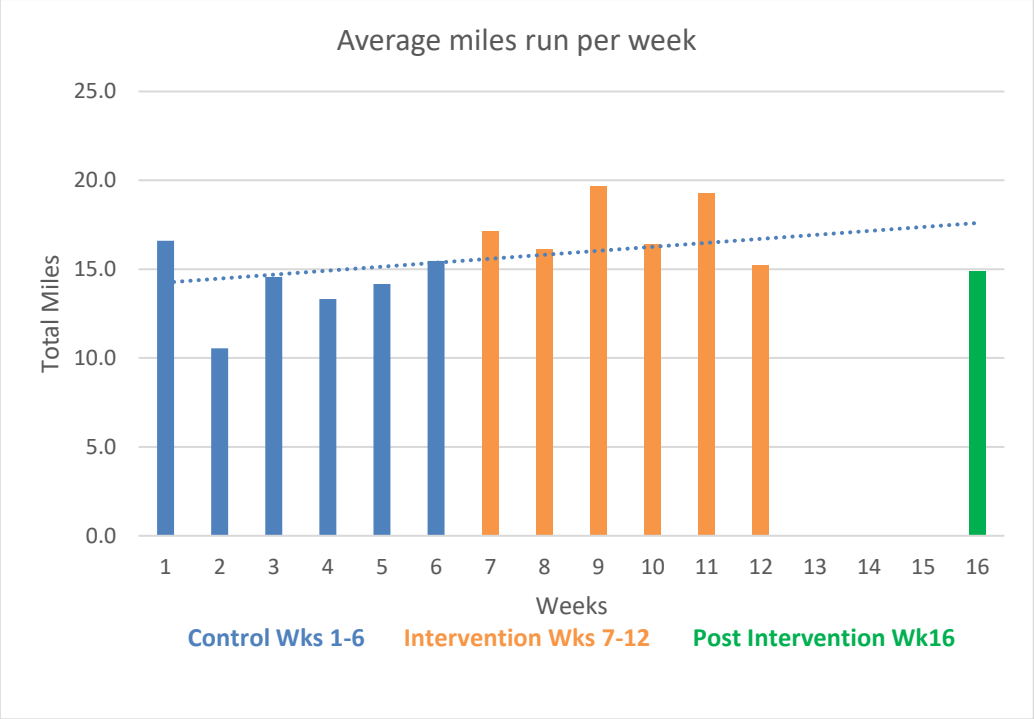

Figure 5 - Average miles run per week.

A parallel study conducted by Annis-Tate (2026) included 5 participants using the same methodology. Both studies were planned and delivered collaboratively, with identical treatment protocols and self-care procedures. Over the 16-week period, the parallel study reported a comparable pattern of results. When combined, the datasets yielded a total of 16 participants, with consistent improvements observed in EILP-Q scores, pain during running, and functional capacity (see Figures 6-8).

Mean total EILP-Q scores rose from 25.9 at week 1, to 31.2 at week 12 +(20.5%), and further to 34.4 (+32.8%), indicating progressive functional improvement over time.

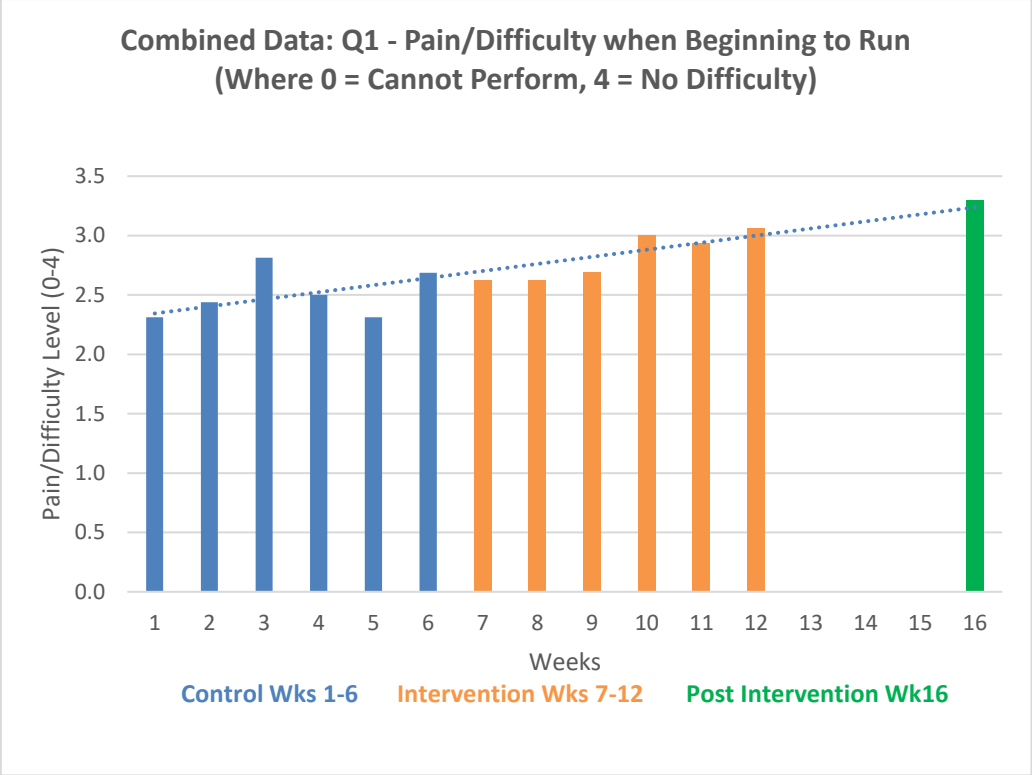

Figure 6 – Combined Results Bark (2026) and Annis-Tate (2026) for mean average pain/difficulty score when beginning to run.

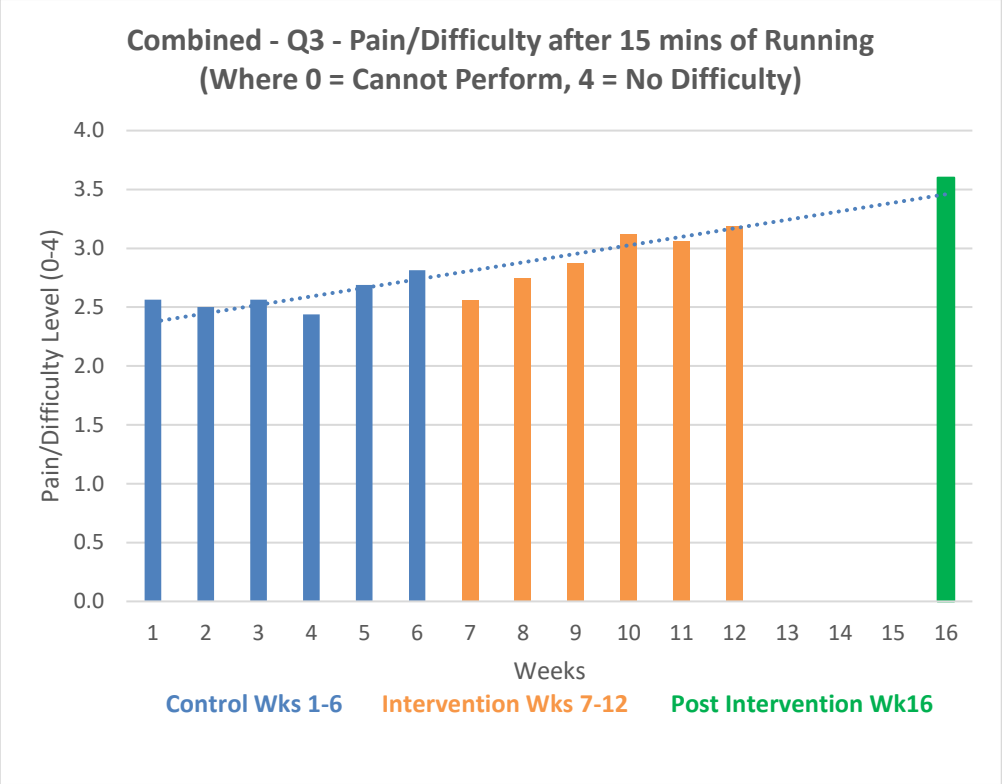

Figure 7 - Combined Results Bark (2026) and Annis-Tate (2026) for mean average pain/difficulty score after 15 minutes of running.

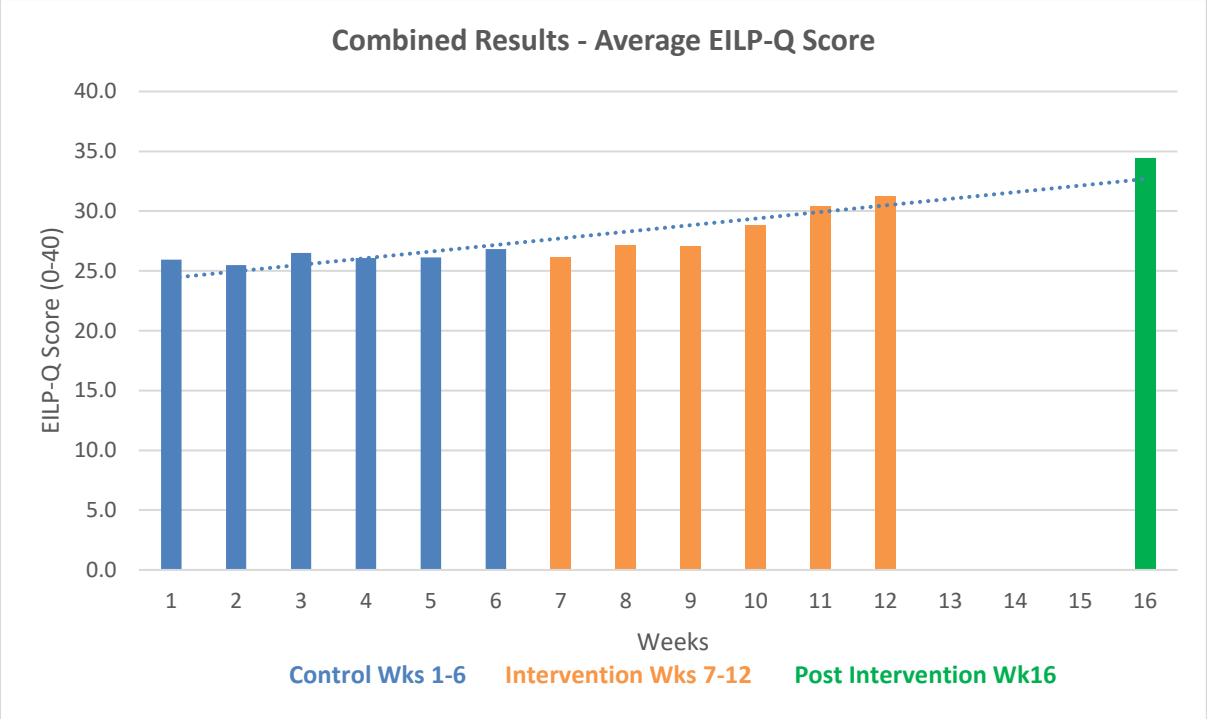

Figure 8 - Combined Results Bark (2026) and Annis-Tate (2026) for mean average EILP-Q score.

