Evaluating the effects of the Jing Method™ online on Long COVID symptoms in adults over the age of 30

Prisca Andersen

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

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

Ms Prisca Andersen: 

Date: 16/03/2026

Acknowledgements

Since starting this course, I've had to take several months off due to chronic illness and spent countless days trying to come to grips with what it means to live with a chronic condition, failing and trying to get it right many times. I attended 2 funerals and had to miss 2 others, due to being ill. I supported my partner through the loss of his best friend and had to work hard to crawl out of some pretty dark places myself - what I call "the mind dungeons".

I found out I may have one neurodivergent and one hormonal health condition, which might explain why I have a hard time where other people seem not to. I watched my 8-year relationship crumble to the ground and spent a year and a half fighting hard to rebuild it. I worked 6 different jobs and quit 3 of them.

All this not to say "poor me", but to say that life is a mad rollercoaster with no breaks and that the only thing that got me through was to hang onto the people who make the ride worth it, as hard as I could. I'm so, **SO** grateful to all the people who helped me get through this course and this phase of my life.

If you're reading this and you're wondering whether you can do it, whatever "it" is, the answer is YES.

Find your people.

Hold on tight.

ABSTRACT

Background: Approximately 6% of people who contracted COVID-19 worldwide are believed to have developed Long COVID, a long-term illness that can affect many systems in the body, resulting in a constellation of symptoms that can restrict people's ability to perform daily activities. This study measured the effects of the Jing Method™ online on three Long COVID symptoms: dyspnoea, fatigue and cognitive disturbances.

Method: Participants were recruited online and completed a screening questionnaire to determine eligibility. The study followed a "within subjects" design, using a 6 week control period, followed by a 6 week intervention period. Throughout the study, participants completed a weekly questionnaire, using the C19-YRS validated instrument. Each intervention consisted of a weekly Zoom call, where participants were guided through a Jing Method™ protocol, adapted for an online setting.

Results: The data from this study shows a slight reduction in symptoms, which was more pronounced in the weeks where participants adhered to the aftercare exercises more strictly. Dyspnoea and cognitive difficulties showed a greater decrease in severity compared to fatigue. Anxiety, which was part of the secondary data, showed a significant decline.

Conclusions: This study shows a promising avenue for further research, especially since public services providing support for Long COVID sufferers are being reduced. Clinical massage and complementary therapies can have a large role to play in supporting people with these types of chronic conditions and this calls for further research to be done in this field and for this type of study to be replicated, so that more robust findings may be observed.

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ABBREVIATIONS

HRV = Heart Rate Variability

JM = Jing Method™

LC = Long COVID

MT = Manual Therapy

PEM = Post-Exertional Malaise

LITERATURE REVIEW

What is Long COVID?

Long COVID (LC) is a condition that emerged during the COVID-19 pandemic (Koc et al., 2022) which appears after being infected with the SARS-CoV-2 virus and is generally characterised by symptoms persisting 12 weeks after infection (Greenhalgh et al., 2024; NHS, 2023). As this a relatively new illness, it is still not fully understood why the symptoms persist (NIHR, 2022) and there is a lack of consensus on the condition's name, type of symptoms, how long after infection people are considered to be affected by the condition, and recovery time, as shown in Table 1 below:

Table 1: Examples of Long COVID definition, symptoms, estimated recovery time, and patient type

Name	Definition	Primary symptoms	Estimated recovery time	Population affected	Author/Source
Post-COVID condition	"Individuals with a history of probable or confirmed SARS-CoV-2 infection, usually 3 months from the onset, with symptoms that last for at least 2 months and cannot be explained by an alternative diagnosis"	Including, but not limited to: fatigue, cognitive disturbances and shortness of breath, affecting everyday activities.	Symptoms may persist after the first initial recovery from an acute COVID-19 infection, or appear after reinfection. They may fluctuate or relapse (no clear estimate of recovery).	Women are more affected than men and the incidence of persistent symptoms increases with age.	WHO / Delphi Consensus (Soriano et al. 2022)

Name	Definition	Primary symptoms	Estimated recovery time	Population affected	Author/Source
Long COVID	“3 months after infection, whether consistent or relapsing and remitting, is the earliest that symptoms can be designated as Long COVID”	Ongoing fatigue, mood and cognitive disturbances, body aches, and respiratory issues.	Symptoms may disappear within a few months, years, or stay indefinitely.	Can affect anyone regardless of age, sex, ethnicity, disability, socioeconomic status or location.	NASEM (NASEM, 2024: pp. 41-53)
Long COVID or post COVID-19 syndrome	Symptoms persisting longer than 12 weeks.	Extreme fatigue, shortness of breath, cognitive issues (brain fog) affecting memory and concentration, palpitations, dizziness, joint pain and myalgia.	Varies for everyone. Some symptoms may persist, while others disappear. The recovery time and severity of symptoms experienced in the acute infection, does not determine the likelihood of having persistent symptoms.	Not mentioned	NHS (NHS, 2023)
Postacute sequelae of SARS-CoV-2 infection (PASC)	“Ongoing, relapsing, or new symptoms or conditions present 30 or more days after infection”	“Postexertional malaise, fatigue, brain fog, dizziness, gastrointestinal symptoms, palpitations, changes in sexual desire or capacity, loss of or change in smell or taste, thirst, chronic cough, chest pain, and abnormal movements”	Not mentioned	Higher and more severe incidence among people infected before the Omicron variant.	Thaweethai et al. (2023)

In a meta-analysis published in 2025, O'Mahoney et al. (2025) identified several potential mechanisms underlying LC, including immune dysregulation, microbiome imbalance, autoimmunity and immune pruning, abnormalities in blood clotting and endothelial function, and disrupted neurological signalling, highlighting the complexity of the condition and emphasising the need for further research due to its novelty. Figure 1, gives an overview of the extent of the impact that the virus can have on the body:

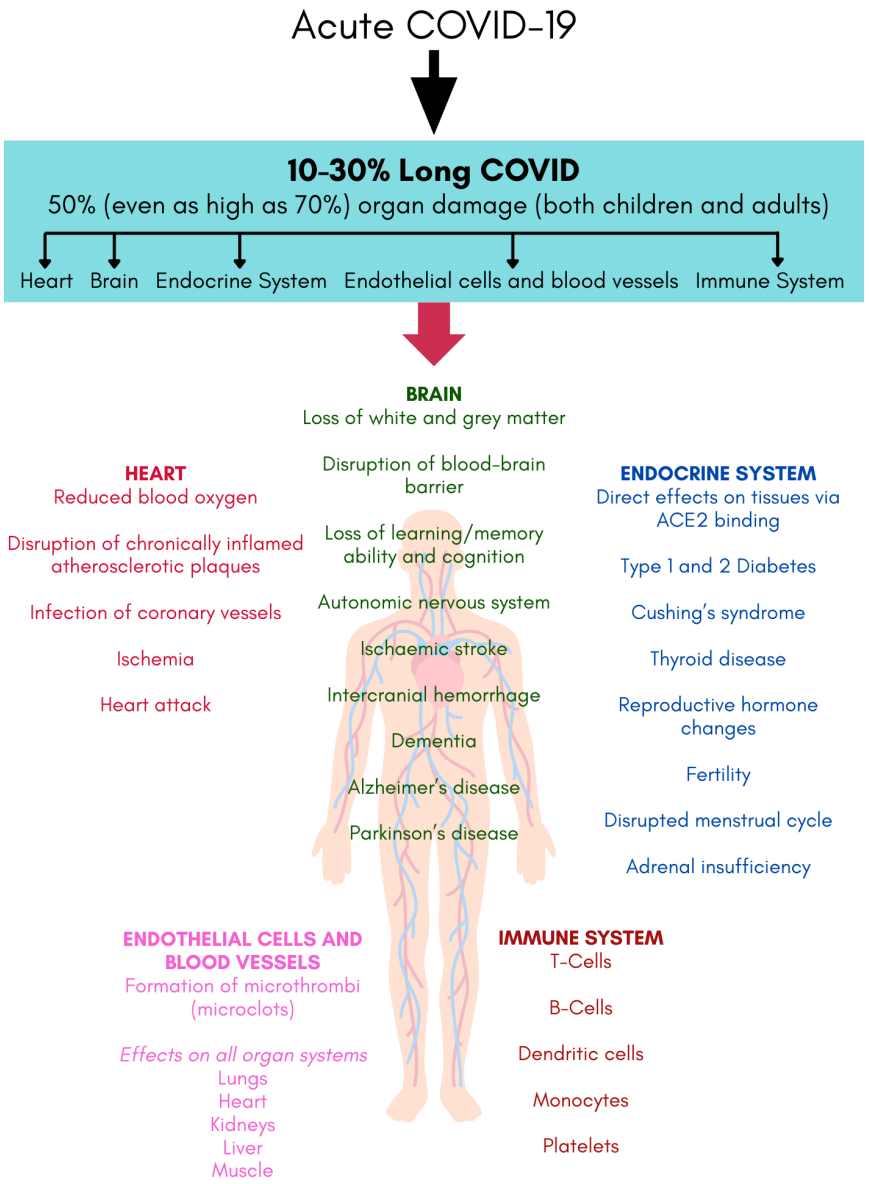

Figure 1: Overview of effects of COVID and Long COVID on organ systems (adapted from Ewing et al., 2025)

Long COVID symptoms

According to the World Health Organization, over 200 LC symptoms have been identified, with the most prevalent being breathlessness, fatigue, muscle and/or joint pain and sleep disturbances (WHO, 2023). However, of the many studies that have tried to map the most prevalent symptoms of LC, many seem to reach different conclusions based on the section of population being studied (Thaweethai et al., 2023; Global Burden of Disease Long COVID Collaborators, 2022; Koc et al., 2022; Bai et al., 2022; Lechner-Scott et al., 2021; O'Mahoney et al., 2025; Danesh et al., 2023; Davis et al., 2021).

It is estimated that approximately 6 in every 100 people worldwide develop LC after contracting the virus (WHO, 2023). In the UK, the people most affected by this condition are women, people aged 35-69, people living in what might be considered deprived areas, unemployed people, people working in social care and people already limited by another condition or disability (ONS, 2023). The Office for National Statistics estimates that around 2 million people in the UK have experienced LC symptoms lasting more than 4 weeks after their COVID-19 infection (ONS, 2023), but does not have data showing how many people in the UK have had symptoms lasting over 12 weeks.

When discussing multiple studies conducted on participants with LC, across different countries, Ramakrishnan et al. (2021) identified dyspnoea (breathlessness), fatigue and neurological impairment as the most persistent symptoms at follow-up, among the majority of COVID-19 study participants. Carfì et al. (2020) warn that a lack of symptom history, prior to contracting COVID-19, may prevent researchers from drawing accurate conclusions

on which symptoms persist after infection. However, there is enough evidence to show that these three symptoms keep flagging up in LC research, which is why this study will focus on investigating these.

Dyspnoea (breathlessness)

Dyspnoea, or breathlessness, is the awareness of discomfort experienced when breathing (Coccia et al., 2016), which appears to persist in LC sufferers, despite not being measurable as impaired lung function (Guinto et al., 2023), nor explained by cardiopulmonary limitations (Mohr et al., 2021). Mazzonetto et al. (2025) note that dyspnoea itself can cause extreme fatigue and create difficulties when doing things as simple as walking or talking.

Fatigue

Tsilingiris et al. (2023) note that many LC sufferers experiencing chronic fatigue share a strong similarity to people suffering from Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) and other post-viral illnesses, in terms of clinical manifestation. Some recent theories suggest that COVID-19 may activate other latent viruses that cause chronic fatigue and myalgia, such as the Epstein-Barr virus (Antar and Cox, 2024). Two patterns of fatigue are prevalent in LC sufferers: chronic fatigue and post-exertional malaise (PEM), with the former being characterised by a relentless, severe lack of energy and the latter being described as a diminished capacity to cope with physiological, psychological and environmental challenges (Perumal et al., 2023). This study will group both types under the label “fatigue”, seeing as both types result in tiredness.

Neurological Impairment (brain fog)

In a 2022 study, Monje and Iwasaki (2022) labelled long term cognitive symptoms as some of the most distressing consequences of LC, affecting attention, concentration, memory, speed of information processing, and executive function. Holdsworth et al. (2022) compared the cognitive deficit caused by LC to that caused by the impairment experienced at the UK drink driving limit, or by 10 years of ageing. Although research on the cause of these symptoms is ongoing, it is thought that they are due to ongoing neuroinflammation, immune system dysregulation with autoimmune features, viral persistence and microvascular clot formation that impairs cerebral blood flow (Perumal et al., 2023). Fernández-Castañeda et al. (2022) liken these symptoms to those often experienced by people undergoing cancer therapy ("chemo fog").

Why research the effects of clinical massage on LC symptoms?

As the specific causes of LC are still being established, this often leaves sufferers feeling isolated and lacking support for managing their symptoms (Brown et al., 2022). In a paper from 2024, Greenhalg et al. (2024) note that:

"despite thousands of academic papers (including 170 systematic reviews) mentioning "long COVID", "post-acute (sequelae of) COVID-19", "chronic COVID-19", or "post-COVID-19 condition" in their titles or abstracts, many clinicians remain unsure of how to evaluate and manage individuals with post-COVID-19 condition".

It is critical, notes Farrar, that we start valuing the importance of non-pharmacological interventions (Farrar, cited in Sarchet, 2025), to which Resta et al. (2024) add that finding rehabilitation settings for COVID-19 patients that are outside of hospitals is necessary.

With many LC clinics closing down in the UK due to lack of funding (Long Covid Support, 2025), and with as many as 51% of adult patients being discharged from LC clinics despite having ongoing symptoms (O'Hara et al., 2025a), it is important to investigate alternative approaches for tackling what has been described by two of the biggest LC charities as a growing public health crisis (O'Hara et al., 2025). As such, this research project aims to find out if clinical massage can provide relief from LC symptoms, using a Jing Method™ (JM) approach, adapted to an online setting.

The importance of manual therapy (MT) for treating many medical symptoms has been supported by various studies over the years, such as Moyer, Rounds and Hannum (2004); Charles et al. (2019); Kalichman (2010); Zhang et al. (2022). Some studies have shown promising results when it comes to using MT for the improvement of symptoms of breathlessness and fatigue not caused by LC (Ahmad et al., 2023; Ratajska et al., 2020) and some authors have identified how complementary therapists are in a unique position to be able to support LC sufferers (Harrison, 2021; Werner, 2020). This suggests that exploring these treatment approaches for LC-related symptoms could be beneficial, underscoring the relevance of this research study. Furthermore, as LC has been the subject of a Jing research study only once before (Ciencia, 2023), it is important to test the JM on LC, in the hope that it might pave the way for further research.

