performance in activities of daily living (ADLs) among stroke survivors is common. Current rehabilitation approaches have limited effectiveness in improving ADL performance and function after stroke, but a possible adjunct to stroke rehabilitation might be non-invasive brain stimulation by transcranial direct current stimulation (tDCS) to modulate cortical excitability and hence to improve ADL performance and function.

Purpose: To assess the effects of tDCS on generic activities of daily living (ADLs) and motor function in people with stroke.

Methods: We searched the Cochrane Stroke Group Trials Register, the Cochrane Central Register of Controlled Trials (CENTRAL) (*The Cochrane Library*, May 2013), MEDLINE (1948 to May 2013), EMBASE (1980 to May 2013), CINAHL (1982 to May 2013), AMED (1985 to May 2013), Science Citation Index (1899 to May 2013) and four additional databases. In an effort to identify further published, unpublished and ongoing trials, we searched trials registers and reference lists, handsearched conference proceedings and contacted authors and equipment manufacturers.

We included only randomised controlled trials (RCTs) and randomised controlled cross-over trials that compared tDCS versus control in adults with stroke for improving ADL performance and function.

Results: We included 15 studies involving a total of 455 participants. Analysis of six studies involving 326 participants regarding our primary outcome, ADL, showed no evidence of an effect in favour of tDCS at the end of the intervention phase (mean difference (MD) 5.31 Barthel Index (BI) points; 95% confidence interval (CI) -0.52 to 11.14 ; inverse variance method with random-effects model), whereas at follow-up (MD 11.13 BI points; 95% CI 2.89 – 19.37 ; inverse variance method with random-effects model), we found evidence of an effect. However, the confidence intervals were wide and the effect was not sustained when only studies with low risk of bias were included. For our secondary outcome, upper limb function, we analysed eight trials with 358 participants, which showed evidence of an effect in favour of tDCS at the end of the intervention phase (MD 3.45 Upper Extremity Fugl-Meyer Score points (UE-FM points); 95% CI 1.24 – 5.67 ; inverse variance method with random-effects model) but not at the end of follow-up three months after the intervention (MD 9.23 UE-FM points; 95% CI -13.47 to 31.94 ; inverse variance method with random-effects model). These results were sensitive to inclusion of studies at high risk of bias. Adverse events were reported and the proportions of dropouts and adverse events were comparable between groups (risk difference (RD) 0.00 ; 95% CI -0.02 to 0.03 ; Mantel-Haenszel method with random-effects model).

Conclusion(s): At the moment, evidence of very low to low quality is available on the effectiveness of tDCS (anodal/cathodal/dual) versus control (sham/any other intervention) for improving ADL performance and function after stroke.

Implications: Future research should investigate the effects of tDCS on lower limb function and should address methodological issues by routinely reporting data on adverse events and dropouts and allocation concealment, and by performing intention-to-treat analyses.

Keywords: Stroke; Rehabilitation; Brain stimulation; Non-invasive.

Funding acknowledgements: None.

Ethics approval: Not applicable.

<http://dx.doi.org/10.1016/j.physio.2015.03.573>

Research Report Poster Presentation

Number: RR-PO-02-09-Sun

Sunday 3 May 2015 12:15

Exhibit halls 401–403

FACTORS INFLUENCING PHYSIOTHERAPISTS' CLINICAL REASONING: A META-SYNTHESIS

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Background: The capacity of physiotherapists to reason effectively in assessment and treatment is fundamental to maximizing patient outcomes and cost-effectiveness. Over ten years ago, the World Confederation for Physical Therapy advocated the International Classification of Functioning, Disability and Health (ICF), to augment this process. The introduction of the ICF highlighted the role of psychosocial as well as biomedical factors in determining a person's health and wellbeing. Commensurate with such initiatives, qualitative researchers began studying the complexity of physiotherapists' clinical reasoning, its nature and processes. Although various factors underlying clinical reasoning have been described, no systematic review of this body of knowledge has been reported. Elucidation of factors that drive clinical reasoning is needed to augment the outcomes of clinical practice, the teaching of physiotherapy, and inform future research.

Purpose: Specifically, to establish a baseline for our current knowledge and elucidate knowledge gaps, our purpose was to interpret and synthesize the findings of qualitative studies designed to examine factors key to physiotherapists' clinical reasoning with respect to their experiences and practices.

