

Symposium: Fatigue following acquired brain injury in children and adults: What's new?

General information

Title of the symposium: *Fatigue following acquired brain injury in children and adults: What's new?*

Organized by: Anne Norup, PhD, & Frederik Lehman Dornonville de la Cour.

Chair: Anne Norup, head of Neurorehabilitation Research and Knowledge Centre, Rigshospitalet.

Brief description of symposium (max 70 words): Fatigue is a common symptom following acquired brain injury and can be a barrier to participation in rehabilitation, return to work and activities of daily living. This symposium presents three different young researchers working with fatigue within neurorehabilitation, and they will present results of their ongoing studies in relation to prevalence, trajectories and predictors of fatigue, validation of a new fatigue measure and lastly a new treatment approach in relation to children and adolescents experiencing fatigue.

Title: Mechanisms of fatigue in the first year following moderate and severe Traumatic Brain Injury (TBI)

Abstract: Through a prospective follow-up of patients with moderate and severe TBI at 6 and 12 months post-injury, the present study aims to investigate both prevalence, trajectories and predictors of fatigue during the first year post-injury. The study employs both neuropsychological examination and self-report measures to achieve a broad biopsychosocial overview of constructs shown to be associated with fatigue both in TBI, other medical disorders and the general population. The study aims to replicate and expand a model for fatigue following TBI by Ponsford et al. (2015), and to establish predictors of persistent fatigue during the first year post-injury, which will be the focus of two peer-reviewed articles for this doctorate project. The findings will be presented and discussed in light of implications for further research and clinical rehabilitation.

Presented by: Daniel Løke, Psychologist & Doctoral Research Fellow at Sunnaas Rehabilitation Hospital, Nesodden, Norway.

Title: Validation of the Danish version of the Dutch Multifactor Fatigue Scale in acquired brain injury

Abstract: The 38-item Dutch Multifactor Fatigue Scale (DMFS) was developed as a measure of fatigue following acquired brain injury (ABI) using five subscales, including Coping with Fatigue. The objective was to validate the Danish version of DMFS. Descriptive item statistics and confirmatory factor analysis was used to evaluate validity in a sample of 149 adults with ABI recruited at a stroke unit (n=49) and three outpatient rehabilitation centres (n=100). A subgroup (n=9) participated in cognitive interviewing. Coping with Fatigue demonstrated psychometric issues, $\alpha = .48$, while performing better among outpatients only, $\alpha = .58$. The other subscales performed satisfactorily, α range .76-.90, although some items indicated misfit in both statistical analyses and cognitive interviewing. The original five-factor model failed to converge. A four-factor model without Coping with Fatigue demonstrated fair fit, $\chi^2(489)=814.19$, $p<.001$, RMSEA=.068,

TLI=.904. While DMFS holds promise for assessing post-ABI fatigue, a revision of the Danish version is recommended.

Presented by: Frederik Lehman Dornonville de la Cour, PhD fellow at Department of Psychology, University of Southern Denmark & neuropsychologist at BOMI Brain Injury Rehabilitation Center.

Title: Fatigue in children and adolescence after acquired brain injury and a possible treatment approach: Results from a metacognitive intervention study.

Abstract: Fatigue represents a set of symptoms which seem to be consistently reported across different types of pediatric acquired brain injury (pABI), with strong associations to common sequela after pABI such as reduced executive function (EF) and health-related quality of life (HRQoL). In this talk, results from a metacognitive group intervention study (pediatric Goal Management Training) will be presented, including fatigue prevalence and severity among patients (n=74) and healthy controls (n=60) reported on a multidimensional fatigue questionnaire (PedsQL-MFS), fatigue related to EF, HRQoL, emotional health and school function, as well as effects of the metacognitive intervention on fatigue.

Presented by: Ruth Elizabeth Hypher, Neuropsychologist, Doctoral Research Fellow at Oslo University Hospital, Rikshospitalet, Oslo, Norway.