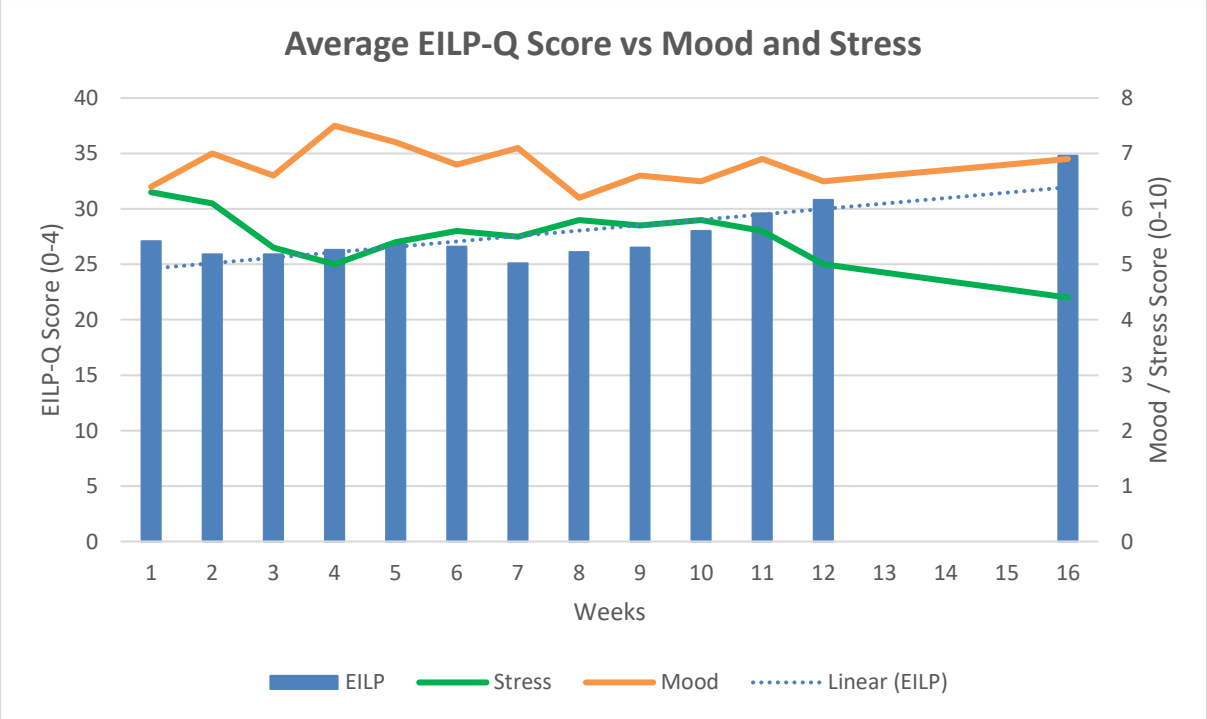

Figure 9 – Average EILP-Q score compared to average weekly mood and stress scores NB: For mood and stress a score of 0 = low mood/low stress and a score of 10 = good mood/high stress

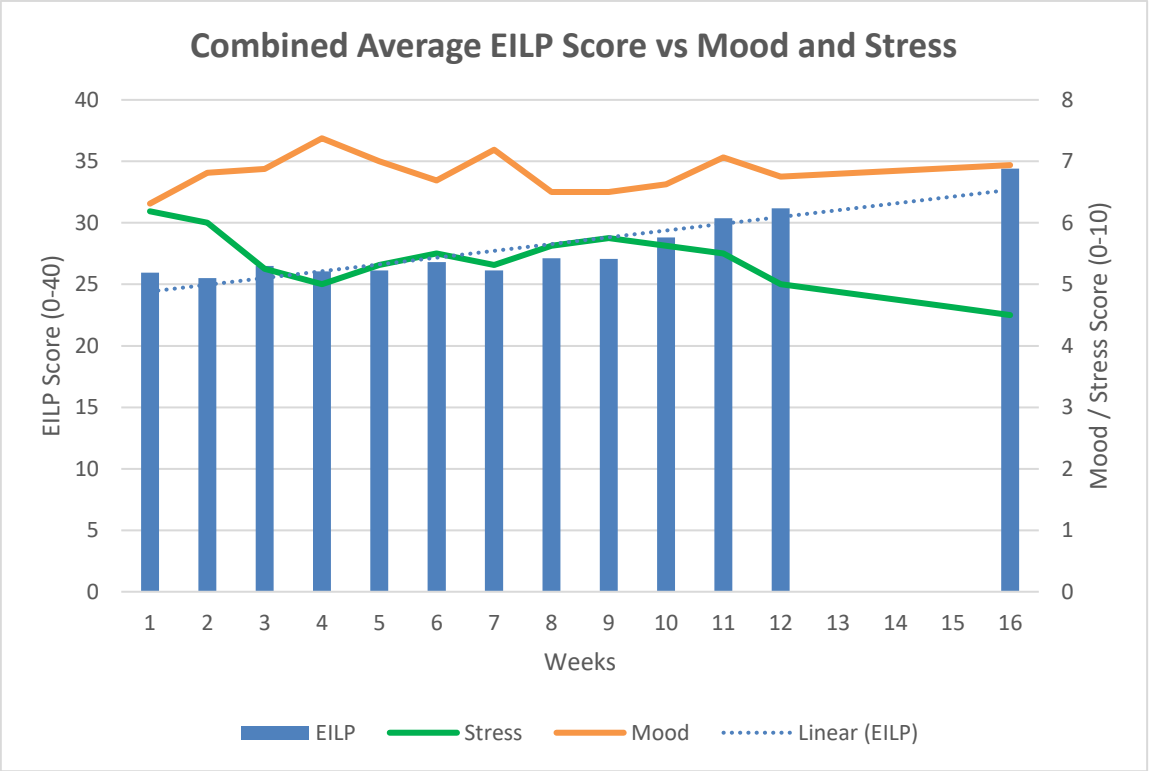

Figure 10 – Combined Average EILP-Q score compared to average weekly mood and stress scores. Bark (2026) and Annis-Tate (2026).
NB: For mood and stress a score of 0 = low mood/low stress and a score of 10 = good mood/high stress

Discussion

Key Findings

The aim of this study was to evaluate the effectiveness of clinical massage in the treatment of CLP in recreational runners and the results showed that the treatment was effective. Improvements were seen in reducing participants' pain and functional limitations and an overall improvement in distance run, suggesting that a multi-modal approach may be effective in managing chronic musculoskeletal pain. Notably, improvements persisted four weeks post-intervention, highlighting a sustained benefit.

Observation and Learning

Physical and Functional Outcomes in Runners

All participants were recreational runners who ran at least twice per week. A clear trend of improvement was observed, particularly from weeks 9–10 onwards, corresponding with weeks three and four of the intervention. This pattern aligns with the findings of Fairweather and Mari (2015), who report that reductions in pain and improvements in function typically emerge from the third week when following a structured 'fix in six' approach.

Similar improvements have been reported in other small-scale Jing practitioner studies on chronic MSK conditions (Annis-Tate, 2026; Mckinlay, 2026; Murdoch, 2023). Harwood (2018) and Chung (2018) documented reductions in chronic shoulder pain, whilst Steed (2024)

identified comparable findings in individuals with chronic hip pain, suggesting that structured multi-modal approaches can improve function across different anatomical regions.

Improvements in EILP-Q scores observed in this study indicate meaningful reductions in EILP and associated functional limitations. Decreased pain and/or difficulty at onset and after 15 minutes of running suggests improved early-load tolerance and sustained functional capacity during activity. These findings support Barton et al.'s (2015) research, which emphasises the value of combining strength and conditioning with adjunctive therapies, such as clinical massage, within a structured training framework for the management of running-related pain.

Increased weekly mileage further reflects enhanced tolerance to training load and improved functional capacity. These outcomes suggest that reduced pain, alongside improved confidence and load tolerance, enabled participants to maintain or increase their running volume over the study period. This is consistent with research highlighting the importance of confidence-building in musculoskeletal rehabilitation (Rio et al., 2015; Silbernagel et al., 2007).

Some improvement may reflect natural symptom fluctuation or training adaptation over time; however, the relative stability observed during the control period strengthens the likelihood that the changes were intervention-related. Overall, the intervention appears to have had a positive impact. Comparable outcomes were reported by Annis-Tate (2026), whose study demonstrated similar patterns of improvement. The consistency of results across both studies, together with increased participant numbers, strengthens confidence in the methodology used.

These findings are consistent with literature identifying overuse and repetitive loading as primary contributors to RRIs (Hreljac, 2004; Nielsen et al., 2012). Cumulative mechanical stress combined with inadequate recovery is a key factor in the development of EILP. Conservative, exercise-based management approaches are commonly recommended. Trybulski et al. (2026) highlight the benefits of eccentric training, particularly for tendinopathies, while Arnold and Moody (2018) report that most running injuries respond well to conservative approaches, including strengthening exercises for iliotibial band syndrome and patellofemoral pain, mobilisation for ankle injuries, and heel raises and stretching for plantar fasciopathy. The rehabilitation and self-care used in this study reflect these evidence-based recommendations, emphasising progressive loading and strength development which have been shown to be effective in managing common RRIs (Barton et al., 2015; Malliaras et al., 2013; Van der Worp et al., 2015).

Biopsychosocial Interpretation of Findings

In addition to the EILP-Q, this study also collected weekly data on mileage, number of runs completed, stress scores, and mood scores. These measures provided insight into psychosocial influences on participants' pain experience and recovery. While both reported stress and mood scores showed noticeable week-to-week variation, when analysed alongside EILP-Q scores, stress revealed a modest overall decline as functional limitations improved. Mood scores, in contrast, remained variable with no identifiable trend (Figures 9-10). This may indicate that reduced pain-related limitation and improved function were associated with lower perceived stress. However, given the subjective nature of stress and mood scoring,

and the influence of external factors beyond the scope of this study, this relationship should be interpreted cautiously and cannot be considered causal.

Considering these additional measures alongside the EILP-Q results highlights that improvements in pain and function may not have been purely physical. Factors such as increased confidence, improved understanding of their pain condition, and the therapeutic relationship may have influenced the outcomes. This supports the principles of the Jing Method™, which is grounded in a biopsychosocial framework. Although psychological or social factors were not directly measured in this study, the observed pattern of improvement is consistent with other Jing practitioner research (Abbott, 2024; Harte, 2024; Scott, 2024), which highlights the effectiveness of biopsychosocial-informed treatment.

The importance of a strong TA in chronic musculoskeletal pain management has been widely discussed (Ferreira et al., 2013; Hall et al., 2010; Kinney et al., 2020), with evidence suggesting that improved outcomes are more likely when a positive therapeutic relationship is established. Findings from this present study reflect this, with the TA appearing to contribute positively through enhanced participant engagement and adherence. This was demonstrated through high questionnaire completion, consistent attendance, and strong compliance to the self-care and rehabilitation provided, aligning with Babatunde et al.'s (2017) findings.

