

Evaluating the effects of the Jing Method of manual therapy on the mental well-being of women with a history of breast cancer

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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. 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”.

Ms Cécile Dumont:

A handwritten signature in blue ink, appearing to read 'Ms Cécile Dumont', with a stylized flourish at the end.

Date: 31/03/24

To Rene and Mary who inspired this study

And to my participants who shared their stories and gave me their trust.



Illustration created for this project by C. Whitten

ABSTRACT

Background: 55,000 women are diagnosed with breast cancer each year in the UK and the survival rate has doubled in the last 50 years. An increase that is to be celebrated but brings into light the necessity to develop a solid support system for survivors as they are often left to face higher levels of depression, stress, and anxiety as a consequence of their diagnosis and treatment. This study aims to evaluate the effectiveness of the Jing Method of Advanced Clinical Massage Therapy on the mental health of women with a history of breast cancer.

Method: A group of 5 women aged 36 to 61 with a history of breast cancer were recruited through social media and word of mouth to participate in the study. The Depression, Anxiety and Stress Scale (DASS-42) was used during a six-week control period to establish a base line for their mental health at the time, and then throughout the six-week intervention period. This study was based on an abbreviated version of the Jing Method Protocol for Stress and Chronic Pain. At week 16, a follow up DASS-42 was completed to review longer term effects.

Results: The study showed an improvement on the average DASS score for the group from 48.6 to 29.6. All the participants experienced a reduction in their level of depression (-4.8), anxiety (-6.4), and stress (-7.8). The reduced scores remained four weeks post intervention with a slight increase observed in depression levels.

Conclusions: This study demonstrated the efficiency of the Jing Method of Advanced Clinical Massage Therapy in reducing depression, anxiety, and stress in women with a breast cancer history, and the multimodal approach adopted was successful. Further research is warranted on a larger scale and with a more diverse group, but these results should encourage manual therapists and cancer care providers that chronic mental distress, pain, discomfort, and

disability are neither acceptable nor inevitable consequences of having had breast cancer treatment.

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ABBREVIATIONS

BC – breast cancer

BPSM – biopsychosocial model of care

DAS – depression, stress, and anxiety

JM – The Jing Method of Advanced Clinical Massage Therapy

MFR – myofascial release

MT – massage therapy

QOL – quality of life

LITERATURE REVIEW

55,000 women are diagnosed with breast cancer (BC) each year in the UK (Macmillan Cancer Support, 2023; Breast Cancer Now, 2023) and 1 in 7 females will be diagnosed with the disease in their lifetime. The survival rate has doubled in the last 50 years with 75% of women surviving for 10 years or more, which can be attributed to NHS screening campaigns, early diagnosis, and improved treatments (Cancer Research UK, 2023). An increase that is to be celebrated but brings into light the necessity to develop a solid support system for survivors beyond their treatment (Carreira et al., 2018; Campbell-Enns and Woodgate, 2015).

The negative impact of cancer does not end with medical treatments (Lovelace et al., 2019; Dunne and Keenan, 2016; Çol and Kılıç, 2019), quite the opposite – 92% of the Life After Cancer community declared finding life after treatment harder than treatment itself. Survivors must face isolation, strained relationships, financial concerns, career uncertainty, and fear of recurrence. Whilst 45% experience anxiety, another 25% experience depression (Life after Cancer, 2023; Burgess et al., 2005).

The impact of a cancer diagnosis goes far beyond the merely physical, and a correlation has been established between support systems and mental well-being. Fong et al. (2017) demonstrated that a decline in social support post treatment is directly connected to an increase in depression, stress, and anxiety (DAS), and highlighted the importance of maintaining high-quality social support for emotional well-being (also see Firkins et al., 2020).

A BC diagnosis marks the beginning of a traumatic experience for a woman – many if not all aspects of her life will be impacted (Brandão, Schulz and Matos, 2017; Hashemi et al., 2020). Multiple emotional, medical, social, and existential demands are to be reconsidered, often resulting in considerable distress (Campbell-Enns and Woodgate, 2015). Research provides compelling evidence that survivors are at elevated risk of developing DAS, neurocognitive and sexual dysfunctions, and of committing suicide (Carreira et al., 2018; Tsaras et al., 2018).

Women diagnosed with BC commonly experience DAS for years after completing cancer treatment, which negatively impacts their treatment outcomes and quality of life (QOL) (Nakamura et al., 2022; Reyes et al., 2012). Yang et al. (2022) and Payne et al. (1999) demonstrated that DAS can and should be anticipated through post-treatment screening whilst Helms, O’Hea & Corso (2008), Triberti et al. (2019) and Schover (1991) listed identity and self-esteem issues, body dysmorphia, and relational upheavals as common consequences of a BC diagnosis.

What can be done to understand survivorship and accompany these women through their cancer journey, to help restore their self-integrity and improve their long-term QOL? Firkins et al. (2020) have confirmed that a survivor’s QOL remains significantly impacted 2 to 26 years after diagnosis, although further research is needed to determine moderators.

Research increasingly supports integrative mind-body therapies to develop effective care strategies after BC treatment (Abushukur et al., 2022; Pinheiro da Silva et al., 2019; Greenlee et al., 2017; de Groef et al., 2015). Left with a physical, psychological, and social burden but no clear long-term support structure, an increasing number of BC patients turn successfully to alternative therapies – massage, acupuncture, meditation, and breathwork

improve post-operative outcomes including pain, fatigue, energy levels, mood, and DAS (Abushukur et al., 2022).

Complementary therapies stimulate a greater motivation to heal and renewed sense of control over their health in patients (Thorne et al., 2002), demonstrating that pain management and mental health support are crucial in achieving recovery. Massage Therapy (MT) and its various modalities reduce both physical and emotional post-operative symptoms of pain, fatigue, anger, and DAS (Abushukur et al., 2022; Fernández-Lao et al., 2015). Myofascial Release (MFR) for instance significantly reduces persistent pain, improves shoulder range of motion and function post BC surgery (Serra-Añó et al., 2019), and QOL (Kim, Park & Lee, 2023).

