

# **Evaluating the Effects of The Jing Method™ of Advanced Clinical Massage on Non-Specific Low Back Pain in Women with Children Under 15 Years.**

**Zuzana Dovey**

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

**Zuzana Dovey:** \_\_\_\_\_ *Zuzana Dovey* \_\_\_\_\_

**Date:** March 2025

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## ABSTRACT

**Background:** Low back pain is a leading cause of disability worldwide and, therefore, a significant public health problem and global burden. More research is urgently needed to target successful treatment options.

**Aim:** The aim of this small 16-week study was to investigate the effects of advanced clinical massage therapy using the Jing method for non-specific low back pain in women with children under 15 years of age. The focus was on any changes in pain levels or functionality in their lives.

**Method:** Five women with chronic low back pain were recruited to take part in this research. All participants aged 30-50 had suffered with non-specific low back pain for over three months. This study used the Bournemouth Questionnaire for Low Back Pain to establish levels of LBP before, during and after the intervention period. Participants were asked to fill out the BQLBP once a week for six weeks in the control period, then continue the same for the next six weeks of the intervention period and again in week 16 to assess if there were any long-term benefits. During the intervention period, participants received 45-minute sessions of Jing Advanced Clinical Massage using the Jing protocol for LBP once a week for six weeks. They were also asked to perform self-care stretches for LBP as a part of the Jing protocol.

**Results:** The results of this study demonstrate a positive result on the total BQLBP score from a baseline of 157 in the first week of control period to 81 on the last twelfth week of the intervention period, which represents a 48% decrease in overall score. Results show a 55% decrease in pain, a 36% decrease in anxiety, a 46% in depression levels, a 51% improvement in the ability to perform daily activities and a 51% improvement in the ability to take part in

recreational, social and family activities. This data details some lasting effects of the intervention, with the BQLBP score at week 16 still demonstrating a 51% improvement on the pre-intervention baseline score.

**Conclusion:** Advanced clinical massage by Jing demonstrated a positive result with improving pain and functionality in the lives of women suffering with non-specific LBP who have children under 15 years of age. It also proved to have longer lasting effects; however, due to the small-scale nature of this study, further research on a larger scale is necessary.

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## **ABBREVIATIONS**

**AIS** – Active Isolated Stretching

**BPS** – Biopsychosocial Model

**BQ** – Bournemouth Questionnaire

**BQLBP** – Bournemouth Questionnaire for Low Back Pain

**CHP** – Chronic Pain

**CLBP** – Chronic Low Back Pain

**CNSLBP** – Chronic Non-Specific Low Back Pain

**CS** – Central Sensitisation

**HFMAST** – Heat, Fascial work, Massage, Acupressure, Stretching & Teaching

**JING** – Jing Method<sup>TM</sup> of Advanced Clinical Massage

**LB** – Low Back

**LBP** – Low Back Pain

**NS** – Nervous System

**NSLBP** – Non-Specific Lower Back Pain

**PNF** – Proprioceptive Neuromuscular Facilitation

**TP** – Trigger Points

**TPT** – Trigger Points Therapy

## LITERATURE REVIEW

### **Evaluating the Effects of The Jing Method™ of Advanced Clinical Massage on Non-Specific Low Back Pain in Women With Children Under 15 Years.**

#### **Introduction**

About 80% of the global population experiences lower back pain (LBP) at least once in their lifetime (O’Sullivan, 2005). It can affect any age group but is more prevalent in women (Tewatia, 2007; Hartvigsen et al., 2018). The Global Burden of Disease, Injuries and Risk Factors Study (GBD, 2020) found in its most recent systematic analysis that LBP affected 619 million people globally, with projections indicating a rise to 843 million by 2050 due to population growth and aging (Ferreira et al. 2023; World Health Organisation 2024). Hart et al. (1995); Finley et al. (2018); St. Sauver et al. (2013) and Sparks (2013) revealed in their study that back pain ranks among the top 10 most common reasons for all GP visits.

According to Hartvigsen et al. (2018) and George et al. (2021) LBP is a leading cause of disability worldwide and, therefore, a significant public health problem and global burden. In the UK, it accounts for 11% of the total disability among the population (Greenough, 2023), underscoring the urgent need for more research into the prevention and treatment of LBP.

LBP has a massive impact on the economy, due to loss of work productivity costing the healthcare system millions of pounds annually (Maniadakis and Gray, 2000). Most importantly, it significantly affects the physical and mental health of individuals. Chronic lower back pain (CLBP) reduces quality of life, limits family and social activities, and often

leads to work loss and depression (Goh et al. 2010; Robertson et al. 2017; Ge et al. 2022; WHO, 2024).

A three-part series published by The Lancet in 2018, focusing on the definition, call to action, and prevention of LBP (Foster et al. 2018; Hartvigsen et al. 2018; Buchbinder et al. 2018), highlights the importance of education on self-management and the role of physical and psychological interventions, especially in initial treatments.

Therefore, this study focuses on a multi-modal approach for treating CLBP by using the Jing Method<sup>th</sup> of Advanced Clinical Massage, which is a combination of different manual techniques, education, teaching self-management and using a biopsychosocial approach. The aim of this study is to evaluate the effects of Jing Method<sup>th</sup> of Advanced Clinical Massage for LBP and contribute to the previous Jing research (Percival, 2020; Williams, 2021; Ruminski, 2017; Munro, 2017; Lustrom, 2019), who found positive results in decreasing LBP and improving quality of life. However, groups of participants were limited, so requires further research to strengthen the evidence base.

### **Non-Specific Lower Back Pain (NSLBP)**

LBP refers to pain in the lumbosacral area, extending from the 12th rib to the iliac crest, buttocks, and gluteal folds (NICE 2023). Specific LBP is characterised by identifiable pathologies such as herniated discs, tumours, fractures, osteoporosis, spondylolisthesis, or arthritis etc. However, (Kim and Yim 2020) state that 90% of LBP cases are non-specific.

NSLBP is categorised into three types: acute, lasting a short time (less than six weeks); sub-acute, lasting six to twelve weeks; and chronic, persists for more than twelve

weeks (Koes et al. 2006). This study focuses on chronic non-specific lower back pain (CNSLBP).

### **How Does Acute LBP Become Chronic?**

If pain persists for longer than six months, there is a tendency amongst patients and healthcare providers to view the pain as a symptom of the underlying condition that initiated it - a long-lasting effect of an injury or illness that has not fully healed. This perspective often leads to the use of surgeries, injections, or narcotic medications, which provide only temporary relief (McAllister, 2017). Over the last 20 years, the use of these interventions has increased dramatically.

McAllister (2015) argues that it is a mistake to consider chronic pain as merely a long-lasting version of acute pain. Instead, chronic pain often becomes independent of the original injury or illness, rendering efforts to cure the initial ineffective. Central sensitisation (CS) must be addressed in cases of chronic pain, as it involves the entire nervous system (NS).

To identify the best approach when treating CNSLBP, it is essential to understand what chronic pain entails. McAllister (2017) describes CS as a condition in which the nervous system exhibits heightened sensitivity to pain and touch (allodynia and hyperalgesia) (McAllister, 2017). Patients experience pain from stimuli that are not typically painful because their nervous system remains in the persistent state of heightened reactivity. Therefore, nerves via the peripheral nervous system continuously send amplified signals to brain, resulting in sensations of strong pain and discomfort, instead of a sensation of mild touch or minor pain. This phenomenon is recognized as a contributing factor in many chronic pain disorders (McAllister, 2017).

Furthermore, stress exacerbates the nervous system’s reactivity, amplifying pain signals that reach the brain. Chronic pain causes a range of stressful problems, including loss of sleep, nervousness, guilt over missing social or family activities, fear, irritability, anxiety, and depression. These issues, in turn, increase stress levels, creating a vicious cycle of pain, referred to as Chronic Pain Syndrome (CPS), (McAllister, 2017).

### Treatments for a CNSLBP

The NHS recommends exercise, anti-inflammatory medication, use of ice or heat, physiotherapy, manual therapy, and cognitive behavioural therapy (NHS, 2022). Table 1 shows most non-pharmacological and pharmacological treatments used in the management of CLBP, along with recommendations from fifteen countries worldwide (Zhou et al. 2024).

Table 1.

Recommendations for CLBP (Adapted from Corp et al. 2021; Zhou et al. 2024).