To ensure consistency, all participants followed the same self-care and rehabilitation programme, adapted weekly to complement the hands-on treatment received. Each participant was provided with the same massage trigger-point ball at the start of the intervention phase for use throughout the study. In later weeks of the intervention phase, optional progressions for some of the exercises were introduced; however, some participants

maintained the basic exercises where advanced variations were too challenging. Regardless of progression level, improvements were observed across the participants.

Anecdotal findings from participant feedback further reinforced the effectiveness of a multimodal approach. Several reported that they believed the self-care and rehabilitation exercises played an important role in the success of their treatment. They noted feeling a greater sense of control over their pain by actively engaging in guided rehabilitation, with some admitting that they had not previously incorporated strength and conditioning or stretching into their running routines. Many were surprised by the level of improvement they experienced once these elements were introduced. Post-study feedback also indicated that a number of participants have continued the rehabilitation programme and are still finding it highly beneficial for their running, further supporting the benefits of a combined treatment approach and the importance of client education. This aligns with Santiago-Dominguez (2019), who reported positive outcomes when a six-week massage protocol was combined with a strengthening programme in runners with patellofemoral pain syndrome.

Limitations

While the EILP-Q provided a reliable method for assessing functional limitations associated with EILP, it must be noted that there are several limitations when applying it to a runner-specific population. The EILP-Q was not exclusively designed for runners and may not fully capture training loads, variations in intensity and running volume, or post-run symptom responses. The EILP-Q requires participants to self-score, introducing potential for bias. This may occur if participants score in ways they perceive as more favourable or expected, or due

to variation in how individuals interpret their levels of pain or difficulty, resulting in subjective variation in responses.

Despite these limitations, the EILP-Q still remains suited for this study. It provided participants with a simple, reliable method for measuring changes in pain-related functional limitations over a period of time, allowing for meaningful comparison between the control, intervention and follow up periods. Its simplicity and ease of completion ensured consistent weekly data collection and strong participant adherence. When analysed alongside the complementary measures of running mileage, mood and stress levels and qualitative feedback, valuable insight was gained within this population of runners.

While the selection criteria ensured that all participants were active runners with persistent symptoms, their specific pain sites and underlying running-related issues varied considerably and ranged from groin and hip pain, to knee, ankle and foot complaints. This diversity made it more challenging to isolate the specific effects of the Jing Method™ treatment and self-care. In hindsight, a smaller group of participants with more homogeneous leg pain, may have enabled a clearer interpretation of the treatment and self-care effects (Arnold and Moody, 2018; Hreljac, 2004; Van der Worp et al., 2015).

Although all participants received the same weekly treatment protocol and self-care, each week had a slightly different focus – e.g. week one addressed the full leg and hip, week two focused more on the lower leg, and week three emphasised the hip and thigh. This meant that the treatment emphasis did not always align directly with each participant's primary concern, which may have influenced the degree of improvement observed on a week-to-week basis. Despite this, reassessment at week 12 demonstrated consistent improvement from

baseline, indicating a positive overall response to the intervention and highlighting the potential wider application of the Jing Method™.

Considerations for Future Studies

Future advanced clinical massage studies would benefit from implementing more structured monitoring of participant adherence to self-care and rehabilitation exercises. In the current study, participants were advised to complete these exercises 3-4 times per week. Adherence was monitored through weekly verbal check-ins rather than formal recording. While participant feedback and continued use of exercises beyond the study period suggest meaningful engagement, systematic recording of self-care completion in future research may provide clearer insight into adherence patterns and their relationship to symptom change. Providing clearer guidance around when self-care should be performed (for example, pre-run, post-run, or on rest days) may also be beneficial, as timing could influence symptom response.

Future research would also benefit from a larger sample size and a more homogeneous group of runners, whether in terms of injury location or pathology, as well as running experience, weekly mileage or performance goals. In the current study, participants ranged from recreational 5km runners to those regularly training for endurance events, which may have introduced variability in response to the intervention. A more defined sample may allow clearer interpretation of outcomes and help identify which elements of the intervention contribute most significantly to improvement. Collaboration with running communities may support targeted recruitment, while external funding would enable larger-scale, well-designed studies to further strengthen the evidence base.

Conclusion

The Jing Method™ for treating CLP in runners appears to be an effective multimodal approach. This study provides preliminary evidence that combining clinical massage, guided self-care and rehabilitation exercises may reduce pain and improve function in recreational runners with CLP. Improvements in pain-related function, running capacity, and participant engagement suggest benefits across both physical and psychosocial domains, supporting integrated, biopsychosocial-informed management of EILP.

While these findings align with existing conservative management literature, further research involving larger, more homogenous samples is required before clinical massage therapy can be considered a viable alternative to NSAIDs, analgesics, corticosteroid injections, or enforced rest commonly prescribed in injury management. As participants were recreational runners treated by a Jing-trained practitioner, the findings are likely transferable to similar populations. Future studies should explore whether comparable outcomes are observed in elite athletes, non-running populations, and other clinical contexts.

This study also contributes to a growing body of Jing practitioner research examining lower-limb MSK conditions, helping to build much-needed evidence for the Jing Method™ in the management of leg pain. As this evidence base develops, opportunities for knowledge sharing within running communities and wider collaborative projects may emerge. Securing external funding would support larger-scale studies and strengthen its broader clinical implementation.

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Appendices

Appendix 1: Jing Ethics Form

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

Jing BTEC Research Ethics Form

BTEC Level 6: Professional diploma in Advanced Clinical and Sports Massage

Section 1: to be completed by student

Student's name:	Jacqui Bark
Student number:	RC84181
BTEC Year-group:	2024 – 2026
Date of application:	8th May 2025
Student e-mail address:	jacqui@andrelaxmassage.co.uk
Title of research project:	*Evaluating the Effectiveness of The Jing Method™ of Advanced Clinical Massage in the treatment of Chronic Musculoskeletal Leg Pain in Runners*

Section 2: Does your project involve any primary research using human subjects?

Please indicate as appropriate.

	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?		**X**
Are you planning to use deception?		**X**

Are you collecting sensitive personal data such as sexuality, mental health data, etc.?		**X**
Does your study involve paying participants or an alternative incentive to participate		**X**
Could the study put you or someone else at risk of injury?		**X**
Does your project make use of a validated questionnaire?	**X**	
If yes, please specify the name of the validated questionnaire you are using and attach a copy here. **Exercise-Induced Leg Pain Questionnaire** (EILP-Q – British Version)		

Section 3: Research premises

Where is your research being undertaken? **My Clinic:** **& Relax Massage Therapies** **1 School Lane** **Hartwell** **Northamptonshire** **NN7 2HL**	
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 / No / Not applicable

Section 4: Recruitment

How will you recruit subjects for this research study?

- *Use local running clubs – Wootton Road Runners (200+ members), Redway Runners, (2000+ members) Racecourse Runners, Northampton Road Runners (200+ members)*
- *Physio referral – (Existing relationship whereby we already refer clients to each other) Will provide both hard copy adverts (posters/leaflets) that he can display in clinic as well as soft copy digital versions that he can share on his social media channels.*
- *Promotion through my business website, and social media channels including Facebook and Instagram – Soft copy adverts and posters*
- *In person marketing at local Parkrun events*

Section 5 Outline your project procedure

This is effectively a draft of your method, include information on when questionnaires will be used, what your intervention will involve, any stimuli used, etc.

This study aims to evaluate the effectiveness of the Jing Method™ of advanced clinical massage on the treatment of persistent musculoskeletal leg pain in runners.

Participants will be recruited for this within-subject study design using:

- Soft Copy adverts and posters on social media – Instagram business and personal page, Facebook business page and on my business website.
- Advertising through my local running club that I'm a member of, Wootton Road Runners, as well as the other local running clubs to me (Northampton Road Runners, Redway Runners, Racecourse Runners):
- Local Physio who I have an established relationship with whereby we already refer clients to each other. He has offered to pass on details of my research study to clients he feels meet the criteria.
- Face to face marketing at local Parkrun events to me.

There will be an initial face-to-face / zoom consultation with participants to ensure they meet the inclusion criteria, understand the research study and provide consent to take part. During this time participants will have the opportunity to ask any questions that they may have before consenting to the study.

Some participants may join the study expecting guaranteed pain relief. It will be clearly outlined that the research process is studying the effectiveness of the Jing Method™ on leg pain and outcomes are not guaranteed. I will therefore use neutral language like ‘may help' and ‘being studied for effectiveness' to help alleviate this issue.

16 Week Research Study Period:

Weeks 1-6 of the study will form the control period and give a baseline of the client's pain/restriction to activities etc. During this time participants will complete the **Exercise-Induced Leg Pain Questionnaire (EILP-Q)**, once a week but there will be no intervention. Participants will also inform the researcher how many times they were able to run that week and how many kilometres/miles they were able to run. In addition, participants will score their average mood and average stress levels on a 1-10 scale.

Weeks 7-12 will be the intervention period.

- **Week 7** (Treatment 1) 90-minute standardised Jing treatment to include consultation, ROM testing, 50-minute clinical massage treatment using elements of the Jing Leg, Knee and Foot protocol, plus predetermined aftercare and advice.
- Each week the hands-on sessions will follow elements from the Jing Leg, Knee and Foot protocol (see Massage Fusion, pp. 317-344, highlighted in appendix). These sessions will follow the HFMAST approach and include amma, hot stones, indirect and direct myofascial release, trigger point work, acupressure, stretching and self-care teaching. Details of the standardised weekly treatment protocol for each session, plus the self-care routine will also be included in the appendix to the study.
- **Weeks 8-11** (Treatments 2-5) will involve a standardised 60-minute clinical session once per week. Each session will consist of a 50-minute clinical massage treatment followed by 10 minutes dedicated to aftercare and advice.
- **Week 12** (Treatment 6) will involve a 75-minute clinical session to include 50-minute clinical massage treatment, followed by reassessment, aftercare and advice.

After each session, participants will receive a standardised 5-minute self-care video or handout to support the aftercare advice provided at the end of the clinical massage treatment. The self-care program, consistent across all participants, will include activities such as self-massage techniques, stretching, and rehabilitation exercises. Participants will be instructed to perform the self-care routine three times per week throughout this six-week period.

Six days after treatment the EILP-Q questionnaire will be sent to participants to complete and return prior to their next treatment or within 24 hours. At the same time, participants will be asked to inform the researcher how many times they performed the self-care that week.

- At **week 16**, a follow up of the EILP-Q questionnaire will be sent to participants to assess if there were any longer-term changes as a result of the intervention period.

Background music will be played during all treatment sessions. To ensure consistency, the same royalty-free instrumental tracks will be used for all participants throughout the study.

(Optional) At the end of the study, there will be an opportunity for participants in attend a short follow up meeting to discuss what worked and what didn't and provide some feedback.

Section 6: Describe what your participants need to do

Participants are required to attend an initial face-to-face / online meeting to:

- Check they meet the inclusion criteria
- Have the study explained to them and ensure they understand what is involved
- Have the opportunity to ask any questions that they may have before consenting to the study.
- Provide consent to take part in the study
- Collect information required for the consultation process.
- Participants are also required to inform the researcher of any manual therapy, medication or any other relevant treatment, they are receiving for their chronic leg pain throughout the duration of the study.