60% of BC survivors report chronic persistent musculoskeletal pain decreasing their QOL and increasing negative emotions (Pinheiro da Silva et al., 2019). Multimodal rehabilitation protocols using stretching, exercises, massage, and acupuncture have proven beneficial (Cantarero-Villanueva et al., 2012). The different tissue mobilisation techniques used in MT only – deep tissue, MFR, acupressure, trigger points, traction – promote general relaxation and release fibrotic muscles and fascia post BC treatment (Castro-Martín et al., 2017).

A multimodal approach to MT can significantly impact a survivor's journey when a therapist follows the biopsychosocial model of care (BPSM) and incorporates varied rehabilitation skills (Rangon et al., 2022; Melinda Sheppard et al., 2019). Introduced by George Engel in 1977, the BPSM suggests practitioners must consider the complex mind-body threads and social factors to understand a medical condition (Garner et al., 2008). It establishes that psychological, cognitive, social, and biological factors all influence the pain

experience – attitudes, beliefs, socio-economic status, emotions, work, personal life, social inequity all impact physical pain (Fairweather and Mari, 2015). Patient-centred, the BPSM empowers the individual and gives them tools to help themselves (Lebert et al., 2022, Bowen et al., 2021; Perez-Tejada et al., 2019).

The Jing Method of Advanced Clinical Massage Therapy (JM) as described by Fairweather and Mari (2015) encompasses a curated fusion of techniques developed over centuries of bodywork. Following a thorough biopsychosocial consultation and orthopaedic assessment, a JM therapist implements heat therapy, fascial techniques, trigger point and other soft tissue release techniques, acupressure points and advanced stretches within each treatment. They also share self-care, mindfulness strategies, and education on pain and complex pathologies as per their scope of practice.

Fairweather & Mari (2015) listed heat's positive effects in treatment – decreased muscle tightness, increased fascial pliability, reduced rehabilitation time, decreased pain perception, psychological benefits. Nyer et al. (2019) linked heated yoga to a reduction in DAS, hopelessness, and an increase in QOL, whilst Inagaki, Irwin, & Eisenberger (2015) established that physical warmth increases feelings of social connections.

Langevin (2021) established the importance of healthy fascia in well-being, and numerous studies show MFR provides relief from DAS somatic symptoms, making it an essential therapeutic tool (Michalak et al., 2021; Goyal et al., 2017).

Studies reveal that higher anxiety levels correspond to higher numbers of active trigger points (Palacios-Ceña et al., 2017; Çelik and Kaya Mutlu, 2012) and that their treatment contributes to reducing pain sensitivity (de las Peñas et al., 2005) and DAS symptoms (Mehrabian et al., 2022; Vergo et al., 2018; Rigby, 2020).

Further research is needed around the effectiveness of acupressure on mental health, but a meta-analysis has shown it effectively reduces symptoms of mild to moderate DAS (Lin et al., 2022).

Stretching positively affects mental well-being (Imboden et al., 2020; Wipfli et al., 2009) and yoga as a form of therapy can help reconnect the mind-body (Nanthakumar, 2020). A short stretching routine reduces DAS and physical pain and contributes to managing work exhaustion (Montero-Marin et al., 2013).

Breathwork reduces stress in healthy individuals (Ahmed, Devi and Priya, 2021) and triggers relaxation (Aideyan, Martin and Beeson, 2020; Jerath et al., 2015; Lalande et al., 2011). Philip et al. (2022) found that an online breathing and well-being programme improved mental QOL. Self-care can also be self-massage, a gentle stretching practice, body scans or meditation (Zollars, Poirier and Pailden, 2019).

If each element has proved beneficial separately, the fusion of all within each treatment provides the best outcome, as demonstrated by Quayle (2023), Aherin (2023) and Martinez-Perez (2023) when it comes to mental health; and Johnson (2020) and Dutoit (2012) when it comes to BC. This study follows in their footsteps in evaluating the JM impact on physical and mental well-being.

The effectiveness of physical therapy in general and massage in particular in improving impairments post-BC surgery has been demonstrated by larger scale studies (Bahceli, Arslan, and Ilik, 2022; Behzadmehr et al., 2020; Harorani et al., 2023; De Groef et al., 2015) but benefits on BC-related symptoms remain understudied. Further research is required to validate these interventions' effects on a bigger scale and with more certainty (Kannan et al., 2022; González-Rubino, Vinolo-Gil, and Martín-Valero, 2023; Greenlee et al., 2017).

Adopting the JM collaborative evidence-based person-centred approach allows the therapist to form an alliance with their client to co-design personalised care focusing on physical comfort, emotional well-being, and patient empowerment (Fairweather and Mari, 2015). They develop mutual trust, clear communication, patient engagement, and self-care management strategies, giving MT the potential to further reduce the physical and emotional suffering associated with pain (Lebert et al., 2022).

Therapeutic touch positively impacts physical symptoms, significantly improves mental well-being and perceived stress (Naruse and Moss, 2019; Hand, Margolis and Staffileno, 2019), boosts self-confidence, and it reduces suicidal thoughts (Shen et al., 2021) and death anxiety (Kolbadinejad et al., 2023), thus positively impacting physical and emotional QOL simultaneously (Micillo et al., 2020). It also enhances respite and escapism for patients with advanced forms of cancer (Armstrong et al., 2019).

By understanding the complexity of someone's physical and mental pain experience, the therapist can lead them towards better outcomes through meaningful client-therapist connection and self-empowerment (Foley, Steel and Adams, 2020; Killingback, Clark and Greene, 2022). Witnessing a personal biopsychosocial narrative and giving it the space it deserves verbally and non-verbally can help therapist and client to define meaningful goals and the most appropriate intervention.

The benefits of massage on mental health remain understudied – numerous studies provide encouraging results (Naruse and Moss, 2019; Sharpe et al., 2007; Rapaport et al., 2018; Vancampfort et al., 2014) but limited parameters often lead to inconclusive results.

This study observed whether a course of JM hands-on treatments can affect DAS levels in women with a BC history, impact their self-integrity and shift their narrative.

METHOD

Ethical approval was received for the following study from the Jing Institute of Massage & Complementary Medicine in May 2023. (See Appendix 1) The study used a within-subjects design, a more powerful design statistically due to the lack of variation between the individuals in the study - all participants are exposed to the same control conditions and treatments as a group, and each participant is compared to themselves, making it more likely to detect real effects if they exist.