Strongly recommended	Mixed inconsistent recommendation	Not recommended
Advice and Education	Opioids	Bed rest
Staying active	Antidepressants	Paracetamol
Therapeutic exercise	Spinal epidural steroid injection	Anticonvulsants/Antiepileptics
CBT	Other injections	Muscle relaxants
Acupuncture	Thermotherapy incl. hot/cold, bath, sauna	Traction
Spinal manipulation	Postural therapies	Imaging
Spinal mobilisation		Ultrasound
Massage		TENS
NSAIDs		
Multidisciplinary treatment		

The biopsychosocial model (BPS) has been strongly recommended for chronic low back pain (CLBP) self-management and as a key consideration when planning treatment (Bhangle et al. 2009; Zhou et al. 2024; O'Neill et al. 2020). Additionally, recent research (Saracoglu et al. 2022; Satria Nugraha 2022; Steinmetz 2022) agrees that multimodal therapy – incorporating physical and psychological approaches tailored to individual contributors – can address the complexity of NSLBP. Therefore, the BPS approach should be integrated into treatment plans.

The BPS model was developed by psychiatrist George L. Engel (1977). The BPS framework considers not only biological, but also psychological factors (e.g., emotions, pain related beliefs, catastrophising) and social factors (e.g., poverty, social inequality, family support, work, social injustice), all of which can impact prolonged healing or recovery.

Fairweather and Mari (2015) believe that massage therapy is particularly well-suited for delivering the BPS approach. Massage therapists often combine roles of counsellors, bodyworkers, and personal coaches, addressing client's emotions and using a common-sense approach to help them manage pain and recovery effectively (Fairweather and Mari, 2015, pp. 48-49).

### **Jing Method of Advanced Clinical Massage for CNSLBP**

A systematic review from the Cochrane Database has expressed very little confidence in the effectiveness of massage for LBP (Furlan et al. 2015). However, it does highlight how education, self-care and the BPS approach, combined with manual techniques, can be effective in treating CNLBP. The Jing method – fusion of Eastern and Western practices with a multimodal approach known as HFMAST (Table 2)– emphasizes the importance of the BPS

model. This approach not only addresses central sensitisation (CS), which plays a significant role in chronic pain, but also facilitates specific personalized treatment plans tailored to each client.

Table 2.

Evidence to support the Jing HFMAST Multi-Modal Approach

<b>Jing mnemonic HFMAST</b>	<b>Description</b>	<b>Benefits</b>	<b>Supporting reference</b>
<b>H</b>	Use of <b>heat</b> or cold.	Application of heat improves circulation therefore accelerates healing process and relaxation, increasing muscle flexibility and reducing stiffness.  Application of cold decreases inflammation and pain perception.	(Petrofsky et al. 2013; Freiwald et al. 2021)(El-Tallawy et al. 2021)
<b>F</b>	Direct and indirect fascial techniques.	Myofascial therapy helps restore length, decrease pain and improve function of the myofascial complex. It also improves body symmetry and alignment, increases blood flow, helps increase ROM and improves joint mobility.	(Ajimsha et al. 2015; van Amstel et al. 2022; Zhang et al. 2024)
<b>M</b>	Trigger point therapy (TPT) to treat all <b>m</b> uscles around an effected joint.	Helps with reducing tension and inflammation, relaxing tight muscles, reducing pain and discomfort, supports the role in peripheral and central sensitisation.	(Maistrello et al. 2018; Barcikowska et al. 2022; Geri et al. 2022; Zhai et al. 2024)
<b>A</b>	Acupressure points.	Traditional Chinese Medicine Therapy which attempts to free up energy blockages, reduce levels of the stress hormone Cortisol, improve blood circulation, and stimulate endorphin release, leading to	(Mehta et al. 2016; Adams et al. 2017; Movahedi et al. 2017; Waits et al. 2018; Wang et al. 2019)

		muscle relaxation and the reduction of pain.	
<b>S</b>	Stretching using static, proprioceptive neuromuscular facilitation (PNF) and active isolated stretching (AIS).	Stretching can reduce pain intensity, increase functional ability, improve balance and posture, reduce tension in muscles making them less prone to injury, improve flexibility and the length of muscles.	(Pourahmadi et al. 2019; Fontana Carvalho et al. 2020; Shamsi et al. 2020; Turci et al. 2023; Gou et al. 2024)
<b>T</b>	Teaching client self-help techniques.	Improves pain acceptance and pain management, helps with a reduction in psychological stress, encourages increased physical activity and improve self-motivation.	(Owen et al. 2020; Greff Ballejos et al. 2023; Supported Self-Management of Back Pain from a Clinician's Perspective - International Association for the Study of Pain (IASP) 2024)

### **Subject Group**

LBP affects all age groups and both genders, but several studies have found more LBP prevalence in women (Abbafati et al. 2020; Wu et al. 2020; Zhang et al. 2025). This may be attributed to factors such as hormonal changes during menstruation, anatomical differences, and pregnancy related changes (Bizzoca et al. 2023). Mechanical and hormonal factors are well known in the occurrence of low back pain in pregnancy. However, symptoms can last for years after giving birth and have an adverse impact on the quality of life and everyday activities in woman (Solanki and Malawade 2022).

All women are at risk of developing LBP in their lifespan (Martin et al. 2023). Research also suggests that women are responsible for a higher proportion of unpaid labour – such as housework, shopping, cooking, and caring for children and other household members

– on top of their paid work, compared to men (Leveille et al. 1999; Ahlgren et al. 2012; Ferchak 2021; Osinuga et al. 2021). This additional burden places women at greater risk of developing back pain due to the physical demands of maintaining the home.

This study focuses on women aged 30-50 who already have children under 15 years of age. A women's body undergoes several changes during her thirties, such as weight fluctuations due to a slowing metabolism, hormonal shifts, loss of muscle mass resulting in decreased strength and endurance, reduced joint lubrication and cushioning, and bone loss. All these factors can contribute to LBP (N. Booz, 2023). With added responsibilities around work and family, women often have minimal or no time for self-care activities such as exercise, relaxation, sleep, mindfulness, or reconnecting with their own bodies. Consequently, massage treatment is frequently viewed as a luxury rather than a valuable selfcare routine, for maintaining body, mind, and pain management.

Manual therapy demonstrates positive effects on the body when treating LBP. It aids in muscle relaxation, improves circulation (Medical Massage Therapy, 2024), reduces stress, promotes digestive health, increases range of motion, and promotes symptom relief (L. Smith, 2022). However, despite its popularity, there remains ongoing debate about the effectiveness of massage in treating LBP (Kumar et al. 2013).

The Jing Method™ of Advanced clinical massage, which combines several massage techniques in treating LBP, has the potential to improve client's health, reducing pain and increasing range of motion. Positive results using the Jing method have been observed in past research to treat LBP in community midwives (Jones-Morris 2021), women with children under 6 and 7 years of age (Munro 2017), and also cyclists (Burn 2019).

However, these studies involved only small sample sizes of 6-7 participants, highlighting the need for additional research. Therefore, this research is necessary to build upon previous findings and provide more robust evidence that the Jing method of advanced clinical massage can benefit individuals suffering from NSLBP.

## METHOD

This study aims to evaluate the benefits of Jing Method™ of Advanced Clinical Massage on non-specific low back pain (NSLBP) in women with children under 15 years of age. Ethical approval for this study was granted by Jing Advanced Massage Training on April 30, 2024 (Appendix 1). Prior to recruitment, research on LBP was collected from PubMed, Google Scholar, Science Direct and Mendeley.

The inclusion criteria for participation in this research were women aged 30-50 who had been experiencing NSLBP for more than 3 months. Eligible participants had not undergone any operations or received any diagnoses in the past 6 months and had no prior LB injuries. Participants were neither pregnant nor less than 12 months post-partum and had children younger than 15 years old.

Recruitment was conducted through word of mouth and parents' WhatsApp groups at the beginning of May 2024. Nine women showed interest in this study. An initial consultation was undertaken, and seven women were recruited, while the other 2 were unable to commit due to work and family commitments. None of the participants had previously received a treatment from the researcher. A participant consent form was required from each participant prior to the study (Appendix 3). Seven participants were recruited, but only five completed the study.

The study employed a within-subjects design in which participants experienced the same control period and intervention. The advantage of using this design is that it only requires a small sample of participants, with no effects from variations in individual differences, allowing for the observations of more accurate statistics. Participants were asked to complete

The Bournemouth Questionnaire for Low Back Pain (BQLBP) every week for a 12-week period and then in week 16, to assess if there were any long-term benefits. The BQLBP is a validated, reliable, and widely used instrument that is quick and easy to complete, requiring approximately 5 minutes (Appendix 3) (The Bournemouth Questionnaire (BQ), Nov 2012). All participants agreed not to receive any other treatment, massage or physical therapy during this 16-week period.

The first six weeks (week 1-6) comprised a control period during which no treatment was provided. However, participants completed the BQLBP weekly to establish a baseline for their pain levels. During the following six-week intervention period (week 7-12), participants, in addition to completing the BQLBP weekly, received a 60-minute treatment consisting of consultation, and hands on therapy based on the Jing Advanced Clinical Massage HFMAST protocol for treating low back pain (Fairweather and Mari, 2015) (Appendix 4), and self-care. The HFMAST protocol included grounding amma, heat application using a heated blanket and wheat bags, fascial release work, muscle and trigger point (TP) therapy, acupressure and stretching. This protocol was replicated for all six treatments. The massage medium was unscented massage wax, while relaxing music was played.