What is the Jing Method™?

The JM is an outcome-based approach to clinical massage which blends a variety of different massage and soft tissue techniques to address chronic musculoskeletal pain (Jing Institute of Massage and Complementary Medicine, 2025). Since its inception in 2003, Jing has gone on to support research that addresses systemic conditions, ranging from Parkinson's (Pierre, 2016), to Menopause (Hyde, 2021; Hurworth, 2023; Mitchell, 2023), to Multiple Sclerosis (O'Neil, 2021), to sleep disturbances (Meyer, 2021), to stress, anxiety and depression (Casadei, 2023), asthma (Goulding, 2015; Miller, 2023), LC (Ciencia, 2023), and many others, all yielding promising results and helping expand the scope of what symptoms can be alleviated with clinical massage, delivered both in person and online.

Central to the JM is the reliance on the Biopsychosocial model and the importance of a therapeutic alliance. First proposed by Engel (1977), the Biopsychosocial (BPS) model emphasises the influence of biological, psychological, and social factors on an individual's recovery. Since then, many researchers have come to confirm that the experience of pain is shaped not just by what's happening in the tissues, but also by our psychology and environment (O'Toole et al., 2018; Fillingim et al. 2025) , and that person-centred care must inform how we treat illness moving forward (Salduker et al., 2019; Bolton, 2023; Dunn et al., 2024; Moseley, 2007; Seyed Alitabar, 2025; Kasongo et al., 2023, WHO, 2015, Klinkhammer et al., 2024; Kovačević et al., 2024). Fairweather & Mari (2015, p. 56-58) note that there is also more and more evidence suggesting that having a strong therapeutic alliance with a client is strongly linked to them having a positive treatment outcome, further supported by

Gillingham's (2017) study, which focused specifically on the impact of the JM in conjunction with a positive working alliance.

The model used to implement the JM is called the HFMAST model, which is an acronym standing for **H**eat (or cold), use of **F**ascial techniques, treating all **M**uscles around an affected joint, using **A**cupressure points, **S**tretching and **T**eaching self-help strategies (Fairweather & Mari, 2015, p.6). The JM recommends using six consecutive treatments in order to have an impact on a person's pain (Fairweather & Mari, 2015, p.6), which is why this and previous JM studies include a six-week intervention stage. The use of a six-week intervention for improving symptoms in patients with LC is further supported by two other studies, (Liu et al., 2020; Philip et al., 2022), indicating that an intervention stage of that length can be enough to make a difference in people's LC symptoms.

Table 2, below, provides evidence as to why each element of the HFMAST model might have an impact on LC symptoms:

Table 2: HFMAST model and relevance for Long COVID symptoms

Author/Source	**Research Outcome / Conclusion**	**HFMAST Element and Which Symptom It May Affect**

Cohen (2020)	Heat-based treatments may offer physiological advantages and provide psychological support for individuals experiencing symptoms associated with COVID-19	Heat for dyspnoea, fatigue and cognitive impairment
Kim et al. (2020)	Heat therapy may support the rehabilitation of people suffering from chronic disability and muscle weakness, thanks to its effects on muscle strength enhancement, capillary growth and mitochondrial biogenesis	Heat for fatigue
Vagedes et al. (2025)	Preliminary evidence shows that heat therapy, as part of a multimodal treatment approach, may be effective for the following LC symptoms: fatigue, breathlessness, mood disturbances, post-exertional malaise and palpitations	Heat for fatigue and dyspnoea
Plaut (2023)	Acute COVID-19 may contribute to the development of myofascial and connective tissue fibrosis, through sustained immune activation and inflammatory signalling. These processes are hypothesised to disrupt normal fascial remodelling mechanisms and promote increased fibroblast and myofibroblast activity within the extracellular matrix, potentially leading to structural alterations and tissue stiffening (fascial armouring)	Fascia for fatigue and dyspnoea. If the fascial armouring theory is correct, and can be improved by myofascial release techniques, this could lead to relief in muscles and tissues surrounding the chest, potentially facilitating breathing
Thomaz et al. (2024)	Myofascial release techniques have been shown to improve blood flow and reduce fascial tension, which may help alleviate severe fatigue and dyspnoea. These symptoms are often associated with diminished exercise tolerance, potentially resulting from impaired microvascular function and decreased muscle strength	Fascia for fatigue and dyspnoea
Lv & Yin (2024)	Myofascial release may offer a viable, non-invasive method for the rehabilitation of neurological impairment	Fascia for cognitive impairment
Author/Source	**Research Outcome / Conclusion**	**HFMAST Element and Which Symptom It May Affect**
Yilmaz Yelvar et al. (2016)	In patients with severe chronic obstructive pulmonary disease, symptoms of dyspnoea, fatigue,	Massage for fatigue and dyspnoea

	elevated heart and respiratory rates were positively affected, after just one manual therapy session, resulting in improved pulmonary function, inspiratory muscle strength and oxygen saturation	
Cantarero-Villanueva et al. (2012)	Symptoms of fatigue, tension and depression were reduced through a combination of core stability exercises and massage, resulting in enhanced physical vitality and muscular strength	Massage for fatigue and potentially also cognitive impairment, as mood can be affected
Peng et al. (2024)	Acupressure may offer positive treatment outcomes for anxiety caused by LC	Acupressure - it might not affect the chosen symptoms directly, but has been shown to positively affect the nervous system and so may create beneficial effects
Yang et al. (2023)	Acupressure offers beneficial effects in the management of symptoms for people suffering from mild COVID-19 (Omicron variant)	Acupressure may present benefits for all three symptoms, as the study notes that it reduced the severity and length of symptoms across participants
Sun et al. (2021)	Acupressure may improve cognitive functions	Acupressure for cognitive impairment
Jeong et al. (2024)	Using a 4-week program containing stretching and breathing exercises greatly improved respiratory function in post-COVID patients	Stretching for dyspnoea
Author/Source	**Research Outcome / Conclusion**	**HFMAST Element and Which Symptom It May Affect**
Bernal-Utrera et al. (2022)	Telerehabilitation using combined aerobic, respiratory and low-load strength exercises appears to be a safe and effective approach for supporting	Stretching/Teaching for dyspnoea

	recovery from both short- and long-term post-COVID-19 symptoms	
Vieira et al. (2022)	A telerehabilitation exercise programme may improve functional capacity, lower limb performance, breathlessness and quality of life	Stretching/Teaching for dyspnoea
Krishnan et al. (2022)	Educating patients about lifestyle changes and tools that support optimal health, in the form of stress management, sleep quality and exercise, is essential for the management of chronic illnesses such as LC and brain fog	Teaching for cognitive impairment

Using an online modality for LC sufferers

As LC research on its effects and treatment options is still emerging (Castanares-Zapatero et al., 2022; Zambrano et al., 2024), there is an evolving amount of literature pointing to the effectiveness of online treatment modalities, which take into consideration that patients suffering from LC might not have the physical ability to attend treatment sessions in person (Buabbas et al., 2022; Zeraatkar et al., 2024; McGregor et al., 2024; Lai et al., 2024; Estebanez-Pérez et al., 2023) . Other treatment options, like the ENO Breathe programme, a 6-week recovery programme available through the NHS, showed positive results by combining rehabilitation exercises and online social interaction (English National Opera, 2021), with the added effect of helping people not feel as alone (Harrison, 2021). Some researchers do, however, also warn of the limitations of an online-based approach, as there is not enough research out there to draw specific conclusions (Bernal-Utrera et al., 2022; Vieira et al., 2022; Calvache-Mateo et al., 2023; Yang et al., 2024).

A variety of Jing studies have successfully employed an online methodology with positive outcomes (the list is not exhaustive: Allen, 2021; Davies, 2021; O'Neil, 2021; Meyer, 2021; Watson-Bance, 2021; Aherin, 2023; Hurworth, 2023), so the use of an online methodology in this study is supported by the existing literature, with the acknowledgement that there may be limitations with this choice of method.

METHOD

This study aimed to explore whether a JM protocol and weekly self-care exercises, delivered online, could help alleviate LC symptoms, using the COVID-19 Yorkshire Rehabilitation Screening questionnaire (C19-YRS) (Appendix G), a validated instrument for measuring LC symptoms, which was chosen as a means of building on the existing JM body of evidence on LC (Ciencia, 2023). This questionnaire asks respondents to rate the severity of their symptoms in the present ("Now") and how they felt about the same symptom prior to contracting COVID-19 ("Pre-COVID").

Participants were recruited via online means (LC forums, Facebook support groups and therapists groups), as well as using a paper flyer (Appendix D) distributed around Brighton and Hove. Out of 110 applicants who completed the screening questionnaire, 50 people were eligible to participate, but only 27 enrolled. By week 16, only 11 participants remained, who were able to complete the study. Figures 2-4 show participants' gender, age group and location:

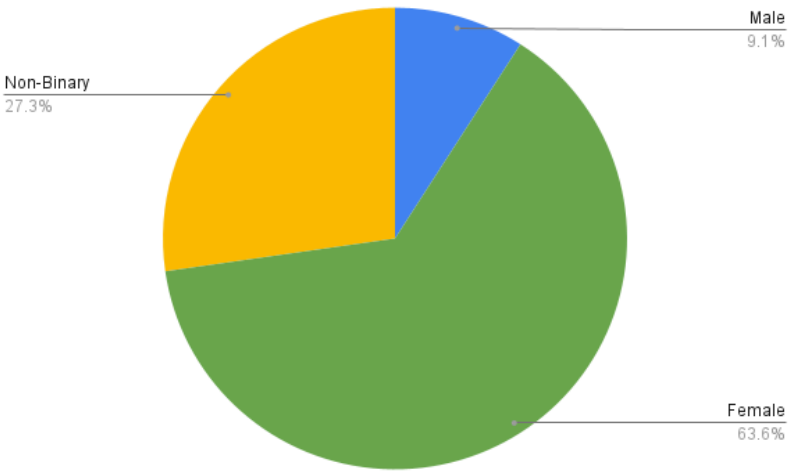

Figure 2: Participant distribution by gender

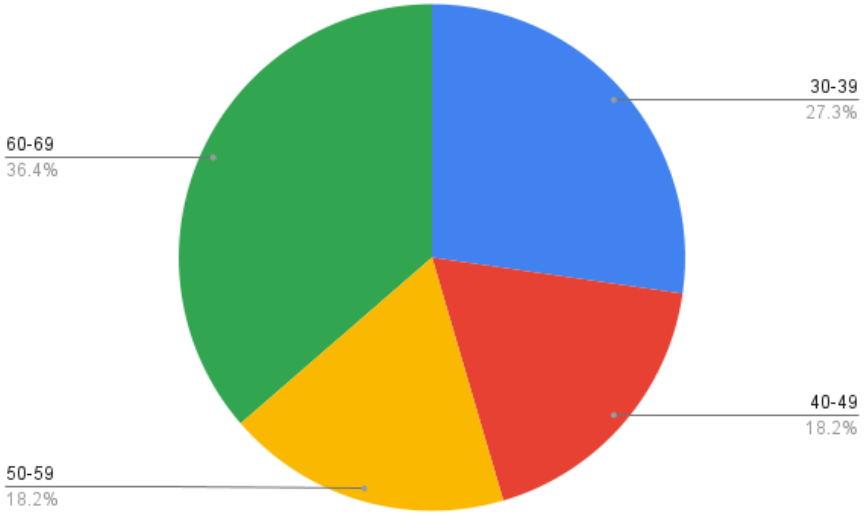

Figure 3: Participant distribution by age

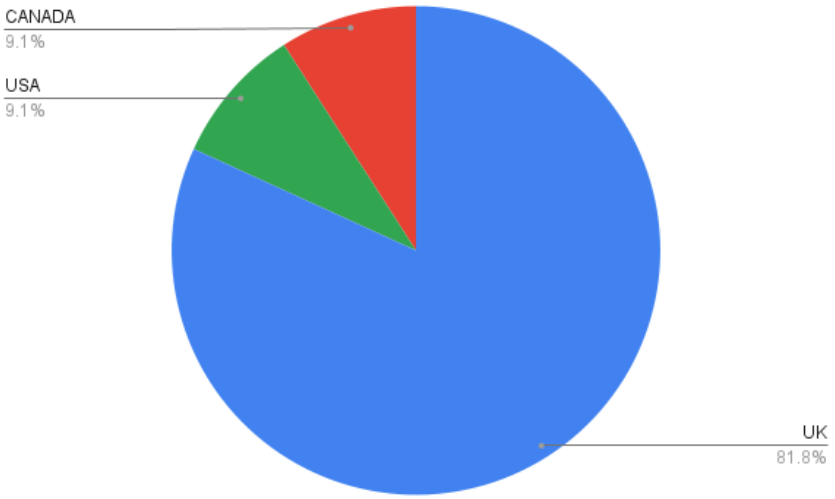

Figure 4: Participant distribution by location

The study followed a within-subjects design, using a 6 week control period, followed by a 6 week intervention period. Participants were required to fill out a weekly questionnaire

throughout the study (12 weeks) and then a final questionnaire at week 16, to see if the results had persisted after the end of the intervention period. All participants consented to take part and ethical approval was obtained before the start of the study. Each participant also participated in an introductory call, lasting roughly 30 minutes and received a "Frequently Asked Questions" document, provided by the researcher (Appendix E).

