suggested as indicators of physical function performance in people with PD, however, the ability of these tests in predicting daily physical activity has not yet been investigated.

**Purpose:** The objective of this study was to examine the utility of 3 physical function tests in predicting daily physical activity levels in people with early to mid-stage idiopathic PD.

**Methods:** Design – cross-sectional observational study; measurements – daily physical activity was measured subjectively using the exercise frequency subscale of the Physical Activity Levels for Older adults questionnaire and objectively using a tri-axial accelerometer that was worn around the waist for 7 consecutive days. Physical function was assessed using the 30 second Chair sit to stand test (30s CST), the Mini Balance Evaluation Test (Mini-Best) and the 6 Minutes Walk Test (6-MWT). Demographics and the stage of the disease (i.e. the Hohen & Yahr) were also collected. Associations between the tests and parameters of daily physical activity were examined using Pearson correlations. Regression analysis was also used to determine the significant predictors for reduced daily physical activity measures.

**Results:** Data was collected from 22 subjects (mean age ± SD, 60.3 ± 13.1 years; Hohen & Yahr mean ± SD, 2.4 ± 0.92 units). All 3 tests and age correlated significantly (p<0.05) with the total score of the exercise frequency subscale and with the percentage of moderate to vigorous physical activity that was derived from the tri-axial accelerometer. There was no correlation between stage of disease and physical activity measures; the fact that most subjects scored close to 2 may have influenced this result. After accounting for age, the 30s CST was the only test to significantly predict exercise frequency and percentage of moderate to vigorous physical activity (F2 = 0.58, p = 0.0001; F2 = 0.48, p = 0.03 respectively).

**Conclusion(s):** In contrast with the Mini-Best and the 6-MWT, the 30s CST seems to be useful in predicting physical activity levels in people with early to mid stage PD. Therefore, this test can potentially be used as initial screens for identifying people with PD who needs further assessment.

**Implications:** The 30s CST is a simple test that requires short time and little space for test administration with no need for specialized equipment or training, making it suitable for use in clinical settings and for testing in the community. Considering its feasibility and utility in predicting physical activity status in people with PD, the 30s CST is an important test to be incorporated in future therapeutic trails.

**Keywords:** Parkinson’s disease; Physical activity; Chair sit to stand test

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**Ethics approval:** Approved by Institutional Board Committee at King Abdullah University Hospital-Irbid-Jordan.


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**Research Report Platform Rapid 5 Presentation**

**Number:** RR-PLR5-2189

**Sunday 3 May 2015 13:45**

**Room 324–326**

**THETA BURST STIMULATION (TBS) AND FUNCTIONAL ELECTRICAL STIMULATION (FES) IN POST-STROKE MOTOR REHABILITATION: A RANDOMIZED CONTROLLED TRIAL**

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**Background:** Conventional physiotherapy, presently the mainstay for the stroke rehabilitation has limited efficacy in improving the functional outcome. Preliminary studies on repetitive Transcranial Magnetic Stimulation (rTMS) and FES have been shown to improve the neuronal plasticity and motor control.

**Purpose:** Single blind randomized controlled trial to explore the efficacy of Theta Burst Stimulation (TBS) with Physiotherapy (PT), Functional Electrical Stimulation (FES) with Physiotherapy (PT) and Physiotherapy (PT) alone in improving the upper limb motor functions of patients with acute stroke.

**Methods:** Sixty subjects who fulfilled the following inclusion criteria: (i) first episode of ischemic stroke in the internal carotid artery territory (ii) presentation within 7 days to 1 month of stroke onset (iii) age group between 15-70 years (iv) muscle power of ≤3 in first dorsal interosseous were block randomized into three groups.

**Group A (TBS):** TBS along with PT,

**Group B (FES):** FES along with PT and

**Group C:** PT alone, intervention period was for 1 month. Patients were assessed at baseline, after intervention at 1 month and follow-up assessments at 3 months, 6 months and at 1 year with Fugl-Meyer Assessment (FMA), modified Rankin scale (mRS), NIHSS, Barthel index, Resting Motor Threshold (RMT) and Cortical Silent Period (CSP).