Participants were asked to perform self-care exercises three times per week during the intervention period, which were demonstrated in each session, while their adherence was reported to the researcher during each treatment session. The final BQLBP questionnaire was completed in week 16 to evaluate the long-term effects of the intervention treatments.

## RESULTS

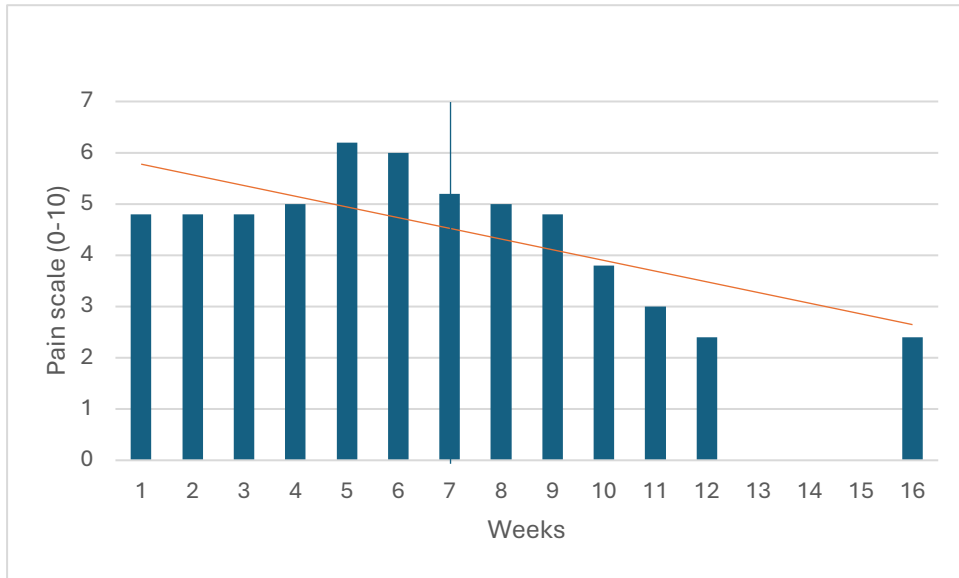


Figure 1: Mean pain levels for participants during the study period.

Weeks 1-6 were the control period and weeks 7-12 were the intervention period. Follow up at week 16. It shows that there is a longer-term benefit even post treatment from having had the intervention. Overall positive benefits from receiving a massage and this is a positive result for the study. Orange line represents a trend line and blue line at week 7 highlights the difference between the control period and the intervention.

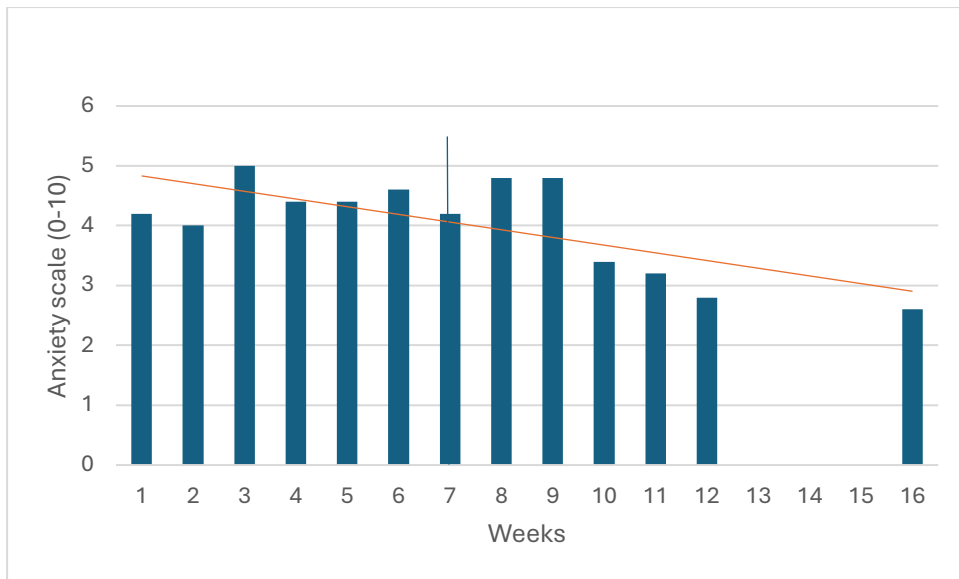


Figure 2: Mean anxiety levels for participants over the study period.

Weeks 1-6 were the control period and weeks 7-12 were the intervention period. Follow up at week 16. Orange line represents a trend line and blue line at week 7 highlights the difference between the control period and the intervention.

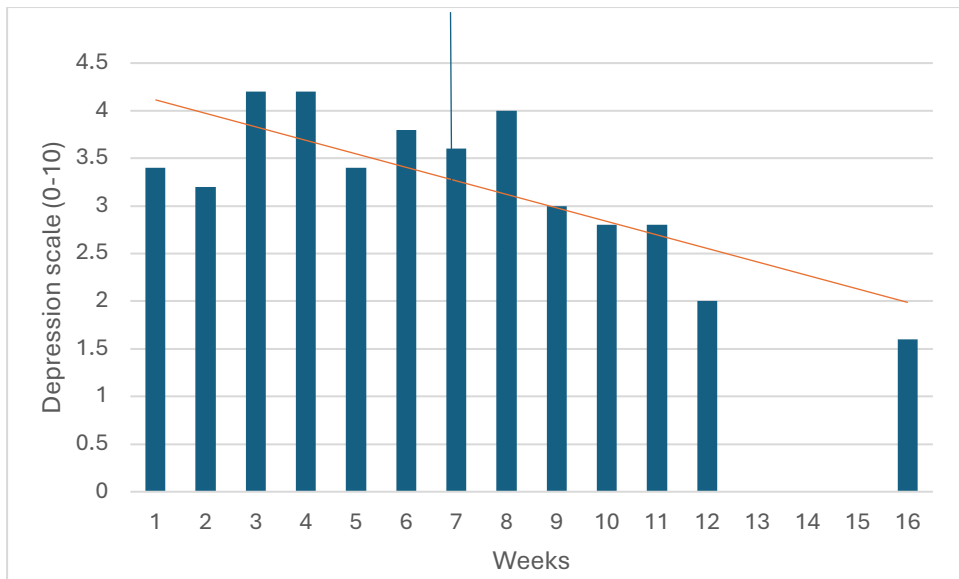


Figure 3: Effects of depression levels throughout the study.

Weeks 1-6 were the control period and weeks 7-12 were the intervention period. Follow up at week 16. Figure 2 and 3 shows the effect of the treatment period and how it reduced a person's anxiety and depression levels. It also shows that there is a long-term benefit even post treatment from receiving the intervention. Orange line represents a trend line and blue line at week 7 highlights the difference between the control period and the intervention.

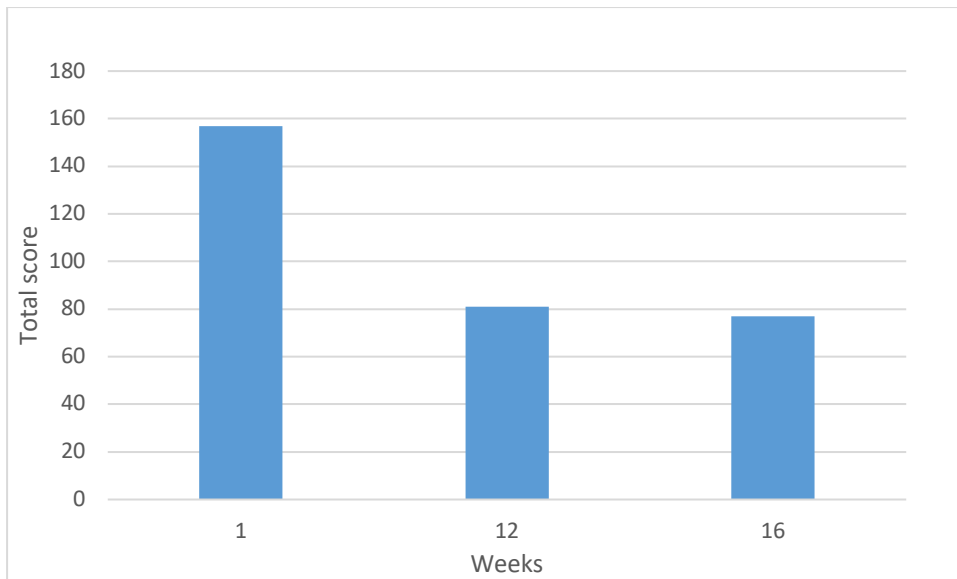


Figure 6: Effects of LBP levels during the study period on overall score from BQLBP.