This study comprised a 6-week control period followed by 6 weekly individual hands-on treatments to evaluate the effects of manual therapy on the mental well-being of women with a history of breast cancer.

A group of 5 participants was recruited via social media and word of mouth. (See Appendix 2) All the participants were females aged between 36 and 61 and had completed their course of treatment for breast cancer at the time the project was conducted. It is to be noted that the participants presented with a variety of course of treatments including but not limited to surgery, radiotherapy, and chemotherapy. There also was a wide range in their diagnosis and treatment dates ranging from 2001 to 2023.

Participants completed the Depression, Anxiety and Stress Scale (DASS-42, Lovibond and Lovibond, 1995) prior to the introduction of hands-on treatments. The function of this scale is to assess the severity of core symptoms of depression, anxiety, and stress through a series of 42 questions measuring these negative emotional states through self-reported responses. The DASS-42 questionnaire is a well-established tool that provides not only a way to measure the severity of a participant's symptoms but a means by which a participant's response to treatment can be measured. (See Appendix 3)

Participants were recruited and screened by filling in the DASS-42 to establish whether they qualified for the study. In July 2023, they attended an individual online consultation which included a medical history and an explanation of the whole research process. Consent for the study was obtained and all the participants agreed not to introduce any new form of massage or physical therapy for the duration of the study.

Using the DASS-42 questionnaire (see Appendix 3), each of the 5 participants was scored weekly for a control period of six weeks starting at the end of August and running through September 2023, prior to the start of the interventions, which produced a baseline score for their DAS levels.

The 6 weekly hands-on treatments were conducted at OM Therapy, in Hackney (London), in October and November 2023 using a version of the Jing ‘Stress and Chronic Pain Protocol’ (Fairweather and Mari, 2015) that didn’t incorporate the use of heat nor a self-care programme. (See Appendix 4) Treatments started with an initial 10-minute check-in, lasted 45 min, with 5 minutes at the end for feedback. They were given on the same day and time each week, and 7 days later participants completed the DASS-42.

One of the participants had to miss her session on week 2 and another on week 6 so the process was extended so they could receive the 6 treatments but over 7 weeks.

All participants received a final questionnaire 4 weeks after their last hands-on treatment to observe whether the positive impact of treatment was still apparent.

RESULTS

There was a wide range of DASS-42 scores at the start of the study, with an overall group average of 11.6 for depression, 12.8 for anxiety, and 24.2 for stress. (See Table 1 for scores interpretation.)

According to scores recorded, all participants experienced a reduction in DAS over the course of their sessions. By the end of week 12, the range of scores had reduced with a group average of 6.8 for depression, 6.4 for anxiety, and 16.4 for stress, which represents a reduction of 4.8, 6.4, and 7.8 respectively.

Another questionnaire was sent 4 weeks after the last hands-on session on week 16. No further interventions occurred in this time and the results indicated reduced stress levels (16.4 to 15), similar anxiety levels (6.4 to 6.8) and increased depression levels (6.8 to 8.4).

All levels continued to show a decrease from week 1 bringing the group to normal levels of depression and anxiety and mild levels of stress on the DASS.

	Depression (D)	Anxiety (A)	Stress (S)
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely severe	28+	20+	34+

Table 1. DASS-42 Score Interpretation Source: Lovibond, S. H., & Lovibond, P. F. (1995)

The figures below show the mean data for the 3 markers measured during the research project.

The average score of depression over the 6 weeks intervention period decreased from 11.6 to 6.8, a variation of 4.8.

An increase of 1.6 was observed between week 12 and 16.

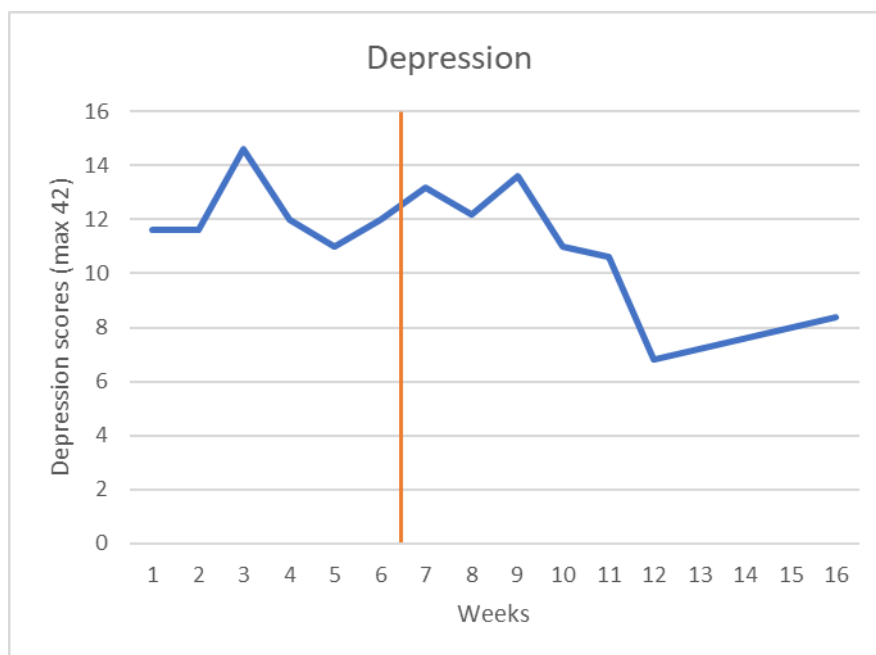


Figure 1: Results of DASS-42 for Depression

The average score of anxiety over the 6 weeks intervention period decreased from 12.8 to 6.4, a variation of 6.4, and remained at similar levels (6.4 to 6.8) between week 12 and 16.

