Kristina Lewis (2026)

Evaluating the effects of the Jing Method ™ Chronic Stress and Pain Protocol on Stress levels of Pregnant Women using an Online Course

BTEC L6 Dissertation

Brighton: Jing Institute of Massage and Complementary Medicine

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

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

Mrs Kristina Lewis: _____

Date:

Acknowledgements

With deepest thanks to my teachers and their lineage of teachers throughout the ages who have offered their knowledge and wisdom with an open heart.

ABSTRACT

This 16 week study used the Jing method ™ for chronic pain protocol adapted for pregnancy and online use and measured the stress levels of participants. Chronic stress is a multifaceted issue with wide ranging negative effects throughout all the systems of the body. During pregnancy stress has also been shown to affect the growing baby and the postpartum relationship, yet medical interventions are limited and therefore non drug based solutions are needed.

This intervention was done online so as to be more accessible and taught the participants ways that they could actively manage their own stress responses. Stress levels were measured weekly using the DASS21 form during the observation and intervention phases. The results showed a downward trend of stress scores during the intervention phase which held at the follow up four weeks later.

The implications of this study show that self practice of massage and pregnancy yoga techniques can help women regulate their nervous systems and lower their self reported stress levels. More work is needed longitudinally and with higher participant numbers to further test the efficacy of these findings.

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Table 1: Symptoms of Stress

Mental	Physical	Behavioural
Headaches or dizzyness	Difficulty concentrating	Being irritable and snappy
Muscle tension or pain	Struggling to make decisions	Sleeping too much or too little
Stomach problems	Feeling overwhelmed	Eating too much or too little
Chest pain/faster heartbeat	Constantly worrying	Avoiding certain places or people
Sexual problems	Being forgetful	Drinking or smoking more

(adapted from NHS, 2025)

Table 2

DASS Severity Ratings (Multiply summed scores by 2)

Severity	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely severe	**27+**	**20+**	**34+**

