



FOCUS ON RESEARCH

Physical Activity for Non-ambulatory Stroke Survivors living at home: developing a feasible and acceptable intervention (PHANSS)

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Aim: Clinical guidelines around the world recommend physical activity after stroke. This is to improve health, fitness and function, and also to reduce the risk of further stroke and other diseases. However, current evidence, guidelines and training are mainly based on stroke survivors who can walk. There is a shortage of research to inform guidelines and services for those who are unable to walk (around 20% of stroke survivors). As this group is more at risk, the **aim** of this project was to develop a physical activity programme for stroke survivors who are unable to walk, currently living at home or in a care home, and evaluate its feasibility, acceptability, safety and preliminary effects.

Project Outline and Methodology: This exploratory project comprised 3 stages: 1) Interviewing stroke survivors (target: 16) and carers, and specialist health and exercise professionals (target: 8) to gauge opinions on goals, barriers, motivators and preferred format (individual/ group) for a new physical activity programme for stroke survivors who are unable to walk. 2) Designing a new programme, based on findings from stage 1) and relevant literature. 3) Piloting the new programme with stroke survivors (target: 30) and record: recruitment, retention, preliminary and adverse effects, uptake and attendance, and experiences.

Key Results: Stage 1: We recruited 8 health and exercise professionals, 14 stroke survivors who were unable to walk and 7 carers. All agreed about the lack of appropriate physical activity provision for stroke survivors who are unable to walk.

The main barriers to being physically active were: restricted mobility (and therefore the need for carer support and transport), low confidence and self-esteem, and anxiety (e.g. fear of falling). The main motivators were: working with qualified professionals who provided safe activities that were enjoyable, meaningful and adjusted to their abilities and interests. Stage 2: While the core of the 12-week chair-based programme comprised evidence-based fitness training, it was personalised by focusing on

each individual's abilities, interests and priorities, whilst boosting confidence and motivation. Stage 3: It was very difficult to identify stroke survivors who were unable to walk. Despite extensive efforts, only 9 participants could be recruited. There were 3 drop-outs, but not due to causes related to the programme. There were no serious adverse events related to the programme. Although this was an exploratory study only, and no conclusions can be drawn about its effects, there were indications that the programme helped to improve stroke survivors' confidence, ability to reach their goals, reduce anxiety and the burden on carers. Participants said they had found the programme enjoyable and acceptable, and indicated a range of other benefits.

Conclusions: This small-scale, exploratory study suggests that the new programme was safe, feasible, enjoyable and has potential to yield a range of benefits to stroke survivors and their carers. A larger trial needs to investigate these findings further.

What does this study add to the field? There already is strong evidence for the benefits of physical activity for stroke survivors who can walk. This study, with stroke survivors who are unable to walk, has identified a socially isolated group with severe health problems, at high risk of further complications due to lack of physical activity and social isolation. It is possible to safely engage this group in physical activity - but specialist input is needed to break through the barriers first.

Implications for Practice or Policy: Stroke survivors who are unable to walk at the point of discharge from hospital should be followed up by health- or social care professionals, who continue to assess their needs and seek suitable physical activity opportunities in their community.

Where to next? Further research needs to evaluate the effects and costs of this programme - but first, better ways to identify stroke survivors who are unable to walk are needed.

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