During the intervention phase (weeks 7-12), participants joined a weekly Zoom call of 40 to 60 minutes and were guided through a combination of techniques (see Appendix F for the full protocol). During this phase of the study, participants were asked to complete their weekly questionnaire the day before the Zoom call, to ensure that longer-term effects could be measured, as it is common for people to report feeling better in the days immediately following MT (Fazeli et al., 2020; Nadal-Nicolás et al., 2020; Küçük et al., 2024), which was also confirmed via verbal feedback by some of the participants. The protocol was based on the Jing protocol for stress and chronic pain (Fairweather & Mari, 2015, p.355-369), Jing masterclass on LC (Fairweather, 2025), as well as their masterclass on the diaphragm (Harrison, 2022). The table below reports why specific elements or considerations, not all of them present in the HFMAST formula, were chosen for this protocol, which was adapted for online delivery. The researcher took into consideration that participants might not have any anatomy knowledge at all and so aimed to keep each session simple, while still aiming to use all the elements of the JM:

Table 3: Protocol elements and reasons for inclusion

Protocol Element	Description	Reason for inclusion	Supporting Evidence
Heat	Before each session, participants were warned that if they had any orthostatic issues they could skip this step. Participants were also shown an exercise to transition from laying down to sitting, or sitting to standing.	Heat has been shown to have beneficial effects for chronic fatigue and chronic pain, so the researcher chose to include it, but advised participants to use precautions, due to the fact that vasodilation could trigger orthostatic issues.	Fairweather & Mari, 2015; Chadwick et al., 2025; Masuda et al., 2005
Body Scan, Non-Sleep Deep Rest & Humming	Participants were guided through some body scan meditations. This was a way of helping participants drop into a parasympathetic state. Participants were also given a Non-Sleep Deep Rest aftercare exercise and one exercise involving humming.	Some evidence shows links between vagus nerve stimulation and reduction in cortisol and inflammation, so the study included elements that stimulate the vagus nerve (e.g. body scan, humming), in an attempt to provide participants with strategies that would help them in between sessions, without risking the triggering of post-exertional malaise.	Tarn et al., 2019; Aranow et al., 2021; Moszeik, Rohleder & Renner, 2025; Trivedi et al., 2023; Woo & Kim, 2025; Hunakova et al., 2023
Breathwork	Although breathwork is not an explicit part of the JM, it is inherent in all its elements. Some breathwork exercises were included, due to their parasympathetic activation effects: box breathing, mindful breathing (in through nose, out through mouth), directing the breath to the lower ribs (rib expansion) and coupling mobilisations/stretches with the breath.	Several studies showed an improvement in symptoms, particularly dyspnoea, by using breathwork, so the researcher chose to add a breathing exercise in each session.	Guo & Li, 2025; Harrison, 2021; Mauro et al., 2024; Jeong et al., 2024; Sánchez-García et al., 2023; Promsrisuk et al., 2025; Polizzi et al., 2024

Protocol Element	Description	Reason for inclusion	Supporting Evidence
Choice of muscles	Neck (scalenes, sternocleidomastoid, upper trapezius, sub-occipitals); Chest (pectoralis muscles, intercostals, diaphragm, subclavius)	Each session focused on one or a set of muscles that either assists with respiration or plays a role in how people carry tension in the body. The choice was also based on what could be easily demonstrated and adapted to an online setting.	This was based on the researcher's own clinical reasoning and anatomical knowledge, combined with the available literature.
Modifications	Where possible, participants were given the option to perform some of the exercises lying down, instead of seated. The researcher demonstrated both options. Each Zoom session included a 5 minute break, to allow people to step away from their screens. These modifications were offered in an attempt to reduce or prevent post-exertional malaise and other orthostatic issues.	Prevention of PEM/over-exertion	Twomey et al., 2022; El-Rhermoul et al., 2023
Aftercare advice	Some of the aftercare advice was not massage or bodywork-based and included mention of pacing and pacing strategies.	Relevant to the management of LC symptoms.	Herrera et al., 2021; Harrison, 2021; da Silva et al., 2023

Participants were asked to perform one after-care exercise each week, following their weekly Zoom call (weeks 7-12), and were asked to try it at least once and up to 3 times (or more if they found it useful) per week. Due to the variety of abilities in the group, the researcher endeavoured to give people a goal that was achievable, taking into consideration

things like PEM and other factors that could affect people's ability to consistently do the self-care exercises.

RESULTS

The following charts show the mean average of the participants' responses each week, reporting how they felt on the day they completed the questionnaire (blue columns). The questionnaire also asked participants how they felt about the same symptoms pre-COVID (summarised into an average value, in the red column on week 1). Scores were marked out of 10, with 0 being the best and 10 being the worst rating, in terms of severity of symptoms. For questions where participants had low scores collectively, or scores not presenting much variation in the values, the charts do not go up to 10 on the Y axis, so as to visually present the data more clearly.

In some instances, since the variability in the responses was very slight, the researcher also created a separate chart, presenting one mean value for the control period, one for the intervention period and one for week 16. As the questionnaire was completed the day before each Zoom call, week 7 has been treated as part of the control period, because the responses were submitted before any intervention took place. The question about cognitive disturbances was phrased differently compared to the others (i.e. did not ask participants how they felt pre-COVID), which is reflected in the chart’s legend (Figure 13).

Dyspnoea (breathlessness)