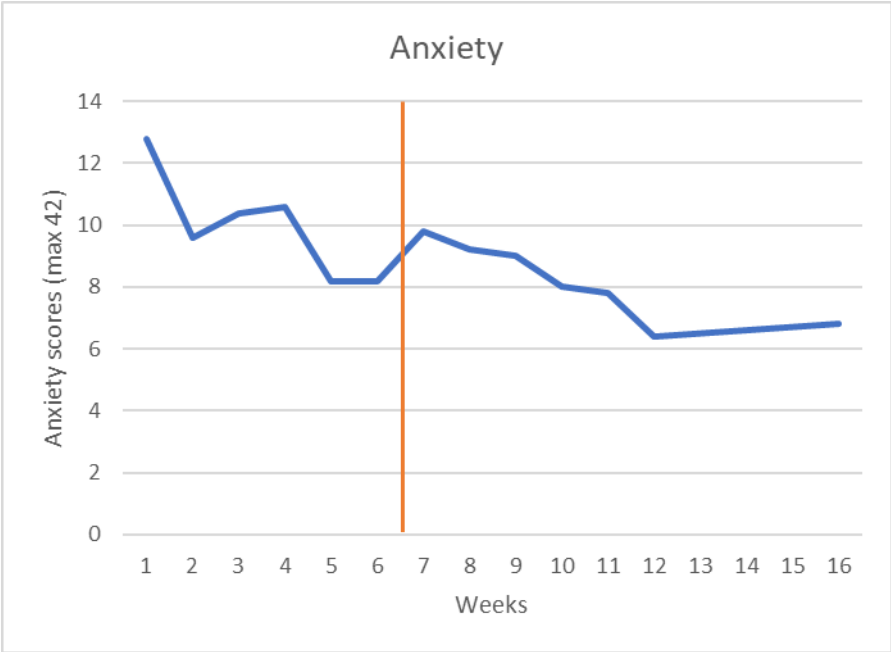


Figure 2: Results of DASS-42 for Anxiety

The average score of stress over the 6 weeks intervention period decreased from 24.2 to 16.4, a variation of 7.8, with a further decrease between week 12 and 16 dropping to 15.



Figure 3: Results of DASS-42 for Stress

DISCUSSION

The results of this study showed that a course of JM hands-on treatments was effective in reducing DAS levels in women with a BC history, as demonstrated by the decrease in all three markers during the 16 weeks of this study, both collectively and individually. This suggests that the intervention led to an improvement in the participants' mental well-being.

The variation between markers in week 1 and week 12 was as follows:

Depression: -4.8 / Anxiety: -6.4 / Stress: -7.8

The variation between markers in week 12 and week 16 (post interventions) was as follows:

Depression: +1.6 / Anxiety: +0.4 / Stress: -1.4

By the end of this study, the group presented normal levels of depression and anxiety, and mild levels of stress as per the DASS-42 score interpretation chart.

These findings are consistent with previous research in demonstrating that massage can improve mental health (Collinge, Wentworth and Sabo, 2005).

The decrease in stress and anxiety levels was superior to the decrease in depression levels. It is interesting to observe that in the control period, all levels showed important weekly variations. The small scale of this study highlights the impact of various life events on the results - a peak in stress levels can be observed post treatment 1 and is attributable to upcoming yearly BC scans and international events (war in Gaza breaking out) as reported by participants. A steady weekly decrease was observed in both stress and anxiety levels once treatments were introduced. A decrease in depression levels is visible from week 9 with a sharp drop between week 11 and 12.

This research was quantitative in focus but the qualitative data collected weekly in check-ins supported the quantitative data collected through the DASS in showing the impact of a cancer journey on all aspects of participants' lives regardless of when they had received their diagnosis, thus confirming that cancer does not end with medical treatments (Lovelace et al., 2019; Dunne and Keenan, 2016; Çol and Kılıç, 2019). Diagnosis and treatments ranged from 2001 to 2023 but all participants reported still experiencing emotional ripple effects to this day. Isolation, anger issues, financial concerns, career uncertainty, fear of recurrence, self-esteem issues, body dysmorphia, and relational upheavals were all mentioned in sessions (Life after Cancer, 2023; Abushukur et al., 2022; Fernández-Lao et al., 2015; Burgess et al., 2005.)

The data collected also confirmed the powerful positive impact that the BPS model combined to regular JM massage sessions and a strong therapeutic alliance can have on reducing DAS, improving self-integrity, and helping participants shift their narratives. Most participants reported in weekly check-ins noticing improved coping skills and an increase in connectedness, whether to their body, emotions, or even life, from week 8 onwards with an increased sense of peace and spaciousness within their body. The progress reported weekly was of both a physical and emotional nature as demonstrated by Thorne et al. (2002), Kim, Park & Lee (2023) and Serra-Añó et al. (2019), and visible in the evolution of the DASS-42 responses. All participants presented with tension if not hypertonicity in various areas of their bodies that gradually improved as sessions progressed with a significant 'before and after' contrast at palpation between week 7 and 12. An improvement in overall comfort, range of movement and breathing patterns was also observed.

Most participants reported managing their stress and anxiety much better by week 10, and generally feeling more grounded and calmer. All participants commented on the limited long-

term support structures available post cancer treatment as highlighted by Fong et al. (2017) and Firkins et al. (2020). 4 out of 5 participants reported wanting to continue JM treatments regularly beyond this study. The 5th one reported she would consider it as and when possible.

Treatments were often perceived as a parenthesis from daily life, both an escape and a reconnection at the same time, teaching some of the participants that they possibly didn't take enough time to care for themselves and process their experiences.

It is interesting to observe that the decrease in DAS levels is more pronounced between week 1 and 6 (control period) than it is between week 7 and 12 (intervention period). All participants repeatedly expressed their gratitude for being able to take part in this study from the initial consultation onwards, and even though hands-on sessions were not introduced until week 7 of the project, the simple act of taking part was reported as empowering and positive. To be offered a safe, non-medical, non-judgemental listening space from the start proved essential in progressively building a strong therapeutic alliance (Smith, et al., 2009; Gillingham, 2017).

Ardito and Rabellino (2011) suggested that the quality of the client–therapist alliance in psychotherapy improved and became a reliable predictor of positive clinical outcome independent of the variety of psychotherapy approaches and outcome measures. One might argue the same when it comes to massage therapy. By promoting the BPSM and a multimodal individualised approach to bodywork so as to place the patient at the centre of their healing journey and empower them by giving them self-care tools, the JM prioritises the therapeutic alliance between practitioner and client, which in turns leads to both physical and emotional positive outcomes as demonstrated by this study and others before (Quayle, 2023; Rigby,

2020; Johnson, 2020). Most participants reported feeling seen, heard, listened to, and cared for in sessions, an experience they had not necessarily had during their BC treatments.

