



FOCUS ON RESEARCH

Too much sitting in extended bouts in stroke survivors: a qualitative study to inform novel interventions

Researchers

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Aim

This study aimed to investigate the perceived capability and motivation of stroke survivors to reduce and/or alter the pattern of their sedentary behaviours (any waking behaviours in a sitting/lying or reclining posture when not otherwise active), and to identify opportunities for behaviour change. Using this information the study then aimed to identify strategies that could help stroke survivors reduce and/or break up sedentary behaviours (SB).

Project Outline/Methodology

To guide understanding of time spent in SB after stroke a tool called the Behaviour Change Wheel (BCW) was used. At the centre of the BCW is a 'hub' called COM-B, which explores what needs to change for behaviour change to occur. COM-B explores Capability, Opportunity and Motivation in relation to the behaviour of interest. Using a topic guide structured around COM-B, we spoke to stroke survivors three months after their stroke about their SB. These findings were considered in the context of the wider BCW to guide selection of intervention options and specific intervention 'ingredients' called Behaviour Change Techniques (BCTs).

Key Results

Thirty one people were interviewed (mean age=66.8; SD=14.6 years; 16 male; 10 walking aid). Participants discussed a wide range of SBs (e.g. TV, screen time, socialising, motorised transport).

Capability: all participants were physically capable of standing, but limited in some by pain, dizziness and arthritis or physical tiredness, fatigue and lack of energy. Knowledge of the health consequences of SB was variable and lack of awareness of time spent in SBs common.

Opportunity: the majority of participants were able to identify how their physical and social environment might help/hinder reducing SB. Household chores, walking and going out with family/friends were identified as potential strategies to break up SB.

Motivation: motivation was influenced by perceptions of negative consequences of being active

(pain/discomfort, tiredness/fatigue, bringing on another stroke, slipping/falling) and the benefits of SB (rest, doing an enjoyable seated task). There was an awareness though of negative effects of SB (stiffness/soreness/discomfort; slowing the body down; feeling sleepy/tired; low mood/lack of purpose).

Informed by these qualitative findings and the BCW, the next phase involved designing an intervention strategy. Seven intervention functions were identified (e.g. training, education) and forty-seven behaviour change techniques to fulfil these intervention functions. Further development and testing of a behavioural intervention based on these BCTs and informed by the COM-B model is needed.

Conclusions

This is the first study to interview stroke survivors about their SB in the early post stroke phase (3 months). The BCW has provided a useful framework to identify factors that influence SB after stroke. These findings have been used to inform the development of intervention options.

What does this study add to the field?

This study provides a novel intervention strategy to support stroke survivors to reduce and break up time spent in SB. The strategy has a strong theoretical underpinning and detailed input from the end user, in this case stroke survivors.

Implications for Practice or Policy

Regularly breaking SB has been shown to reduce a key stroke risk factor, systolic blood pressure in stroke survivors. The findings of this study provide information to inform the implementation of strategies which support stroke survivors to reduce/break up their SBs and have potential to reduce secondary stroke and improve health.

Where to next?

Fitzsimons and Mead are co-investigators on a programme grant called RECREATE which involves further qualitative work, co-production workshops and intervention testing (RECREATE-Development and Evaluation of Strategies to Reduce Sedentary Behaviour After Stroke; PI Prof A. Forster, University of Leeds). **Further details:** Dr C. Fitzsimons, PAHRC, University of Edinburgh, claire.fitzsimons@ed.ac.uk