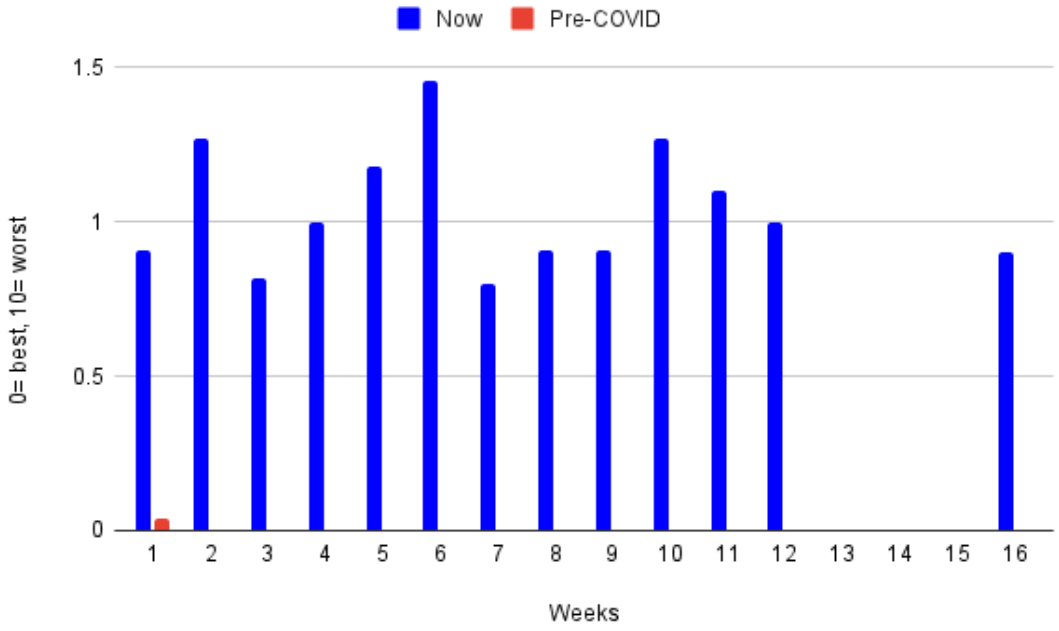

Figure 5: Breathlessness at rest

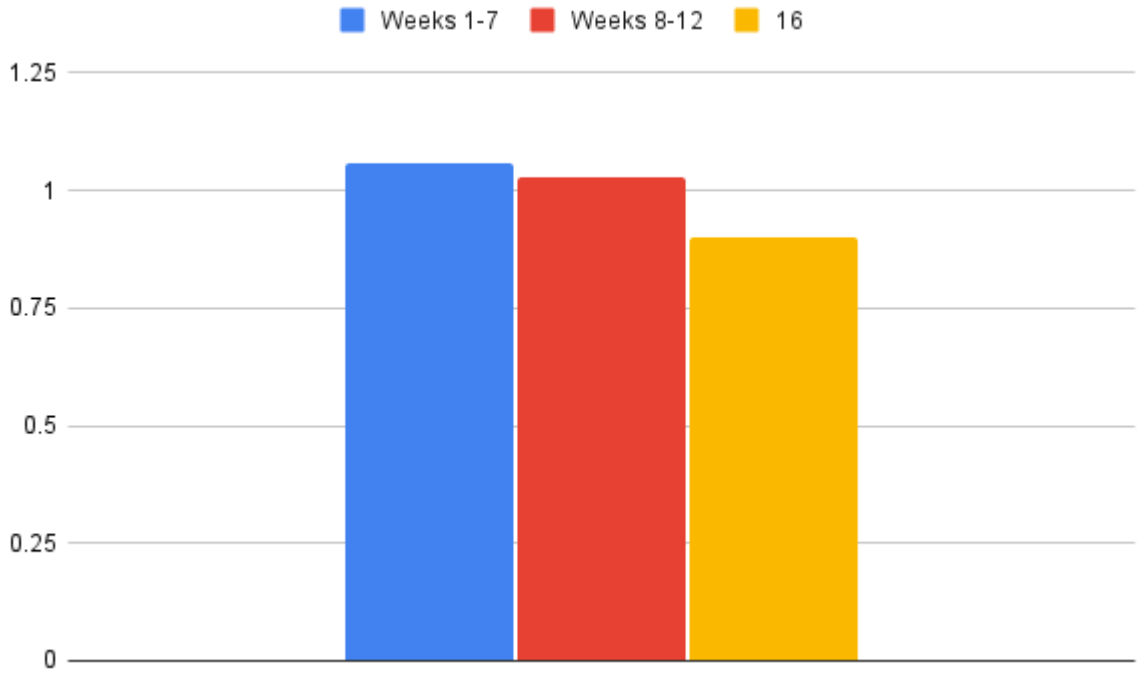

Figure 6: Breathlessness at rest, mean values

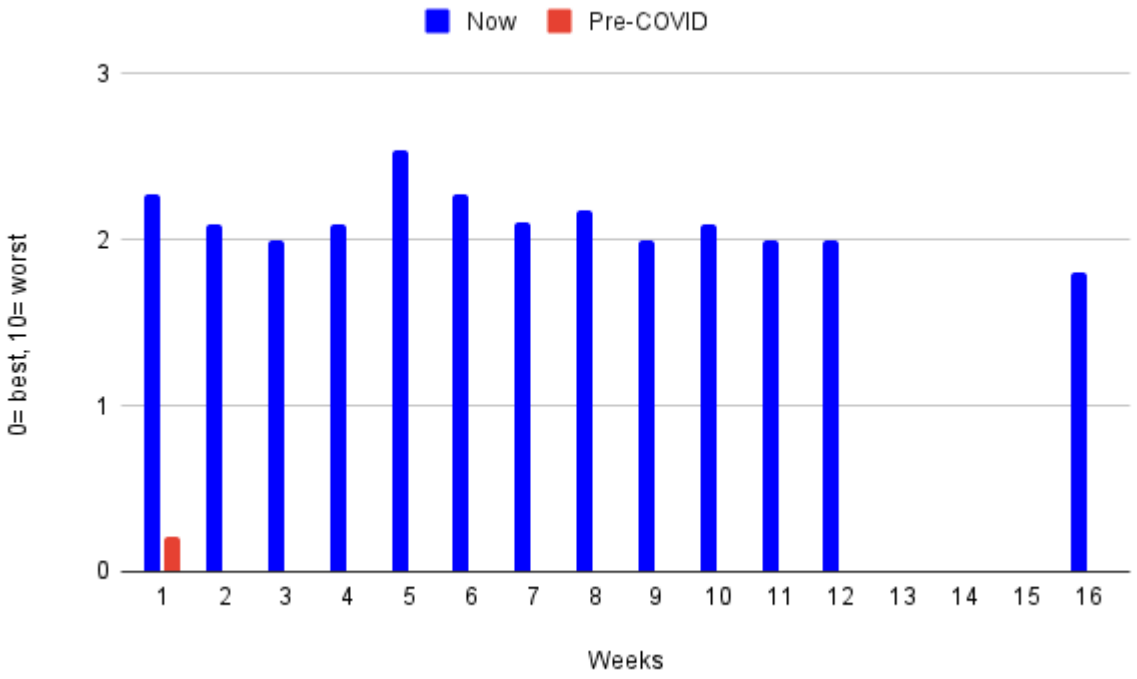

Figure 7: Breathlessness on dressing yourself

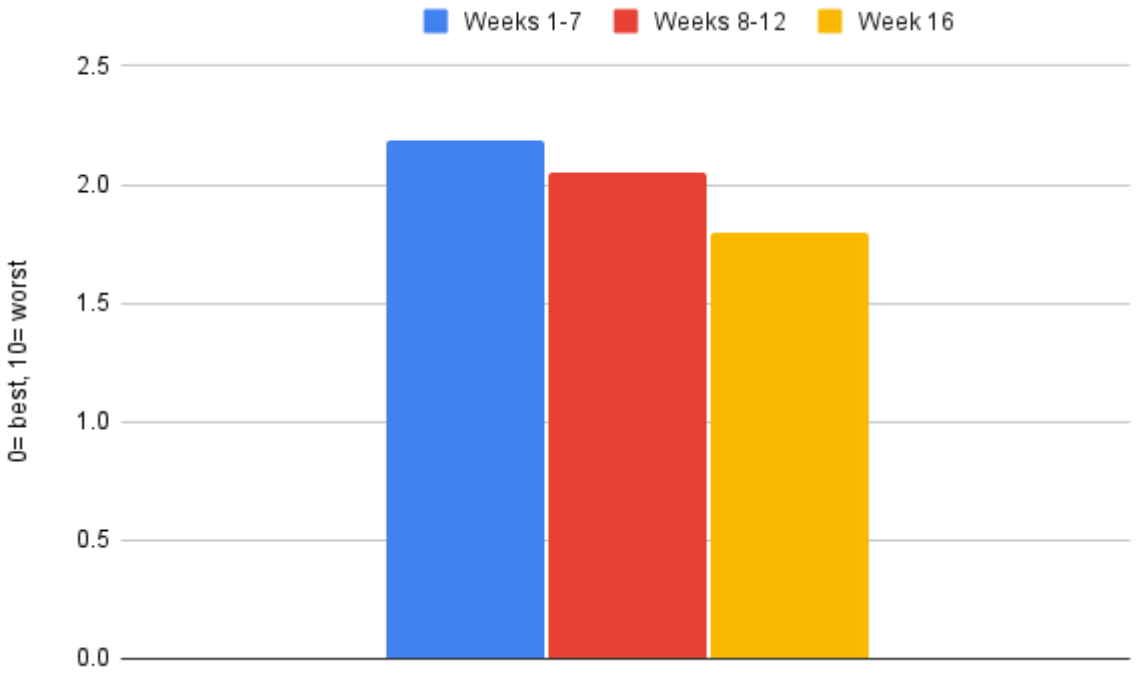

Figure 8: Breathlessness on dressing yourself, mean values

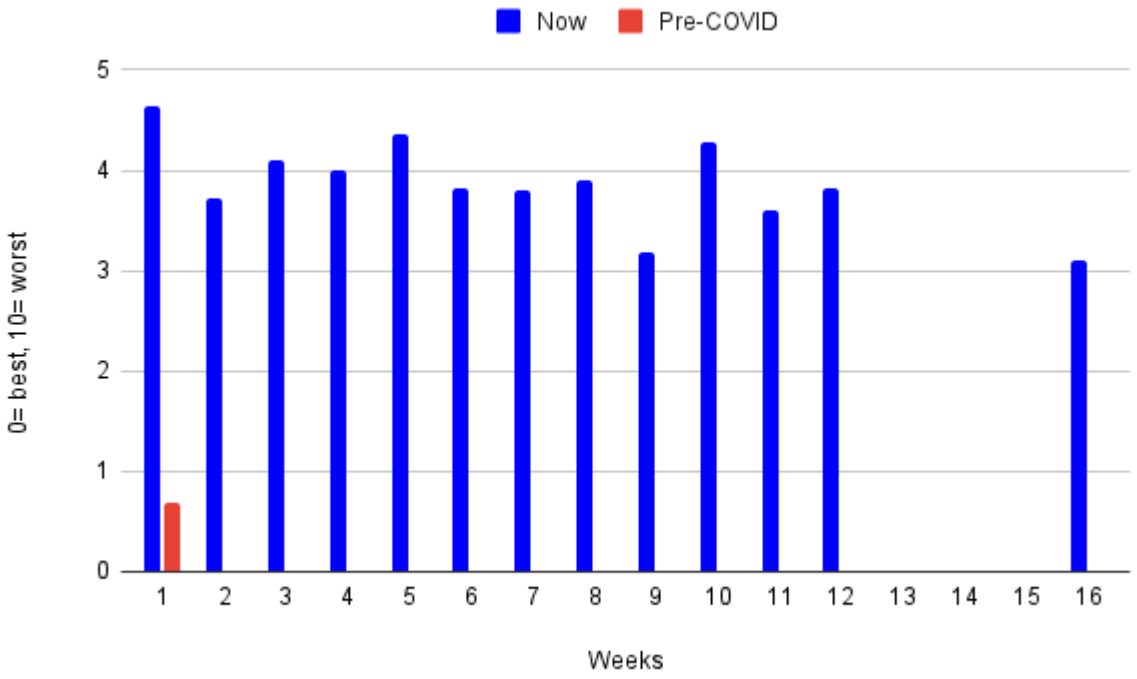

Figure 9: Breathlessness walking up stairs

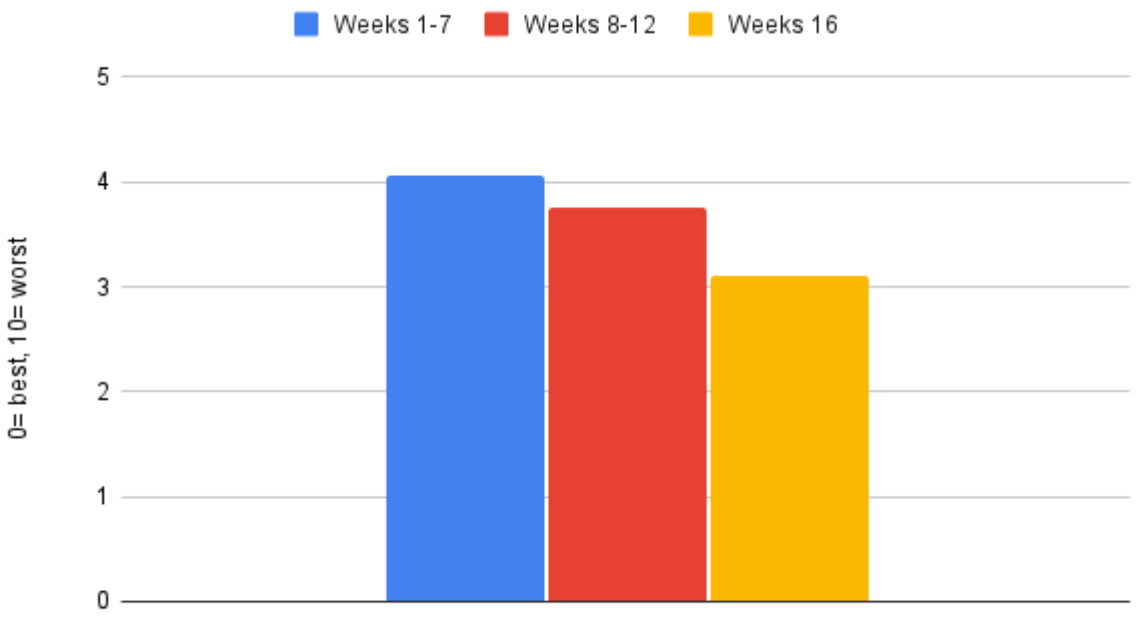

Figure 10: Breathlessness walking up stairs, mean values

Fatigue

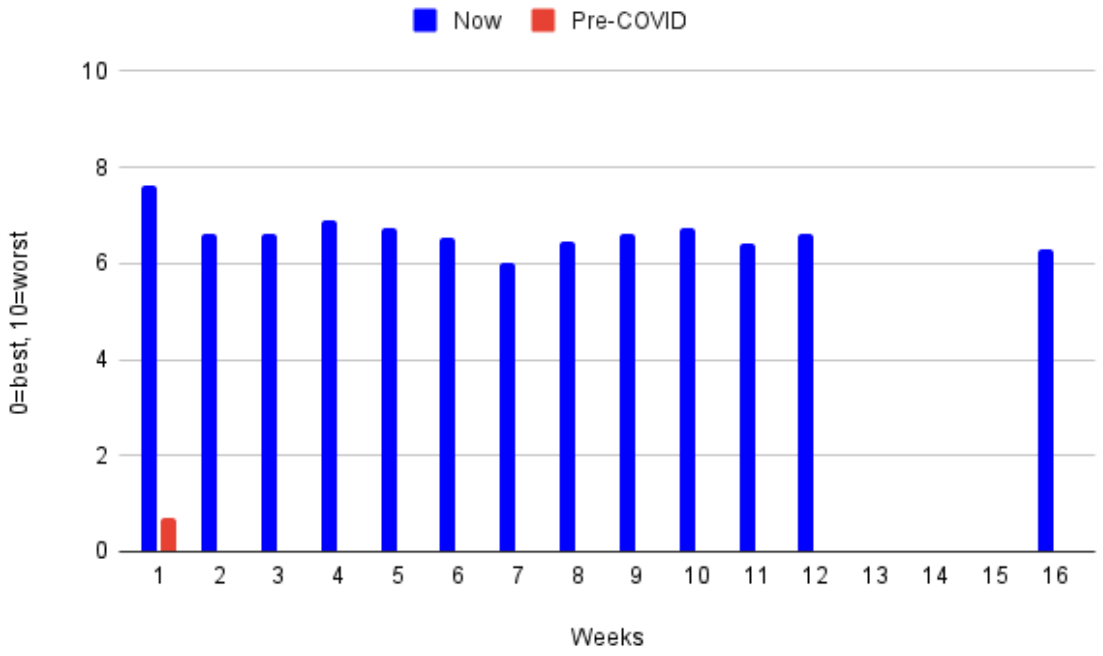

Figure 11: Severity of fatigue

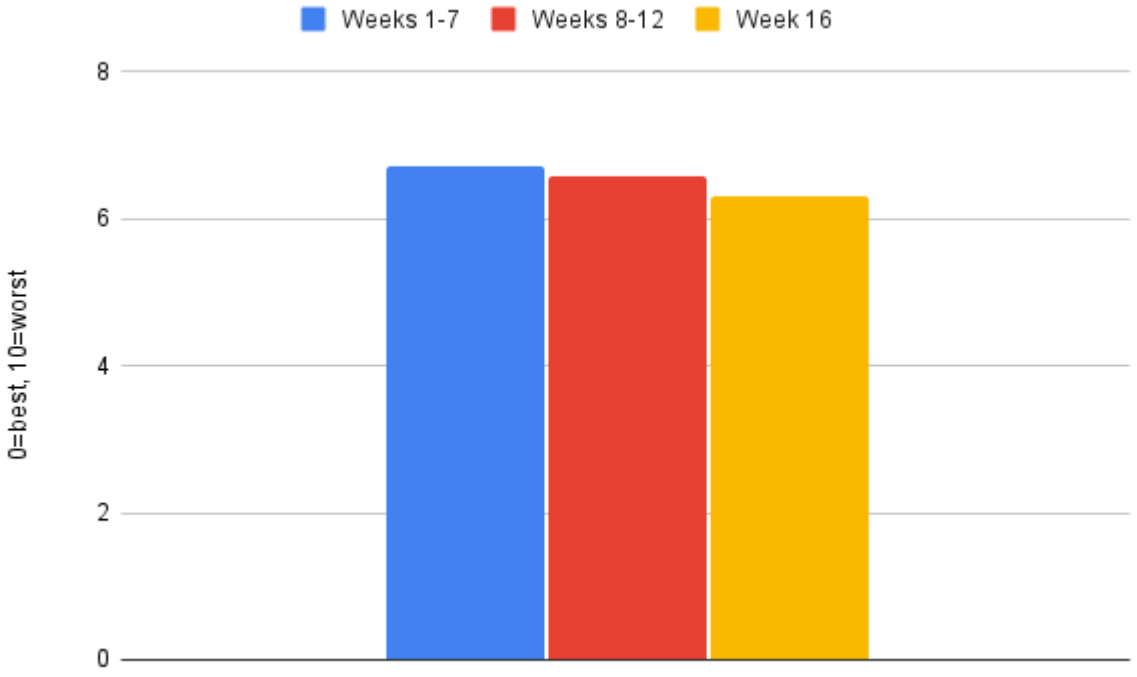

Figure 12: Severity of fatigue, mean values

Cognitive Impairment (brain fog)

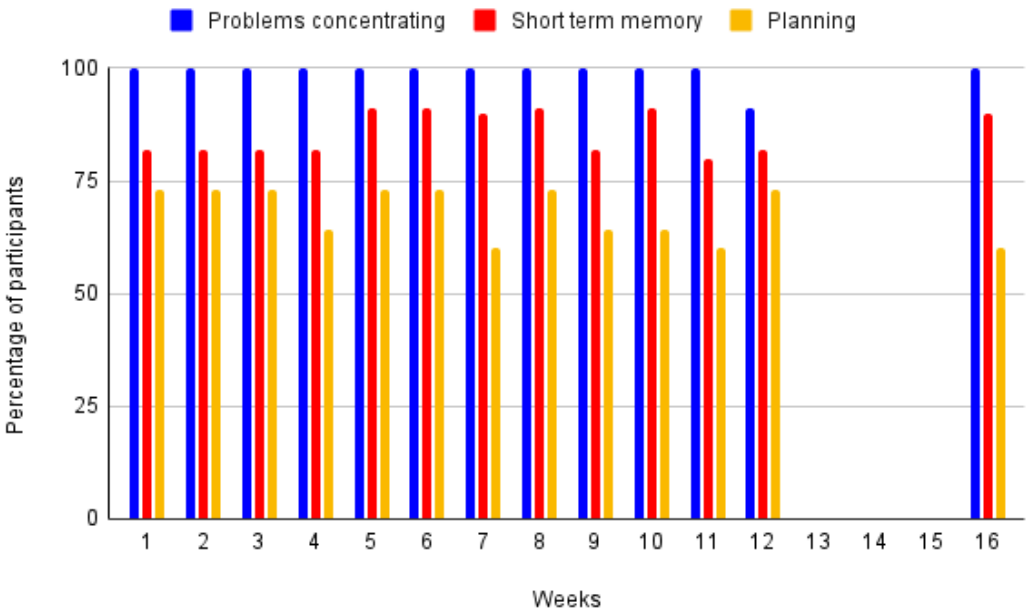

Figure 13: "Do you experience the following cognitive disturbances?". Percentage of participants suffering from three different types of cognitive disturbances.

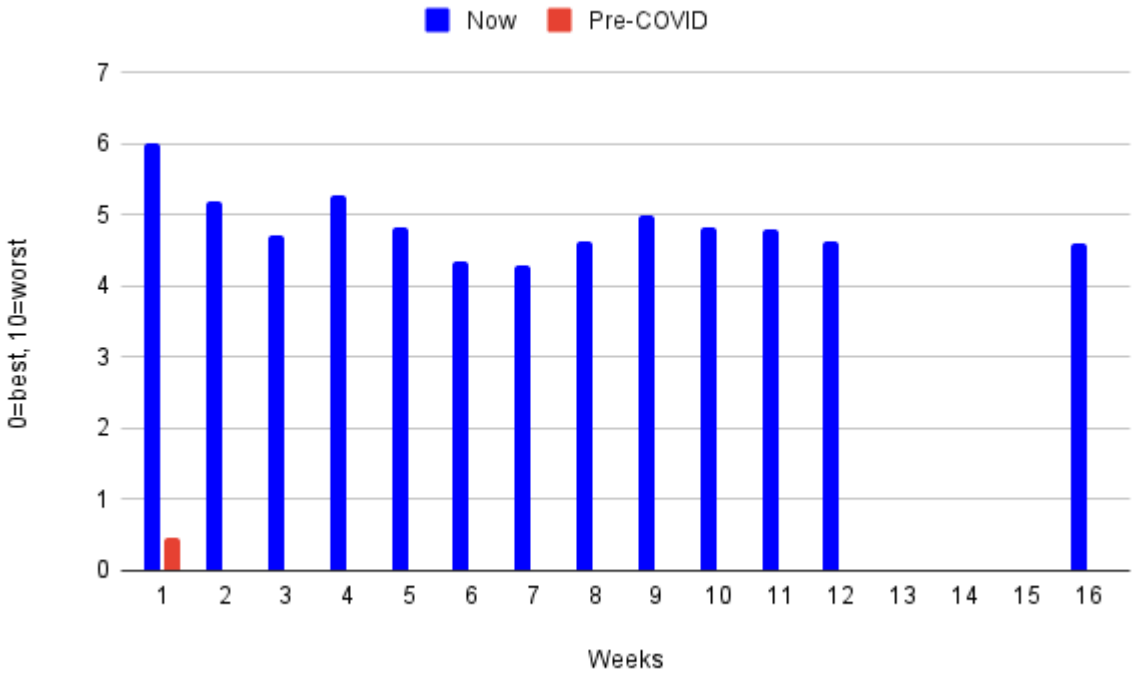

Figure 14: Severity of cognitive disturbances. Participants picked which of the 3 types of cognitive disturbances mentioned in Figure 13 was the worst for them and rated it out of 10.