Some participants may join the study expecting guaranteed pain relief. It will be clearly outlined that the research process is studying the effectiveness of the Jing Method™ on leg pain and outcomes are not guaranteed. I will therefore use neutral language like 'may help' and 'being studied for effectiveness' to help alleviate this issue.

16 Week Research Study Period:

- **Weeks 1-6**, Participants are required to fill in and return EILP-Q questionnaire once a week for 6 weeks with no intervention and inform the researcher how many times they ran that week and how many kilometres/miles they ran. They will also score their mood and stress levels on a 1-10 scale.
- **Week 7** (Treatment 1) 90-minute standardised Jing treatment to include consultation, ROM testing, 50-minute clinical massage treatment using elements of the Jing Leg, Knee and Foot protocol, plus predetermined aftercare and advice.
- **Weeks 8-11** (Treatments 2-5) will involve a standardised 60-minute clinical session once per week. Each session will consist of a 50-minute clinical massage treatment followed by 10 minutes dedicated to aftercare and advice.
- **Week 12** (Treatment 6) will involve a 75-minute clinical session to include 50-minute clinical massage treatment, followed by reassessment, aftercare and advice.

After each session, participants will receive a standardised self-care handout to support the aftercare advice provided at the end of the clinical massage treatment. The self-care program, consistent across all participants, will include activities such as self-massage techniques, stretching, and rehabilitation exercises. Participants will be instructed to perform the self-care routine three times per week throughout this six-week period.

Six days after each treatment and prior to the next, the EILP-Q questionnaire will be sent to participants to complete and return prior to their next treatment or within 24 hours. At the same time, participants will be asked to inform the researcher how many times they performed the self-care that week as well as how many times they were able to run and the number of kilometres/miles they ran. In addition, they will also score their mood and stress levels on a 1-10 scale.

- At **week 16**, a follow up of the EILP-Q questionnaire will be sent to participants to assess if there were any longer-term changes as a result of the intervention period.

Each week the clinical massage sessions will be standardised and follow elements from the Jing Leg, Knee and Foot, and Hip and Pelvis protocols (see Massage Fusion, pp. 291-344, highlighted in appendix). These sessions will follow the HFMAST approach and include amma, hot stones, indirect and direct myofascial release, trigger point work, acupressure, stretching and self-care teaching. Details of the standardised weekly treatment protocol for each session, plus the self-care routine will also be included in the appendix to the study.

(Optional) At the end of the study, there will be an opportunity for participants to attend a short follow up meeting to discuss what worked and what didn't and provide some feedback.

Section 7: Respecting confidentiality and ethical issues for participants

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

- Data held will be in accordance with the General Data Protection Regulation (GDPR)
- Information on initial signup form informing participants that their information will not be available to third parties
- Assurance that details will not be seen by anyone else
- Participant names will be replaced by coded numbers so they will be anonymous e.g. A01
- As soon as the study is over, all details will be deleted
- This study will be evaluating pain management in runners. Should the researcher be concerned about a participant, resources will be available of local specialists where participants can be signposted to.
- Participants will have the right to withdraw from the research study at any point without consequence
- Some participants may join the study expecting guaranteed pain relief. It will be clearly outlined that the research project is studying the effectiveness of the

Jing Method™ on leg pain and outcomes are not guaranteed. I will therefore use neutral language like 'may help' and 'being studied for effectiveness' to help alleviate this issue

- There is minimal risk associated with this project. There is a small chance that participants may experience some temporary soreness following the treatment, but this is rare. If they apply pressure too deeply when performing self-care techniques, it might cause some slight bruising to the area.
- Researcher is first aid trained and a fully qualified and insured massage therapist

Section 8: Inclusion and exclusion criteria

What sort of people will the subjects be?
The study will **include**:

- Adults over the age of 18
- Have been running for at least 6mths and run a minimum of 2-3 times per week
- Participants will have experienced leg pain, particularly with regards to running (before, during or after a run) that has been persisting for a minimum of 8 weeks
- Pain must be chronic or recurrent and not due to an acute injury such as a recent fall or accident in the last 3 months.
- A score of 35 or less (ideally participants would score 27 or below) to qualify to participate in the study.
- Willing and able to commit to the full 16-week study period:
    - Weeks 1-6: Answer weekly EILP-Q Questionnaire
    - Weeks 7-12: 6 weeks of weekly clinical massage treatment plus self-care, and weekly completion of EILP-Q
    - Weeks 13-15: No intervention
    - Week 16: Completion of final EILP-Q Questionnaire
    - (Optional) At the end of the study, there will be an opportunity for participants to attend a short follow up meeting to discuss what worked and what didn't and provide some feedback.

The study will **exclude**:

- Anyone under the age of 18
- Runners suffering with acute injuries and currently unable to run
- Participants who run less than twice a week
- Participants who are pregnant
- Who have had previous surgery to the affected leg in the past 6mths
- Participants currently under investigation/receiving treatment from a specialist with regards to an existing leg injury
- Pain for less than 8 weeks
- A score between 36-40 of the EILP-Q which would indicate normal function with little to no functional limitation.
- Neurological disorders affecting gait or leg function (e.g. radiculopathy, MS)
- Unable to attend weekly sessions during weeks 7-12, or inability to complete the

EILP-Q questionnaires during the study period.

- Participants who are already engaged in another study or treatment protocol.

Section 9: Student declaration:

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	NO

Student's handwritten signature:

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

Print Name: *Jacqui Bark* Date: 8th May 2025

ONCE YOU HAVE COMPLETED THE ABOVE ETHICS DETAILS, THEN YOU CAN PROCEED TO PARTICIPANT INFORMATION AND CONSENT FORMS, SO READ BELOW AS IT IS IMPORTANT TO BE CLEAR ABOUT WHAT YOUR PARTICIPANTS NEED TO DO.

Informed consent must be obtained for all participants before they take part in your project. The Consent Form 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 should not involve participants under 18 without express permission from your supervisor. 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.

Jing's assessment (to be signed by Jing after ethics and participant information details completed)

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: .....Susan Harrison..... date: .....8/7/25.....

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 2 – Participant Letter and Consent Form

Jacqui Bark
& Relax Massage Therapies
1 School Lane
Hartwell
Northamptonshire
NN7 2HL

Tel: 07902 001 595
e-mail: jacqui@andrelaxmassage.co.uk

Jing Institute of Massage and Complementary Medicine
28/29 Bond Street
Brighton BN1 1RD

www.jingmassage.com
01273 628942

Dear XX,

Re: Evaluating the effectiveness of the Jing Method™ of Advanced Clinical Massage in the treatment of chronic musculoskeletal leg pain in runners

Thank you for your interest in my research study. I'm grateful for your willingness to consider taking part. Below you'll find an overview of what participation involves and how your contribution could support this work.

I have been a massage therapist since 2012, specialising in advanced clinical and remedial sports massage therapies. My clinical work is varied and includes the treatment of a wide range of conditions such as headaches, frozen shoulder, rotator cuff injuries, hip and knee pain, fibromyalgia and many other chronic pain issues. My passion lies in helping clients reduce pain and regain their quality of life. As a keen runner myself, I understand the frustration that comes with running in pain. It's no surprise that my treatment room is often filled with fellow runners seeking relief from chronic leg pain and other musculoskeletal concerns.

In 2022, I embarked on an advanced degree qualification in my field: the BTEC Level 6 in Advanced Clinical and Sports Massage offered by Jing Institute of Massage and Complementary Medicine, the highest level of education a manual therapist can achieve in the UK. It is overseen by experts in the field of Musculoskeletal Pain, Education, Sports Science and Psychology.

I am now in my final year, and as part of the course requirements, we are given an opportunity to design and carry out a research study exploring the effects of a clinical massage treatment programme. I have chosen to focus my investigation on chronic musculoskeletal leg pain in runners.

What does participation involve?

If you choose to take part, you will be asked to:

- Complete a brief questionnaire weekly which assesses your pain and the impact it is having on your running
- Attend 6 x weekly massage treatments following the Jing Method™ (approx. start date w/c. 25/8 – w/c 29/9)
- (Optional) At the end of the study there will be an opportunity to participate in a short follow up feedback meeting where we can discuss what worked for you and what didn't. If the sessions are working for you there will be an opportunity to continue these after the study has finished.

Further details:

We will have an initial 1to1 Zoom/face-to-face meeting where we will talk through the study, I will gather your contact information and introduce you to the EILP-Q (Exercise-Induced Leg Pain Questionnaire). Once the study is fully explained to you, you will give your consent to take part.

The first six weeks focus on understanding your pain and how it's affecting your running. Each Monday morning, you'll receive an email with a link to complete the EILP-Q via Jane App, this should take no more than five minutes. You'll also be asked to report how many times you ran and the total distance (in kilometres or miles), you covered each week. I'll send a reminder email to prompt you. Once we've gathered this data and have a clear picture of the situation, we'll begin working toward meaningful improvement.

Weeks 7-12 will be your clinical massage treatments. These will be structured as follows:

- Week 7 (Treatment 1) 90-minute standardised Jing treatment to include a consultation, ROM testing, 50-minute massage treatment, plus predetermined aftercare and advice
- Weeks 8-11 (Treatments 2-5) 60-minute clinical session involving 50-minute massage treatment, plus aftercare and advice.
- Week 12 (Treatment 6) 75-minute clinical session to include 50-minute massage treatment, followed by reassessment, aftercare and advice.

Each session will be held on the same weekday and will involve a variety of massage techniques to treat your symptoms. You will also receive a handout of self-care exercises to perform three times during the week.

During these 6 weeks, you will continue to fill out the EILP-Q, including reporting the number of times you were able to run, the number of kilometres/miles you ran each week, six days after treatment. I will continue to send you an email prompt and I will ask how many times you have performed the self-care routine.

Four weeks after the last clinical massage treatment you will fill out the EILP-Q for the final time and again, I will send you an email prompt to remind you to do this.

Who can participate?

You may be eligible to participate if you:

- Are an adult (aged 18 and over)
- Have been actively running for the past 6 months, and run at least 2-3 times per week
- Experiencing persistent leg pain which has been ongoing for at least 8 weeks
- Pain that is exacerbated by running
- Are not currently undergoing other manual therapy treatments for pain management.

Unfortunately, this study would not be suitable if you have had surgery for your pain within the past 3 months, have had medical intervention from surgery or are pregnant.

Are there any risks or benefits to taking part?

There is minimal risk associated with this project. There is a small chance that you may experience some temporary soreness following the treatment, but this is rare. If you apply pressure too deeply when performing self-care techniques, you might cause some slight bruising to the area.

The potential benefits for taking part in the study are that you might experience a reduction in your pain, improved wellbeing, improved ROM and mobility, as well as gaining a better understanding of how massage therapy can support your training and recovery.

Understanding how your data is 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.

Once my research is published, I will share with you my findings and invite you to the online conference, where my colleagues and I will be presenting all our findings.

It is very important that you don’t engage in any other pain-relieving activity including the use of pain medication, trying a new therapy for your pain/wellbeing without letting me know.

How much will it cost to take part?