Total score for each BQLBP question and each participant on Week 1 compared to Week 12 (completion of intervention) and Week 16 shows positive results and clinically recognised improvement. Weeks 1-6 were the control period and weeks 7-12 was intervention period. Follow up at week 16. Total BQLBP score from a baseline of 157 on the first week of control period to 81 on the last twelfth week of the intervention period which shows 48% decrease on overall score. Data shows some lasting effects of the intervention, with the BQLBP score at week 16 still demonstrated a 51% improvement on the pre-intervention baseline BQLBP score.

Table 3.

Effects of LBP based on BQLBP score

	<b>Pain</b>	<b>Daily activities</b>	<b>Recreational, social and family activities</b>	<b>Anxiety</b>	<b>Depression</b>	<b>Work</b>	<b>Self-control of LBP</b>
<b>Mean weeks 1-6 pre intervention</b>	<b>5.3</b>	<b>4.9</b>	<b>4.6</b>	<b>4.4</b>	<b>3.7</b>	<b>5.3</b>	<b>4.4</b>
<b>Week 12 post intervention</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>	<b>2.8</b>	<b>2</b>	<b>2.4</b>	<b>1.8</b>
<b>Decrease in points post intervention</b>	<b>-2.9</b>	<b>-2.5</b>	<b>-2.2</b>	<b>-1.6</b>	<b>-1.7</b>	<b>-2.9</b>	<b>-2.6</b>
<b>Percentage of improvement post intervention</b>	<b>55%</b>	<b>51%</b>	<b>48%</b>	<b>36%</b>	<b>46%</b>	<b>55%</b>	<b>59%</b>

A higher score indicates higher levels of pain, anxiety, depression and interference with daily, recreational, social, family activities, work and ability to control LBP by oneself.

## DISCUSSION

The aim of this study was to evaluate the effects of the Jing Method™ of Advanced Clinical Massage for NSLBP in women with children under 15 years. The results of this study demonstrate a positive result on the total BQLBP score, from a baseline of 157 on the first week of the control period to 81 on the last twelfth week of the intervention period, which shows 48% decrease in overall score (Figure 6). This demonstrates that 45-minutes of Jing Advanced Clinical Massage using the Jing method over six weeks can improve pain by 55%, anxiety levels by 36%, depression levels by 46%, improve ability to perform daily activities (housework, washing, dressing, lifting, reading, driving) by 51%, and ability to take part in recreational, social and family activities by 48%, reduce work interference by 55%, and improve ability to control LBP independently by 59%. ‘Bolton et al (2004) indicated that an improvement of 13 points of the total score of 36% was associated with clinically significant improvement’ (Bolton 2004; Physiopedia 2024).

Advanced Clinical Massage by Jing presents as a multimodal approach to treating NSLBP. It has proven to be a great tool in reaching positive results. Recent studies from (Steinmetz et al. 2019; Saracoglu et al. 2022; Satria Nugraha 2022; Steinmetz 2022b) agree that a multimodal therapy approach brings positive results. Steinmetz et al. (2019) found positive outcomes when treating back pain with the implementation of manual therapy and the individually tailored musculoskeletal approach in a multimodal setting including pain therapy, exercise therapy, physical therapy and patient education. In his 2022 study on patients with NSLBP, he also implemented the BPS model and with his positive findings agrees that successful treatment requires personalised, holistic treatment approaches that addresses all BPS dimensions and symptoms suggesting that advanced evaluation methods are necessary and

NSLBP multimodal treatment concepts are promising and should be further evaluated and developed.

This shows that the Jing Method by Fairweather and Mari (2015) has all the right tools to positively treat NSLBP and not only reduce patient's pain but also decrease depression and anxiety levels while improving functional ability to perform daily activities.

Several studies have expressed very little confidence in and found limited evidence for massage therapy efficiency in relation to pain and long-term effectiveness (Furlan et al. 2002; Kumar et al. 2013; Lindell 2024). In a recent systematic review (Mak et al. 2024), researchers involved in the study found that "massage therapy" was a poorly defined category of treatment and is a broad term encompasses many styles and techniques. The Jing method giving us a 'recipe book' step-by-step protocols for different areas of the body. These consists of HFMAST techniques, tried and tested approach, enabling us to get results.

Lindell (2024) stresses that medical professionals should be more cautious about recommending massage therapy as a substitute for proven pain treatments, such as opioids and that patients in pain may receive ineffective advice. However, based on (Corp et al. 2021; Orrillo et al. 2022; Zhou et al. 2024b), opioids and other medication for LBP are not backed by strong evidence and have mixed and inconsistent recommendations. They may only offer slight effects on pain relief and often bring risks of associated side effects. Orrillo et al. (2022) study reveals that there is no ideal first-line treatment for LBP. Yes, there are numerous treatment options for LBP, but these must work in synergy with each other.

Research from (Stewart-Richardson et al. 2024) suggesting that treatment effectiveness is achieved through a process of problem-solving rather than the predetermined application of techniques and strokes. However, the Jing method has a degree of reproducibility and therapeutic alliance, and BPS allow for tailoring treatment. Following step-by-step Jing

protocol for LBP this study shows that the Jing method with its positive results should be incorporated into treatment.

This study demonstrates positive results for female participants with NSLBP and shows that an individualised treatment with a multi-modal approach incorporating the BPS model is an effective tool for treating NSLBP in the short term. Furthermore, despite other studies, this study also observed longer-term benefits four weeks after the last intervention. Therefore, these results support the work of Ruminski (2017) and challenge the work of other studies that found no long-term effects (Furlan et al. 2002).

The 16-week follow up questionnaire explored any lasting effects of the intervention treatments on the participants. The data showed some lasting effects of the intervention, with the BQLBP score at week 16 still demonstrating a 51% improvement from the pre-intervention baseline BQLBP score.

When observing the mean BQLBP score (Figure 1, 2, 3, 4 and 5), interestingly, we noticed the most improvement in week 10, which was week 4 of the intervention. This highlights the importance of treatment consistency to achieve the most benefits. This correlates with Fairweather's and Mari's (2015) 'power of 6', recommendation for clients to attend treatments once a week up to 6 weeks to achieve a reduction in their pain, with improvements typically noticed around week 3.

According to research (Hartvigsen et al. 2018), it is hard for most people to identify a specific cause of LBP. Only a small proportion of people would have a clear specific pathological cause. People with physically demanding jobs, physical and mental comorbidities, smokers, obese individuals are at greater risk of reporting LBP. None of the participants in this study had specific cause for LBP, nor were any smokers or obese. Three out of five participants were office workers spending long hours on a computer. The other two included a mobile

hairdresser who spend long hours standing and driving along with a baby shoot photographer who also spent prolonged time sitting at a computer editing pictures. Additionally, physical photoshoots can be extremely straining on the posture as the positioning around babies requires lots of bending and awkward postural adjustments. Sufficient evidence from recent studies (Mahdavi et al. 2021) indicates an increase trend of sedentary behaviour, with lack of movement and prolonged sitting or driving being significant risk factors for LBP. This correlates with this researcher's findings as all participants lacked movement. In fact, all five of them reported insufficient physical activity and a lack of regular exercise. Preventative strategies should be applied to reduce sedentary behaviours and promote a more active lifestyle.

Participants in this study commented on how they felt more aware and connected to their own bodies after the intervention treatment. They felt more flexible, their bodies felt looser, and they found a positive attitude and motivation to start exercising. They were also encouraged not to endure pain and discomfort daily but rather to take proactive steps. Each treatment provided them with a positive boost for their self-care routine. As they received more education on how the body works and the structures involved, they felt more in control and experienced less fear and catastrophising. This may have contributed to the lasting effects. Strategy of education and empowerment in patients with chronic pain is supported by several studies (Geneen et al. 2015; Darnall et al. 2021; Salazar-Méndez et al. 2024; Shankar Ganesh et al. 2024).

The BQLBP questionnaire used within this study, is a validated and reliable instrument. With its simple scoring system for both participants and the researcher. Each participant was able to self-report their experience of NSLBP. Participants reported not only on their pain levels but also their functional ability to carry out common activities. CLBP is often associated with depression and/or anxiety and the BQLBP takes this into account. Baseline scores of

depression and anxiety were recorded at 3.7 and 4.4 respectively, as a mean score during the control period. At the final post treatment these scores had decreased to 2 and 2.8, showing a 46% decrease in depression and a 36% decrease in anxiety. The follow-up questionnaire, conducted four weeks after the intervention at week 16, provided further insight into the lasting effects of the intervention treatments on participants' symptoms.