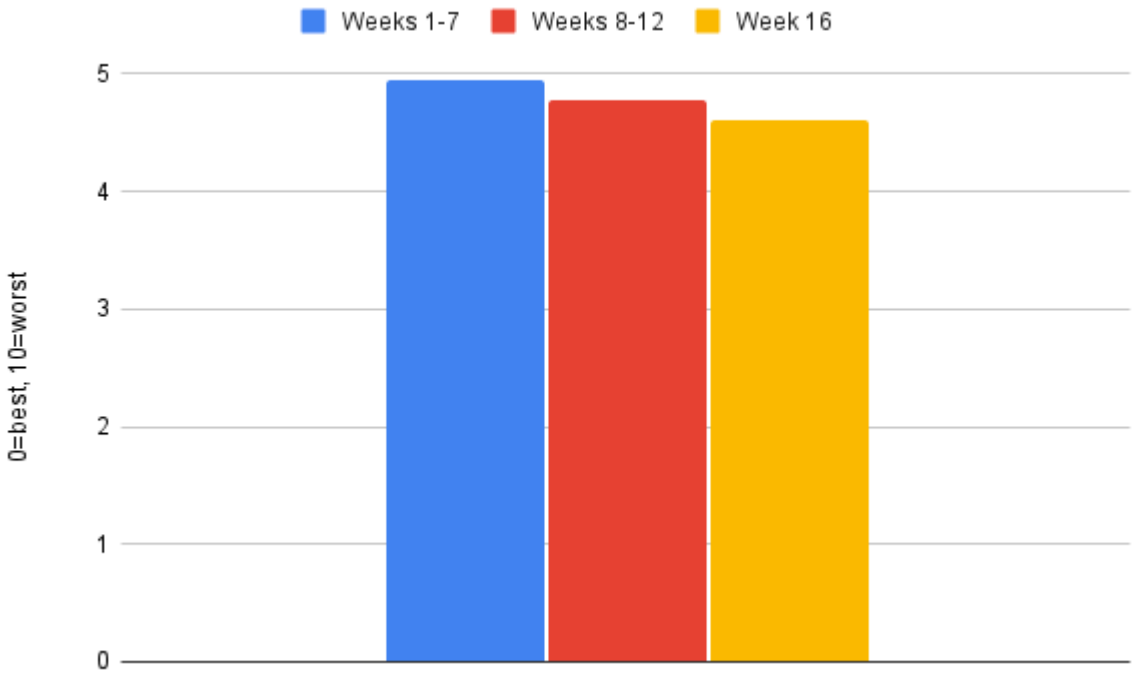

Figure 15: Severity of cognitive disturbances, mean values

Aftercare exercise compliance

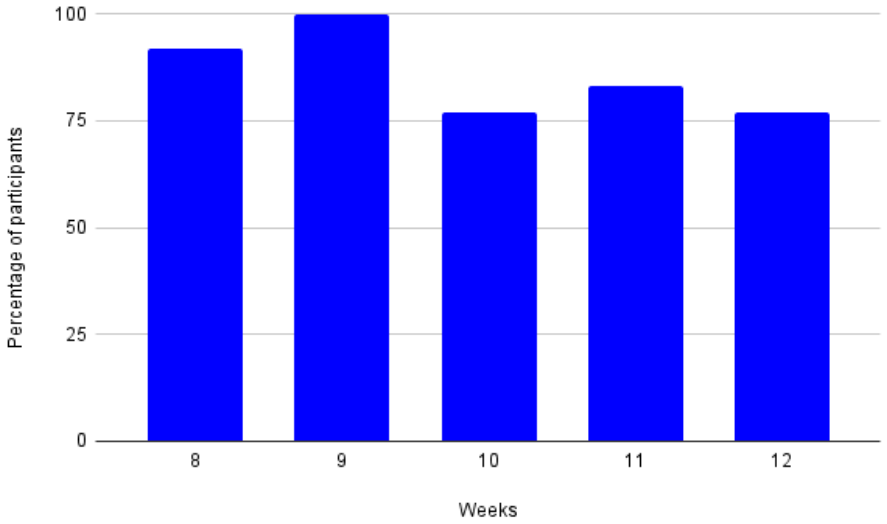

Figure 16: Percentage of aftercare completion

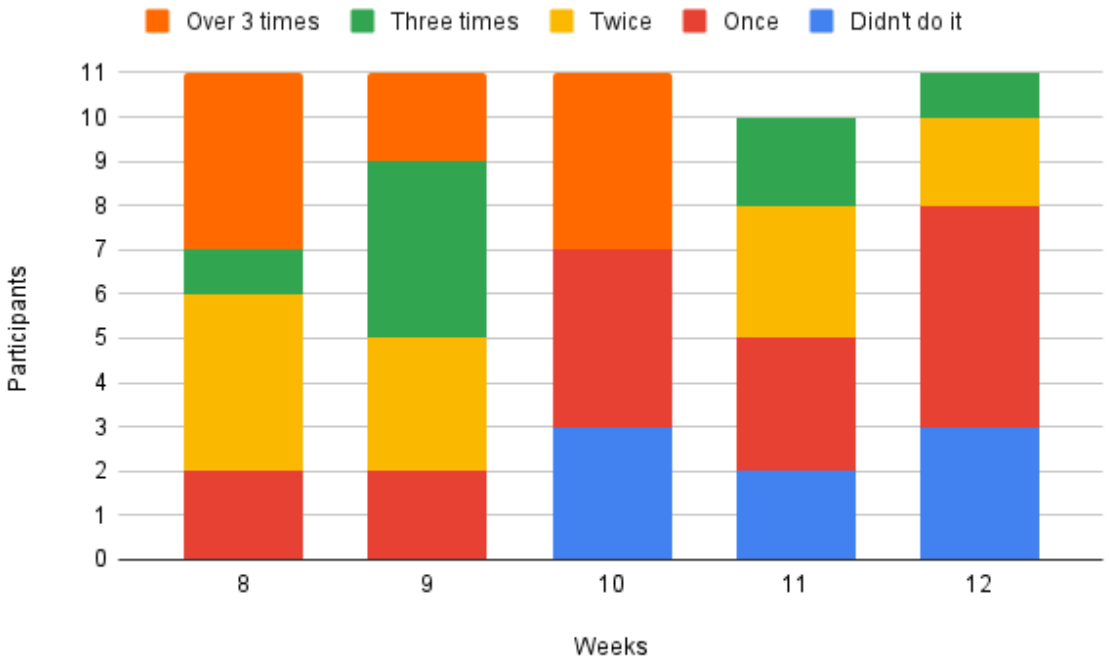

Figure 17: Frequency of aftercare completion

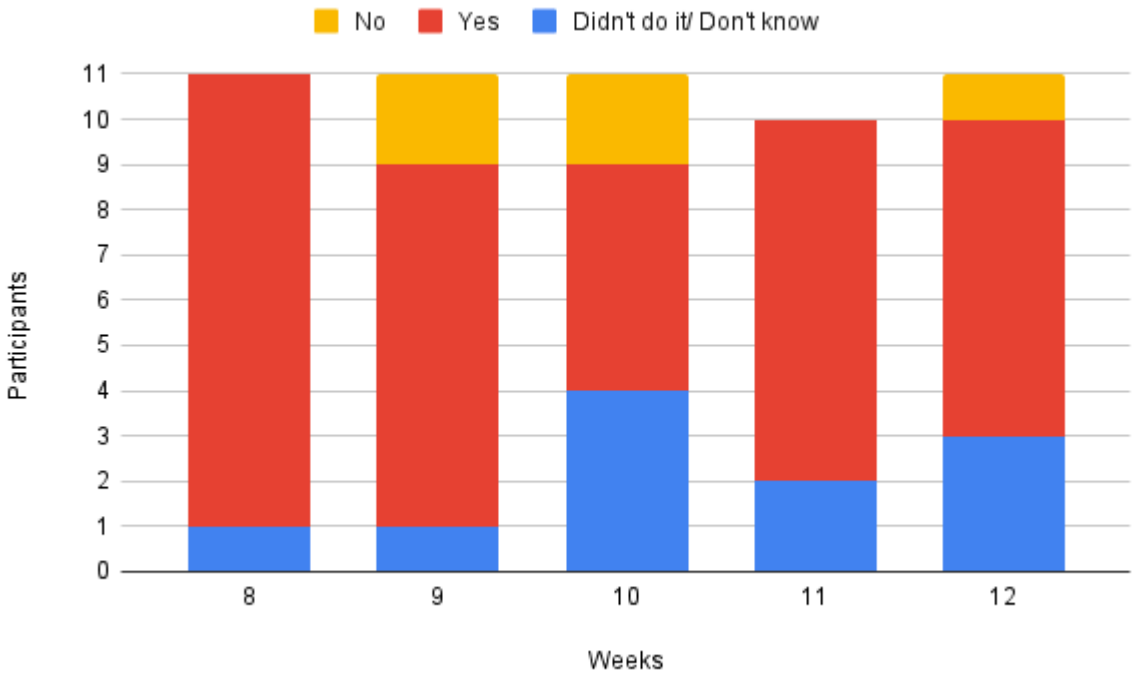

Figure 18: “Did you find the aftercare useful?”

DISCUSSION

This research study investigated whether receiving a weekly JM treatment for 6 weeks, adapted to an online group setting, could improve three types of LC symptoms (dyspnoea, cognitive impairment and fatigue) and found a slight improvement in symptoms and no observable change in others.

Key findings

The questionnaire measured dyspnoea (breathlessness), fatigue and cognitive impairment, among many other symptoms.

Dyspnoea

Breathlessness at rest fluctuated throughout the study, but appeared to improve especially in the first few weeks of the intervention period. This could be linked to the fact that adherence to the aftercare exercise was higher in the earlier weeks of the intervention, compared to the later weeks (Figures 16-18). The mean values in Figure 6 show that the improvement was very slight, so it's also possible that this may have been due to biopsychosocial effects, rather than a reaction to the treatment protocol.

Breathlessness on dressing had fewer fluctuations and appeared lower during and after the intervention period. Breathlessness walking up stairs also fluctuated, but appeared to reduce slightly in the intervention period. Fluctuations appear to be slight week to week, but when looking at the mean values of the control period, versus the intervention period and week 16 (Figure 10), a trend does emerge, showing a slight improvement. This is significant, considering there were things at play like PEM which would have affected people's responses. Although breathlessness rates were low to start with, these results are still

consistent with the literature and reinforce the idea that focusing on breathwork and manual therapy can support people suffering from LC-induced dyspnoea (Guo & Li, 2025; Harrison, 2021; Mauro et al., 2024; Jeong et al., 2024; Sánchez-García et al., 2023; Promsrisuk et al., 2025; Polizzi et al., 2024).

Fatigue

Fatigue symptoms were the least affected, although participants did note in their questionnaire (Appendix H), and in verbal feedback, that the festive period, during which the intervention stage took place, placed higher energetic demands on them, so this may be why no significant change was observed. Throughout the duration of the study, none of the participants felt that their energy levels had returned to pre-COVID levels. Although there were very slight improvements during the intervention phase and follow up period (Figure 11-12), it is hard to determine whether these are just fluctuations that happen anyway when suffering from LC.

Cognitive Impairment

The severity of cognitive symptoms showed a steady decline, despite it being very slight. Planning showed the most improvement in the last few weeks of the study.

Secondary Observations

Although this study was not measuring stress, anxiety or depression, these things were measured in the questionnaire. It is important to note that the severity of stress-related problems saw the biggest decline in the data, more than any other value (from a 4.09 out of 10 average in week 1, to a 2.40 out of 10 average in week 12). This suggests that further studies, perhaps focusing on anxiety, rather than specific LC symptoms, may yield more robust results. It also reinforces the view that psychological states influence pain levels, as set out by the Biopsychosocial model (Klinkhammer et al., 2024; O'Toole et al., 2018; Fillingim et al. 2025).

Participants' verbal and written feedback seems to reinforce the data collected, as many of them noted that they felt an improvement in the days immediately following the Zoom sessions, but that their symptoms would return a few days later, which might explain why the reduction in symptoms isn't very pronounced in the data. Many participants noted in their feedback that they found the sessions and aftercare useful, but would have been more useful if the format was different (e.g. shorter sessions or having the possibility of catching up on a missed session via a recording) (Appendix H).

One participant, who had to withdraw half way through the intervention phase due to a missed session, wore a Heart Rate Variability (HRV) tracker which consistently showed an increase in HRV on the days of the intervention, which indicates a beneficial effect (da Silva et al., 2023) and is something future studies may also be interested in focusing on.

Study limitations and considerations for future studies

There are a number of limitations that may have affected the results of the study, as set out in the table below, along with a corresponding suggestion for future studies:

Table 4: Study limitations and corresponding suggestion for improvement

Name of limitation	Description of limitation	Suggestion for future studies
Co-morbidities	When setting up the selection criteria, the researcher was not aware of the high incidence of POTS diagnoses among LC sufferers and so did not account for that co-morbidity in the screening questionnaire, but was able to create a protocol that worked around it.	Stricter selection criteria
Possible bias/ researcher's own cognitive symptoms	Seeing as the researcher was delivering the online sessions, there is room for possible bias, as a therapeutic alliance developed over time, especially given that the researcher suffers from LC themselves. The probability of manual error is also higher when only one researcher is handling the data, however every precaution was taken to ensure this wouldn't happen.	Repeating the study with different therapists and/or having a separate researcher that is not delivering the online sessions.
Placebo effect	This study did not account for placebo effect results, although this is outside the scope of this type of pilot study.	Future studies may choose a different method, to account for this.
Other life events	It's very hard to measure the impact other life events may have had on the participants. Unless performed in a laboratory, a study of this kind will always be subjected to outside influences, as was expressed verbally by participants.	Perhaps request that participants stick to a pre-determined routine throughout the study period, to keep outside influences to a minimum.

Name of limitation	Description of limitation	Suggestion for future studies
Questionnaire	The questions in the C-19 YRS don't seem to be designed for repeated use and this questionnaire also doesn't capture the subtleties of LC. Due to how some questions are worded, respondents might misinterpret “now” as a general now i.e. “these days”, rather than “in this specific moment in time”, as it is contrasted to “pre-covid”, which might not provide accurate data. The questionnaire dates back to 2019, so there have been lots of advancements in the research since then, which means that other instruments that might be more suited for future studies.	Choosing a different questionnaire, or asking participants to fill it out more frequently.
Self-Reporting	As this study relies on the participants using self-reporting, it may be open to the participants' bias, or other factors affecting their ability to report accurately what their symptoms are like each week.	Perhaps including measurable benchmarks within the study, that fall outside of what is measured in the questionnaire (e.g. lung function scores, cognitive testing etc.). To some extent, any study involving a questionnaire will be subject to some kind of bias, because pain is a subjective experience.
Symptom variability and lack of personalisation	Because everyone was at different levels of ability, it was hard to create a protocol that would meet everyone's level of ability, while making an impact. Equally, it made it difficult when selecting the type of aftercare exercises. However, there were other benefits that came from having a group session (as mentioned in the literature review and expressed in the participants’ feedback), which a personalised protocol would not have yielded.	Depends on the methodology, as there are pros and cons to both in-person and online approaches. For online delivery, perhaps having a group of participants sharing a similar symptom profile could yield more robust results. For in-person delivery, having a different protocol, which isn’t limited by the fact that it has to be simple and adaptable to participants’ abilities or online delivery, might be more suited.