**Results:** As compared to PT alone, adjuvant TBS and FES showed significant improvement in the clinical assessment scales at 1 year follow up (p<0.01). RMT reduced by 10% (p<0.001) in TBS and FES groups as compared to 3% (p<0.01) in PT group at end of 1 year. Mean difference of FMA scores were (TBS; 40.65, p ≤ 0.001), (FES; 40.35, p ≤ 0.001) and (PT; 29, p ≤ 0.001).
Conclusion(s): Adjuvant functional stimulation (Theta Burst Stimulation and Functional Electrical Stimulation) may be useful prospect for post-stroke motor rehabilitation.

Implications: Cortical stimulation with TBS has been proved to improve the motor functions by cortical reorganisation and thereby increased cortico-spinal outflow, whereby on the other hand FES which is a peripheral stimulation has also proved to improve the motor functions. So this study implies a central stimulation with TBS and peripheral stimulation with FES can increase the synaptic pooling thereby improve the motor functions to a larger extent.

Keywords: Theta burst stimulation; Functional electrical stimulation; Stroke rehabilitation

Funding acknowledgements: Department of Science and Technology.

Ethics approval: Institutional Ethics Committee of Sree Chitra Tirunal Institute for Medical Sciences and Technology – No. IEC/223.

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Research Report Platform Rapid 5 Presentation
Number: RR-PLR5-1849
Saturday 2 May 2015 16:00
Room 324–326

PEER-LED COMMUNITY FALLS PREVENTION PROGRAMME: PEER EDUCATORS’ PERSPECTIVES

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Background: One third of community-dwelling adults over 65 years of age fall over each year. While there is strong evidence for effective falls-prevention strategies, there appears to be a gap between research and practice in terms of uptake and implementation of these strategies. One possible approach to addressing this gap is to use peers to deliver falls-prevention messages, however, there is limited research investigating the effectiveness of peer-led falls-prevention education. In addition, no previous research has investigated this education from the point of view of the peers who deliver it.

Purpose: The peer education programme is run as part of the Stay On Your Feet WA® program. This falls prevention health promotion program is coordinated by the Injury Control Council of Western Australia and supported by the Government of Western Australia. The primary aim of this study was to explore peer educators’ perspectives regarding their role in providing falls-prevention education programme for older community dwelling adults.

Methods: A qualitative inductive constant comparative design consisting of two stages, was employed. The first stage consisted of two focus group with all peer-educators (n = 11), and was followed by a supplementary stage involving semi-structured interviews with two peer-educator participants. Two independent researchers analysed the data using thematic analysis. Rigour was established by using method triangulation, investigator triangulation and member checking of the research findings. Findings were used to construct a conceptual diagram.

Results: Peer educators described being motivated to deliver falls-prevention education messages. They perceived that there were both limitations and supportive factors, which affected their ability to engage their peers with falls prevention messages. Personal supportive factors included peer-to-peer connection and perceived credibility. Receiving ongoing training and feedback were deemed supportive factors from the organisation. Limitations reported included reduced access to resources to support peer-led fall prevention presentations in some community venues.

Conclusion(s): There is potential in using peer educators to deliver falls-prevention education within the community, given the peer-to-peer connections that can facilitate optimal engagement with falls prevention messages to influence acceptance, and motivate uptake of falls prevention strategies. These peer educators require ongoing support and resources to maximise their impact.

Implications: Findings from this research may be used to guide a formal, wide-scale evaluation of the effectiveness of peer education for reducing falls in adults over 65 years of age.

Keywords: Health education; Qualitative research; Falls prevention

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Ethics approval: The Human Research Ethics Committee of The University of Notre Dame Australia (Reference 013061F) on 06 May 2013.

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