Methods: A meta-synthesis based on the guidelines of Sandelowski and Barroso (2007) was selected. Leading electronic databases were systematically searched for studies published between 2000 and 2013. Search terms included physiotherapy, physical therapy, physiotherapist, physical therapist, and clinical reasoning. The source studies were crit-

ically appraised. Interpretation and synthesis of the findings resulted in themes, categories and subcategories.

Results: The literature search resulted in 242 studies. The selection of studies was conducted in stages, i.e., review of titles and abstracts ($n=24$) and then full-texts ($n=9$), according to the inclusion and exclusion criteria. Four themes of factors influencing physiotherapists' clinical reasoning emerged, namely, physiotherapist as a source; patient as a source; recurrent and multifaceted process; and context. Factors related to the physiotherapist as a source were most prominent, e.g., the physiotherapists' knowledge, cognitive capability, and view of the patient. Physiotherapists' approaches to their clinical reasoning were diverse including biomedical and psychosocial components.

Conclusion(s): Because the majority of factors guiding clinical reasoning were related to the physiotherapist, opportunity exists to influence the clinical reasoning process at this level. The notion that this process is recurrent/multifaceted and contextual lends itself to changing in accordance with the needs of the patient, consistent with the ICF and person-centered care. What remains unknown however is whether structured clinical reasoning based on theoretical evidence and qualitative experiences of clinicians results in superior outcomes; and how clinicians weight biomedical and psychosocial elements in assessments and treatments.

Implications: Although we identified some core elements of physiotherapists' clinical reasoning our findings supported the complexity of this process and highlighted knowledge deficits. Although biomedical and psychosocial perspectives emerged consistent with the ICF, for example, the positioning and weighting of their related elements in physiotherapists' clinical reasoning for a given patient warrants elucidation. Both theoretical analyses and empirical studies are needed to refine physiotherapists' clinical reasoning competencies, thereby improve the effectiveness and efficiency of clinical practice and the teaching of these competencies to students as well as inform future research.

Keywords: Clinical reasoning; Physiotherapy; Physical therapy

Funding acknowledgements: The School of Health, Care and Social Welfare, Mälardalen University, Västerås, Sweden.

Ethics approval: Ethics approval was not required.

<http://dx.doi.org/10.1016/j.physio.2015.03.574>

Research Report Poster Presentation

Number: RR-PO-18-23-Sun

Sunday 3 May 2015 12:15

Exhibit halls 401–403

WORK EXPERIENCES AMONG HEALTHCARE PROFESSIONALS IN 2002 AND 2012—A 10-YEAR FOLLOW UP

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Background: The psychological and emotional demands have increased in modern workplaces in general and also in the health care sector. The healthcare personnel who graduated in the late 1990s and early 2000s often started their employment in workplaces characterized by restructuring and downsizing. Results from many studies regarding work dissatisfaction and work-related health problems among healthcare personnel from Sweden and other countries were presented. Some of the factors contributing to work dissatisfaction were lack of support from supervisors and lack of career possibilities. In studies from recent years, authors have shown that work satisfaction is important to prevent burnout among physiotherapists. Work satisfaction is also an important predictor of energy and involvement among nurses and other healthcare workers.

Purpose: The overall aim was to study work satisfaction and psychosocial working conditions among Swedish nurses, occupational therapists and physiotherapists in 2002 and 2012.

Methods: In 2002 and 2012 a national cross-sectional, postal survey was conducted to a random sample of nurses, occupational therapists and physiotherapists. The samples were separately drawn from the 1999 Swedish universities graduates who were nurses, occupational therapists and physiotherapists who graduated in 1999.

Statistics Sweden was responsible for data collection. In 2002, 840 and in 2012 1024 professionals form the study base. As the response data files were completed with weights, the respondents in 2002 and 2012 represent 3338 and 3300 professionals respectively. When estimating the weights, considerations for dropouts were taken. The survey included questions about work satisfaction, opportunities to follow the knowledge development in the professional field during working time and opportunities to work independently. The survey also included the Effort-Reward Imbalance (ERI) questionnaire. The ERI model takes into account content of work as well as individual work roles and focus on social reciprocity of exchange in occupational life.

Results: Among both women and men, logistic regression analysis revealed a statically significant association