FIGURES

Figure 1

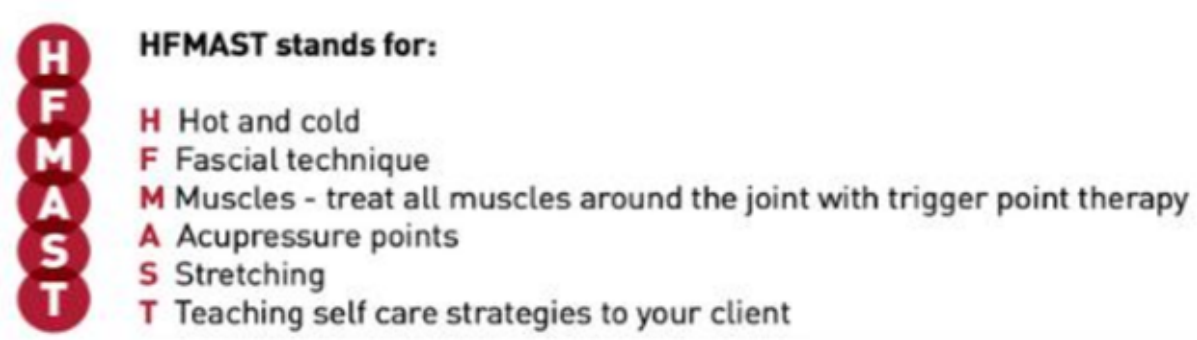


Figure 2

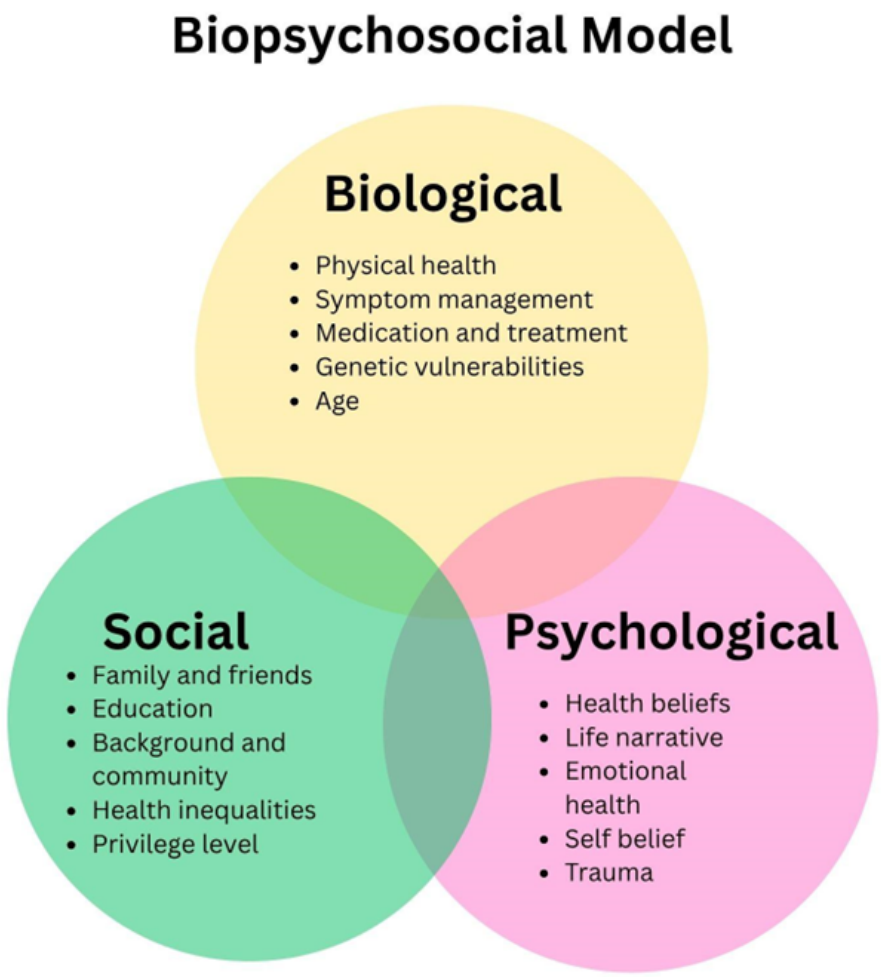
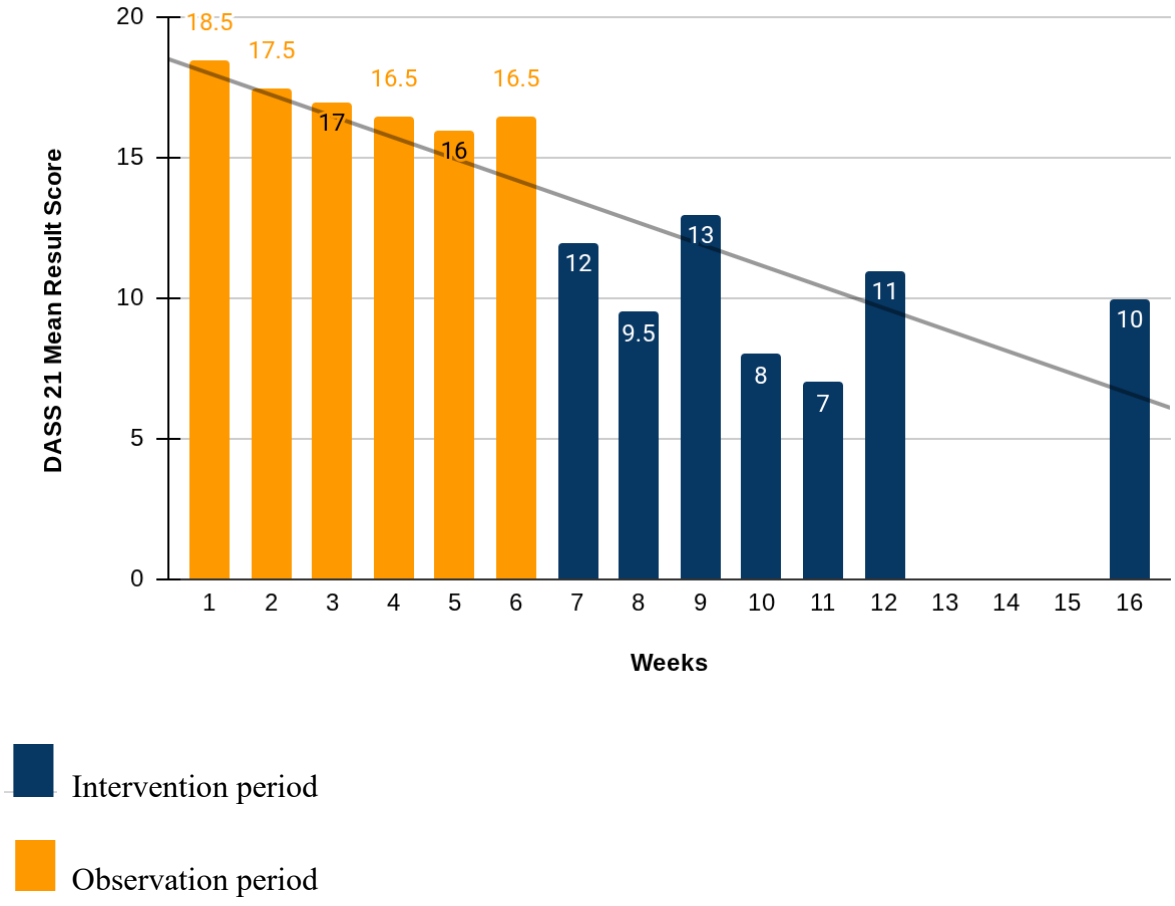


Figure 3

Results of Jing Chronic Pain Protocol Online Course on Pregnant Women's Stress Levels


DASS 21 Mean Result Score
20
15
10
5
0
18.5
17.5
16.5
16.5
17
16
12
9.5
13
8
7
11
10
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
Weeks
Intervention period
Observation period

LITERATURE REVIEW

This study will look at pregnant women experiencing chronic stress and evaluate the effects of the Jing chronic stress protocol. Chronic stress can have a negative impact on mental and physical health in a myriad of ways as well as potentially causing unwanted behavioural changes (NHS, 2022, accessed Jan 2026).

Table1: Symptoms of Stress

Mental	Physical	Behavioural
Headaches or dizzyness	Difficulty concentrating	Being irritable and snappy
Muscle tension or pain	Struggling to make decisions	Sleeping too much or too little
Stomach problems	Feeling overwhelmed	Eating too much or too little
Chest pain/faster heartbeat	Constantly worrying	Avoiding certain places or people
Sexual problems	Being forgetful	Drinking or smoking more

(adapted from NHS, n.d. accessed Jan 2026)

It is important to distinguish between different types of stress for the purpose of this study as not all stress is detrimental. Acute activation of the stress response to escape from a harmful situation is a very necessary and helpful response. Chronic stress however can put huge demands on the nervous, respiratory, endocrine, digestive and immune system and can trigger or aggravate many different diseases within these systems. Long term maladaptive raised

cortisol levels can lead to problems in the metabolic system, obesity, cancer, mental health disorders, cardiovascular disease and lowered immune system functioning. (Chu, Marwaha, Sanvictores, et al. 2025)

This study will focus on chronic stress which is maladaptive, and this will be what is meant by stress within the context of this study. (Russell and Lightman, 2019)

Pregnancy is a time of huge psychological, physical and social changes for a mother and often emotions are experienced as heightened during the perinatal period. During this time if the mother has a high level of perceived level of stress it will affect the women's experiences and behaviours (Schetter and Tanner, 2012). High levels of maternal cortisol, used as a marker of stress, are also linked to spontaneous preterm birth, lower birthweight (Staneva, et al 2015) and may negatively affect the mother's birth experience (Slade, *et al.* 2021). Maternal stress has also been associated with negatively impacting their babies neurobehavioural assessment newborn scores. (Field, et al 2006) Research is accumulating to show that the stress levels of a mother prenatally, affects the mental health of her baby in later life (Van den Bergh, et al. 2020) and therefore could have potential lifetime behavioural, physiological and immune function effects on the baby too.