As part of this research study, participants will receive six clinical massage sessions at a significantly reduced rate. For the purpose of this study, I'll be offering the full course of six sessions at a reduced rate of **£125** (Usual cost is £330)

If you decide to participate in the study, it is anticipated to begin around the middle of July 2025. Your participation is completely voluntary, and you may withdraw from the study at any time without providing a reason. All your information will be kept strictly confidential; your data will be anonymised and used solely for research purposes

Please feel free to call or email me with any questions you may have.

Thank you again for considering this project, your participation will make a difference to your pain and that of others.

Yours sincerely,

Jacqui Bark

PARTICIPANT CONSENT FORM

Title of study: Evaluating the effectiveness of the Jing Method™ of Advanced Clinical Massage on the treatment of chronic musculoskeletal leg pain in runners

Name of student: Jacqui Bark

	Yes	No
I have read the information letter 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) • 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 so wish, by ticking 'No' here.		
I agree to take part in this study		
Signature (participant) **Date:**		
Name: (BLOCK LETTERS)		
Signature (parent/guardian/other, if under 18) **Date:**		
Name: (BLOCK LETTERS)		
BTEC students contact details (including telephone number and e-mail address): **Jacqui Bark** **Tel no: 07902 001595** **Email:** jacqui@andrelaxmassage.co.uk		

Appendix 3 – Social Media Recruitment Poster (Detailed)

RESEARCH STUDY

BTEC LEVEL 6 PROFESSIONAL DIPLOMA IN ADVANCED CLINICAL MASSAGE AND SPORTS MASSAGE

Evaluating the effectiveness of the Jing Method of Advanced Clinical Massage on chronic musculoskeletal leg pain in runners

ABOUT ME

Hi, I'm Jacqui, an advanced clinical and sports massage therapist. I have been a massage therapist since 2012 and am currently in my final year of the BTEC Level 6 Diploma in Advanced Clinical and Sports Massage. This is a degree level qualification and the highest level of sports and clinical massage offered in the UK.

My passion lies in helping clients reduce pain, and regain their quality of life. As a keen runner myself I understand the frustration that comes with running in pain. Many of my clients are runners experiencing persistent pain or musculoskeletal issues. My goal in treatment is to reduce their pain whilst helping them move better, feel better and get back to what they love

WHO CAN PARTICIPATE?

- Aduts age 18 and over
- Been running regularly for at least 6mths
- Been suffering with persistent leg pain for at least 8 weeks
- Run a minimum of twice per week for at least 30 minutes
- Are not undergoing any other manual therapy treatments for pain management

ANY EXCLUSIONS?

Unfortunately if you answer yes to any of the below criteria you won't be eligible to partipate:

- Pregnant
- Recent leg surgery within the past 6 months
- Already participating in another study
- Unable to commit to the full 16 weeks

INTERESTED?

SCAN ME!

Scan the QR code for more information or contact me on:

Jacqui Bark: 07902 001595

jacqui@andrelaxmassage.co.uk

DATES OF STUDY

W/C 14th July 2025 to W/C 27th October 2025

WHAT'S INVOLVED

The study will run over the course of **16 weeks**:

- **Weeks 1 - 6:** (14th July to 22nd August 2025)
  - Complete a weekly questionnaire
- **Weeks 7 - 12:** (25th August to 3rd October 2025)
  - 6 x clinical massage treatments weekly
- **Weeks 13 - 15:** (6th October to 24th Oct 2025)
  - No intervention
- **Week 16:** (27th October 2025)
  - Complete final questionnaire

HOW MUCH WILL IT COST?

There will be a total cost of **£125** to take part in the study. This is to cover the 6 x weekly treatments which would usually cost £360

WHERE WILL IT BE?

Home Garden Cabin Clinic in Hartwell, NN7 2HL

Appendix 4 – Social Media Recruitment Poster (Simplified)

Are you a runner experiencing chronic leg pain?

Take part in a study exploring the effectiveness of clinical massage on chronic leg pain in runners

What is involved?

- Weeks 1-6: Complete weekly questionnaire
- Weeks 7-12: 6 x Weekly Massage Treatments
- Week 16: Complete final questionnaire

Who can partake?

- Active runner with leg pain for 8+ weeks
- Aged 18 or over
- Run at least two times per week

Interested?

- Cost: £125 for 6 x treatments (Usually £360)
- Email: Jacqui@andrelaxmassage.co.uk
- Scan the QR code below:

relax massage therapies

Hartwell
Northampstonshire

Jacqui Bark
07902 001595

Appendix 5 – EILP-Q Questionnaire (Original)

Copy of original EILP-Q which was reproduced with the addition of number of runs completed, total weekly mileage, stress and mood scores

APPENDIX B

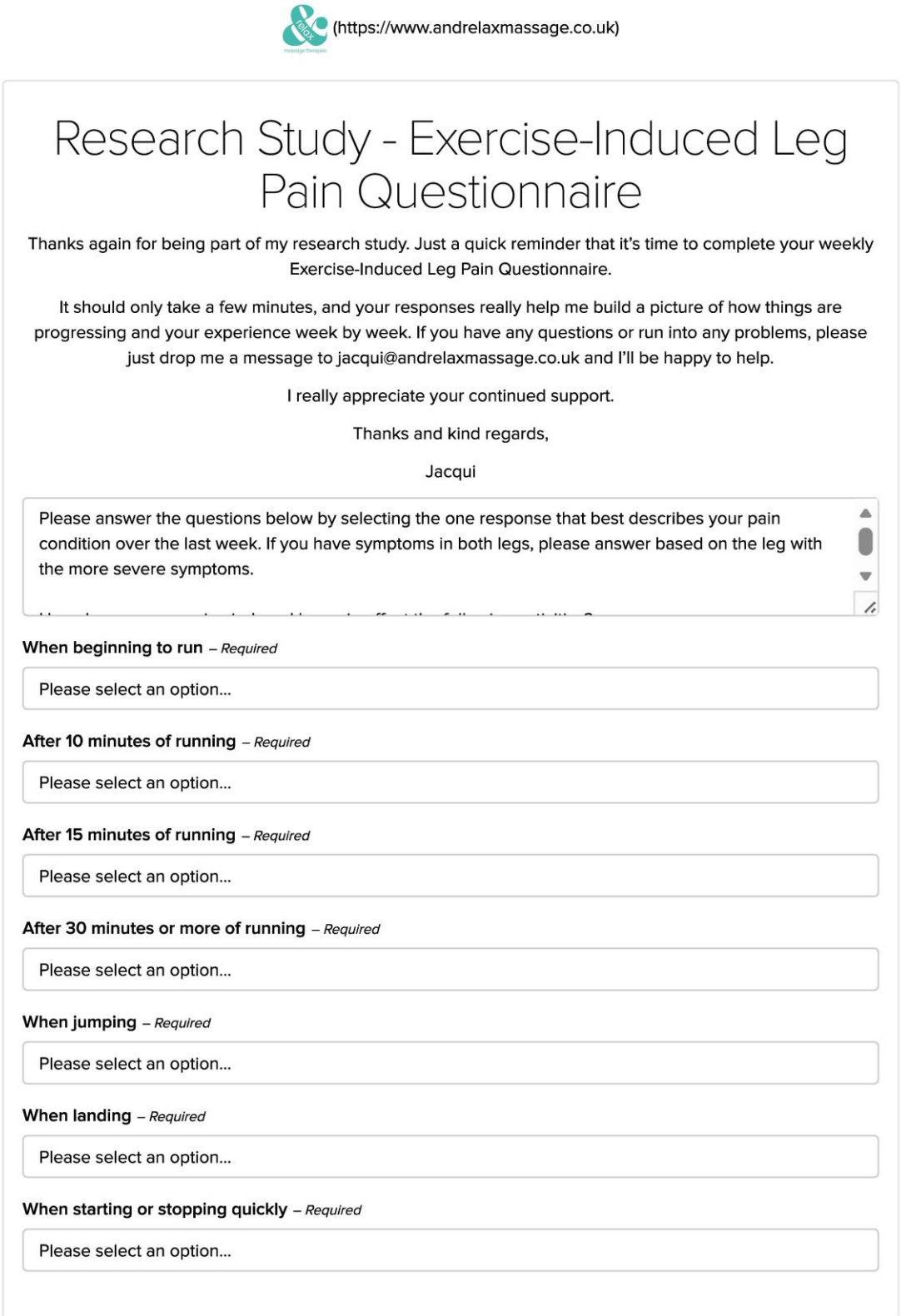
EXERCISE-INDUCED LEG PAIN QUESTIONNAIRE-BRITISH VERSION (EILP-BR)

Dear patient, please answer the questions below with one answer (by marking one per line with a tick [√]) that most closely describes your condition within the past week. If you have bilateral symptoms, please answer for the worse side. If the described activity is limited by something other than your leg pain, mark not applicable (NA).

Because of your exercise-induced leg pain, how much problems do you have with the following activities?

	No Difficulty	Slight Difficulty	Moderate Difficulty	Extreme Difficulty	Unable to Perform	NA
When beginning to run						
Running after about 10 minutes						
Running after about 15 minutes						
Running after 30 minutes or longer						
Jumping						
Landing						
Starting and stopping quickly						
Sideward cutting movements						
Low-impact activities						
Ability to participate in your desired sport as long as you like						

Appendix 6 – EILP-Q Questionnaire Adapted with Extra Measures for Study



(https://www.andrelaxmassage.co.uk)

Research Study - Exercise-Induced Leg Pain Questionnaire

Thanks again for being part of my research study. Just a quick reminder that it's time to complete your weekly Exercise-Induced Leg Pain Questionnaire.

It should only take a few minutes, and your responses really help me build a picture of how things are progressing and your experience week by week. If you have any questions or run into any problems, please just drop me a message to jacqui@andrelaxmassage.co.uk and I'll be happy to help.

I really appreciate your continued support.

Thanks and kind regards,

Jacqui

Please answer the questions below by selecting the one response that best describes your pain condition over the last week. If you have symptoms in both legs, please answer based on the leg with the more severe symptoms.

When beginning to run – *Required*

Please select an option...

After 10 minutes of running – *Required*

Please select an option...

After 15 minutes of running – *Required*

Please select an option...

After 30 minutes or more of running – *Required*

Please select an option...

When jumping – *Required*

Please select an option...

When landing – *Required*

Please select an option...

When starting or stopping quickly – *Required*

Please select an option...

When performing sidewards cutting movements – *Required*

Please select an option...

When performing low-impact activities – *Required*

Please select an option...

Ability to participate in your desired sport for as long as you like – *Required*

Please select an option...

How many times were you able to run this week?

Select an option...

In total, how many kilometres or miles did you run this week? – *Required*

On average, how would you rate your overall mood over the past week?

1 (Very Poor) 2 3 4 5 (Neutral) 6 7 8 9 10 (Very Good)

On average, how would you rate your overall stress levels this week?

1 (Not stressed at all) 2 3 4 5 6 7 8 9 10 (Extremely Stressed)

Submit Please check that all required questions have been answered.