When evaluating the effects of massage therapy on mental health, one can also include the researcher. In this study, the researcher felt deeply moved by both the stories shared in consultation and their manifestations in the participants' bodies. She experienced waves of grief, anger, and sadness during sessions as tissues were released (particularly along the thorax) and had to work on her breathing to stay grounded. It proved very powerful to see analytic data come to life with each participant coming through the door, and it was a privilege to witness these women open to the possibility of care, relaxation, connection, and reconnection. The gratification from earning their trust and being of use alongside the generosity of the participants in sharing their stories proved a powerful tool for the researcher's own mental health as she was navigating the study.

If therapeutic alliance is often considered to the participants' advantage, it seems essential to underline here that a therapeutic alliance works both ways – the researcher observed feeling increasingly empowered as she was empowering participants. Sharing a space of mutual trust, respect, and care should be the very basis of any therapeutic relationship.

Future research around the JM should investigate further the relationship between the therapeutic alliance, mental health, and outcome of massage therapy, and pay special attention to the comparison between patients' and therapists' assessments of the therapeutic alliance as suggested by Gillingham (2017).

The DASS-42 was evaluated as a reliable and valid instrument for its psychometric properties (Imam, 2008). It is a widely recognised scale that allowed this study to highlight how DAS presented themselves in the group as well as in individual participants. It did not,

however, prove popular with them – participants described it as depressing, too long, challenging, intense, and difficult, even though they acknowledged it also provided an interesting source of self-reflection. The DASS-21 might have been better received. Most participants reported often feeling more depressed after going through the scale than prior, finding the experience of answering it a negative one. This confirmed the researcher’s first impression of the DASS-42. Another instrument, the Warwick-Edinburgh Mental Well-being Scale (University of Warwick and University of Edinburgh, 2006), had originally been considered but discarded due to the analytics complexities it presented and to the small scale of this study (it is preferred for groups of 30+ participants).

Participants also reported worrying that their DASS-42 answers would not reflect the improvements experienced daily thanks to the sessions.

The JM Protocol for Stress and Chronic Pain (Fairweather and Mari, 2015) was selected for this study as it featured techniques that seemed particularly appropriate post BC treatment especially the MFR techniques applied to the ribcage. It also offered a grounding and calming approach to each session which seemed particularly adapted to promoting mental well-being. Sadly, the researcher was not able to use heat or to include a self-care programme in this study and had to abbreviate the protocol as presented in Appendix 4. Additional research could be made on the impact of heat within treatment on mental health and how self-care practices can add to the benefits of hands-on sessions, particularly in empowering participants.

The main limitation of this study was its small scale – one researcher and five participants – due to the absence of funding and logistics support. Although there was a form of diversity in participants’ ages (36 to 61), treatment timelines (with diagnosis ranging from

2001 to 2023), and treatment types, all subjects were recruited from the same geographical area of East London and with similar socio-economic statuses. A variety of geographical areas and different socio-economic and ethnic backgrounds would have offered a more complete reflection as this was a homogenous group. Further research is needed to be able to assess the benefits to others.

These findings show that the JM offers a viable option for the treatment of DAS in women with a history of BC. A larger scale study with a more diverse group needs to be undertaken, and possibly a longer study focusing on depression only, but clinical massage therapy in general and the JM in particular have a tremendous part to play in helping BC survivors come to terms with their experience. It also contributes to taking pressure off the NHS, offering clients physical relief, emotional support, and empowering self-care tools all at once in one session.

Another direction to explore would be to investigate ways of combining bodywork and talking therapies – several participants reported finding the consultation time before and after each session and the listening skills offered by the massage therapist very helpful in processing both the treatment itself and their emotional response to it, even though they were also seeing a talking therapist. Mental Health and Cancer charities might fund research and collaboration in this direction. A multimodal therapeutic alliance spanning across various fields of practice connecting all aspects of the mind-body would surely truly prove to be revolutionary for the health care system.

CONCLUSION

This research project set out to highlight the efficiency of the JM in reducing DAS in women with a breast cancer history. The multimodal approach adopted was successful as demonstrated by the decrease in all three markers during the 16 weeks of this study. The qualitative anecdotal data collected also highlighted the positive impact that regular JM massage sessions can have on improving participants' self-integrity and in helping them shift their narratives through a strong therapeutic alliance.

With 55,000 women diagnosed with breast cancer each year in the UK and a rapidly rising survival rate, this study and the ones it built upon are bringing into light the absolute necessity to create and develop a solid support system for cancer survivors far beyond their diagnosis and treatment.

These results should encourage manual therapists and cancer care providers that chronic mental distress, pain, discomfort, and disability are neither acceptable nor inevitable consequences of having had breast cancer treatment.

Additional research is needed on a larger scale and with a more diverse group, and possibly another longer study focusing on depression only due to its more complex nature. A collaborative study observing the effects of a multimodal approach blending the use of the JM and of talking therapies also needs to be undertaken, but clinical massage therapy in general and the JM in particular have a tremendous part to play in helping BC survivors come to terms with their experience, thus contributing to taking pressure off the NHS and adding to the 'village' necessary to support cancer survivors in the long term.

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APPENDIX 1



	CHECKLIST OF INSTRUCTIONS FOR STUDENTS	<input type="checkbox"/>
1	Complete Section 1 to Section 13	<input type="checkbox"/>
2	Electronically sign and date	<input type="checkbox"/>
3	Participation information form	<input type="checkbox"/>
4	Participation consent form	<input type="checkbox"/>

Jing BTEC Research Ethics Form

**BTEC Level 6 –
Professional diploma in advanced clinical
sports massage**

Section 1: to be completed by student

Student's name:	Cecile Dumont
BTEC Year-group:	2022-2024
Date of application:	28/04/2023
Student email address:	cecile.therapy@gmail.com
Title of research project:	Evaluating the effects of the Jing Method of clinical manual therapy on the mental well-being of women diagnosed with breast cancer in the last 5 years

Section 2:

Does your project involve any primary research using human subjects?