In Porges' Polyvagal theory the tonality of the vagus nerve is found to have different functions relating to the perceived level of threat/safety in the environment. This theory includes identifying the three different states of vagus nerve activation. In ventral vagal nerve activation an individual feels safe and experiences social engagement and creativity, in sympathetic fight or flight activation there is a fear based survival response and in dorsal vagal nerve pathway activation the individual faces a threat which they perceive cannot be

overcome which leads to freeze, shutdown and potentially dissociation as a life saving mechanism.(Porges, 2007)

This theory has led to the idea that an individual can switch from the defensive strategies when there is a perceived stress to ventral vagal if they are able to first risk assess and then, if the environment is perceived as safe and they are able to inhibit their dorsal and sympathetic nervous system responses (Porges, 2009).

It is this ability to switch nervous activation which yoga, meditation and massage aims to consciously employ in order to engage the parasympathetic vagus nerve pathways in ventral vagal state. It is important to note that within polyvagal theory this can only be achieved if the environment is perceived as safe. When a mother is able to experience love, joy and feel supported in her pregnancy she is more able to bond with her growing baby and this has also been shown to reduce stress levels (Navon–Eyal, and Taubman - Ben-Ari, 2023).

Unfortunately, pregnant women may still face very real chronic threats, such as an unsafe home environment, insufficient support and a lack of appropriate care. Recent governmental cuts in maternity are described as '*shocking budget cuts that will compromise the delivery of safe maternity care in every way'* by the Royal College of Midwives' (RCM website, 2025).

Treatment of stress using medication during pregnancy has reduced options due to the effects on the baby of the drugs. Fluoxetine and Selective serotonin reuptake inhibitors (SSRIs) have a developing body of evidence which shows they are safe options, although all drugs have some side effects and these must be balanced by the greater benefits of being on the

medication in each case (Ward and Zamorski 2002). In light of this complementary non drug based therapies have obvious appeal in pregnancy.

Complementary Therapies to Reduce Stress in Pregnancy

Meditation has a growing body of evidence of stress reduction as well as other health benefits. A recent study of 513 participants provided positive measurable physiological results by looking at stress markers such as SIgA for immune function and electroencephalography (EEG) which measures brainwave patterns as an indicator of stress levels (Church, *et al.* 2022). Mindfulness practices have been shown to have preventative and protective qualities against stress both during and after pregnancy (Boekhorst, *et al,* 2020).

Yoga has a strong evidence base for reducing stress levels by decreasing cortisol levels, blood pressure and using cytokine markers to demonstrate improved immune system functioning. This has been demonstrated in systematic review and meta-analysis of 42 randomized controlled trials (Pascoe, Thompson and Ski 2017). This review did not include pregnancy yoga and therefore this is an area in which this work could be developed.

Pregnancy yoga has been shown to reduce depression, anxiety, anger and pain in a controlled study which also highlighted the value of relationships and social support to the mother's mental health (Field *et al,* 2013).

In further research by the same team, pregnancy yoga and massage therapy groups had greater gestational age and birthweight than the control group (Field *et al,* 2012).

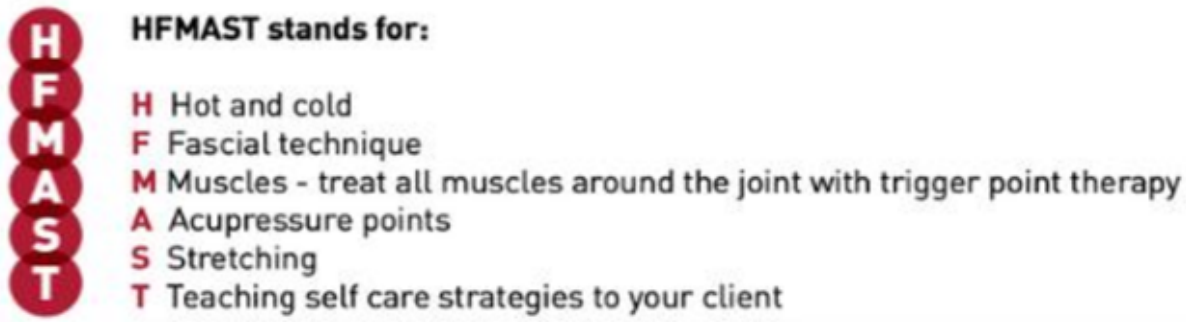
Jing Method ™ for Chronic Stress and Pain

This study will use the Jing Protocol for Chronic Pain and Stress adapted for an online self massage course. Self-treatment of the Jing Protocol has been pioneered online as a necessity during the global pandemic of 2020 and shown to be successful in treatment Aherin (2023), Lindsay (2023), Mitchell (2003), Hurworth (2023), Allen (2021), North (2021), and Bennett (2021).

This has shown the potential for online treatment in a variety of applications although research has yet to be undertaken on treatment of stress or using pregnant women as subjects using the Jing Method ™.

The techniques used in the Jing protocol are captured in the acronym HFMAST.