(https://jane.app)

Appendix 7 – Weekly Treatment Protocols Used

NB: The following treatment protocols used in this study have been adapted from Fairweather and Mari's (2015) Jing Leg, Knee and Foot; and Hip and Pelvis Protocols

Treatment Protocol Week 1 - Broad

Prone:

- Full Body Amma
- Cross hand stretch (Hamstring and Calf)
- Power effleurage over full leg with hot stones
- Deep forearm over hamstrings
- Forearm work to gastrocnemius
- Forearm work to plantar surface of foot
- Power effleurage over full leg
- Wringing to hamstrings and gastrocnemius
- Strip hamstrings
- STR to hamstrings
- Muscle strip gastrocnemius
- Windscreen wipe gastrocnemius
- Strip soleus
- Power effleurage full leg
- Kidney 1 acupressure point
- Repeat on opposite leg

Supine:

- Single leg fascial leg pull
- Knee Sandwich
- Strip quadriceps (Hands, soft fists, forearms, hand over hand)
- Forearm work to adductors
- Supported fingers work to adductors
- Hip mobilisation
- Combination stretch (Glute, Hamstring, spinal twist)
- Soft fist to tibialis anterior
- Lock and stretch to tibialis anterior
- Fascial work to ankle retinaculum
- Rotate/twist foot
- Mobilise ankle joint
- Spleen 6 acupressure point

Treatment Protocol Weeks 2 and 4 – Lower Leg

Prone:

- Full Body Amma
- Cross hand stretch (calf)
- Power effleurage over full leg with hot stones
- Deep forearm over hamstrings
- Forearm work to gastrocnemius
- Wringing to gastrocnemius
- Muscle strip gastrocnemius
- Muscle strip soleus
- Achilles tendon work
- Work tibialis posterior and flexor digitorum
- Work flexor hallucis longus
- Deep stripping soleus bilaterally
- STR Achilles into gastrocnemius
- Forearm work to plantar surface of foot
- Strip foot with thumbs
- STR to foot
- Work heel with knuckles and fingers
- Repeat on opposite leg

Side lying:

- Work peroneals with soft fist
- Work tibialis anterior with soft fist
- Work tibialis anterior 'into the groove'
- Work extensor digitorum and hallucis longus '2nd groove'
- Repeat on opposite leg

Supine:

- Hip mobilisation
- Strip quadriceps (Hands, soft fists, forearms, hand over hand)
- Forearm work to adductors
- Supported fingers work to adductors
- Knee sandwich
- Soft fist to tibialis anterior
- Lock and stretch to tibialis anterior
- Fascial release of ankle retinaculum

- Gastrocnemius PNF stretch
- Repeat on opposite leg
- Bilateral fascial leg pulls
- Bilateral kidney 1 acupressure point

Treatment Protocol Weeks 3 and 5 – Upper Leg and Hip

Prone:

- Full Body Amma
- Cross hand stretch (Glutes and Hamstrings)
- Power effleurage over full leg with hot stones
- Deep forearm over hamstrings
- Forearm work to gastrocnemius
- Forearm work to plantar surface of foot
- Release proximal hamstring attachment / Bladder 36
- Release distal hamstring attachment
- Strip hamstrings (forearm) and ITB (soft fist)
- Strip and stretch hamstrings
- Release proximal popliteus attachment
- Release plantaris attachment
- Release popliteus
- Broad work to hamstrings into glutes
- Treat piriformis hand over hand followed by listening elbow
- STR to piriformis ‘pulling a pint’
- Repeat on opposite leg

Side lying:

- TFL compression (hand over hand)
- TFL compression (listening elbow)
- Work glute medius with forearm and listening elbow ‘rays of sunshine’
- Butterfly presses down ITB
- Forearm work to vastus lateralis and ITB
- Obers stretch
- Psoas/Quad stretch
- Repeat on opposite leg

Supine:

- Cross fibre friction to patella tendon and ligament
- Cross fibre friction to deep surface of patella
- Knee sandwich
- Strip quadriceps (Hands, soft fists, forearms, hand over hand)
- Broad work to quadriceps (Hands, soft fists, forearms, hand over hand)
- Release rectus femoris attachment
- Work adductors hand over hand followed by forearm
- Release adductor attachment
- Mobilise hip joint
- Piriformis PNF stretch
- Repeat on opposite leg
- Bilateral leg pulls
- Bilateral Kidney 3 acupressure point

Treatment Protocol Week 6 - Broad

Prone:

- Full Body Amma
- Cross hand stretch (Hamstring and Calf)
- Power effleurage over full leg with hot stones
- Deep forearm over hamstrings
- Forearm work to gastrocnemius
- Wringing to hamstrings and gastrocnemius
- Forearm work to plantar surface of foot
- Broad work to hamstrings with forearm and soft fist down ITB
- Strip and stretch STR to hamstrings
- Broad work to glutes
- Muscle strip gastrocnemius
- Strip soleus
- Achilles tendon work
- Strip foot with thumbs
- Power effleurage full leg
- Kidney 1 acupressure point
- Repeat on opposite leg

Side lying:

- TFL compression (hand over hand)

- TFL compression (listening elbow)
- Work glute medius with forearm and listening elbow ‘rays of sunshine’
- Obers stretch
- Repeat on opposite leg

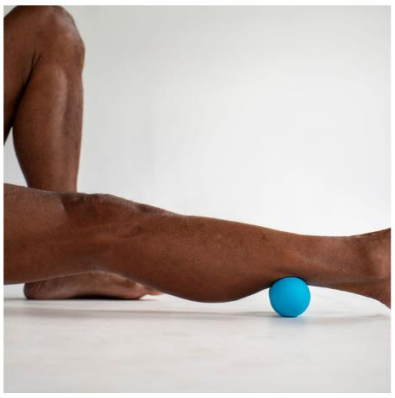
Supine:

- Single leg fascial leg pull
- Strip quadriceps (Hands, soft fists, forearms, hand over hand)
- Forearm work to adductors
- Combination stretch (Glute, Hamstring, spinal twist)
- Soft fist to tibialis anterior
- Lock and stretch to tibialis anterior
- Fascial work to ankle retinaculum
- PNF to gastrocnemius
- PNF to tibialis anterior
- Repeat on opposite leg
- Bilateral fascial leg pulls
- Bilateral Spleen 6 acupressure point

Research Study - Self Care 1

Self Massage with Ball

Frequency: 3 times per week
Duration: 1-2 mins per muscle group



Trigger Point Self Massage:

- Use a massage ball to work through different muscles groups of the leg.
- Calves, Hamstrings, Quadriceps, Tibialis Anterior & Plantar Surface of foot
- Spend **1-2 mins** on each area
- If you find any tender spots wait and hold for **8-10 seconds**
- If anything makes it hurt **STOP**

Balance

Frequency: 3 times per week
Duration: At least 30 seconds per leg

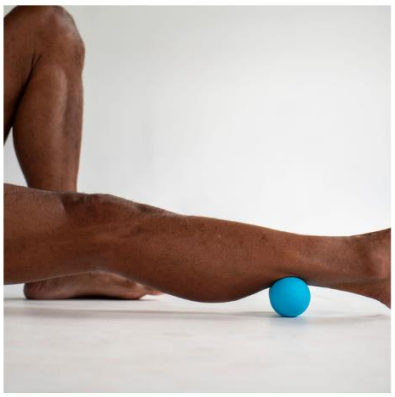
Single Leg Balance on a cushion:

- Shift your weight onto your right leg.
- **Lift** your left leg, so that your hip and knee are both bent at 90 degrees
- **Focus** on keeping your hips level and your core engaged
- Try to **maintain** this position for as long as possible and as long as is comfortable.
- To make it more **challenging**, try standing on a **cushion.** You can close your eyes, look to the side or focus on a different spot to make it even harder still.
- **Repeat** on opposite leg

Research Study - Self Care 2

Self Massage with Ball

Frequency: 3 times per week
Duration: 1-2 mins per muscle group



Trigger Point Self Massage:

- Use a massage ball to work through different muscles groups of the leg.
- Calves, Hamstrings, Quadriceps, Tibialis Anterior & Plantar Surface of foot
- Spend **1-2 mins** on each area
- If you find any tender spots wait and hold for **8-10 seconds**
- If anything makes it hurt **STOP**

Balance

Frequency: 3 times per week
Duration: At least 30 seconds per leg

Single Leg Balance on a cushion:

- Shift your weight onto your right leg.
- **Lift** your left leg, so that your hip and knee are both bent at 90 degrees
- **Focus** on keeping your hips level and your core engaged
- Try to **maintain** this position for as long as possible and as long as is comfortable.
- To make it more **challenging**, try standing on a **cushion.** You can close your eyes, look to the side or focus on a different spot to make it even harder still.
- **Repeat** on opposite leg

Research Study - Self Care 2

Strength Work:

Frequency: 3 times per week
Sets: 2-3 sets of 8 reps (as tolerated)

Double Leg Calf Raises:

- Stand on a **step** with heels off the edge.
- Stand tall with feet **hip-width apart**. Use a chair or bannister for balance if needed.
- **Slowly** rise up onto the balls of your feet for the count of **2**, lifting your heels as high as possible.
- **Pause** at the top for **1-2 seconds**

- **Slowly** lower your heels back down with **control** to the count of **5 seconds**
- For a deeper stretch lower your heels **below** the edge of the step
- Aim to complete **8 reps** in total. **Rest** for a couple of minutes and then complete another 8 reps.
- If 8 reps is too much, try aiming for **5 reps** instead
- If anything causes pain **STOP**

Research Study - Self Care 3

Stretch Work:

Frequency: 3-4 times per week
Sets: 3 reps with 30-60 second holds. Both Legs

Hamstring Stretch with Strap:

- **Hook** a strap/dressing gown belt around your foot
- Keeping your leg completely **relaxed**, use your arms to **pull** your foot toward your head.
- **Hold** it in place once you feel a **moderate** stretch (30-60 secs)
- **Don't** stretch into **pain**.
- **Repeat** 3 times on each leg

Hip / Glute Stretch

- **Lie** on your back and bring one knee **toward** your chest.
- **Interlock** your fingers over the upper part of the shin of your bent leg
- Keeping your back flush with the floor, use your arms to **pull** your knee **across** your body towards your **opposite** shoulder
- You will feel a **moderate stretch** in the **hip/glute** of the bent leg
- **Repeat** 3 times on each leg.