Please delete 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? <i>If yes, you must obtain 'external ethics approval' for your proposal before the form can be signed-off by 'Jing' and before you can start your fieldwork.</i>		X
Are you planning to use deception?		X
Are you collecting sensitive personal data such as sexuality, mental health data, etc?	X	

Does your project make use of a validated questionnaire?	X DASS42	
Does your project make use of a new/adapted questionnaire or semi-structured interview checklist?		X

Section 3:

Where is your research being undertaken? In the multidisciplinary clinic where I practice – OM Therapy, Studio 3 & 5, 450 Kingsland Rd, London E8 4AE		
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, see document attached	

Section 4:

How will you recruit subjects for this research study? <ul style="list-style-type: none"> • Promote on social media (my own and the clinic's) – Instagram and Facebook • Word of mouth via existing clients and social networks • Contacting local (breast) cancer charities • Contact local post-breast cancer work out groups • Contacting local GPs to place posters in surgeries
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Section 5:

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

- All data held in relevance with the UK General Data Protection Regulation (UK GDPR) 2022
- Inform clients on initial sign up form that their information will not be available to third parties and not be seen by anyone else than the researcher + will be deleted as soon as the research project is completed
- Client names replaced by letters so they will be anonymous
- All data collected will be stored on password-protected personal computer

Section 6:

1. Outline your project procedure

- Recruit participants to investigate the effects of the Jing Method of clinical manual therapy on the mental well-being of women diagnosed with breast cancer in the last 5 years.
- Issue the Depression, Anxiety and Stress Scale (DASS42) online before holding the initial consultation to assess whether the potential participant qualify for the study in terms of DAS levels
- Hold initial one to one consultations online/over the phone with participants and assign them a letter so as to preserve their anonymity throughout the process. The study will be explained to participants so that consent can be obtained.
- Issue the Depression, Anxiety and Stress Scale (DASS42) online weekly via Google Forms over a 6 week period prior to any hands-on intervention for completion by participants. The results will provide the baseline level of mental well-being within the group.
- The following 6 weeks, weeks 7-12 of the study, participants will come to the clinic once a week for a clinical hour to receive a 45min hands-on treatment based on an abbreviated version of the Jing protocol for stress and chronic pain.
- Treatments will include: acupressure points, fascial work whether direct or indirect, trigger points, breathwork, mobilisation and stretches, teaching self-care techniques. (See attached document for full protocol details)
- Self-care will be a combination of stretches, mobility and mindfulness exercises over the weeks filmed in each session by participants on their own phones for personal reference. The home exercises will not take longer than 5 minutes a day so as to be fitted in easily by participants. Each participant will be required to practice the week's exercise regularly throughout the week.
- Participants will be required to fill in the Depression, Anxiety and Stress Scale (DASS42) 6 days after each hands-on treatment and therefore

prior to the following session. A reminder email will be sent to participants weekly and so as to check compliance.

- The questionnaire will be filled in one last time 4 weeks after the final hands-on treatment.

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

E.g. will they be interviewed? Where, for how long? Will they complete a Questionnaire? Will they receive a treatment intervention? Will they be involved in a group discussion?

- Participants will have to fill in the Depression, Anxiety and Stress Scale (DASS42) to evaluate whether they qualify for this study. In order to qualify for the study, their levels of DAS have to exceed the normal score interpretation.
- Participants will then attend an online/over the phone one to one consultation and the study will be explained to them. This will include completing the consent form, providing basic contact details and a detailed consultation.
- Participants are required to commit to not undergo any other form of manual therapy during the time of the study (16 weeks).
- Participants are required to answer the Depression, Anxiety and Stress Scale (DASS42) once a week for 6 weeks with no intervention.
- Following this, participants are required to attend the clinic once a week for 6 weeks (Weeks 7-12 of the study) for a clinical hour to receive a 45min hands-on treatment based on an abbreviated version of the Jing protocol for stress and chronic pain.
- Participants are also required to perform regularly throughout the week the self-care exercise of maximum 5 minutes that they will be given at the end of each treatment and that they will have filmed on their phone for personal reference. This will be the same exercise routine for each client.
- 6 days after each treatment and prior to the following treatment, each participant is required to fill in the Depression, Anxiety and Stress Scale (DASS42) via Google Forms. The scale for week 12 will be returned 6 days after the last hands-on intervention and a last questionnaire will be sent 4 weeks after the last hands-on intervention.

Section 7:

What sort of materials or stimuli will your participants be exposed to?		
	YES	NO

Questionnaires	X DASS42	
Pictures (will you take a photo of participants)		X
Sounds		X
Words	X	
Other	X	

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

For 'Other' please elaborate:

An abbreviated version of the JING protocol for stress and chronic pain (see attached document) from Fairweather & Mari (2015) *Massage Fusion*

Section 8:

What sort of people will the subjects be?

Women over the age of 18 who were diagnosed with and treated for breast cancer in the last 5 years.

Inclusion criteria:

To be included in this study, participants need to have been discharged by their medical team.

Participants need to present with a score on the DASS42 that is superior to normal and might be affected by any of the following

- anxiety,
- feeling easily low, blue or depressed,
- lack of energy, motivation or curiosity,
- loneliness or sense of isolation,
- lack of self-confidence,
- indecisiveness

- lack of sense of purpose

Exclusion criteria:

- currently undergoing cancer treatments
- pregnancy
- started a new mental health medication within the last month (anti-depressants can take a few weeks to optimize dosage)

Section 9:

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

N/A

Section 10:

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

- Qualified and insured therapist
- Consent must be obtained from **all** participants before they take part in the project.
- Authorisation from the practice to conduct the project within its walls
- Participants details kept confidential and secure
- Researcher to be observant of participants' mental well-being throughout the entire process, whether online or hands-on, and to direct them to other resources if necessary.
- Participant has been discharged by their medical team.
- The toll of a cancer diagnosis goes far beyond the mere physical – both the disease and its diagnosis affect the whole person in their mind, body and spirit and the treatments also impact all aspects of their life be it relationships, finances or work. Extreme sensitivity must be employed when treating clients anywhere along the cancer journey. I am qualified in oncology massage and oncology scar therapy and have worked with clients at various stages of cancer treatments for the past 3+ years.
- I will also create a list of resources to signpost clients who might be in a state of mental distress and need further help available throughout the project.
- Advise and instruct participants carefully when teaching physical self-care

so as to avoid causing pain

Section 11

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

TIP: Personal data (name, addresses etc.) should not be saved whereby they can be associated with the participants' other data.