Name of limitation	Description of limitation	Suggestion for future studies
Season/Timing	As the study happened to take place in late autumn, early winter, commonly known for having an increase in incidence of respiratory illnesses, many participants had to withdraw due to illness.	Conduct the study at different times of the year and if possible repeat it multiple times with the same participants, at different times.
Design	Due to the type of design requiring active participation and the type of cognitive difficulties that people with LC experience, participants often had to be reminded to complete the questionnaire or would forget whether or not they had already submitted their answers. This highlighted the fact that perhaps having a different design, or one that doesn't rely on people who have cognitive issues remembering to do things, could benefit future studies. Furthermore, if one person missed one session, there was no way for them to catch up, which meant they had to withdraw from the study completely. Although delivering the sessions online made the study more accessible to people who might not have been able to receive in-person treatments, it also relied on the participants using the demonstrated techniques effectively, which may not have always happened. However, the fact that all participants expressed that they found the sessions useful indicates that they received some benefit from the sessions regardless.	Hard to say, as the chosen design determines the parameters of what is possible within the study. Future studies, using the same design, could benefit from giving participants opportunities to catch up on missed sessions, or perhaps having a group follow online sessions and another group follow in-person sessions, so as to be able to compare the effectiveness of the protocol delivered in two different ways. Future studies might also want to include other symptoms, rather than honing in on the three that were chosen in this study. These three were picked as a way of building on the existing Jing literature on this topic (Ciencia, 2023), but as there are so many symptoms, future studies might want to focus on a different set of symptoms.

Although the data showed a slight reduction in symptoms, it is important to remember that LC can be unpredictable; participants reported having energy dips and being affected by

outside factors (e.g. having to interact with more people than usual), but despite this consideration, they still found the sessions beneficial, especially in the first few days following the intervention (verbal feedback & Appendix H). Many participants also mentioned that having a regular slot dedicated to self-care and having a forum where they felt like they were taken seriously helped them psychologically, which supports what is indicated by the literature (Fairweather and Mari, 2015, p. 56-58; Gillingham, 2017; Harrison, 2021; O'Toole et al., 2018; Fillingim et al. 2025).

The researcher took into account the recommendations made by the previous Jing study on LC (Ciencia, 2023), namely the suggestion to use the C19-YRS questionnaire that uses a 0-10 scale, rather than a 0-3 scale (to allow to track subtle changes) and tracking participants' aftercare compliance. These considerations allowed the researcher to track changes, which the data collected showed can be very subtle week to week, due to the nature of LC. Despite this, several participants noted that they didn't think the questionnaire captured the nuances of LC (Appendix H, question 6), so perhaps using a totally different questionnaire for future studies of a similar nature, or asking participants to fill out the questionnaire more than once a week, could capture the fluctuations they felt were missing.

Ciencia (2023) also notes that monitoring pacing could yield stronger results, which this study attempted to do by monitoring how many times participants completed the aftercare exercise. However, because of other factors like PEM and other energetic demands, it was hard to gain a full picture, so future studies may want to look at even more robust ways of measuring this. Other previously-mentioned Jing studies which showed an improvement in

breathing patterns used an in-person delivery or a hybrid (in-person and online) (Goulding, 2015; Miller, 2023) , so future studies may want to opt for this approach, even though it means they won't be able to reach as many people.

Although very different in structure, with Ciencia's study including 4 participants receiving hands-on treatment, and this study being delivered online with more than double the number of participants, both studies point to the fact that complementary therapies and, in particular, clinical massage, can be a useful component of a multimodal approach to the treatment of LC. Indeed, a multimodal approach to LC recovery has been put forward in many previously-mentioned studies (Greenhalgh et al., 2024; Vagedes et al., 2025; Sarchet, 2025; Resta et al.. 2024; Harrison, 2021; Werner, 2020; Krishnan et al., 2022), as the way forward in the treatment of this chronic condition. Future studies may also want to employ a multidisciplinary approach and gain the support of existing LC charities and/or working groups, who may provide funding or resources, such as Long Covid SOS (2026) or Long Covid Support (2026).

Considering there is still a lack of agreement on what constitutes LC and how to treat it (Greenhalg et al., 2024; O'Mahoney et al., 2025), studies such as this one, employing a "within subjects" design, represent an important first step towards discovering the most suited treatment options. Although this design is not perfect, its lengthy control period still allows for consistent data and reduced variability. Furthermore, as there is a lack of high-quality data on the effects of clinical massage, small-scale studies like this one highlight areas of research that are worth exploring. Although anecdotal, almost every participant

expressed that they think clinical massage has a role to play in LC recovery (Appendix H, question 4), so this alone is worth investigating further.

CONCLUSION

This study investigated whether receiving a weekly JM treatment for 6 weeks, adapted to an online group setting, could improve three types of LC symptoms (dyspnoea, cognitive impairment and fatigue). Generally, dyspnoea and cognitive impairment seemed to be more affected, showing a small decrease in severity, compared to fatigue, which was the least affected of the three symptoms. Adherence to the aftercare exercises was higher in the first few weeks of the intervention stage, which is also where the data showed the most reduction in symptoms, so it would be interesting to see if future studies can replicate this and emphasize the importance of performing the aftercare exercises in between sessions.

This study has shown that using the JM might be beneficial for LC sufferers and that complementary therapies could help shape a multimodal approach to LC recovery, which supports the conclusion reached in a lot of the literature on LC treatment options. However, more research is needed to draw specific conclusions. Given that the secondary data on anxiety showed a steady decline, perhaps this could be a promising avenue for future studies. This study would benefit from a larger group of participants, over a longer period of time, or different time of year, to gain additional insights into the quality of the data. As shown in this and many other Jing studies, clinical massage can support people suffering from chronic conditions and this calls for further research to be done in this field and for this type of study to be replicated, so that more robust findings may be observed.

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APPENDICES

APPENDIX A: ETHICS FORM

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

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:	Prisca Andersen
Student number:	RC84171
BTEC Year-group:	24-26
Date of application:	April 2025
Student e-mail address:	andersenprisca@gmail.com
Title of research project:	Evaluating the effects of the Jing Method™ online on Long COVID symptoms in adults aged 32-67

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

Please indicate as appropriate.

	YES	NO
Does your project involve any primary research using human subjects?	X	
If yes, does it involve children under 16?		X
If yes, does it involve children under 18?		X
Other vulnerable populations (i.e. mental illness, aged subjects)?		X
Does your project involve NHS patients, NHS staff or Local Authority Service Providers?		X
Are you planning to use deception?		X
Are you collecting sensitive personal data such as sexuality, mental health data, etc.? Only in relation to C19-YRS (questionnaire).	X	
Does your study involve paying participants or an alternative incentive to participate		X

Could the study put you or someone else at risk of injury?		X
Does your project make use of a validated questionnaire?	X	
If yes, please specify the name of the validated questionnaire you are using and attach a copy here. C19-YRS (COVID-19 Yorkshire Rehabilitation Scale) I've requested a license for it and haven't been sent the questionnaire yet, but have found another version online which I have provided with the proposal.		

Section 3: Research premises

Where is your research being undertaken? Online - Zoom
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. N/A

Section 4: Recruitment

How will you recruit subjects for this research study? • Long Covid support groups online • Professional contacts • Social media • Contacting the long Covid patient programmes I've been enrolled in and asking if they can send out my recruitment flyer to their mailing list • Flyers at local surgeries/holistic health centres

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.

- Once I've screened participants for eligibility, I will have a 1-2-1 session with them, to give them more information about the study and answer any questions they might have.
- I will collate all the questions and send out a FAQ email to all participants so they all have the same information, before the study begins.
- The study will begin with a 6 week period where participants answer the C19-YRS (COVID-19 Yorkshire Rehabilitation Scale) questionnaire weekly, on the same day each week.
- The intervention stage will consist of 6 weeks where participants take part in a weekly 40 to 60 minute, online group session, where I will take them through an online version of the HFMAST protocol. As there might be participants in different time zones, I will set up a few different cohorts and take them through the same protocol at different times.
- A proposed example is given below and would be roughly based on the Jing stress and chronic pain protocol:
  H: In the screening questionnaire, I will ask if people have access to a hot water bottle. My hope is that there will be lots of participants who do have access to one and can prepare it before the online sessions start. The alternative could be preparing a hot towel using a microwave or sink. I will invite participants to place this on their chest, back, neck or belly.
  F: Cross-hand stretch on the chest, fascial work over intercostals and along sternum/pec. major attachment points. Fascial work over scalenes.
  M: Combination of neck massage, chest massage and face massage. Trigger point work on upper trapezius. Diaphragm work.
  A: CV17, GV 20, LI 4
  S: Cervical mobilisations, G/H mobilisations, scapulo-thoracic mobilisations. Scalene and trap. stretch.
  T: Body scan, seated spinal twist, breathing
- Before each online session, participants will complete the questionnaire, as per the previous 6 weeks. This will be emailed to them the day before.
- At the end of each session I will provide some aftercare advice to be completed once a week and follow up with an email that includes all the information discussed online, so that participants can refer back to it each week.
- After the intervention stage is over, at week 16, I will have a feedback session with the participants and will answer any questions they might have.

Section 6: Describe what your participants need to do

4

- On the recruitment material I will direct people to an online screening questionnaire that will screen them for eligibility.
- If selected, participants will then receive the welcome letter and an invitation to attend an online consultation, where I will explain, in detail, the structure of the study. During this session I will ask them to complete the consent form, request contact details, take a detailed medical history, ask questions about their lifestyle and answer any questions they might have.
- I will ask participants to inform me of any other therapies or medication that they might be taking for the duration of the study.
- During the first 6 weeks, participants will fill in the online questionnaire on the same day each week. I will prompt them to do so each week.
- During the following 6 weeks, participants will attend a weekly 40 to 60 minute online group session and fill in the same questionnaire on a weekly basis.
- Participants will have some aftercare suggestions to implement between online sessions.
- At the end of the study, participants will be asked to fill out one final questionnaire and I will also ask them for feedback.

Section 7: Respecting confidentiality and ethical issues for participants

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

- All participant information will be stored in accordance with GDPR principles and on my password-protected laptop.
- I will inform participants that all their information will remain confidential and that their data will only be seen by me.
- I will anonymise the data so that none of it can be traced back to the participants.
- I will give people the option to attend the sessions without needing to use their real name on Zoom, so that they can remain anonymous to the other participants.
- I am a qualifies and fully insured massage therapist and will create an online treatment protocol in accordance with Jing's method.
- Participants will be asked not to record the sessions so that people's personal information is not shared outside of the Zoom sessions.
- I will record the sessions and keep the recordings only for the duration of the study, so that I may refer back to them if I need to remember what I did during a particular session. These will be deleted 6 months after being recorded. I will inform participants of this.

Section 8: Inclusion and exclusion criteria

What sort of people will the subjects be? The study will include: Adults aged 32-67 who've experienced recurring symptoms of long Covid for at least 12 weeks since recovering from Covid-19. Participants must either have an official Long Covid diagnosis or must meet 3 of the 4 following criteria: have symptoms of chronic fatigue, breathlessness, brain fog or have been referred to a long Covid service by their GP surgery. The study will exclude: Pregnancy, people currently testing positive for Covid, people with a ME/CFS or Fibromyalgia diagnosis, new onset of breathlessness or heart palpitations/cardiovascular symptoms, people recovering from surgery, people under the care of a respiratory or cardio-pulmonary specialist/team.

Section 9: Student declaration:

I understand that I can only start my project, once this ethical application has been approved. This applies to ALL projects, whether using human participants or not.	YES x	

Student's handwritten signature:

_____

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

Print Name: Prisca Andersen **Date: 03/09/2025**

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

Informed consent must be obtained for **all** participants before they take part in your project. The Consent Form should clearly state the parameters and content of the research. It should explain what is expected of the participants and what they will be doing. It should draw specific attention to any elements that could conceivably cause subsequent objections, and the measures you are taking to

ensure the confidentiality of their data. It should also state that the participants are free to withdraw from the study at any time.

Studies should not involve participants under 18 without express permission from your supervisor. Studies carried out in schools require the permission of the head-teacher, and of any responsible adults as per the head teachers' recommendation. Minors aged over 14 years should also sign an individual consent form themselves. If you are planning to carry out a project whereby you will be in contact with minors, you must establish from the head-teacher or other responsible adult whether the work proposed will require you to have the relevant DBS disclosure. Please seek advice from your Local Authority.

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

APPENDIX B: PARTICIPANT LETTER

STUDENT NAME: Prisca Andersen
STUDY LOCATION: Online (Zoom)
Tel: 07470792807
e-mail: flowresttherapies@gmail.com

Jing Advanced Massage Training
28/29 Bond Street
Brighton BN1 1RD
www.jingmassage.com
01273 628942

Re: Long Covid online study

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 soft tissue therapist for seven years and I specialise in the treatment of chronic pain. In my clinic, I work with individuals of all ages and physical fitness, suffering with a range of chronic pain conditions such as migraines, frozen shoulder and fibromyalgia, to name a few.

In 2024, 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, we are given an opportunity to design and carry out a study into the effects of a clinical massage wellness programme. I have chosen to investigate the effects of the Jing method online on long Covid symptoms in adults aged 35-65. This issue is close to my heart, as I have suffered with long Covid for a few years and I know from personal experience that there isn't much support out there for people struggling with this condition.

I am lucky enough to work in a field that is always looking for ways to support people who have been let down by traditional healthcare systems and which always strives to work with a holistic approach to illness. This study will adapt the Jing method for stress and chronic pain to create an online protocol that I think can support people suffering with long Covid. You will be helping me test this protocol so that it can hopefully help more people after this study is over. If you decide to participate in the study, it will begin around mid-September (exact date tbc).

The study is a total of twelve weeks. We will have an initial 20 minute one-to-one Zoom meeting where we talk through the study. I will gather your contact information and introduce you to the questionnaire we'll be using throughout the study.

The first six weeks of the study are about understanding your symptoms. You will fill in the questionnaire via an online form on the same day each week. It should take approximately 15 minutes. I will send you an email prompt to remind you. Once all that data is gathered and we know what the benchmarks for your symptoms are, we will start to endeavour to make a difference.