This study was limited by its small sample size, as the researcher did not have the opportunity to conduct a large-scale study. Therefore, further research on this subject is necessary.

Although the results were positive, there are a few things that could be improved in this study. In terms of heat, an electric hot blanket and hot wheat bags were used instead of hot stones. This was due to the unavailability of hot stones at the researcher's clinic; therefore, I believe hot stones would have provided even more positives to the intervention treatments. Benefits of hot stones were also proven in study by Ellis (2018). However, we need to take into consideration perimenopausal women with hot flushes may not appreciate the heat.

Looking at other studies evaluating the effectiveness of using the Jing Method™ of Advanced Clinical Massage between 2012 and 2023 when treating NSLBP, we can see similar positive findings in decreasing pain levels in yoga teachers (Ruminski, 2017), postpartum women with children under 6 and 7 years (Munro, 2017; Lustrum, 2019), community midwives (Jones-Morris, 2021), and cyclists (Burn, 2019). Percival (2020) also had positive findings in decreasing pain levels when treating NSLBP, although her study was only online due to Covid-19 restrictions.

This study's focus was mainly on pain levels and functionality in participants' lives, but as part of the BQLBP, questions were also included to investigate levels of anxiety and depression. Interestingly, we observed a 36% improvement in anxiety and a 46% improvement in depression at week 12 post-intervention compared to the mean score during

the control period. This aligns with the work of Jones-Moris (2021), Casadei (2023), and Rigby (2020), who also demonstrated positive results in treating and reducing levels of anxiety and depression by using the Jing method.

Effectiveness in long-term post-intervention wasn't measured in these studies apart from Ruminiski (2017), which correlates with this study by demonstrating long-lasting effects after the intervention period on pain, anxiety, depression and participation in daily social activities. Although this was only a small-scale study of five participants, its positive result suggests that it can successfully contribute to the growing body of evidence from these previous researchers.

## CONCLUSION

The data from this study demonstrates that using an individual 45-minute Jing Method™ of Advanced Clinical Massage once a week, over the period of six weeks, helps decrease levels of pain, anxiety and depression, improves performance in daily activities same as social, recreational and family activities. Overall, it has a positive impact on patient's wellbeing. Utilising a 16-week BQLBP questionnaire showed some lasting effects of the intervention treatments. The Jing Method™ of Advanced Clinical Massage using HFMAST approach presents as a suitable multimodal approach to non-pharmacological intervention for NSLBP and should be considered as a complementary and alternative treatment, which could be a useful tool within pain clinics. Collaboration with local pain clinics and promoting this work on social media platforms such as Mumsnet could be the way forward.

There is an urgent need for more research into prevention and treatment of LBP. Massage treatment on its own has very little confidence in the effectiveness of treating LBP. Therefore, it needs to be combined with education, self-care and BPS approach. This study shows Jing Method™ of Advanced Clinical Massage worked, as it was combined with the additional therapies recommended to provide personalized treatment.

Women, in their busy lives, involving work, housework, looking after children and family, need to find more time for valuable self-care and incorporate regular multimodal massage treatment into their routine, not as luxury, but rather as an essential tool for mental and physical wellbeing, while preventing and treating LBP. Avoiding sedentary behaviour and promoting a more active lifestyle with regular exercise is also needed.

This was only a small-scale study so further studies would benefit from a larger scale of participants.

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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:	<input type="radio"/> Zuzana Dovey
Student number:	<input type="radio"/> PE31594
BTEC Year-group:	<input type="radio"/> March 2023-2025
Date of application:	<input type="radio"/> 03.04.2024
Student e-mail address:	<input type="radio"/> zuzanadovey@hotmail.com
Title of research project:	Evaluating the effects of The Jing Method™ of Advanced Clinical Massage on non-specific low back pain in women with children under 15 years.

**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?	<input type="radio"/> x	
If yes, does it involve children under 16?		<input type="radio"/> x
If yes, does it involve children under 18?		<input type="radio"/> x
Other vulnerable populations (i.e. mental illness, aged subjects)?		<input type="radio"/> x

Does your project involve NHS patients, NHS staff or Local Authority Service Providers?		<input type="radio"/>	<input checked="" type="checkbox"/>
Are you planning to use deception?		<input type="radio"/>	<input checked="" type="checkbox"/>
Are you collecting sensitive personal data such as sexuality, mental health data, etc.?		<input type="radio"/>	<input checked="" type="checkbox"/>
Does your study involve paying participants or an alternative incentive to participate		<input type="radio"/>	<input checked="" type="checkbox"/>
Could the study put you or someone else at risk of injury?		<input type="radio"/>	<input checked="" type="checkbox"/>
Does your project make use of a validated questionnaire?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>
<p>If yes, please specify the name of the validated questionnaire you are using and attach a copy here.</p> <p>Bournemouth Questionnaire for Low Back Pain</p>			

### Section 3: Research premises

<p>Where is your research being undertaken?</p> <p>Research being undertaken at my home. 50 Cairo Avenue Peacehaven BN10 7PX</p>	
<p>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.</p>	<p>Not applicable</p>

## Section 4: Recruitment

How will you recruit subjects for this research study?

I will seek to recruit in my local town and surrounding area. Women whose children attend local schools.

I will create leaflet to hand to local parents around schools. Word of mouth between local mums. I will also use WhatsApp groups for school parents and football club mums. I will advertise my project to recruit suitable participants.

Upon receiving interest, I will screen for eligibility via text messages, to ensure criteria suitability, and then send out participant letters and consent forms accordingly.

## 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 will be in-person study at my own home clinic. Clients will be from the same area; they will be women who live locally and are only few minutes away. This is so it's easy for them to fit it into their busy schedules.

After showing interest in this study there will be an initial call to check eligibility for the study, provide more explanation and allow opportunity to ask any questions. A participant letter will be sent with the consent form.

Weeks 1-6: It will be 6 weeks control using the Bournemouth Questionnaire for Low Back Pain, which will be sent out once a week to complete for 6 weeks prior to the intervention to establish a baseline of their pain.

Weeks 7-12: This will be a 6-week intervention phase in person using the Jing Method<sup>TH</sup> Low back protocol. It will involve techniques such as the use of heat or cold, fascial techniques, trigger point therapy, acupuncture points and stretching. Six days after each treatment participants will complete and return the Bournemouth questionnaire to the researcher before the start of the next session. I will be sending a reminder to do so day before.

Week 16: 4 weeks post-treatment, participants will fill out the Bournemouth Questionnaire assess long-term post-treatment effects and evaluate the effectiveness of the Jing Method<sup>TH</sup>.

Week 7, The first week of the intervention treatment will be 90 mins with 20-30mins for consultation, 45 minutes hands-on and 15 minutes of self-care teaching to do daily at

home. The following treatments in Weeks 8-11 will be 60 mins, with 45 minutes hands-on and 10 minutes self-care advice, and 5 minutes for check in consultation at the start. Week 12 of the intervention will be again 90 mins for a longer consultation, the same as week 1 of intervention.

Self-care for home will take them about 5-10 minutes. The self-care will be performed 3 times each week and participants will inform the researcher how many times they performed it when they return the Bournemouth Back Pain Questionnaire. Details of self-care will be provided in an appendix to the study.

## Section 6: Describe what your participants need to do

Participants need to qualify for my criteria and have a positive score on the Bournemouth back pain questionnaire. They will be provided information about this project and will be asked to sign a consent form.

They will have to fill Bournemouth Questionnaire for Low Back Pain weekly during the 6 weeks control period. There will not be any intervention during this time.

Weeks 7-12 will be the 6 weeks intervention period. During this time, they must come to clinic for 6 treatments, once a week. In weeks 7 and 12 the session will take 90 minutes. Weeks 8-11 will take 1 hour. At each session they will be shown their self-care to be performed 3 times that week. The researcher will ask how many times they have completed the self-care each week. The questionnaire will be given to participants 6 days after treatment to be returned within 24 hours or before their next session.

Finally at week 16, 4 weeks post-treatment, participants will be required to complete questionnaire again to assess any longer-term findings of the study.

## 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?

General: I'm not working with children or vulnerable adults, and the study does not involve specific conditions or focus on sensitive topics such as sexuality or trauma

Information: Participants will be fully informed about what this study involves. All relevant information will also be sent to participants by email or text.

Withdrawal: Participants can withdraw from the study at any time without any explanation required, and there will be no consequences for deciding to withdraw.

Confidentiality: Participants will be asked to respect each other's confidentiality in case they know each other. Any personal or sensitive information shared during the study will remain confidential.