- Record participants' names, contact details and DOB separately from other notes and material.
- Assign each participant a letter of the alphabet for identification.
- All other data will be in a different file and under the letter of the alphabet they were assigned so as to preserve anonymity.
- All data will be stored securely and password protected on researcher's private laptop.
- All data will be deleted as soon as the study has been completed.

Section 12

Does any of the following apply to your research study?	YES	NO
It requires participants to give information of a personal nature	X	
It involves minors or other vulnerable individuals;		X
It involves paying participants or an alternative incentive to participate		X
It could put you or someone else at risk of injury.		X

Section 13:

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

Student's handwritten signature:

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

Print Name: CECILE DUMONT

Date: 28/04/23

IMPORTANT

Consent

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

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



Evaluating the effects of the Jing Method of clinical manual therapy on the mental well-being of women diagnosed with breast cancer in the past 5 years

STUDENT NAME: Cecile Dumont

STUDY LOCATIONS:

- online: London N16
- hands-on: OM Therapy, Studio 3 & 5, 450 Kingsland Rd, London E8 4AE

Tel: 075 6837 3562

email: cecile.therapy@gmail.com

INFORMATION FOR PARTICIPANTS

Important

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

What will be expected of you, the participant?

- Participants will answer the Depression, Anxiety and Stress Scale (DASS-42) so as to determine whether they qualify for this study.
- Participants will then attend an online/over the phone one to one consultation. This will include completing the consent form, providing basic contact details and health history, lifestyle information and to answer mental well-being related questions.
- Participants are required to commit to not undergo any other form of manual therapy during the time of the study and to inform the researcher if there are any changes in medication during the process.
- Participants are required to answer the Depression, Anxiety and Stress Scale (DASS-42) online via Google Forms once a week for 6 weeks with no intervention.
- Following this, participants are required to attend the clinic once a week for 6 weeks for a clinical hour to receive a 45min hands-on treatment.
- Participants are required to contribute £45 for each hands-on intervention so as to cover the rental cost of the room + equipment and a small fee in exchange for the therapist's hands-on work.
- Participants are also required to perform daily throughout the week the

self-care exercise of maximum 5 minutes that they will be given at the end of each treatment and that they will have filmed on their phone for personal reference.

- 6 days after each treatment and prior to the following treatment, each participant is required to fill in the Depression, Anxiety and Stress Scale (DASS-42) via Google Forms. The scale for week 12 will be returned 6 days after the last hands-on intervention. And a last questionnaire will be sent 4 weeks after the last hands-on intervention.

What does the initial consultation and research study involve? We will have an initial 20 minute one to one video consultation over the phone where we will talk through the study. I will gather your contact info and introduce you to the Depression, Anxiety and Stress Scale (DASS-42), the questionnaire we will be using throughout the 16 weeks of the study. There will be an opportunity for you to ask any questions you might have.

Weeks 1-6 are about evaluating your current mental well-being. You will fill in the questionnaire via Google Forms weekly and these data will provide a baseline for the study. I will send you an email prompt to remind you every week.

Weeks 7-12, you will come and attend a 60 minute session (45min hands-on treatment) once a week. Each session will involve one self-care exercise to practice regularly (ideally daily) between sessions.

During these 6 weeks, you will continue to fill out the questionnaire weekly and I will continue to send you a reminder.

A final questionnaire will be sent to you 4 weeks after our last hands-on session, at which point I will ask that we also have a feedback meeting together where we can discuss what worked for you and what didn't.

The comparison between the data from the control period and the intervention and post intervention period will allow us to measure progress.

Are there any risks involved? There is always a small risk that massage might cause a transient increase in symptoms. There is a very small risk of bruising following treatment or self-care.

What are the potential benefits to you; the participants? Potential for participants to experience an improvement in their general everyday physical and mental well-being.

How the results of the study will be used

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

Confidentiality

All data and personal information will be stored securely in accordance with the terms of the General Data Protection Regulation (GDPR) UK, 2022, and will be accessible only by **CECILE DUMONT**. After completion of the study, all data will be made anonymous (i.e. all personal information associated with your data will be removed). Your data will be anonymous in any written reports, articles, and presentations of the results of the study.

What to do now you have decided to participate

If you would like to participate, please return the following completed consent form to **CECILE DUMONT**.

If you have any further questions, please contact **me** on the telephone number or email address above.

Thank You.



PARTICIPANT CONSENT FORM

Evaluating the effects of the Jing Method of clinical manual therapy on the mental well-being of women diagnosed with breast cancer in the past 5 years

Name of student: Cecile Dumont

<ul style="list-style-type: none"> • I have read the information sheet about this study • I have had an opportunity to ask questions and discuss this study • I have received satisfactory answers to all my questions • I have received sufficient information about this study • I understand that I am / the participant is free to withdraw from this study: • At any time (until such date as this will no longer be possible, which I have been told) • Without giving a reason for withdrawing • That I am free to refuse to answer any question without saying why • That the services I am receiving will not be affected whether I participate or not. • I understand that my research data may be used for a further project in anonymous form, but I am able to opt out of this if I so wish, by ticking here. • I agree to take part in this study 	
Signed (participant)	Date
Name in block letters	
Signed (parent / guardian / other) (if under 18) N/A	Date N/A
Name in block letters: N/A	
BTEC student's contact details (including telephone number and e-mail address):	
Cecile Dumont – 075 6837 3562 – cecile.therapy@gmail.com	

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

EITHER:

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

Signature:**date:**

OR:

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

- YES All necessary statutory, legislative or other formal external approvals have been obtained (e.g., permissions, police checks, external research ethics and governance approvals in the case of research involving NHS staff or patients or Local Authority service providers or users).
- YES The design of this study ensures that the dignity, welfare and safety of the participants will be ensured and that if children or other vulnerable individuals are involved they will be afforded the necessary protection.
- YES I am confident that participants will be given all necessary information before the study, in the consent form, and after the study if necessary.
- YES I am confident the participants' confidentiality will be preserved.
- YES I consider that any risks involved to the student, the participants, and any third party are minimal.
- YES I consider that Departmental approval should be given, since ethical risks have been appropriately addressed in the proposal and I am confident that steps will be taken to minimise any risks.