Figure 1: HFMAST Acronym



Massage using heat has been shown to be effective at reducing stress responses of the autonomic nervous system in a study using 151 subjects which measured serum cortisol and plasma norepinephrine as stress markers (Lee, Park and Kim, 2011). In this study as the treatments will take place online, warming blankets will be suggested along with creating a

cosy and safe environment that is comfortable for each woman as they will be in their own homes.

Fascia is the connective tissue that runs throughout the body as an interconnected web that holds tensional forces within its structures. Stress has been shown to induce fascial changes within the body (Barsotti *et al,* 2021). Self myo-fascial release will be taught as a component of the 6 week online course.

Pregnancy massage has been shown to be effective at improving mental health scores on the DASS questionnaire, showing a decrease in levels of depression, anxiety and stress. (Santi *et al,* 2021). Whilst the results of this study are very encouraging and a large cohort was used, there was no control period, which would have improved the efficacy if used. In a systematic review of randomised controlled trials pregnancy massage has been shown to also reduce cortisol levels and pain levels whilst improving immune function (Mueller and Grunwald, 2021).

In this study pregnancy self massage will be taught online and this will develop any evidence for massage and stress levels in pregnancy. Trigger point work on muscles will be offered in a more gentle way. In the HFMAST techniques in the Stress and Chronic Pain protocol it is recommended to use less trigger point work due to central nervous system sensitisation and therefore more of the other techniques. (Fairweather, Mari, Massage Fusion 2015 p.355).

Stretching has been shown to improve psychological wellbeing as well as decrease muscle tension when used in a clinical controlled trial (Carlson *et al, 1*990). Pregnancy safe yoga stretches will be taught as part of the online course and will build on this evidence base.

Being part of an online group teaching relaxation techniques to pregnant women to reduce stress has a developing evidence base. One study of 110 participants in a randomised controlled trial has shown that being part of a group practising relaxation techniques during pregnancy can reduce perceived stress as well as reducing anxiety in pregnant women (Bastani et al, 2010). More research is needed to improve the evidence base in this area.

Evidence has shown that acupressure significantly decreases stress as well as improving other mental health measures (Cho, *et al.* 2021). Self acupressure will be used in this online study on pregnancy and stress and has a developing research base. In a study of 90 participants conducted online during the covid 19 pandemic self acupuncture was shown to reduce perceived stress levels and improve health related quality of life. This study was limited by the potentially different amounts that each participant practiced at home but shows an area with potential for further study (Abbott, *et al.* 2023).

The Jing method ™ takes a biopsychosocial approach developed by Engel (1977) which includes the whole person, their biology, psychology and social environment as well as their background and how it influences their pain, mental health and overall wellbeing. It has been shown by Al-Mutawtah et al. (2023) in a qualitative systematic review of 14 papers looking at pregnancy social support that there is a link between a good support network and improved health, sense of belonging, stability and raised self esteem. Importantly, this study shows this holds true even in the presence of an externally stressful environment.

In a BMJ systematic review the impact of socio-economic status was shown to impact pregnancy and birth with lower status linked to ‘increased risk of multiple adverse pregnancy outcomes’(Thomson, *et al.* 2021).