Trauma, Mental and Emotional Health Issues: I will treat participants with sensitivity and use cross

coding practices during treatments. I will be observing participants well-being.  
Injury/Accident: I am a fully insured massage therapist. I also have an up to date First Aid at Work Training Certificate.  
Personal Risk: I will only work with a group of women within my small local community.  
Confidentiality/GDPR: Personal information will be stored on my password protected laptop and also on a phone secured with my unique fingerprint. Data will be held in compliance with GDPR. Each client will be assigned an anonymized number for data collection purposes. All data will be deleted after the project is finished.  
 There are minimal risks associated with this study, including slight bruising if too much pressure is applied. Tiredness after treatment, or transient muscle soreness post-massage. These are normal reactions and will be monitored.

**Section 8: Inclusion and exclusion criteria**

What sort of people will the subjects be?

The study will include:

- Women aged 30-50 with nonspecific lower back pain, with children under 15 years
- Can commit to a 16-week study and travel to my home for the 6 weeks of hands-on treatment.
- Experiencing nonspecific lower back pain more than 3 months.

The study will exclude:

- Previous operations on the lower back
- Diagnosed herniated disc or any other specialist diagnoses in the last 6 months
- Previous injury to the lower back
- Under 12 months post-partum
- Undergoing any other treatment for lower back in this 16-week period
- Obtaining normal scores on the Bournemouth Questionnaire: 0 on all 7 questions.
- Unable to commit to the 16-week study.

**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.

<input checked="" type="radio"/> YES	<input type="radio"/> NO
--------------------------------------	--------------------------

Student's handwritten signature:

Luana Darcy

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

**Print Name:** Zuzana Dovey

**Date:** 03/04/2024

**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:** .....**30/4/24**.....

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: Information for Participants

**STUDENT NAME:** Zuzana Dovey  
**STUDY LOCATION:**  
50 Cairo Avenue  
Peacehaven  
BN10 7PX  
Tel: 07368368027  
e-mail: zuzanadovey@hotmail.com



**Jing Advanced Massage Training**  
28/29 Bond Street  
Brighton BN1 1RD

**[www.jingmassage.com](http://www.jingmassage.com)**  
**01273 628942**

Dear Ms., Mrs,

**Re: Evaluating the effects of The Jing Method™ of Advanced Clinical Massage on non-specific low back pain in women with children under 15 years.**

Thank you for showing interest in my study. I appreciate you responding to my call for participants. Let me tell you a little more about what it entails.

I have been a massage therapist since 2018 in Brighton's award-winning beauty salon and alongside a wide range of aesthetic anti-aging treatments I specialize in the treatment of chronic pain. In my practice, I work mostly with individuals suffering from a range of chronic pain such as headaches, frozen shoulders, sciatica, TOS, and fibromyalgia.

In 2021, I embarked on an advanced degree qualification in my field: the BTEC Level 6 in Advanced Clinical and Sports Massage offered by Jing Advanced Massage, 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.

As part of our course work, I have chosen to investigate the effects of The Jing Method™ of Advanced Clinical Massage on non-specific low back pain in women with children under 15 years.

I am looking for participants who meet the following criteria:

- Women aged 30-50 with non-specific lower back pain, with children under 15 years

- Can commit to a 16-week study, complete a weekly questionnaire and travel to my home for weeks 7-12 of the study where they will receive hands-on treatment.
- Have experienced a non-specific lower back pain more than 3 months.
- Had no previous operations on the lower back.
- Had no previous diagnoses by a specialist in past 6 months such as herniated disc or any other disorder
- No previous injury to the lower back
- Not pregnant or within 12 months post-partum
- Are not undergoing any other treatment for lower back pain in this 16-week period.

If you decide to participate in the study, it will begin around mid-May 2024. Participation is completely voluntary, and you can withdraw from the study at any time without providing a reason. All your information will be kept confidential, and your data will be anonymized.

### **What does the study involve?**

After showing interest in this study there will be an initial call to check eligibility for the study, more explanation and opportunity to ask any questions. Your consent to take part in the study will then be obtained.

The first 6 weeks is about understanding your pain, you will not receive treatment during this control period. During this time, on the same day each week you will fill in the Bournemouth Questionnaire for Low Back Pain via email. It should take you approximately 5 minutes to complete. I will send you an email prompt to remind you. Once all that data is gathered and we know the circumstances, we will then start appropriate treatment and endeavor to make a difference.

For weeks 7-12, you will receive a 60-minute treatment, where 15 minutes will be for consultation and self-care, and 45 minutes will be hands-on clinical massage treatment per week. On weeks 7 and 12 of treatment, I will extend the consultation for 20-30 minutes for an orthopaedic assessment and special tests, but still 45minutes hands-on. Each session will be held on the same weekday that we agree on at the start and will involve a variety of massage techniques to treat your symptoms.

These treatments will be at my clinic. You will be asked to perform self-care exercises 3 times a week; each session will take you 5-10 minutes.

During these 6 weeks, you will continue to fill out the Bournemouth Questionnaire for Low Back Pain 6 days after each treatment, before the start of next treatment. You will receive a reminder by text to do so. I will ask how many times you have performed the self-care routine.

Four weeks after the last hands-on treatment you will fill out the Bournemouth Questionnaire for Low Back Pain again, which I will send you in a final email. This will help ascertain any longer-term benefits from the study.

### **Are there any risks or benefits to taking part?**

There are minimal risks associated with slight bruising if too much pressure is applied. Tiredness after the treatment or the experience of transient muscle soreness post-massage is normal.

The benefits of taking part in this study include a reduction in your pain, increasing ROM and improvement of wellbeing.

Your data will be mathematically analysed along 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 my findings with you.

It is very important that you don't engage in any other pain-relieving activities including the use of pain medication or trying any new therapy for your pain without informing me.

There is no cost for these six sessions.

Please feel free to call me with any questions.

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

Sincerely,

Zuzana Dovey

## APPENDIX 3: Participant Consent Form



### PARTICIPANT CONSENT FORM

**Title of study:** Evaluating the effects of the Jing Method™ of Advanced Clinical Massage on nonspecific low back pain in women with children under 15 years.

**Name of student:** Zuzana Dovey

	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: <ul style="list-style-type: none"> <li>• At any time (until such date as this will no longer be possible, which is once all anonymised data has been merged)</li> <li>• Without giving a reason for withdrawing</li> <li>• That I am free to refuse to answer any question without saying why</li> <li>• That the services I am receiving will not be affected whether I participate or not.</li> </ul>		
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		
<b>Signature (participant) <span style="float: right;">Date:</span></b>		
<b>Name: (BLOCK LETTERS)</b>		
<b>Signature (parent/guardian/other, if under 18) <span style="float: right;">Date:</span></b>		
<b>Name: Zuzana Dovey</b>		
BTEC students contact details (including telephone number and e-mail address):		
<b>Zuzana Dovey</b> <b>Tel no: 07368368027</b> <b>Email: zuzanadovey@hotmail.com</b>		

## APPENDIX 4: Bournemouth Questionnaire for low back pain

### **Bournemouth Questionnaire for Low Back Pain:**

The following scales have been designed to find out about your Low Back pain and how it is affecting you. Please answer ALL the scales by circling ONE number on EACH scale that best describes how you feel:

1. Over the past week, on average how would you rate your Low Back pain?

No pain 0 1 2 3 4 5 6 7 8 9 10 Worst pain possible

2. Over the past week, how much has your Low Back pain interfered with your daily activities (housework, washing, dressing, lifting, reading, driving)?

No interference 0 1 2 3 4 5 6 7 8 9 10 Unable to carry out activities

Please Describe: \_\_\_\_\_

3. Over the past week, how much has your Low Back pain interfered with your ability to take part in recreational, social, and family activities?

No interference 0 1 2 3 4 5 6 7 8 9 10 Unable to carry out activities

Please Describe: \_\_\_\_\_

4. Over the past week, how anxious (tense, uptight, irritable, difficulty in concentrating/relaxing) have you been feeling?

Not at all anxious 0 1 2 3 4 5 6 7 8 9 10 Extremely anxious

5. Over the past week, how depressed (down-in-the-dumps, sad, in low spirits, pessimistic, unhappy) have you been feeling?

Not at all depressed 0 1 2 3 4 5 6 7 8 9 10 Extremely depressed

6. Over the past week, how have you felt your work (both inside and outside the home) has affected (or would affect) your Low Back?

