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New research: a pilot randomised control trial assessing the impact of sophrology in people with chronic pain (2021)

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A pilot randomised control trial assessing the impact of Sophrology in people with chronic pain.

Charlotte Chatfield, Audrey Zannese, Caroline Lafarge

Oral presentation at the International Sophrology Federation Conference, 11th December 2021





Background

- Chronic pain is estimated to currently impact 43% of the UK population, with this figure rising with the ageing population (Fayaz, Croft, Lanford, Donaldson and Jones, 2016)
- Chronic pain can have a serious impact on various areas including quality of life, disability, mental health, and employment level (Strand et al., 2019; Mills et al., 2019)
- It can be very difficult to treat and pain medications are often ineffective and can result in complicated side effects, therefore alternative treatments are increasingly being recommended (Tennant, 2019; Kissin, 2013; Klimas et al., 2019)





Review of sophrology for pain management

- A systematic review of three bibliographic databases identified 8 papers related to the use of sophrology for pain management Five studies supported the use of sophrology for pain management
- Two studies found sophrology was not effective as the authors hypothesised One study found sophrology increased anxiety, and reduced physical functioning and quality of life
- In summary: there is potential for sophrology to be beneficial, however the mix of results means further research is needed





The present study

- Aim: to assess the impact of an online sophrology intervention for adults in the UK living with chronic pain
- A pilot randomised controlled trial was used to compare participants taking part in an 8-week sophrology intervention with a waitlist control group
- The study received ethical approval from the University of West London. It was conducted in accordance with the British Psychological Society ethical standards





Participants

- 100 participants were recruited from a range of chronic pain and chronic condition support groups (such as Pain UK, Shingles UK and Crones and Colitis Network)
- Chronic pain was defined as pain lasting over 3 months; therefore, this was the inclusion criteria for participation
- The participants were randomly assigned to the control or intervention group, via a computer programme







Measures

• Level of pain

► Rated their pain on 0-10

- Pain management
 - ➢Use of pain medication
 - ➤Use of alternative treatments
 - Treatment satisfaction



Pain catastrophising

Pain Catastrophising Scale

Pain related disability

➢Pain Disability Index

• Sleep

Pittsburgh Sleep Quality Index



• Depression

Patient Health Questionnaire 9-item (PHQ-9)

Anxiety

Generalised Anxiety Disorder 7-item (GAD-7)

Life satisfaction

➤Satisfaction with life scale

• Resilience

➢Brief resilience scale

• Questions about the intervention groups experiences of sophrology

Open and closed questions used to gauge an understanding of their experiences of sophrology





Demographic profile of the participants

- 92% female
- Mean age: 39.11
- Mean years in pain: 14.05
- 88% had a diagnosis to the cause of their pain
 - ≻16% = Enhlers Danlos Syndrome
 - ≻13% = Fibromyalgia
 - ▶12% = Complex Regional Pain Syndrome
 - ≻8% = Other
 - ≫39% = Multiple Diagnosis
- Statistical tests showed there was no significant difference between the demographic profile of the control and intervention group





Baseline responses of the participants

- These are some of the key baseline responses of the participants
 Mean rating of their level of pain 6.27 out of 10
 - ➢ Participants on average used pain medication 18.29 times a week.
 - ▶99% were rated as having poor sleep quality
 - ≻60% were rated as having severe or moderately severe depression
 - ≻57% sere rated as having moderate or severe anxiety
- Statistical tests showed there was no significant difference between the baseline responses of the control and intervention group





<u>Results</u>

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• Compared to the control group, the intervention group had a significantly bigger change in the following variables:

	Intervention group	Control group
Level of pain	- 1.19	- 0.77
Pain medication	- 5.29	+ 0.88
Treatment satisfaction	+ 2	+ 0.31
Rumination	- 3.47	- 1.12
Magnification	- 2.35	- 0.81
Disability	- 6.22	+ 0.58
Sleep	- 2.82	- 0.46
Depression	- 5.35	- 1.5
Anxiety	- 4.71	- 0.42



<u>Results</u>

• There was no significantly different change between the groups for the following variables:

	Intervention group	Control group
Use of alternative treatments	- 0.11	+ 0.69
Overall pain catastrophising	- 11.65	- 4.23
Helplessness	- 5.83	- 2.3
Life satisfaction	+ 2.89	+ 0.46
Resilience	+ 0.39	+ 0.16





Feedback about the sophrology intervention

- The mean rating for how helpful they found the intervention was 7.82 out of 10
- The mean rating for how likely they would be to continue sophrology was 7.82 out of 10
- The mean rating for how likely they would recommend sophrology to others was 7.82 out of 10





Feedback about the sophrology intervention

- Thematic Analysis was used to analyse the open questions and found:
- What the participants liked most about the sessions
 - ➤The sessions being done in a group
 - ➤The sessions providing them a routine
 - The guidance and relaxing presence of the practitioner
 - > The positive changes they have felt since sophrology
- What the participants liked least about the sessions
 - > The reliance on technology to complete the sessions
 - > The set timings were challenging with other commitments
 - > The initial struggle they felt with understanding and completing some of the exercises





Strengths and Limitations

- ✓ Use of a randomised controlled trial enables comparison between the intervention group to control groups, so the changes seen in questionnaire responses can be attributed to the sophrology
- *66% of the intervention group and 48% of control group dropped out between wave 1 and 2
- *Daily fluctuations in participants conditions could have impacted how they responded to the questionnaires
- *There was no blinding, so participants knew if they were in the control or intervention group which may lead to bias in responses





<u>Implications</u>

- The results show benefits of sophrology for people with chronic pain, demonstrating that it is a valuable method in helping the growing number of people living with chronic pain
- The results found sophrology reduced participants medication use, which could help in reducing participants' reliance and potential of side effects
- If sophrology can reduce pain-related disability, then it can result in an array of benefits, such as increasing exercise levels and employment levels
- With mental health issues being higher among people in chronic pain, then sophrology could help to reduce these
- Finding sophrology delivered over zoom is especially helpful since the surge in telehealth in response to the COVID-19 pandemic





<u>Conclusions</u>

• The study shows sophrology has the potential to be an effective method of pain management and improve the quality of life of adults in the UK living with chronic pain

• Further research is needed to confirm these results, and it would be beneficial to test sophrology against other treatment methods