Figure 2

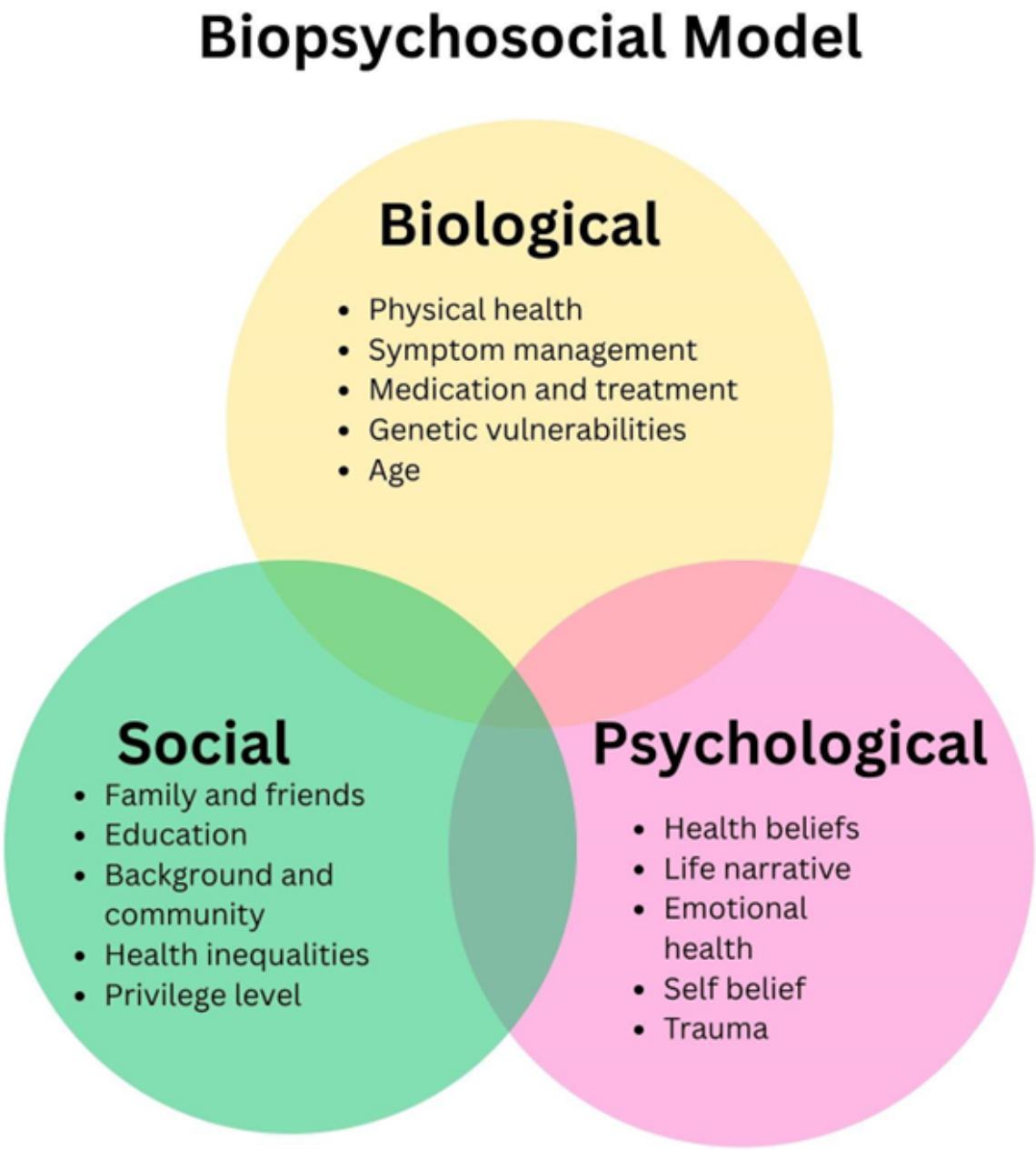


Image by Create Wellbeing

The Jing Method ™ is outcome based and therefore looks at ways to benchmark symptoms including pain levels and goals in order to ascertain if the treatment is successful. This study will use the mental health DASS21 form to benchmark the outcomes.

There is prior clinical evidence from many studies to support the techniques used in the HFMAST approach, including evidence to support using this method online Aherin (2023),

Lindsay (2023), Mitchell (2003), Hurworth (2023), Allen (2021), North (2021), and Bennett (2021). Alongside a biopsychosocial and outcome based approach this method takes a whole person approach to treating chronic stress and pain.

Despite the huge and varied ways in which stress impacts on the lives of pregnant women and their babies this is an area that needs more research and evidence to support complementary therapies, particularly as conventional treatment using drugs is limited.

Method

Ethical approval was received for this study to be completed from Jing Institute of Massage and Complementary Medicine. The purpose of this study is to research if the Jing Protocol for Chronic pain affects the stress levels of women who are pregnant.

A group of six women were recruited via social media and word of mouth. All of the participants were in their second trimester of pregnancy and had stress levels that qualified them to take part in the study. The assessment tool for stress levels was the DASS21 scale with a score of over 14 in the stress category to be included in the study. This benchmark was used as this is the score used to identify high end normal range upwards within the scoring of the DASS21 tool. The study used the quantitative scale of the DASS21 validated questionnaire. The scoring of the results involved doubling the scores in order to reach a number that could be correlated to a level of stress on this test. As the DASS21 tests not only the indicated levels of stress but also anxiety and depression, only the scores relevant to the stress questions were logged in the results. It should be noted that the DASS21 is not a clinical instrument that can be used alone for diagnosis.

A consultation was carried out to assess if each of the women was eligible to take part in the study and any areas of tension that they held their stress as well to check for other concerns. In line with the ethical considerations of the study the participants were asked not to start anything new in terms of receiving other complementary therapies without first checking with the researcher as it potentially could exclude them from the study. Of the six who qualified two had to drop out, one due to medical reasons and one due to family commitments and time constraints, which left a study group of four who stayed for the duration of the study.

The participants were their own control group and had an observation period for the first 6 weeks of the study where they completed a weekly DASS21 questionnaire to self report their stress levels. Using a within group study control period means the same group of participants can be used throughout the whole study, which increases the numbers and gives a sense of continuity to the participants.

After the control period six weekly sessions (Weeks 7-12) took place which lasted one hour each on zoom. The participants were offered the chance to catch up on a session if they had missed one via a recording that was sent out each week.

The group sessions took place weekly online which followed the Jing protocol including self myofascial work, a self massage routine, gentle trigger point work, simple yoga stretches and an element of teaching was also included to explain why these components were useful to lower stress levels. The heat element of the Jing protocol was addressed by encouraging the participants to think carefully about their environment, making sure it was cosy and comfortable. Future options might include using a hot water bottle if the weather was cooler and the use of massage balls for trigger points. The sessions were intentionally kept similar each time so that the participants build up confidence with the techniques and a depth of knowledge and experience. Each week followed the same format with a quick check in, a short educational talk on an aspect of stress and the nervous system, the self massage routine including MFR and trigger point work, simple pregnancy stretching to address different areas of tension, a breathing practice and a guided relaxation. The routine was demonstrated and observed online so there was a chance to check technique. At the end of the session there was again a very quick check in and a reminder of the aftercare and next meeting time.