REMEMBER: Don't Stretch into pain

Research Study - Self Care 3

Stretch Work

Frequency: 3-4 times per week
Sets: 3 reps with 30-60 second holds. Both Legs

Hip Flexor Stretch:

- In a **kneeling** position, **squeeze** your **abdominals** and **glutes** to rotate your pelvic backwards (posteriorly).
- Keeping your back **neutral**, shift your body slightly until you **feel** a **stretch** on the **front** of your hip and leg.
- For **comfort** you may want to place a cushion or rolled up yoga mat **under** your bent leg

- To **increase** the intensity of the stretch, bend your **back knee** and grab your **ankle**.
- You can also prop your foot on a bench or chair, or position your shin flush against a wall.
- You can rest your other hand on the knee of your front leg or a chair to help with **balance**
- **Repeat** 3 times on each leg

REMEMBER: Don't Stretch into pain

Research Study - Self Care 3

Strengthening Work:

Frequency: 3-4 times per week
Sets: 2-3 sets of 8 reps (as tolerated)

Bodyweight Glute Bridge Holds:

- **Lie** on your back with your **knees bent** and your feet **flat** on the floor.
- **Push** into the floor and **lift** your bottom, fully **extending** your **hips** (so a straight line runs from your shoulders to your knees)
- **Squeeze** your **glutes** as you reach full hip extension
- Aim to **hold** this position for 15-60 seconds
- **Repeat** 3 times

Self Massage with Ball

Frequency: 3 times per week
Duration: 1-2 mins per muscle group

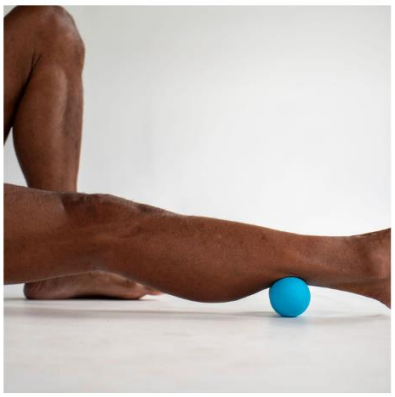
Trigger Point Self Massage:

- Use a massage ball to work through different muscles groups of the leg.
- Calves, Hamstrings, Quadriceps, Tibialis Anterior & Plantar Surface of foot
- Spend **1-2 mins** on each area
- If you find any tender spots wait and hold for **8-10 seconds**
- If anything makes it hurt **STOP**

Research Study - Self Care 4

Self Massage with Ball

Frequency: 3 times per week
Duration: 1-2 mins per muscle group



Trigger Point Self Massage:

- Use a massage ball to work through different muscles groups of the leg.
- Calves, Hamstrings, Quadriceps, Tibialis Anterior & Plantar Surface of foot
- Spend **1-2 mins** on each area
- If you find any tender spots wait and hold for **8-10 seconds**
- If anything makes it hurt **STOP**

Balance

Frequency: 3 times per week
Duration: At least 30 seconds per leg

Single Leg Balance on a cushion:

- Shift your weight onto your right leg.
- **Lift** your left leg, so that your hip and knee are both bent at 90 degrees
- **Focus** on keeping your hips level and your core engaged
- Try to **maintain** this position for as long as possible and as long as is comfortable.
- To make it more **challenging**, try standing on a **cushion.** You can close your eyes, look to the side or focus on a different spot to make it even harder still.
- **Repeat** on opposite leg

Research Study - Self Care 4

Strength Work:

Frequency: 3 times per week
Sets: 2-3 sets of 8 reps (as tolerated)

Double Leg Calf Raises:

- Stand on a **step** with heels off the edge.
- Stand tall with feet **hip-width apart**. Use a chair or bannister for balance if needed.
- **Slowly** rise up onto the balls of your feet for the count of **2**, lifting your heels as high as possible.
- **Pause** at the top for **1-2 seconds**

- **Slowly** lower your heels back down with **control** to the count of **5 seconds**
- For a deeper stretch lower your heels **below** the edge of the step
- Aim to complete **8 reps** in total. **Rest** for a couple of minutes and then complete another 8 reps.
- If 8 reps is too much, try aiming for **5 reps** instead
- If anything causes pain **STOP**

Now **repeat** with the above double leg calf raises but with your legs **slightly bent**. This will now target your **soleus** muscles

Research Study - Self Care 4

Strength Work:

Frequency: 3 times per week
Sets: 3 sets of 10-15 reps (as tolerated)

Straight Leg Version

Straight Leg Calf Raises:

- **Set 1** - Double Leg Calf Raise
- **Set 2** - Left Leg Calf Raise
- **Set 3** - Right Leg Calf Raise
- Perform **10-15 reps** for each set as tolerated
- Focus on count of **2 up**, count of **5 down**
- If anything hurts, **STOP**

Bent Leg Version

Bent Leg Calf Raises:

- **Set 1** - Double Leg Calf Raise
- **Set 2** - Left Leg Calf Raise
- **Set 3** - Right Leg Calf Raise
- Perform **10-15 reps** for each set as tolerated
- Focus on count of **2 up**, count of **5 down**
- If anything hurts, **STOP**

Research Study - Self Care 5

Stretch Work:

Frequency: 3-4 times per week
Sets: 3 reps with 30-60 second holds. Both Legs

Hamstring Stretch with Strap:

- **Hook** a strap/dressing gown belt around your foot
- Keeping your leg completely **relaxed**, use your arms to **pull** your foot toward your head.
- **Hold** it in place once you feel a **moderate** stretch (30-60 secs)
- **Don't** stretch into **pain**.
- **Repeat** 3 times on each leg

Hip / Glute Stretch

- **Lie** on your back and bring one knee **toward** your chest.
- **Interlock** your fingers over the upper part of the shin of your bent leg
- Keeping your back flush with the floor, use your arms to **pull** your knee **across** your body towards your **opposite** shoulder
- You will feel a **moderate stretch** in the **hip/glute** of the bent leg
- **Repeat** 3 times on each leg.

REMEMBER: Don't Stretch into pain

Research Study - Self Care 5

Stretch Work

Frequency: 3-4 times per week
Sets: 3 reps with 30-60 second holds. Both Legs

Hip Flexor Stretch:

- In a **kneeling** position, **squeeze** your **abdominals** and **glutes** to rotate your pelvic backwards (posteriorly).
- Keeping your back **neutral**, shift your body slightly until you **feel** a **stretch** on the **front** of your hip and leg.
- For **comfort** you may want to place a cushion or rolled up yoga mat **under** your bent leg

- To **increase** the intensity of the stretch, bend your **back knee** and grab your **ankle**.
- You can also prop your foot on a bench or chair, or position your shin flush against a wall.
- You can rest your other hand on the knee of your front leg or a chair to help with **balance**
- **Repeat** 3 times on each leg

REMEMBER: Don't Stretch into pain

Research Study - Self Care 5

Strengthening Work:

Frequency: 3-4 times per week

Sets: 2-3 sets of 10-15 reps (as tolerated)

Single Leg Glute Bridge:

- **Lie** on your back with your **knees bent** and your feet **flat** on the floor.
- Elevate one leg - you can either straighten it or keep it bent at about 90 degrees
- **Push** into the floor and **lift** your bottom, fully **extending** your **hips** (so a straight line runs from your shoulders to your knees)
- **Squeeze** your **glutes** as you reach full hip extension
- Aim to **hold** this position for 1-2 sec
- **Slowly** lower down with control

Lateral Step-Up

Frequency: 3 times per week

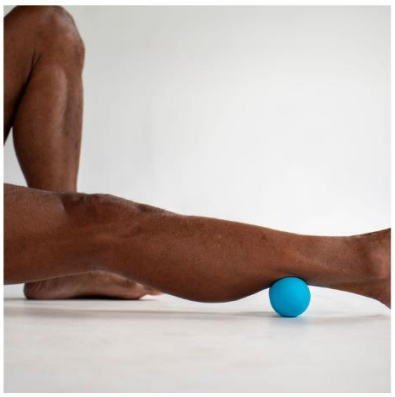
Duration: 2-3 Sets of 10-15 reps (as tolerated)

- **Stand** to the **side** of a step, with the closest foot to the step placed on top.
- Your feet should be roughly shoulder width apart
- **Push** through the heel of the foot on the step. **Straighten** the knee of your standing leg to **lift** the other leg level.
- **Slowly lower** your foot back down to the ground in a **controlled** movement

Research Study - Self Care 6

Self Massage with Ball

Frequency: 3 times per week
Duration: 1-2 mins per muscle group

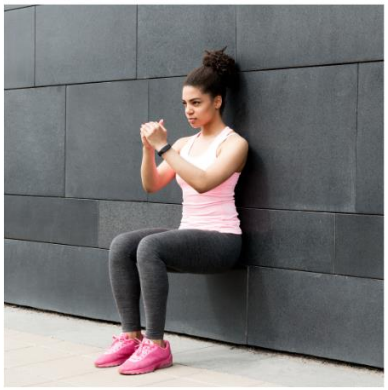


Trigger Point Self Massage:

- Use a massage ball to work through different muscles groups of the leg.
- Calves, Hamstrings, Quadriceps, Tibialis Anterior & Plantar Surface of foot
- Spend **1-2 mins** on each area
- If you find any tender spots wait and hold for **8-10 seconds**
- If anything makes it hurt **STOP**

Isometric Hold

Frequency: 3 times per week
Duration: Aim for at least 30 seconds



Wall Sit:

- **Find a wall:** Stand with your back and glutes against a flat, sturdy wall.
- **Position your feet:** Step your feet out about 1-2 feet from the wall, keeping them shoulder-width apart.
- **Slide down:** Slide your back down the wall, bending your knees and lowering your hips until your thighs are parallel to the floor, forming a 90-degree angle at your knees.
- **Hold:** Hold this static, “sitting” position for 30 seconds or as long as is comfortable.
- **Stand up:** Slowly slide back up the wall to the starting position.

Research Study - Self Care 6

Strength Work:

Frequency: 3 times per week
Sets: 3 sets of 10-15 reps (as tolerated)

Straight Leg Version

Straight Leg Calf Raises:

- **Set 1** - Double Leg Calf Raise
- **Set 2** - Left Leg Calf Raise
- **Set 3** - Right Leg Calf Raise
- Perform **10-15 reps** for each set as tolerated
- Focus on count of **2 up**, count of **5 down**
- If anything hurts, **STOP**

Bent Leg Version

Bent Leg Calf Raises:

- **Set 1** - Double Leg Calf Raise
- **Set 2** - Left Leg Calf Raise
- **Set 3** - Right Leg Calf Raise
- Perform **10-15 reps** for each set as tolerated
- Focus on count of **2 up**, count of **5 down**
- If anything hurts, **STOP**

Research Study - Self Care 6

Strengthening Work:

Frequency: 3 times per week
Sets: 3-5 sets (as tolerated)

Bodyweight Glute Bridge Holds:

- **Lie** on your back with your **knees bent** and your feet **flat** on the floor.
- **Push** into the floor and **lift** your bottom, fully **extending** your **hips** (so a straight line runs from your shoulders to your knees)
- **Squeeze** your **glutes** as you reach full hip extension
- Aim to **hold** this position for 15-60 seconds
- **Repeat** 3 times

Strengthening Work:

Frequency: 3 times per week
Sets: 10-15 reps (as tolerated)

Single Leg Glute Bridge:

- **Lie** on your back with your **knees bent** and your feet **flat** on the floor.
- Elevate one leg - you can either straighten it or keep it bent at about 90 degrees
- **Push** into the floor and **lift** your bottom, fully **extending** your **hips** (so a straight line runs from your shoulders to your knees)
- **Squeeze** your **glutes** as you reach full hip extension
- Aim to **hold** this position for 1-2 sec
- **Slowly** lower down with control

Appendix 9 - Participant Research Study Feedback Form

Study Title: Evaluating the effectiveness of The Jing Method™ of Advanced Clinical Massage on Runners with Chronic Leg Pain

*Intervention phase is the 6 weeks of hands-on treatment, any reference to this includes all or anything involved.

1. EXPECTATIONS AND RESULTS

1. Before starting the treatment, what results were you hoping to achieve?

2. To what extent did the treatment meet your expectations?
   Score this 1-10, where 1 = not at all. 10 = completely met.