Made it no worse 0 1 2 3 4 5 6 7 8 9 10 Made it much worse

If worse, which activities? \_\_\_\_\_

---

7. Over the past week, how much have you been able to control (reduce/help) your Low Back pain on your own?

Completely control it 0 1 2 3 4 5 6 7 8 9 10 No control whatsoever

What have you done? \_\_\_\_\_

Patient Name: \_\_\_\_\_

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

## APPENDIX 5: Low back pain protocol

### Jing Advanced Massage – Low back pain protocol

Consultation

ROM testing

- Client prone
- Application of heat
- Grounding and still work
- Palming Erector Spinae – standing
- Palming Erector Spinae – table shiatsu
- Rocking the body

Fascial Techniques

- Double fists down the Erector Spinae
- Fascial finger work over the sacrum
- Cross hand stretch techniques
- Skin rolling

Applying lubrication

- Power effleurage to low back
- Power effleurage from head of the table
- Deeper forearm work from head of the table

Muscle stripping and trigger point technique

- Muscle strip Erector Spinae (3 strips)
- Power effleurage and integration
- Fingertip friction to medial border of erectors and deeper spinal muscles
- Fingertip friction to the lateral aspect of the erectors
- Repeat on opposite side of table
- Deep palmar effleurage

Treating Quadratus Lumborum (QL)

- Treat transverse process attachments of QL
- Treat 12<sup>th</sup> rib attachment
- Muscle strip entire QL using thumbs
- Treat inferior attachment point on iliac crest
- Deep effleurage to QL with palm of hand from superior to inferior
- Iliac scissors
- Work over sacrum
- QL stretch

### Treating the Gluteal Muscles

- Opening the glutes and lateral rotators
- Deep forearm effleurage to gluteal area
- Deep stripping with knuckles
- Fingertip friction to the edge of the sacrum
- Treating trigger points in gluteal region

### Treating Piriformis and Lateral Rotators

- Static friction to attachment of 6 deep rotator muscles
- Soft tissue release (STR) of Piriformis
- Treating trigger points in Piriformis
- Static external stretch of Piriformis
- Deep forearm effleurage to gluteal region

### Acupressure points

- SHU points from head to sacrum
- Bladder 31-34 (holes in the sacrum)
- Bladder 36 (gluteal fold/hamstring insertion)

### Treating Gluteus Medius, Gluteus Minimus and TFL

- Client side-lying and repeat both sides
- Palming
- Side-lying stretch for hip abductors

### Supine treatment of Psoas and Iliacus

- Release of the Iliacus
- Release of the psoas
- Psoas stretch
- Cross hand stretch
- Psoas positional release

### Finishing and supine stretches

- Gluteal stretch
- Piriformis stretch
- Mobilisations
- Myofascial leg pulls
- Acupressure points Kidney 3, Bladder 60, Spleen 6 and Kidney 1
- Teaching client self-help techniques for LBP

## APPENDIX 6: Jing Self-Care Sheet

### Self-care resources

#### SHEET 7 Static stretches for back pain

##### Instructions for stretching

- Breathe in and then go into the stretch with the out breath.
- Increase the range of motion until you feel the stretch, then wait and hold at that point.
- Hold the stretch for 10–30 seconds breathing normally or hold for longer if that feels good. The longer you hold the stretch the more you are affecting the fasciae of the body which are thought to be important in some pain complaints.
- Tune in and listen to your body. Feel free to 'fine tune' the stretch once you are in position.
- You are looking for the sensation of a 'good stretch' not an uncomfortable increase in pain that you need to fight through. If you feel a 'bad pain' back off slightly until the stretch feels comfortable or slowly come out of it.
- Aim to take 10 minutes to do the exercises every day. If you are in pain it can feel good to do them after a warm bath.

##### Gluteal stretch

- Take your knee to your chest, hug and hold.

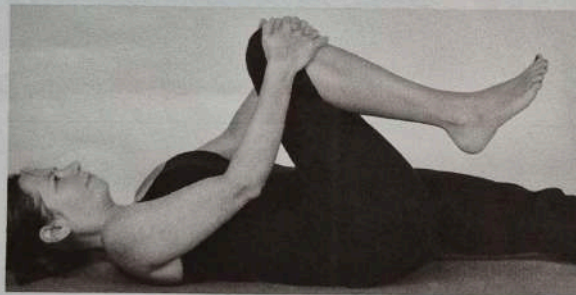


Figure S7.1

- Repeat on other leg. See Figure S7.1

##### Piriformis stretch

The sciatic nerve runs very close to this muscle and some cases of sciatica are caused by the nerve getting trapped at this point.

- Lie on your back. To stretch the left piriformis put your left heel on your right knee.

## Self-care resources

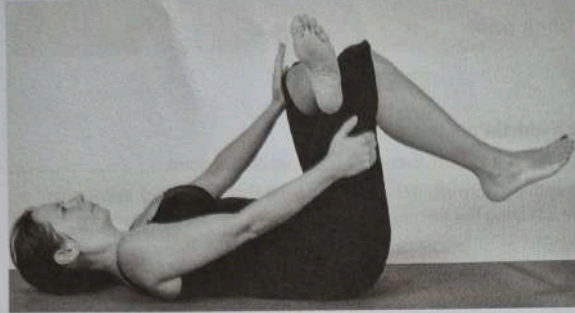


Figure S7.2

- Put your hands through the hole created with your legs and wrap them around your thigh to bring both legs to the chest. You should feel a stretch in your left buttock area.
- 'Fine tune' the stretch so that it is targeting the area that feels good for you. **See Figure S7.2**

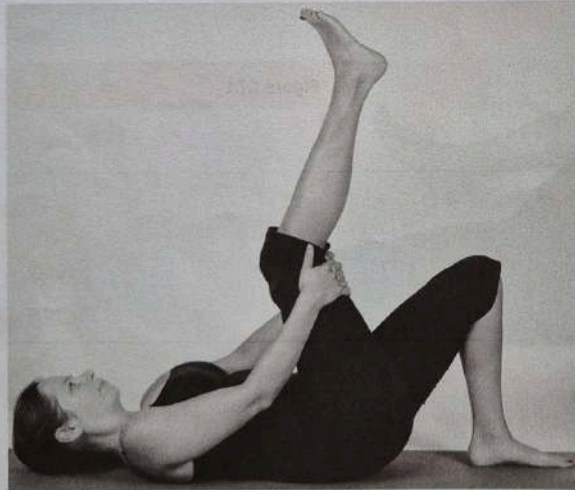


Figure S7.3

## Self-care resources

### Hamstring stretch

- Lie on your back. Take your knee to your chest and wrap your hands around the thigh.
- Now try and straighten the leg to stretch the hamstrings. **See Figure S7.3**

### Spinal twist

- Lie on the floor with your knees up and your feet flat on the floor. Your arms are outstretched.
- On the out breath gently take your knees towards one side while turning your head slowly the other way.
- Just let your knees go as far as is comfortable to feel a gentle stretch in the spine. **See Figure S7.4**



Figure S7.4

### SHEET 8 Active isolated stretches (AIS) for low back pain

The most common form of stretching is static stretching, which is like yoga stretching where you go into the stretch and then wait and hold.

There is another form of stretching called AIS that some people find more effective or enjoyable. The following is a great 10–15 minute stretching protocol for back pain.

#### Steps in AIS

- Take your body part into the stretch **ACTIVELY**.
- At the end of the range of motion use your hands or a belt to increase the stretch slightly for 1.5–2 seconds only.
- Release, go back to the starting point and repeat.
- Do 10 repetitions of 2–3 cycles with a pause in between cycles.

#### AIS for the gluteal muscles

- Lie on your back with your feet on the floor. **See Figure S8.1A**
- Actively take one knee towards the chest.
- When you have gone as far as you can, assist the stretch with your hands around the knee. Hold for 1.5–2 seconds. **See Figure S8.1B**

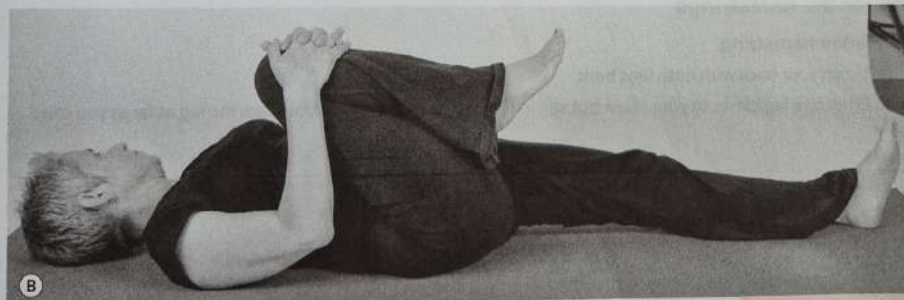


Figure S8.1A,B

## Self-care resources

- Release and repeat. Do 10 repetitions of 2–3 cycles.

### AIS for the piriformis

- Lie on your back. Left leg is straight and right leg is bent in a triangle shape with your foot on the floor.
- Keep the left leg in the same place and now bring the right leg towards you while, at the same time, externally rotating at the hip.
- When you have got as far as you can, put one hand on your foot and the other on your knee and pull the stretch further towards you. Hold for a count of 1.5–2 seconds.

