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An unsupervised, home-based balance exercise program delivered through a tablet computer to prevent falls in older adults.



StandingTall exercise app

More information

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StandingTall[®] exercise app

Neuroscience Research Australia

Competitive advantage

- StandingTall[®] offers a varied program of over 2,000 individually-tailored and progressive balance exercises and real-time coaching.
- StandingTall[®] offers a safe, well-accepted method to provide older adults with engaging, fun and motivating exercise opportunities.
- StandingTall[®] is particularly appropriate for older people living in the community who prefer to exercise in their own home or are unable to access community-based exercise classes.

Recent research projects

- developed using the latest insights in geriatric and translational neuroscience
- clinical trial in 500 older people, including a 2-year follow-up for falls data (completion date November 2018)

Successful applications

- icon-FES, a clinical tool to help assess a patient's fear of falling.
- IPEQ, a clinical tool to help assess a patient's incidental and planned exercise levels.
- PPA Sway Path, a clinical tool used to assess a patient's postural sway.
- Trails, a clinical tool used to assess a patient's visual attention and task switching abilities.
- LCST, a clinical tool used to assess a patient's visual contrast sensitivity.

Facilities and infrastructure

- NeuRA, a major research facility dedicated to both fundamental and clinical neuroscience research.

StandingTall logo

Our experts

- A/Prof Kim Delbaere.
- Prof Stephen Lord.

1. Title

StandingTall® exercise app.

2. Subtitle

An unsupervised, home-based balance exercise program delivered through a tablet computer to prevent falls in older adults.

3. Description of technology

StandingTall® offers a varied program of over 2,000 individually-tailored and progressive balance exercises and real-time coaching. It is particularly appropriate for older people living in the community who prefer to exercise in their own home or are unable to access community-based exercise classes.

4. Competitive advantage

Most older adults prefer to age in place, while family members (often living far away) worry about the safety and well-being of their elderly relatives living alone. Coupled with the alarming statistics about falls, this increasingly common dynamic is creating an unprecedented demand for technologies that minimise the risks and consequences of falls. New technology, particularly the use of mobile phones, plus the increase in interest in wearable devices is a new and adapted way to address the market and reach the consumer in their own home. There is solid evidence that technology offers a safe, well-accepted method to provide older adults with engaging, fun and motivating exercise opportunities. Technology-based exercise programs generate high adherence rates and thus provide a meaningful solution for the market; with StandingTall® having the additional benefit that it has a proven effectiveness towards reducing a person's risk of falling.

5. Recent research projects

StandingTall® was developed using the latest insights in geriatric and translational neuroscience. StandingTall® offers a low-cost, home-based solution with a simple user-interface that incorporates physical and behavioural elements. In addition to its compliance-promoting features, StandingTall® has robust marketing claims of reducing fall risk in older people, based on clinical trial data. A large-scale clinical trial of StandingTall® in 500 older people, including a 2-year follow-up, is currently underway with actual falls prevention data (completion date November 2018). This will put StandingTall® at the forefront of this field, being the only technology with a clinically proven effectiveness to prevent falls.

6. Successful applications

2015 Mobile App of low contrast sensitivity assessment for iPad - a clinical tool used to assess a patient's visual contrast sensitivity.

2014 Blinders website – a web-based randomisation resource (<https://apps.neura.edu.au/blinders>)

2014 Mobile App of Trails (trail making test, part A and B) for iPad - a clinical tool used to assess a patient's visual attention and task switching abilities

2013 Mobile App of PPA Sway Path assessment for iPad - a clinical tool used to assess balance

2012 Mobile App of ipeq (Incidental and Planned Exercise Questionnaire) for iPad - a clinical tool to help assess low, basic and high-intensity physical activities.

2012 Mobile App of iconFES (Iconographical Falls Efficacy scale) for iPad - a clinical tool to assess fear of falling using pictures to describe a range of activities and situations.

7. Facilities and infrastructure

The development of the StandingTall® app was conducted at Neuroscience Research Australia (NeuRA), a major research facility dedicated to both fundamental and clinical neuroscience research.

8. Our experts

A/Prof Kim Delbaere is a Principal Research Scientist at NeuRA and Associate Professor at University of New South Wales, Sydney. She is the main developer of StandingTall® and a leading international researcher in the area of accidental falls in older people.

Prof Stephen Lord is a NHMRC Senior Principal Research Fellow and has pursued work in the areas of applied neurology, instability, falls, fractures and transport injury in older people. He has a strong track-record in research aimed at predicting and preventing falls in older people and his work has led to the development of two commercially available fall risk assessment tools.