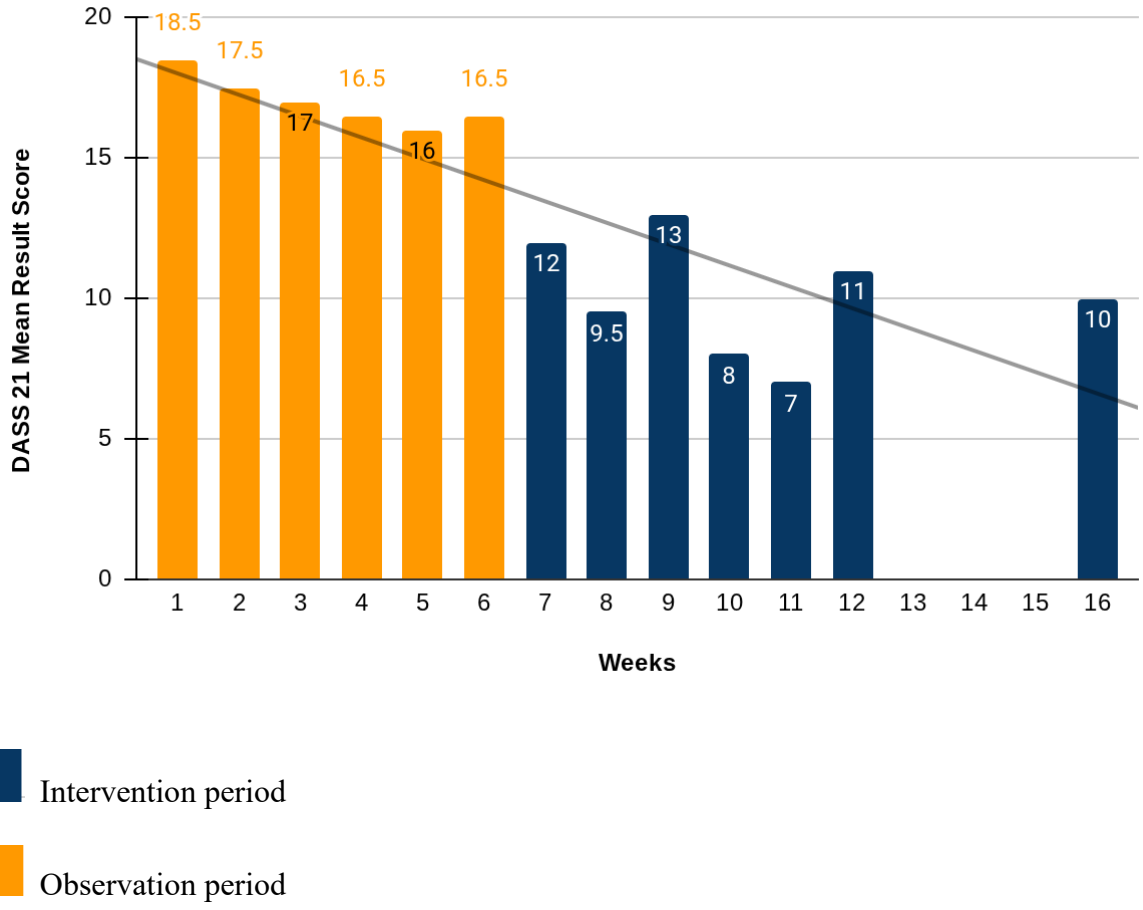
The participants were given two aftercare videos to complete once or more each week, which remained the same throughout the study, which consisted of a guided relaxation and a breathing practice. At week 16 there was a follow up DASS21 questionnaire to assess the long-term benefits of the intervention.

Results

The figures below show the mean results from the four participants who took part in the whole online study; those who dropped out have not been included in the results. The results show a downward trend of stress levels during the intervention period.

Figure 3

Results of Jing Chronic Pain Protocol Online Course on Pregnant Women's Stress Levels



The results show that during the control period the mean score showed higher numbers than during the intervention period, although it did not always closely follow the downwards trend.

To interpret the score the following chart can be used.

Figure 5

DASS Severity Ratings (Multiply summed scores by 2)

Severity	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extreemly severe	27+	20+	34+

DASS21 severity ratings adapted from Bristol.ac.uk by Create Wellbeing https://www.bristol.ac.uk/media-library/sites/sps/documents/c-change/dass-twenty-one-scoring-and-interpretation.pdf

It can be seen that during the control period the mean score was mostly within the mild stress levels range with one week tipping into moderate and the intervention period scores are all within the normal range. This trend remained in place during the follow up at week 16.

Discussion

The research shows a downward trend of stress levels for pregnant women when they were actively involved in the Jing method online massage course during the intervention period. Within this trend there were variations and fluctuations as the results did not show a continuous decline in stress levels each week. The variations may be due to life events of some participants leading to a particularly stressful week and therefore providing an outlying higher result at some points. This is one reason why having a larger group would be useful. Having life events that cause more stress one week than another is normal and this can be seen both in the control period and in the intervention period too. During the control period the mean stress levels of the participants were within the mildly stressed range. It is interesting to note that although the variation continues during the intervention phase, the reported stress levels from the participants is lower, with the mean numbers showing that on average the participants were within the normal parameters of stress.

Aftercare was followed by all participants to varying degrees. At week 16 there was a slight rise in the DASS21 stress level score from the previous weeks, however it stayed within the normal stress level range and did not go back to being as high as it was previously in the intervention stage. This may indicate that the pregnant women involved in the study were better able to manage their stress levels to the techniques and practices that they learned in the course.

The research adds to the body of advanced clinical massage which show that online methods can be effective at getting positive results for the participants as the Jing studies by Aherin (2023), Lindsay (2023), Mitchell (2003), Hurworth (2023), Allen (2021), North (2021), and Bennett (2021). This study builds on the efficacy of the Jing method.

This study builds on the now growing body of literature reviews and research that supports massage (Moraska, 2010), yoga and nervous system regulation practices as ways to reduce stress (Pascoe, Thompson and Ski, 2017).

The research adds validity to the practices of self massage, guided relaxation, stretches to relieve tension and education as ways to lower stress levels.

The role of aftercare was an important part of this research as it is suggested this may be one of the reasons, along with education around stress, that after the four week gap between the intervention and the final assessment of the participants, the group as a whole were able to keep the mean stress levels within normal levels. The use of aftercare is an integral part of the Jing Method and participants noted their home practice at the same time as filling in their DASS21 forms, weekly.

The study supports the need for biopsychosocial awareness within clinical massage as the variations of stress levels show that even if a participant is doing the same practices their stress levels will also be affected by what is happening within their lives and how this is perceived. Perceived stress levels affected by the level of support they receive from loved ones and the professional care they receive as well as their childhood and formative adverse experiences including traumatic events (Suchecki, *et al.* 2021).