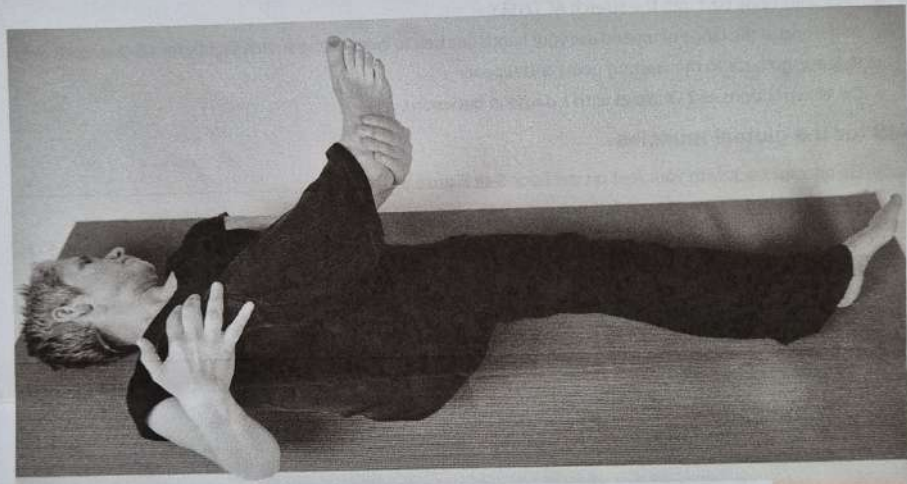


Figure S8.2

- Release and repeat. Do 10 repetitions of 2–3 cycles. **See Figure S8.2**

### AIS for the hamstrings

#### Bent knee hamstring

- Lie on your back with both legs bent.
- Bring one leg closer to your chest but still in the bent position. Now straighten the leg as far as you can.

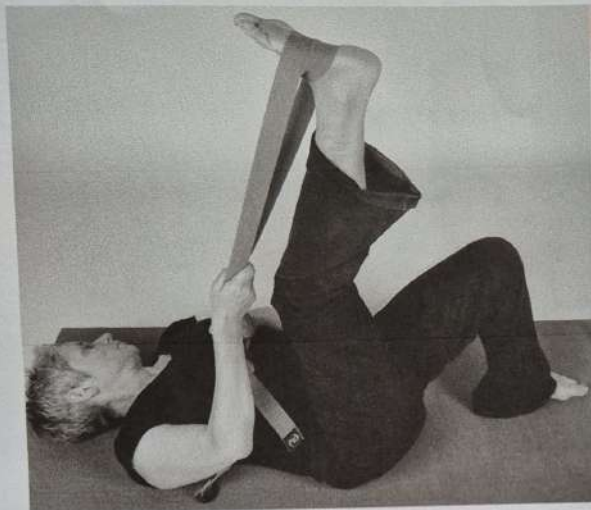


Figure S8.3

- Assist at the end with a rope or belt around your foot and hold the increased stretch for 1.5–2 seconds.
- Release and repeat. Do 10 repetitions of 2–3 cycles. **See Figure S8.3**

**Straight leg hamstring**

- Now lengthen one leg along the floor. Keep the other leg bent with your foot on the floor.
- Take the straight leg up as far as you are able. Assist the stretch at the end with a rope around your foot for 1.5–2 seconds.
- Release and repeat. Do 10 repetitions of 2–3 cycles.

## APPENDIX 7: Figure 4 and 5

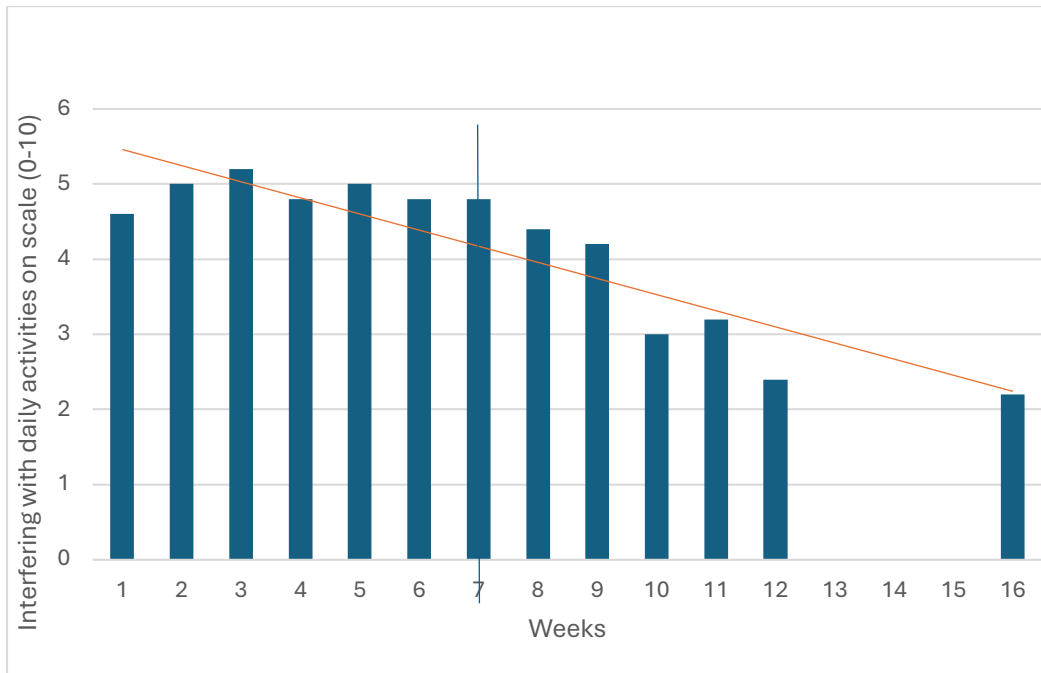


Figure 4: Effects of LBP interfering with daily activities (housework, washing, dressing, lifting, reading, driving).

Weeks 1-6 were the control period and weeks 7-12 were the intervention period. Follow up at week 16. Orange line represents a trend line and blue line at week 7 highlights the difference between the control period and the intervention.

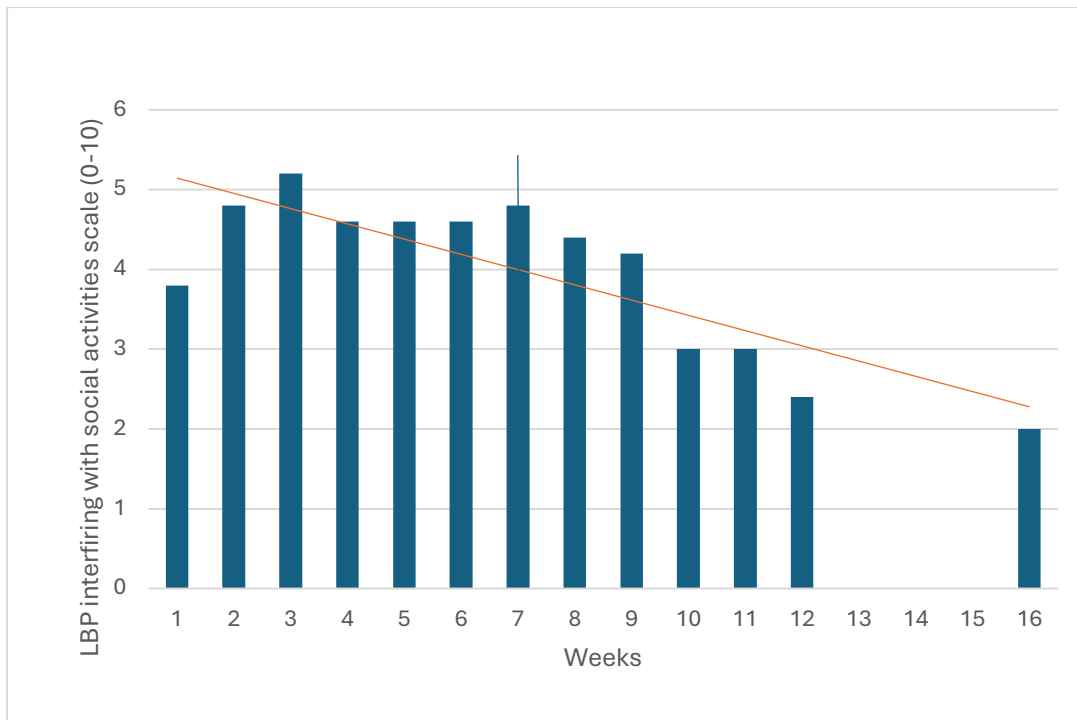


Figure 5: Effects of LBP interfering with the ability to take part in recreational, social and family activities.

Weeks 1-6 were the control period and weeks 7-12 were the intervention period. Follow up at week 16. Figure 4 and 5 shows positive effect of having a massage on a person's life. Orange line represents a trend line and blue line at week 7 highlights the difference between the control period and the intervention.