Signature:  **date:** ...23/5/23.....

If a second opinion was sought from a research ethics expert, the advisor should also sign this form below:

Advisor's name (please print):

Advisor's signature: **date:**

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

APPENDIX 2



Do you have a history of breast cancer?

- Do you suffer from anxiety, depression or high levels of stress?
- Do you feel a sense of isolation, or lack of confidence?
- Do you experience a lack of motivation or curiosity?

If so, you may be able to participate in my research project:

The effects of the Jing Method of manual therapy on the mental well-being of women diagnosed with breast cancer

cécile dumont

I have been a massage therapist for over 8 years and specialise in the treatment of chronic pain, complex pathologies & scar tissue. In 2021 I embarked on the highest qualification in massage therapy in the UK & Europe - the Jing BTEC Level 6 Professional Diploma in Advanced Clinical Massage & Sports Massage.

Developed by celebrated teachers and authors, Rachel Fairweather, BA, AOS, LMT, and Meghan S. Mari, BA, MA LMT, it is recognised internationally. Now in my final year, I would like to help breast cancer survivors to explore the effects of advanced clinical massage therapy on their mental well-being.



what's involved?

- 6 weekly quick online questionnaire (5 to 10 minutes)
- Followed by 6 weekly 1 hour treatments of Advanced Clinical Massage Therapy using a combination of techniques including myofascial release, acupressure, stretches, mobilisation and trigger points
- I have been using these techniques to great effects for years and the protocol in this study has been specifically designed to treat chronic stress, anxiety, pain and depression
- You will need to be over 18 and to have been discharged by your medical team
- Treatments will take place at OM Therapy, Hackney, E8 4AE
- Anticipated start: mid August 2023 for the questionnaire, treatments late September 2023
- Cost: treatments will be delivered for free but donations towards the cost of the room rental will be gratefully accepted when possible

talk to me

If you are interested in being a part of this study to help yourself & potentially others, please get in touch:

cecile.therapy@gmail.com



APPENDIX 3

<h1 style="margin: 0;">DASS</h1>		Name:	Date:
<p>Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.</p> <p>The rating scale is as follows:</p> <p>0 Did not apply to me at all 1 Applied to me to some degree, or some of the time 2 Applied to me to a considerable degree, or a good part of time 3 Applied to me very much, or most of the time</p>			
1	I found myself getting upset by quite trivial things	0	1 2 3
2	I was aware of dryness of my mouth	0	1 2 3
3	I couldn't seem to experience any positive feeling at all	0	1 2 3
4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1 2 3
5	I just couldn't seem to get going	0	1 2 3
6	I tended to over-react to situations	0	1 2 3
7	I had a feeling of shakiness (eg, legs going to give way)	0	1 2 3
8	I found it difficult to relax	0	1 2 3
9	I found myself in situations that made me so anxious I was most relieved when they ended	0	1 2 3
10	I felt that I had nothing to look forward to	0	1 2 3
11	I found myself getting upset rather easily	0	1 2 3
12	I felt that I was using a lot of nervous energy	0	1 2 3
13	I felt sad and depressed	0	1 2 3
14	I found myself getting impatient when I was delayed in any way (eg, elevators, traffic lights, being kept waiting)	0	1 2 3
15	I had a feeling of faintness	0	1 2 3
16	I felt that I had lost interest in just about everything	0	1 2 3
17	I felt I wasn't worth much as a person	0	1 2 3
18	I felt that I was rather touchy	0	1 2 3
19	I perspired noticeably (eg, hands sweaty) in the absence of high temperatures or physical exertion	0	1 2 3
20	I felt scared without any good reason	0	1 2 3
21	I felt that life wasn't worthwhile	0	1 2 3

Please turn the page →

Reminder of rating scale:

- 0 Did not apply to me at all
- 1 Applied to me to some degree, or some of the time
- 2 Applied to me to a considerable degree, or a good part of time
- 3 Applied to me very much, or most of the time

22	I found it hard to wind down	0	1	2	3
23	I had difficulty in swallowing	0	1	2	3
24	I couldn't seem to get any enjoyment out of the things I did	0	1	2	3
25	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
26	I felt down-hearted and blue	0	1	2	3
27	I found that I was very irritable	0	1	2	3
28	I felt I was close to panic	0	1	2	3
29	I found it hard to calm down after something upset me	0	1	2	3
30	I feared that I would be "thrown" by some trivial but unfamiliar task	0	1	2	3
31	I was unable to become enthusiastic about anything	0	1	2	3
32	I found it difficult to tolerate interruptions to what I was doing	0	1	2	3
33	I was in a state of nervous tension	0	1	2	3
34	I felt I was pretty worthless	0	1	2	3
35	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
36	I felt terrified	0	1	2	3
37	I could see nothing in the future to be hopeful about	0	1	2	3
38	I felt that life was meaningless	0	1	2	3
39	I found myself getting agitated	0	1	2	3
40	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
41	I experienced trembling (eg, in the hands)	0	1	2	3
42	I found it difficult to work up the initiative to do things	0	1	2	3

APPENDIX 4

An abbreviated version of the Jing Method Protocol for stress and chronic pain

(from Fairweather & Mari (2015) Massage Fusion)

SUPINE

- Cranial hold
- Neck work including cervical mobilisation and neck stretches
- Acupressure points GV20 and CV17
- MFR cross hand stretches to pectorals
- Fascial arm pull with acupressure point Ht8
- Working the conception vessel
- MFR solar plexus transverse fascial plane release
- Working with the diaphragm
- Stripping the intercostals
- Fascial leg pull

PRONE

- MFR cross hand stretch to sacrum
- Grounding and relaxation work with double palming technique along paraspinals
- MFR cross hand stretch to trapezius
- Power effleurage and deep forearm work all along torso
- Trigger point release along trapezius
- Grounding and relaxation work with therapist's forearms resting on each side of the client's spine
- Acupressure point Ki1 for grounding