The self massage, yoga and education included in this research are non pharmacological interventions which helped the participants to keep their stress levels lower during the intervention and follow up periods. In a systematic review of non-pharmacological interventions by Domínguez-Solís, Lima-Serrano, and Lima-Rodríguez, (2021) the authors found that the most effective interventions to reduce anxiety in pregnancy included yoga, massage by partners and educational materials. The research in this study adds to this that these interventions are also helpful for reducing stress.

DASS21 form as an instrument of Stress Level Assessment

The DASS21 form is a world recognized instrument which helps to give an indication of stress levels, however, it has certain limitations which also reflect on the results and quality of the study. The DASS21 is a short variation of the DASS42 and therefore it does not go into as much depth.

The DASS21 form is a self reporting subjective measurement and therefore does not give an objective view in the same way that measuring biological data that measures stress levels such as heart rate variability or cortisol levels in the blood.

The DASS21 form relies on participants giving an accurate indication of how they remember their stress levels that week, however during the week there might have been one incident that coloured the memory of their whole week. As memory is subject to emotion and fluidity this means that they might not be able to report as accurately as the research requires as discussed by Holland and Kensinger, (2010) in their work on the constructivist theory of memory and the imperfect nature of the retrieval of our memories.

Limitations and Strengths of the Study

The method of this research would have been improved by using a larger study group as this would have led to more validity of the results and included women from a wider social sphere, different backgrounds and ethnicities. As the research was online a national or even international cohort would be possible, using as diverse a population as possible to show if the results were still achievable. This could be made possible by linking up with national maternity services such as the NHS or National Childbirth Trust.

The participants in this group were only experiencing mild stress. The research would benefit from inclusion of those also experiencing moderate to high stress levels to see if the practices were still helpful in lowering their stress levels and this could be taken up in future research.

The same research could also be conducted in person and this would also have the benefit of making a more cohesive group of support for the women which has been shown to be supportive for stress resilience Al-Mutawtah et al. (2023). This study did not allow for the participants to connect or form a group outside of the limited time they spend together online. As the group had access to watch the online classes as a replay so they could watch at a different time if needed due to childcare or other commitments, it meant that the group did not do the classes at exactly the same time. Therefore, sometimes the intervention was received at a different time during the week. The time elapsed from the participation of the class and the recording of the DASS21 forms may have affected the stress levels scores and therefore the results of the study, however the longer term impact remains the same and valid. The placebo effect may also have affected the results. The participants may have experienced their stress levels as being lower due to the fact they were actively engaged in practices they thought would lower them. Although a six week in group control period was used, this study did not use any blinding as all participants knew they were part of the intervention group and it was not randomised and this may have affected the results of the study.

Conclusion

The results of the study appear to show a trend in correlation between lower stress levels in prenatal women and participation in the Jing method ™ chronic pain protocol online classes. The lower stress levels were shown to hold within the mean normal range even after 4 weeks of the intervention having ended.

These self-care methods are inexpensive but require knowledge and teaching in order to be able to practice and benefit safely and effectively. Larger research projects within the literature review contained in this research, along with the limited evidence contained within

the study suggest that it would be beneficial for all women to have access to these practices to be able to lower their stress levels during their pregnancy and beyond, although more research is needed in this growing area. There is huge potential for impacts for these practices to benefit the experience of pregnancy, birth, the postpartum period and beyond. If the research within this study was made more robust by adding more objective measurements of stress such as cortisol levels and heart rate variability this could also add to the credibility and claims of the research and therefore would be a potential area of future exploration. Although cortisol measurement would need one on one contact, heart rate variability would be able to be measured using technology such as a fit bit and therefore this would also work as part of an online study.

The research would benefit from further follow ups to see if the benefits of lowering stress levels had any effect on the births of the women involved and how their postpartum experience was perceived. There is also potential for future extensive research work to include following up the babies born from women practicing the stress reduction techniques included in this study and any changes within their nervous system functioning and stress levels. There would also be potential for collaboration with funders to develop this body of work on a national level such as Sport Scotland or national lottery funding.

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APPENDICES

Ethics Form

Jing BTEC Research Ethics Form

BTEC Level 6: Professional diploma in

Advanced Clinical and Sports Massage

Section 1: to be completed by student

Students name	Kristina Lewis
Student number	
BTEC year-group	2026
Date of application	25/04/2025
Student email address	Kristina@createwellbeing.studio
Title of Research project	Evaluating the effects of The Jing Method™ Chronic Pain and Stress Protocol on Stress levels of Pregnant Women using an online course

Section 2:

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
Does it involve children under 18		X
Other vulnerable populations (i.e. mental illness, aged subjects)? Pregnant women	X	
Does your project involve NHS patients, NHS staff or Local Authority Service Providers?		X
Are you planning to use deception?		X
Are you collecting sensitive personal data such as sexuality, mental health data, etc.?	X	
Does your study involve paying participants or an alternative incentive to participate		X
Could the study put you or someone else at risk of injury? There could be transient muscle aches when stretching or if a participant presses too firmly when performing self-care there is a very small risk of bruising. These could occur within any population and is not specific to pregnant women.	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. DASS 21	X	

Section 3: Research premises

Where is your research being undertaken?	Online – conducted from my home to participants home environments
If your research is being undertaken outside of your own premises, do you have written permission?	Not Applicable

Section 4: Recruitment

How will you recruit subjects for this research study?

I am able to take clients throughout the UK due to the online format, although I will focus my efforts on the local area primarily to increase my visibility locally.

1. Using soft copy adverts/posters on social media – Facebook, Instagram,

2. Referrals from local midwives
3. Facebook groups: Mummies and Babies, Peebles
4. Hard copy posters in my surrounding locality
5. Email to current and past client base

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.

The study is to investigate the benefits of an online Jing method protocol on DASS during pregnancy.

16 week on study to investigate the benefits of the Jing method using an online course group format and evaluating the effects on Stress levels of pregnant women

The participants will be used as their own control group.

