



## **Chair-based yoga for older adults with multiple long-term health conditions**

### **Background**

Multiple long-term health conditions (MLTC) are where a person has two or more conditions that can be managed but not cured. As our population ages, it is becoming the norm for older adults to have MLTC.<sup>1,2</sup> While some conditions in some individuals can be well controlled with medicines or other treatments, this is not always the case. Long-term health conditions can lead to poorer health outcomes and affect quality of life in different ways, with some people experiencing little impact on their lives and others needing significant healthcare support.

There has been limited research into the effectiveness of interventions to improve outcomes for people with MLTC. In 2021, a systematic review of published evidence found little difference to participants' health-related quality of life or mental health for different interventions.<sup>3</sup> There is some evidence that yoga may help to manage various physical and mental illnesses and improve quality of life.<sup>4</sup> Research offers support for the beneficial effects of yoga in older adults and for several long-term conditions. However, good quality evidence of the clinical and cost benefits is limited and little research has specifically focused on older adults with MLTC.

### **Gentle Years Yoga**

The Gentle Years Yoga (GY) programme was developed to improve quality of life for older adults, including those with long-term health conditions. Based on standard Hatha Yoga, this chair-based practice incorporates physical postures as well as breathing, concentration, and relaxation activities. The aims of GY are to improve muscle strength, flexibility, balance, mobility, and mental and social wellbeing. Chairs are used for seated exercise and support when standing. The yoga practices are modified so individuals with varying medical conditions and functional abilities can participate safely. Props are used to modify some of the postures and activities. The physical challenge can be

progressed as participants become more able and confident.

We wanted to see how well the programme worked and if it offered good value for money for the NHS.

### **Trial methods**

We chose to do a randomised controlled trial (RCT) as this is the most reliable way to test interventions. Randomly assigning people to receive the intervention or not ensures the groups are comparable. So, any later differences seen are likely to be the result of the intervention and not a chance finding.

Our RCT tested whether offering a 12-week course of GY, with people followed up for 9 months after the course ended, improved quality of life, and reduced anxiety, depression, loneliness and falls for people aged 65 years and over who had two or more long-term health conditions.<sup>5</sup>

The course for those randomised to the GY programme involved 12, 75-minute sessions of group-based yoga, usually delivered weekly, either face-to-face or online. Each class included: an introduction to the theme and practices of the class, basic breathing and focusing activities; an extended warm up and preparatory postures; focused postures and restorative activities; breathing exercises; and relaxation and concentration activities; followed by optional after-class social time. Participants were given home practice sheets to use between classes.

All participants were asked to complete four questionnaires over a 12-month period, which collected data on quality of life and other outcomes of interest.

### **Process evaluation**

We also undertook one-to-one interviews with some of the participants and all the yoga teachers to find out how GY worked in practice. Some yoga sessions were independently observed to ensure consistency of delivery.

### **What we found**

#### **Our participants**

We recruited 454 people through general practices across England and Wales. Of these, 240 people were selected at random to be invited to take part in the GY programme (the intervention) while also continuing with usual care, and the other 214 continued with their usual care without the offer of GY (control group). The average age of participants

was 74 years, nearly two-thirds were female, and the number of long-term health conditions participants had ranged from two to nine (average was three). Two thirds had a cardiovascular condition, over half had some form of arthritis, over a third had a severe problem with hearing or vision and approximately a quarter had anxiety, depression, asthma or chronic obstructive pulmonary disease.

Seven 12-week courses were run face-to-face and 12 online: the average number of GYY classes each participant in the intervention group attended was nine. Course delivery was monitored and shown to be consistent across the 12 yoga teachers who ran the 19 courses.

### Outcomes

The questionnaires completed by participants gave us data on a range of outcomes. When the results from the two groups were compared, we did not find any statistically significant benefits of yoga compared to usual care alone in terms of quality of life, anxiety, depression, loneliness or falls. No serious related adverse events were reported.

Because running the yoga classes was relatively inexpensive, the GYY programme may still be good value for money.

In the process evaluation, 25 GYY participants were interviewed. The GYY style of yoga, whether delivered online or face-to-face, was considered a suitable and safe form of physical movement. At interview, some yoga participants noted no or a modest impact on their health or lifestyle, while others described GYY as transformative, having positive effects on their physical and mental health and emotional wellbeing.

Most participants interviewed saw GYY as a non-challenging form of gentle exercise with mindful breathing. This is not unexpected, as many of those who took part were already physically active and had well-controlled health conditions such as hypertension or mild hearing loss which did not notably impact their daily activities.

### What our findings mean

Rarely is a single trial adopted into national policy and practice. So, our tentative findings on value for money need to be reviewed along with other evidence in a systematic review and meta-analysis.

Our findings indicate that the intervention is safe, acceptable, and valued by some. Healthcare professionals or social prescribing link workers could consider recommending self-funded GYY classes where it appears a 'good fit' with an individual's needs and preferences.

### Conclusions

We have successfully completed the largest RCT of chair-based yoga for older adults with MLTC in the world. Although we found that the offer of a 12-week GYY programme was not associated with any significant benefits in terms of quality of life, mental health, loneliness or falls, it was safe, acceptable to most participants, valued by some, and may be good value for money.<sup>6</sup>

### Acknowledgements

The researchers at the Universities of York and Northumbria thank the GP practices, participants, and yoga teachers who made this study possible.

This study was funded by the NIHR Health Technology Assessment Programme (17/94/36). The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care.

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FUNDED BY

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