For the next six weeks, you will be part of an online wellness group. You will attend six 40 to 60 minute sessions, one per week. Each session will be held on the same day each week. The sessions will involve some guided self-massage, stretching and a short meditation. During these six weeks, you will continue to fill out the questionnaire, the day before the group session (I will continue to send you an email prompt).

At the end of the study, week 16, I will ask that we have a feedback meeting, where we discuss what worked for you and what didn't. If the sessions are working for you, there will be an opportunity to continue. Once my research is published, I will share with you my results and invite you to the conference, where my colleagues and I will be presenting our findings.

I have to ask that you don't have any outside communication with the other participants about the content of the group sessions between our meetings. This is so that we can guarantee the results are not skewed. If you wish to remain in touch with the participants after the study, I will send out an email to ask who is happy to share their contact details then. I must also ask that you agree to the confidentiality of all involved. Finally, it is also important that you inform me of any pain-relieving activity you engage in, including the use of pain medication, as this can also affect results.

All of your information will be kept confidential and your data will be anonymised. Participation is completely voluntary and you can withdraw from the study at any time without giving a reason – I only ask that you notify me, if you do decide to withdraw, so that I know not to keep sending out the questionnaires to you. There is no cost for the six sessions, however if at the end you feel that the sessions have made a difference and you wish to make a donation to my clinic, I will be sending out information on how to do so at the end of the study.

You can call me with any questions you might have before you decide to take part in the study. Thank you again for considering this project, your participation will make a difference to your wellbeing and that of others.

Sincerely,

Prisca Andersen

Flowrest Therapies
Sports and Advanced Clinical Massage
Forest Therapy

APPENDIX C: PARTICIPANT CONSENT FORM

PARTICIPANT CONSENT FORM

Title of study: Evaluating the effects of the Jing Method online on long COVID symptoms in adults over the age of 30

Name of student: Prisca Andersen

	Yes	No
I have read the information letter about this study.		
I have had an opportunity to ask questions and discuss this study.		
I have received satisfactory answers to all my questions.		
I have received sufficient information about this study.		
I understand that I am / the participant is free to withdraw from this study: • At any time (until such date as this will no longer be possible, which is once all anonymised data has been merged) • Without giving a reason for withdrawing • That I am free to refuse to answer any question without saying why • That the services I am receiving will not be affected whether I participate or not.		
I understand that my research data may be used for a further project in anonymous form, but I am able to opt out of this if I so wish, by ticking 'No' here.		
I understand that online sessions will be recorded. The recordings will only be seen by the student, stored on a password-protected laptop, and deleted once the study is published.		
I understand the online sessions might involve other participants and I will respect the confidentiality of the group and not share information with others.		
I agree to take part in this study.		

Signature (participant) **Date:**

Name: (BLOCK LETTERS)

Signature (parent/guardian/other, if under 18) **Date:**

Name: (BLOCK LETTERS)

BTEC student's contact details (including telephone number and e-mail address):
Prisca Andersen
Tel no: 07470792807
Email: flowresttherapies@gmail.com

APPENDIX D: RECRUITMENT FLYER

APPENDIX E: FAQ FILE

STUDENT NAME: Prisca Andersen
STUDY LOCATION: Online (Zoom)
Tel: +44 7470792807
e-mail: flowresttherapies@gmail.com

Jing Advanced Massage Training
28/29 Bond Street
Brighton BN1 1RD
www.jingmassage.com
01273 628942

Re: Long COVID online study – FAQ File

Q. How long is the study and how is it structured?
A. Total length: 12 weeks + 1 final questionnaire at week 16.
Weeks 1-6 (control period): One weekly questionnaire, to be completed on the same day each week, if possible.
Weeks 7-12 (intervention period): One weekly questionnaire + one weekly Zoom session
Weeks 13-15: Break
Week 16: One final questionnaire.

Q. How long are the Zoom sessions?
A. 40 to 60 minutes. I will structure one or two breaks in each session.
Please try to join one or two minutes before the start time, so that we can make a prompt start on the hour.

Q. How do I join the Zoom sessions?
A. I will send out a meeting link each week and reminders, by email.

Q. I can't remember my Zoom session time slot. Where can I find this?
A. It will be stated on the meeting link email and I will also add it to the reminder emails.

Q. What do I do if I'm having problems accessing the Zoom session?
A. Please email or message me. My contact details are at the top of this document.

Q. Do I have to be on camera for the Zoom sessions?
A. Yes please, this will allow me to see if you are doing the techniques correctly.
Where possible, I will offer techniques you can do lying down; in these cases I will demonstrate these first, so that you don't have to be on camera while you are lying down.

Q. Will the Zoom sessions be recorded?

A. Yes, but the recordings will only be viewed by me and will be deleted after the study is completed.

Q. Do I need to bring anything to the Zoom sessions?
A. You will just need access to a hot water bottle or heat pack, but I will remind you to prepare this before our session. Please also wear loose/comfortable clothing, as we will be working around the chest and neck.

Q. Can I miss one of the Zoom sessions and catch up via the recording?
A. Unfortunately not. If you miss one Zoom session, I will not be able to use your data in the study.

Q. What do the Zoom sessions entail?
A. Each week we will have a mix of heat therapy, myofascial release, self-massage techniques, light stretches and a nervous-system soothing exercise (e.g. short meditation, breathwork, etc).

Q. If I'm feeling like I have low energy during the Zoom sessions, can I sit things out?
A. Please join the call and then decide what you think you can follow along with and what you think you need to sit out, as we go along. Everything we'll do is very gentle, so you should be able to follow along even if you don't have much energy, but please listen to your body.

Q. Can I leave the study at any time?
A. Yes, you can leave at any time, but please inform me if you decide to do so. Please be aware I will not be able to use any of your data if you leave before the end of the study.

Q. How often will I need to do the aftercare exercises?
A. I will let you know during each Zoom session. Please try each aftercare exercise at least once. I will send out an email containing the aftercare exercise, after each Zoom session.

Q. Can I contact the other participants during the study?
A. Please do not contact any of the other participants to discuss the study, as this can skew the data. If you wish to remain in touch after the study ends, I will facilitate this.

Q. Is there anything else I need to know?
A. Please inform me if you engage in any new pain-relieving activity during the study (e.g. start a new medication, start a new form of therapy etc.)

APPENDIX F: TREATMENT PROTOCOL

SESSION 1 – Scalenes & Trapezius

Welcome & runthrough of Zoom housekeeping rules:

1. Everyone will be kept muted - advise participants that if they need me to demonstrate a technique again, or don't understand an exercise they can unmute, otherwise it should just be them following along.

2. We're all at different levels in terms of what we're able to do comfortably. Do what you can, take breaks if you need to.

3. There is a planned break in the middle of each session.

4. Precautions with using heat. Advised to be careful if suffering from blood pressure and/or orthostatic issues.

Offered POTS transitional exercise for transitioning from laying to sitting, or sitting to standing: isometric counterpressure exercise (grab your own fingers and pull in opposite directions and squeeze/release leg muscles repeatedly before attempting movement).

5. At the end of each session I will demonstrate the aftercare exercise and then send it out in an email.

6. Some people may have already seen some of the techniques on the ENO Breathe programme. If you see a similar technique, there might be variations, so please still pay attention to the demo.

First half of the session:

1. Laying down (optional) - Heat applied to the side of neck while breathing mindfully (in through nose, out through mouth)
2. Hands on lower ribs – use inhale to push against ribs
3. Fascial work over scalenes & masseter (soft fist and/or fingertips)
4. Trigger point work in the upper trapezius – guide participants through a few positions on the upper trapezius and finish with mobilisations: shoulders rolls (forwards and back), looking left and right.

BREAK

Second half of the session:

1. Laying down (optional) – Heat on chest. Box breaths (modified) – in through nose, out through mouth.
2. Hands behind neck interlaced fingers – broad massage of neck using heel of hands
3. Trigger points of the scalenes
4. Stretch - hand resting on upper trapezius close to the neck, thumb in contact with the scalenes. Breathe in (head moves towards the hand), breathe out (bring head to opposite shoulder).
5. Scalene stretch with hand gently resting on side of the head (ear to shoulder). Transition into a Trapezius/Levator Scapula stretch by adjusting the angle of the chin.
6. Acupressure - GB20 - "Gates of Consciousness" or "Feng Chi,"/Wind Pool (Occiput)
7. Self-care: Humming while tapping chest – 3 tones. Stimulates Vagus nerve.

SESSION 2 – Diaphragm

First half of the session:

1. Lay down (optional) – hot water bottle over side of ribcage, guided mindful breathing into the lateral ribs (in through nose, out through mouth)
2. Fascial work over intercostal (can be done laying down)
3. Breathing into sides of ribs (hands on lower ribs)

BREAK

Second half of the session:

1. Lay down – Mindful body scan with heat on abdomen
2. Trigger point release of diaphragm
3. Stretch - seated side reach (intercostals/obliques)
4. Stretch/mobilisations - arms overhead + inhale, lower arms + exhale
5. Acupressure: Lung 5 - “Cubit Marsh”
6. Self-care: Parasympathetic breath (double inhale) + rhythmical self-hug stroke (light touch)

SESSION 3 – Chest/Sternum

First half of the session:

1. Lay down (optional) – hot water bottle over chest – mindful breathing (in through nose, out through mouth)

2. Crossover stretch over the chest, with head tilted back

3. Trigger point work of the pectoralis major muscle

BREAK

Second half of the session:

1. Myofascial stretch over sternum/pectoralis attachment points (fingers pulling in opposite directions)
2. Intercostal stripping using fingertips + gentle massage of pectoralis attachment points at the sternum
3. Stretch – hands behind head, eyes looking to L and R elbow
4. Stretch - seated spinal twist paired with breath
7. Acupressure: CV 17 - "The sea of tranquility"
8. Self-care: Hands on sternum, head flexed – breath in. Extend head, exhale, hold stretch – exhale with loud vuuuu or aaaah sigh

SESSION 4 – Sternocleidomastoid

First half of the session:

1. Lay down (optional) – hot water bottle side of neck – mindful breathing (in through nose, out through mouth)
2. Heel of hand placed on side of neck – myofascial stretch using gravity
3. Heel of hand massaging the side of the neck
4. Trigger point release of the sternocleidomastoid

BREAK

Second half of the session:

1. SCM stretch laying down or seated.

2. Cervical mobilisations paired with breath (flex/ext/lat flex/rotation)
3. Scapulothoracic mobilisations paired with breath
4. Acupressure: LI 17 - “Celestial Tripod/Heaven's tripod”
5. Group deep breath with loud exhale
6. Self-care: 10 min NSDR video:
https://youtu.be/KHIbgSN2qAU?si=4xJcd7FlveYmyWMS

SESSION 5 – Subclavius

First half of the session:

1. Laying down optional, heat over upper chest (subclavius) – mindful breathing (in through nose, out through mouth)
2. Crossover chest stretch with head tilted back
3. Subclavius stripping along clavicle using fingertips

BREAK

Second half of the session:

Lower rib breathing - hands placed on lower ribs, inhale directed at expanding the ribs

Stretch: Wall angels paired with breath - inhale + arms up, exhale + arms down

Acupressure: Heart 7 - “Mind Door” / “Spirit gate”

Guided box breath x 4 (loud exhale on the last one)

Self-care: 10 minute Yoga Nidra video:

Ten Minute Yoga Nidra | Reset Your Nervous System

SESSION 6 – Suboccipitals/All rounder

First half of the session:

1. Mindful breathing (in through nose, out through mouth) with heat on occipital ridge or belly – POTS/Circulation people avoid this!!
2. If lying down – bring knees to chest & hug, if sitting just self-hug (deep breaths)
3. SIT UP – thumbs along occipital ridge - gentle massage

4. Cervical mobs (flex/ext, rotation, lat flex)
5. Cup neck with hand & massage up and down it
6. Trapezius/scalene/lev.scap triple stretch with mindful breathing

BREAK

Second half of the session:

1. Body scan while lying or sitting.
2. Acupressure: GV 20 - “Hundred meetings”
3. Self-care: strategies to use moving forward:

<u>4Ds and 5Ps</u>

DO – select what you absolutely need to do

DELEGATE – if you live with someone, what can you delegate? If you don't live with anyone, what can you delegate to other people in your life?

DELAY – what can wait?

DITCH – what can be taken off the list?

PLAN – every day, make a plan that allows you to factor in rest and includes the 4Ds

PRIORITIZE – Identify what you need to prioritize on what day

PACE – one of the most important factors. Even if you're full of energy today, don't do more than what you've planned

POSITIONING – modifying activities to make them easier to perform e.g. sit during a shower, have everything you need daily within reach so you don't exert yourself trying to get to it.

PLEASURE – always include something that gives you pleasure, no matter how small

APPENDIX G: COVID-19 Yorkshire Rehabilitation Screening (C19-YRS)

COVID-19 Yorkshire Rehabilitation Screening (C19-YRS)

Self-report version

Patient name:

NHS number:

Date: Time:

We are getting in touch with people who have persistent health problems after having had a diagnosis of COVID-19 (coronavirus disease). The purpose of this questionnaire is to find out if you are experiencing problems related to your recent illness with COVID-19. Your responses will be recorded in your clinical notes. We will use this information to monitor your symptoms, offer treatments and assess response to treatment.

This questionnaire will take around 15 minutes. If there are any topics you don't want to talk about you can chose not to respond.

Do you consent for this information to be used for audit and research as well ? **Yes** ☐ **No** ☐

Opening questions:

Have you had any medical problems related to COVID-19 that needed hospital admission? **Yes** ☐ **No** ☐ Details:
Have you used any other health services to manage COVID-19 symptoms (e.g., your GP?) **Yes** ☐ **No** ☐ Details:

Please respond to the below questions to the best of your knowledge.

'Now' refers to how you feel now/this week.

"Pre-COVID" refers to how you were feeling prior to contracting the illness.