3. How much improvement have you noticed in your leg pain since starting the treatment?
   1 = No improvement 10 = Complete relief

4. Did you experience any unexpected results (positive or negative)?

5. How would you rate your overall satisfaction with the results of the treatment?
   1 = Very dissatisfied 10 = Very satisfied

2. EFFECTIVENESS OF THE TREATMENT

1.How effective did you find the massage treatment overall?
   1 = Not effective 10 = Extremely effective

2. Which aspects of the treatment (including all elements) were most helpful for your leg pain or recovery?

3. Were there any parts of the treatment that didn't seem to help or work for you?

4. How would you describe your body's response during and after the sessions (e.g., soreness, relaxation, stiffness)?

3. EXPERIENCE OVERALL

1.How comfortable did you feel during the treatment sessions?
1 = Very uncomfortable 10 = Very comfortable

2. How would you rate communication with the therapist during sessions?
1 = Poor 10 = Excellent

3. How easy was it to follow the self-care given between sessions?
1 = Very difficult | 10 = Very easy

4. How satisfied were you with the setting/environment of the treatment?
1 = Very dissatisfied | 10 = Very satisfied

4. RUNNING PERFORMANCE AND FUNCTIONAL CHANGES

1. How much has your ability to run improved since completing the treatment?
1 = No improvement 10 = Major improvement

2. How has your recovery time between runs or workouts changed?
1 = Much slower 10 = Much faster

3. How confident do you feel now in managing or preventing future leg pain?
1 = Not confident 10 = Very confident

5. COMPARISON AND CONTEXT

1. Have you tried other treatments for leg pain before this? If yes, how did this compare?

2. Do you think this treatment would benefit other runners with similar issues?
1 = Definitely not | 10 = Definitely yes

6. FINAL REFLECTIONS

1.What was the single most beneficial part of this intervention phase for you? (Any aspect)

2. What was the least beneficial part, if any (or what didn't work)?

3. If you could change one thing about the treatment, what would it be?

4. Overall, how satisfied are you with your experience in this study?
1 = Very dissatisfied | 10 = Extremely satisfied

5. Is there anything else you would like to share about your experience or results?

Appendix 10 - Participant Feedback

NB: 8 of the 11 participants who took part completed the optional feedback form that was sent to them at the end of the study. There responses can be seen below:

Study Title: Evaluating the effectiveness of The Jing Method™ of Advanced Clinical Massage on Runners with Chronic Leg Pain

1. EXPECTATIONS AND RESULTS

1. Before starting the treatment, what results were you hoping to achieve?

"Relief from hip pain and confidence to run more."
"Relief from ongoing pain"
"To be able to run for longer"
"Relief of morning tightness when I start to move around"
"Improvement in knee pain and be able to increase my running distance towards what is was previously, before the knee pain started"
"To have reduced pain when starting to run"
"I was hoping that by the end of the study I'd be able to run pain free for as long as I wanted to"
"I was hoping to be able to run for longer, more times a week without pain"

2. To what extent did the treatment meet your expectations?
Score this 1-10, where 1 = not at all. 10 = completely met.

9
8
10
8
7
9
10
10

3. How much improvement have you noticed in your leg pain since starting the treatment?

1 = No improvement 10 = Complete relief

7
7
8
7
6
7
10
10

4. Did you experience any unexpected results (positive or negative)?

"Positive, I was able to gradually increase mileage. Felt more confident on my progression also."
"Some of the self-care exercises aggravated other parts or my legs, as the treatment was not able to be clearly aimed at my initial issue due to the research method and wide range of symptoms that participants were experiencing"
"The exercises were brilliant, just my breathing / stamina although it's getting better"
"No"
"Improved calf strength due to the homework exercises and better awareness of areas of weakness in my legs"
"No unexpected results"
"Yes, I was very pleased to find that my expectations were met completely and I was able to run pain free by the end of the study"
"Yes. How quickly my leg started to feel a little better. I thought it would take a few weeks but after the first treatment, although still sore, I could tell it was improving"

5. How would you rate your overall satisfaction with the results of the treatment?

1 = Very dissatisfied 10 = Very satisfied

8
8
9
10
7
8
10
10

2. EFFECTIVENESS OF THE TREATMENT

1.How effective did you find the massage treatment overall?
1 = Not effective 10 = Extremely effective

7
9
7
8
6
6
10
10

2. Which aspects of the treatment (including all elements) were most helpful for your leg pain or recovery?

"Those that targeted the affected area"
"Hands-on treatments were the most beneficial"
"Exercises for hip and glutes, and that area were very effective"
"The strengthening exercises"
"Strength and mobility exercises. The hot stones element was really relaxing. The regular weekly sessions done as a continuous course of treatment"
"The hands-on massage"
"Definitely the weekly massages were the most helpful, although also the regular at home exercises I was given played a big part"
"I liked the hot stones and thought it was helpful to have the exercises to do at home"

3. Were there any parts of the treatment that didn't seem to help or work for you?

"*Not really"*
"I struggled with some elements of the self-care"
"All parts of the treatment were very effective and I'm still working on the exercises provided now – plus I've upped the repetitions too"
"No"
"None"
"No"
"No"
"No"

4. How would you describe your body's response during and after the sessions (e.g., soreness, relaxation, stiffness)?

"*Seemed more relaxed"*

"Generally, I experienced an easing of pain and some improvement in running speeds after the sessions"

"My body responded well to the exercises and benefited from the massage treatments too"

"I didn't feel any positive or negative responses which I thought was strange as I usually do, but I would say that was more me than the treatment"

"*Mainly release of tension and relaxation. I did have a small amount of soreness in my knee after one session"*

"Relaxed and less stiff"

"I felt a lot more relaxed and definitely less sore"

"I felt more relaxed and less stressed in general. My legs were less sore"

3. EXPERIENCE OVERALL

1.How comfortable did you feel during the treatment sessions?
1 = Very uncomfortable 10 = Very comfortable

10
10
10
10
10
10
10
10

2. How would you rate communication with the therapist during sessions?
1 = Poor 10 = Excellent

9
10
10
10
10
10
10
10

3. How easy was it to follow the self-care given between sessions?
1 = Very difficult | 10 = Very easy

10
8
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10
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10
10

4. How satisfied were you with the setting/environment of the treatment?
1 = Very dissatisfied | 10 = Very satisfied

10
10
10
10
10
10
10
10

4. RUNNING PERFORMANCE AND FUNCTIONAL CHANGES

1. How much has your ability to run improved since completing the treatment?
   1 = No improvement 10 = Major improvement

7
8
9
10
7
5
10
10

2. How has your recovery time between runs or workouts changed?
   1 = Much slower 10 = Much faster

5
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7
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5
10
10

3. How confident do you feel now in managing or preventing future leg pain?
   1 = Not confident 10 = Very confident

3
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7
8
7
5
10
8

4. Please detail any other feedback in terms of your running performance and/or running confidence below

"*Felt more positive as I was getting support and feedback"*
"Initially, I did experience an improvement, but due to changes in my day-to-day life commitments and seasons, it is hard to give a clear pattern over the treatment period and beyond"
"I've now upped my mileage to 8.5 miles for my long run (I started at 4miles max) with increasing increments each week if I feel ok to do so. My aim is to get back to long runs on a weekend of 10 miles and hopefully enter a half marathon soon. I've moved up to group 5 at running club and am enjoying being able to push myself out of my comfort zone"
"I definitely feel less tight before and after a run"
"I haven't had any knee pain whilst running for the last 3 weeks. I believe the treatment has helped although I also started HRT when the hands-on sessions finished so it is difficult to tell how much each contributes. However, I have definitely improved my calf and glute strength through the exercises"
"I haven't noticed too much of an improvement to my running currently"
"I feel like I can run with confidence now and just concentrate on my form without having to compensate to manage pain"
"When the hands-on sessions started, I wasn't running very often because of my leg pain. I couldn't go at a faster speed or run as often as I wanted to. Since the treatment started, I have completed 2 half marathons and got a PB and completed a 16-mile trail race. I am also running three/four times a week now"

5. COMPARISON AND CONTEXT

1. Have you tried other treatments for leg pain before this? If yes, how did this compare?

"Physio work with 2 separate physios. This was better than one physio and equal to the other"
"No"
"I have seen other Physios in the past who have helped but I've found Jacqui's sessions were better, longer and more effective with the exercises I complete at home"
"No"
"I did have one physio session before taking part in this study, which was to release the muscle in my glute that was contributing to my knee pain. The physio was a lot more painful than the clinical massage sessions. It wasn't relaxing but it did enable me to walk with less pain"

"Yes, all treatments I've had previously haven't made any improvements. I did however enjoy the hands-on treatments"
"Yes, with a physio. I felt the weekly treatments and exercises I was given were much better in this study"
"I have seen physios before for diagnosis and exercises for previous injuries, but always prefer to come back for sports massages"

2. Do you think this treatment would benefit other runners with similar issues?
1 = Definitely not | 10 = Definitely yes

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6. FINAL REFLECTIONS

1.What was the single most beneficial part of this intervention phase for you? (Any aspect)

"Increased confidence and legs were less stiff"
"Hands-on treatment was most beneficial"
"The self-care and rehab exercises that I did at home"
"Exercises"
"Understanding where there was tightness and weaknesses in my legs and following structured strength and mobility exercises, which I haven't really included before"
"The hands-on massage"
"The weekly massage treatments"
"I really enjoyed the hot stones and felt they helped"

2. What was the least beneficial part, if any (or what didn't work)?

"*Not sure if all the exercises benefited my injury"*
"Some self-care exercises didn't work specifically on the right areas for my injury"
"I can't say that there was anything that was least beneficial"
"Nothing"
"I don't think there was a part that didn't work"

"The self-massage with the trigger-point ball"
"N/A"
"I think all parts are beneficial as my leg pain has improved significantly"

3. If you could change one thing about the treatment, what would it be?

"More focus on my specific issue"
"Ideally more tailored to my individual needs, but I understand that would not work in this situation."
"Longer massages"
"Nothing"
"I can't think of anything"
"I wouldn't change anything"
"I wouldn't change a thing. It was perfect"
"More hot stones!"

4. Overall, how satisfied are you with your experience in this study?
1 = Very dissatisfied | 10 = Extremely satisfied

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5. Is there anything else you would like to share about your experience or results?

"*Nice to have support and reassurance. Very positive experience overall".*

"Thank you, Jacqui, your time and care is greatly appreciated"

"The 16-week study period is a long time period to commit to. It did go quickly and I'm so pleased I'm back running again although my stamina is still not tip top but I'm persevering"

"I'm very pleased with all aspects of the treatment. The massage sessions were very comfortable and relaxing and definitely helped alongside the exercises which I found very useful, I'd never really incorporated S&C into my running training previously"

“Really enjoyed it and found it beneficial. Thank you!”

“Jacqui’s treatments were a really pleasant experience”

“Thank you very much, you’ve helped massively”

“I really enjoyed being part of the study. I looked forward to the massage each week and always left feeling more relaxed and less stressed. I am so pleased that I’m able to run again – thank you!”