

FOCUS ON RESEARCH

TOLERABILITY AND ACCEPTABILITY OF AN INTENSIVE SEATED EXERCISE PROGRAMME FOR OLDER, FRAIL HEART FAILURE PATIENTS

Researchers

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Aim

Exercise training has been shown to improve exercise capacity and quality of life in younger heart failure patients. Little work has been done in older patients with other illnesses, who make up the majority of heart failure sufferers. Programmes tailored to the needs of older people are therefore required. Previous work showed that a seated exercise programme was safe and well tolerated, but although daily activity increased, exercise capacity did not. Furthermore, anxiety increased amongst participants, and carers felt under increased strain.

We therefore aimed to develop a more intensive exercise programme, with closer involvement of carers and with discussion components to address anxiety. We aimed to test the acceptability and tolerability of this intensive exercise programme for older heart failure sufferers.

Project Outline/Methodology

A twice weekly group exercise programme lasting 12 weeks was developed, using a combination of seated exercise, resistance exercise using elasticated bands, and functional exercises based on everyday activities. The programme was tested on a sample of 17 heart failure patients aged 70 years and over, all with multiple illnesses and impaired physical function. We measured attendance rate, adverse events, gathered qualitative feedback, and as a secondary aim, gathered measures of exercise capacity (six-minute walk), quality of life, functional ability, anxiety, depression and carer strain at the start and end of the programme.

Key Results

The programme and accompanying literature and videos were successfully developed. Attendance at the classes was excellent – the attendance rate was 83%, with 80% of participants attending 80% or more of their allocated classes. Only one adverse event was recorded, and feedback from patients and carers confirmed that the programme was popular, enjoyable and highly acceptable.

Exercise capacity increased by a modest amount (six minute walk improved by 19m from baseline). Our measure of physical and psychosocial function improved by 10% - a marked improvement. Measures of anxiety and depression did not worsen over the course of the programme amongst participants, and carer strain did not deteriorate.

Conclusions

The exercise programme was safe, well tolerated, and highly acceptable to patients and carers. Encouraging improvements in outcome measures were noted, although the study was not powered to detect these changes.

What does this study add to the field?

The results extend our knowledge of exercise training in older people with heart failure; they show that increasing the dose of exercise for older heart failure patients is safe and well tolerated. We have developed a practical exercise intervention, tailored to the needs of older people, that can be tested and used in older heart failure patients.

Implications for Practice or Policy

The programme that we have developed is a promising candidate for general adoption by health services. The simple design should allow easy transfer to other healthcare settings, but evaluation of efficacy in a randomised controlled trial is needed first.

Where to next?

The programme requires evaluation in a large randomised controlled trial to test whether it produces significant improvements in exercise capacity, daily activity and quality of life. We have submitted an application to the CSO for funding of such a trial.

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