Questionnaire used - DASS21

6 weeks of filling in the questionnaire, 6 weeks of 1 hours online session weekly plus aftercare, 4 week follow up questionnaire

Each participant will have a consultation prior to beginning the study

Each participant will read the participant letter sign the consent form

Using the Jing chronic pain protocol adapted for online use with a group - self massage, MFR, acupressure points (safe for use during pregnancy), stretching, education, aftercare of a pre recorded relaxation audio of 10 minutes

1 hour session – all adapted to be pregnancy safe

5 minutes welcome and check in (written in comments) - seated

5 minutes education around stress / nervous system responses - seated

15 minutes pregnancy yoga asana practice – combination of standing, seated and floor work

15 minutes self massage to include head, neck, shoulders, arms, pectorals and abdominal area - seated

5 minutes breath practice - seated

10 minute relaxation – lying down

5 minute check in (written in comments) explain aftercare, reminder of next session

DASS21 form sent to be returned weekly during control and 6 days after each online session with 24 hours, and at week 16

Aftercare – 10 minute relaxation practice / breath connection practice you tube link to be sent each week

The study will end after 16 weeks. The participants will be given the chance to submit feedback.

Compliance with the aftercare will be monitored and recorded each week

Section 6: Describe what your participants need to do

All participants will be screened by inclusion criteria before being admitted to the study.

All participants will partake in a one on one full consultation prior to the study commencing and give informed consent to the participant letter

Participants will self record and submit their DASS21 results each week for the first 6 weeks on their control period

Participants will take part in 6 weekly, 1 hour online sessions and aftercare (10 minutes session 1-2 times week) for weeks 6-12

Participants will record weekly their participation in the aftercare 6 days after their online sessions each week

Participants will fill in the DASS21 at week 16 to further assess results.

Section 7: Respecting confidentiality and ethical issues for participants

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

- Data held will be in accordance with the General Data Protection Regulation (GDPR)
- Information on initial signup form informing participants that their information will not be available to third parties.
- Assurance that details will not be seen by anyone else.
- Their names will be replaced by numbers so they will be anonymous.
- As soon as the study is over, all details will be deleted.
- For any online group sessions participants can change their name so that their real identity is not revealed.
- Participants to online sessions will agree not to record any of the research project so as to protect the identities of all the participants.
- There is minimal risk of injury but possibly there might be some transient muscle aches that can occur after a massage or stretching. This will be explained to participants before consenting to the study. Participants will be repeatedly reminded not to press hard and to avoid causing themselves pain during the massage, and to avoid over stretching as this is especially during pregnancy.
- I am an experienced pregnancy yoga teacher with over 10 years experience teaching pregnancy yoga (15 as a qualified yoga teacher), including teaching online during 2020 and beyond.

- This study will be evaluating stress. Should the researcher be concerned about a participant, resources will be available of local or national specialist help where participants can be signposted to. (This is particularly important for vulnerable groups such as pregnant women.)
- Fully qualified therapist.

Section 8: Inclusion and exclusion criteria

What sort of people will the subjects be?

The study will include:

- Pregnant women weeks 12 - 24 at the start of study date,

- Scoring with stress levels over 14+ on DASS21 questionnaire at the pre control study inclusion stage (anxiety and depression sores will be recorded but this will not affect the inclusion criteria as the study is looking specifically on the effects on stress levels)

- Pregnant women with other pregnancy related conditions such as gestational diabetes, pelvic girdle pain or other pregnancy related issues that do not require hospitalization will not be excluded at the start of the study, pregnancy safe and inclusive directions will be given for all.

The study will exclude:

- pregnant women of different gestations other than 12 – 20 weeks at the start of the study
- participants who have a serious mental health condition e.g suicidal or psychotic episode
- A previous history of high risk pregnancy condition which has meant they have required hospitalisation prior to the start of the study

Section 9: Student declaration:

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

Student's handwritten signature:

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

Print Name: Kristina Lewis **Date: 12/06/25**

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

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

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

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

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

EITHER:

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

Signature: ..Kristina Lewis…….date: ....12/06/2025.....

OR:

This project is designed to include fieldwork with human participants.

(please circle yes or no)

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

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

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

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

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

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

Signature: .....Susan Harrison..... date: .....12/6/25.....

DASS 21 Form

Week 1 DASS Pregnancy Stress Study Questionnaire

Thank you so much for taking the time to be part of the study. Your help is so very appreciated and I hope you will benefit from being involved. Please answer the following questions quickly and as accurately as possible without dwelling too much on each answer...

*** Indicates required question**

Email*

Full Name*

1. I found it hard to wind down*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

2. I was aware of dryness of my mouth*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

3. I couldn't seem to experience any positive feeling at all*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

4. I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

5. I found it difficult to work up the initiative to do things*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

6. I tended to over-react to situations*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

7. I experienced trembling (eg, in the hands)*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

8. I felt that I was using a lot of nervous energy*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

9. I was worried about situations in which I might panic and make a fool of myself*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

10. I felt that I had nothing to look forward to*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

11. I found myself getting agitated*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

12. I found it difficult to relax*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

13. I felt down-hearted and blue*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

14. I was intolerant of anything that kept me from getting on with what I was doing*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

15. I felt I was close to panic*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

15. I felt I was close to panic*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

16. I was unable to become enthusiastic about anything*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all – NEVER

17. I felt I wasn't worth much as a person*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all – NEVER

18. I felt that I was rather touchy*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

19. I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all – NEVER

20. I felt scared without any good reason*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

21. I felt that life was meaningless*

Applied to me very much, or most of the time - ALMOST ALWAYS

Applied to me to a considerable degree, or a good part of time - OFTEN

Applied to me to some degree, or some of the time - SOMETIMES

Did not apply to me at all - NEVER

Please enter today's date.

……..