If you are unable to recall this, just state 'dont know'

1. Breathlessness	On a scale of 0-10, with 0 being not breathless at all, and 10 being extremely breathless, how breathless are you: (n/a if you do not perform this activity)	Now	Pre-Covid
	a) At rest?	0-10: ____	0-10: ____
	b) On dressing yourself?	0-10: ____ n/a ☐	0-10: ____ n/a ☐
	c) On walking up a flight of stairs?	0-10: ____ n/a ☐	0-10: ____ n/a ☐

2. Cough/ throat sensitivity/ voice change	Have you got any of the below symptoms that is new since contracting the illness? • cough/ throat sensitivity **Yes** ☐ **No** ☐ • voice change **Yes** ☐ **No** ☐ • noisy breathing **Yes** ☐ **No** ☐ Which of these three is the worst symptom - Rate the severity of this problem (0 being not present, 10 being severe and life disturbing) Now: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐ Pre-Covid: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐
3. Swallowing/ nutrition	Are you having difficulties eating, drinking or swallowing such as coughing, choking or avoiding any food or drinks? **Yes** ☐ **No** ☐ Rate the severity of swallowing problem (0 being no symptom, 10 being severe and life disturbing) Now: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐ Pre-Covid: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐ Are you or your family concerned that you have ongoing weight loss or any ongoing nutritional concerns as a result of Covid-19? **Yes** ☐ **No** ☐
4. Fatigue	Do you become fatigued more easily compared to before your illness? **Yes** ☐ **No** ☐ Rate the severity of fatigue (0 being not present, 10 being severe and life disturbing) Now: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐ Pre-Covid: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐
5. Continence	Since your illness are you having any <u>new</u> problems with: • controlling your bowel **Yes** ☐ **No** ☐ • controlling your bladder **Yes** ☐ **No** ☐ Which of these two is the worst symptom - Rate the severity of this problem (0 being not present, 10 being severe and life disturbing) Now: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐ Pre-Covid: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐
6. Pain/ discomfort	Have you got any pain that is new since contracting the illness? **Yes** ☐ **No** ☐ If Yes, • chest pain **Yes** ☐ **No** ☐ • joint pain **Yes** ☐ **No** ☐ • muscle pain **Yes** ☐ **No** ☐

	• headache **Yes** ☐ **No** ☐ • abdominal pain **Yes** ☐ **No** ☐ • other pain **Yes** ☐ **No** ☐ Within the last week, which of the these was the worst problem – Rate the severity of this problem (0 being no pain or discomfort, 10 being severe and life disturbing pain) Now: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐ Pre-Covid: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐
7. Cognition	Since your illness have you had new or worsened difficulty with: • concentrating? **Yes** ☐ **No** ☐ • short term memory? **Yes** ☐ **No** ☐ • planning? **Yes** ☐ **No** ☐ Which of these three is the worst symptom – Rate the severity of this problem (0 being not present, 10 being severe and life disturbing) Now: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐ Pre-Covid: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐
8. Anxiety	On a 0-10 scale, how severe is any anxiety you are experiencing? 0 means I am not anxious, 10 means I am extremely anxious. Now: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐ Pre-Covid: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐
9. Depression	On a 0-10 scale, how severe is any depression you are experiencing? 0 means I am not depressed, 10 means I have extreme depression. Now: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐ Pre-Covid: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐ Are you currently having thoughts about harming yourself in any way? **Yes** ☐ **No** ☐
10. PTSD screen	a) Have you had any unwanted memories of your illness or hospital admission whilst you were awake, so not counting dreams? **Yes** ☐ **No** ☐ b) Have you had any unpleasant dreams about your illness or hospital admission? **Yes**☐ **No**☐ c) Have you tried to avoid thoughts or feelings about your illness or hospital admission? **Yes** ☐ **No** ☐ Rate the severity of these stress problems (0 being not present, 10 being severe and life disturbing) Now: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐ Pre-Covid: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐

11. Communication	Since your illness have you had new or worsened difficulty with communication/word finding difficulty/ understanding others ? **Yes** ☐ **No** ☐ Rate the severity of communication problem (0 being not present, 10 being severe and life disturbing) Now: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐ Pre-Covid: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐
12. Mobility	On a 0-10 scale, how severe are any problems you have in walking about? *Or moving about if you normally walk using aids* 0 means no problems, 10 means severe or completely unable to walk about. Now: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐ Pre-Covid: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐
13. Personal-Care	On a 0-10 scale, how severe are any problems you have in personal cares such as using the toilet, washing and dressing yourself? 0 means no problems, 10 means completely unable to do or fully dependent on others to help. Now: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐ Pre-Covid: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐
14. Other Activities of Daily Living	On a 0-10 scale, how severe are any problems you have in doing your usual activities, such as your household work, leisure activities, work, study or shopping ? 0 means no problems, 10 means completely unable to do or fully dependent on others to help. Now: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐ Pre-Covid: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐
15. Social role	On a 0-10 scale, how severe are any problems you have in caring for family members and/or your interaction with friends that are related to your illness (and not due to the social distancing/lockdown measures) ? 0 means no problems, 10 means completely unable to do Now: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐ Pre-Covid: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐

What is your employment situation and has your illness affected your ability to do your usual work? Occupation: _____ Employment status before Covid-19 Lockdown: _____ Employment status before you became ill: _____ Employment status now: _____
Do you think your family or carer would have anything to add from their perspective?

Are you experiencing any other new problems since your illness we haven't mentioned? Rate the severity of the problem (0 being not present, 10 being severe and life disturbing)

Palpitations: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐
Dizziness/ falls: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐
Weakness: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐
Sleep problems: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐
Fever: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐
Skin rash: **0** ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9** ☐ **10** ☐

Other symptoms – free text

How good or bad is your health overall?

NB: PLEASE NOTE THAT THIS QUESTION IS SCORED IN THE OPPOSITE DIRECTION TO THE REST OF THE QUESTIONS IN THIS QUESTIONNAIRE.

For this question, a score of 10 means the BEST health you can imagine. 0 means the WORST health you can imagine.

a) Now: WORST HEALTH 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ BEST HEALTH
b) Pre-Covid: WORST HEALTH 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ BEST HEALTH

APPENDIX H: PARTICIPANT FEEDBACK

Participants were asked several questions at the end of their week 16 questionnaire, to obtain their feedback on the study. Each line represents a different individual's answer. These have been reported without any alterations and include the answers from two participants who had to withdraw from the study in its final weeks, due to missing one session and starting a separate treatment, respectively, which meant their data had to be excluded from the study.

Question 1: Why did you choose to take part in this study?
I think it's important to contribute to research to find a way forward and I hoped potentially Id see some improvement
To try something that would help my symptomes
because there are not many treatment options available, my GP doesn't know what she should do with me and has become quiet, I don't get support anywhere for Long Covid. at least this was an experimental treatment option.
Hope. I also felt vagus nerve damage was present
To learn techniques to manage long covid symptoms as the nhs long covid clinic has closed by me as funding withdrawn
To support research into the condition.
Wanted to help with research. Interested in skills and approach.
To explore alternative treatments
I am open to any additional structured support I can get that might help me manage or improve my Long-COVID symptoms. I am also interested in learning more about the mechanisms and processes in my body that might be affected by LC and how self-massage and self-care exercises might be able to help.
It seemed likely to help
In the hope I might feel better
I wanted to receive the PT

Question 2: What did you find beneficial in the study?
I found some of the techniques released tension and provided some localised symptomatic relief but I’m not sure I maintained the benefits after a few days.
Types of massages and pressure points
meetings were live (no recordings); I knew who to contact; good set up of the study; for me personally, I didn't experience any major benefits but even spending an hour once a week with these exercises felt beneficial in and of itself
The fist session.i had energy for several days after that
Some of the techniques to reduce stress , deepen and slow down my breathing
Guided sessions for self care
Lovely atmosphere. New skills learned. Structured time weekly for dome gentle movement.
Very helpful exercises
The structure of the sessions - having a regular, weekly meet up where we learnt a number of different exercises at a gentle pace. The combination of self-massage techniques and breathwork was really interesting, as I'd not done these in combination before. Learning acupressure points was really fascinating and something I'd like to explore further. The sessions being led by someone who understands Long-COVID and the issues faced by the participants in the group was really helpful.
Being amongst fellow sufferers. Regular breathing excercises and fascia release. My posture improved significantly.
The prescribed time to sit and have helpful exercises
The sessions were helpful, just being together and Prisca's calming presence. And learning how helpful it is to do self-massage

Question 3: How did you find the self-care element? Have you continued with any of the exercises since the last Zoom session?
Helpful
Some exercises but not all
I haven't continued because I forget.. a clear structure is necessary for me and the weekly sessions helped with that. I would also wonder whether I am making errors in how I do the exercises.
Yes but only ones I can remember
Yes I now use a lot of the exercises as part of my daily routine as use them as restorative activities during the day . I do regular body scans and depending where the tension is I may use specific activities to target this . I also do guided meditations .
Yes,
I have continued. The sessions gave me new tools for my routine.
Some of them, difficult to motivate myself
I found it really interesting to learn a variety of different self-care techniques. Some I enjoyed and found more beneficial than others, and those ones I have used from time-to-time since our last zoom session (the physiological sigh is the one I use most often). I think it was great to give us a number of different techniques over the weeks, as I'm sure different people resonated with different exercises, and so hopefully everyone would have found something that was beneficial to them. However, I do find it difficult to remember them in the moments I most need them (like in times of stress), but perhaps I need to do them more regularly so they become more familiar to me.
No, I found the breathing challenging and lacked the self discipline to persevere. I don't really like body scan excercises.
Always good to be reminded to relax! Yes have continued
I do the self massage. I liked that part

Question 4: From this experience, in what way/s do you think clinical massage could play a role for people living with Long COVID, if at all?
I'm not sure. It feels nice
In some ways, especially to relax and have clear head to focus on yourself
I think the self-massage left me feeling a bit uncertain at times - I wasn't sure whether I was doing the right thing. In-person massage with a practitioner could be immensely helpful, I assume, because they know exactly what they are doing and what impact they have.
A huge role
That it has a role alongside more traditional treatments to manage symptoms . This approach also helps me feel that I am managing my symptoms and they are not controlling me
Giving relieve and comfort both physically and then mentally as a result of the bodies natural reaction from physical discomfort prior
Yes, as long as it is led/ administered by someone who has specialist knowledge of the risks of any change or exertion in this condition.
Really useful, need to keep going with it
I imagine, if done regularly, clinical massage could help some people with Long-COVID. Providing people with tools and techniques to help themselves is always a good idea, as it is empowering people living with a condition that takes an awful lot from them. I am grateful to have been given tools and strategies that I can implement myself when required, although I would definitely benefit from having further taught session and will definitely need some kind of resource to refer back to and remind me of the different exercises, in order to execute them by myself.
Help with resolving disregulated breathing and fascia release.
I think quite a big part. We are not given much help or understanding and massage addresses both. Also reminds us to be mindful about taking breaks and looking after ourselves. It feels good and feels beneficial.
I think it could help with nervous system support and pain management, and body awareness

Question 5: What have you gained/learned by taking part in this study?
That self massage can be more helpful than I thought
Simple movements can have great impacts
using hot water bottles on muscles and on specific parts of the body
I would like regular sessions!
Lots of practical strategies for managing my symptoms
Simple methods to help release some physical discomfort, more self awareness by taking a moment to care for yourself, and listen to what may be being masked by the body as it just trys to survive in thr moment.
Fascia release methods.
Understanding of muscles and breathing
I have gained a greater understanding of my body and how certain self-massage techniques can help regulate the nervous system. I am definitely interested in learning and understanding more about this.
It has been a massive boon to be taken seriously, other health professionals havre been very dismissive.
Take time to care for yourself and how simple massage techniques can benefit both mentally and physically.
I learned about breathing and self massage to help with symptom management, and I learned how gently and slowly I can do those things

Question 6: Do you have any suggestions for improving this study in the future?
I found it hard to see the exact point of where the practioner was aiming on the body sometimes probably due to lighting
the questionnaires were not targeted enough for the study - because they were so generic, I responded almost the same every single time. It didn't leave space to monitor subtle changes after the intervention as the benchmark was always pre- and post illness which I imagine wouldn't change remarkably with a subtle intervention like this. maybe it would have been helpful to record some further changes between last week and this week, instead of pre- and post illness in order to understand more subtle changes in symptoms.
Probably improve the questionnaire
I would be interested in seeing the results of my symptom ratings pre this study alongside the scores I have done today to see what changes there have been . I do feel more positive and that my symptoms have lessened or I can manage them better - it would be helpful to see if my scores reflect this
There were some days when I was too fatigued to sit up for v long. There were usually reclining versions of each section, but it would be great if there were supline versions for all exercises.
I found the questionnaires a bit challenging. They definitely took me longer than the suggested 15 minutes! But I understand that they are an important part of the data analysis, so I didn't mind doing them for the time frame of this study (but would have found them too onerous if it had been for any longer period of time). My guess is that if you ran this study at a different time of year (Spring/Summer) you would likely see different results. Over the years I have noticed a seasonal impact on my LC symptoms, which worsen in the winter, and every year I have a setback between the months of Nov-Feb (not to mention the stresses of strains most people experience over Christmas and New Year!) So whilst I enjoyed the study and felt some benefits from the techniques I learnt, I'm not sure it shows in my questionnaire data as there were so many other factors affecting my LC symptoms at the time. It would be really interesting to run the study again with the same participants during the Spring/Summer and see if there were any noticeable differences in impacts of the study at a different time of year (I for one would be very interested in participating, should you choose to do this!)
To know that we would be provided with a video of all the exercises from the beginning. It was hard to remember them.
Maybe encouraging us to try the exercises everyday
It would be really great if the sessions were recorded so we could access them in the future

Question 7: Do you have any other feedback? (e.g. the running and design of the study itself, the symptom management it may offer, where it fits as part of Long COVID care more generally, etc)
No
No
the running of the study was great, I felt supported throughout and felt I could ask any questions anytime. I would add that if someone misses a session, they shouldn't be immediately excluded from the study - this is a common situation in studies, I think it would be good to keep the data even for those who missed a session or two, it can always be stated as a caveat in the research report. especially with an unpredictable and fluctuating illness like long covid it is hugely important to not exclude people because of missed sessions.
There was a very long pre exercise time. It seemed rather odd
It might have been useful for a little more interaction between participants so we felt more part of a community during the study ? Maybe more if a discussion on how we found each week"s after care activities
Sadly, just so short, the guided sessions were great, and had a nice feel to have others involved. This journey can often feel lonely, and many people can't full appreciate the situation you find yourself. It's hard to explain how symptoms can come and go, or seemingly flare up at different times. These sessions had no judgement, and made it a safe place to be present, both on good and not so good days.
The regular reminders were helpful. It was a pleasure to party.
No
Each week, I would have liked to have been able to practice the self-massage techniques that we had just learnt at home. Perhaps, instead of the self care homework, we could have been given the recording of the zoom session (or some other resource with the information about the clinical massage techniques we had just learnt), so that we could try it again by ourselves. And that way, we might have seen bigger benefits from the massage component of the sessions?
The questionnaire wasn't very useful to reflect my symptoms and my perception of themvaried with mood at the time.
I think this should be offered to everyone after Covid.
This was so wonderful. Thank you.