



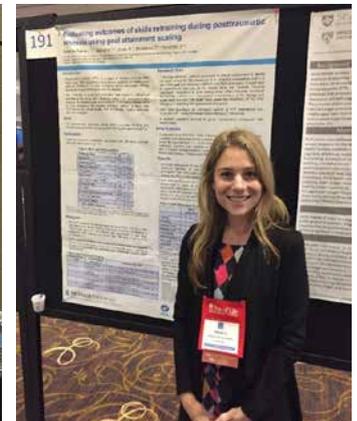
HEADlines

Newsletter of Monash-Epworth Rehabilitation Research Centre

JUNE 2017

In this issue, we review recent conference presentations on post traumatic amnesia, fatigue and sleep disturbance following traumatic brain injury, and other factors associated with recovery from traumatic brain injury. We also take a look at the Longitudinal Head Injury Outcomes Project as well as research being conducted by Dana Wong looking at telehealth medicine for the treatment of stroke. We also celebrate the achievements of our Doctor of Clinical Neuropsychology students.

WORLD CONGRESS ON BRAIN INJURY



MERRC members Adam McKay (left) and Jessica Trevena-Peters (right) presenting at the IBIA 12th Congress on Brain Injury.

Researchers Jennie Ponsford, Adam McKay, Dana Wong and Rene Stolwyk and doctoral student Jess Trevena-Peters travelled to New Orleans, USA, to present at the International Brain Injury Association (IBIA) 12th World Congress on Brain Injury in April this year. At this conference:

- Jennie, Dana and Adam presented a pre-conference workshop on treating fatigue and sleep disturbance following brain injury with Cognitive Behavioral Therapy (CBT).
- Jennie, Adam and Jess presented a series of talks focused on post traumatic amnesia (PTA) after traumatic brain injury (TBI). Jennie presented research assessing the measurement of PTA and the use of PTA to predict outcome after TBI. Jess presented the results of the study she has been conducting for her doctoral program, which analysed the efficacy of skills retraining therapy during PTA to improve activities of daily living. Adam presented a study focusing on agitation during PTA which found that

although agitation was common in PTA, it was not increased by engaging in ADL retraining therapy.

- Jennie presented in an invited symposium talking about the predictors of care costs following TBI and a poster describing the influence of cultural factors on rehabilitation after TBI.
- Rene presented research assessing the reliability of patient reports of disability following stroke, as well as the results of a novel pilot study which provided neuropsychological rehabilitation via a telehealth program for regional stroke patients
- Dana presented a poster investigating clinician skills important for successful neurorehabilitation.

The talks and posters presented by the team were very well regarded by the international audience and highlighted the quality work that is being conducted at the Monash Epworth Rehabilitation Research Centre (MERRC).



MONASH-EPWORTH REHABILITATION
RESEARCH CENTRE (MERRC)

GROUND FLOOR, 185-187 HODDLE STREET
RICHMOND VIC 3121

PHONE: +61 3 9426 8923

FAX: +61 3 9426 8925

EMAIL: MERRC@EPWORTH.ORG.AU

Funding continues for the Longitudinal Head Injury Outcomes Project

The Longitudinal Head Injury Outcome Project, run by Prof Jennie Ponsford and conducted by the team at the MERRC, aims to understand the long-term problems experienced by people who sustain a TBI. The study, which began in 1995, has recently received another two years funding from the Transport Accident Commission (TAC), meaning this study has now received 23 years of consecutive funding. The study involves over 3000 patients with TBI from the Epworth Hospital, and tracks participants progress up to 30 years post injury, to better understand the factors that predict rehabilitation outcomes, as well as develop and evaluate interventions to improve outcomes. The recent funding will assist with research into the

psychological and cognitive consequences of brain injury, such as the potential development of dementia, as well as the early identification of factors that could help understand long-term trajectory for these patients. By understanding the difficulties and needs of TBI patients, this research is able to assist with planning and running more effective and efficient rehabilitation programs, as well as help to inform the TAC's policies and practices for example, helping to identify the key predictors of long-term care costs. The study is made possible through the strong industry collaboration between the MERRC and the TAC, along with the great partnership with and support from the Epworth Hospital and Monash University.

Telehealth delivery for stroke survivors

Dr Dana Wong is a Senior Lecturer and Clinical Neuropsychologist at the Monash Institute of Cognitive and Clinical Neurosciences (MICCN) and MERRC. Dana has recently received a Stroke Foundation Grant to fund her research looking at telehealth delivery of memory rehabilitation following stroke. This project will be the first of its kind to investigate the efficacy of telehealth as a rehabilitation delivery mode for stroke survivors with memory difficulties. Participants in rural areas often encounter geographic, mobility, or cost-related barriers to accessing rehabilitation services. In this project, stroke survivors will have the opportunity to participate in a memory skills program aimed at improving their everyday memory, either face-to-face or via telehealth (videoconference). By

establishing that improvements in memory can be achieved when the program is delivered via telehealth, this could lead to significantly greater access to help for memory problems for stroke survivors with limited access to face-to-face services. Improving everyday memory can also increase the ability to return to work, function independently, and live a meaningful life, which would result in significant cost savings to health services and the community. This work is also important for improving long-term follow-up and support to survivors of stroke, for whom memory difficulties are one of the greatest areas of unmet need in Australia. MERRC researchers, Dr Rene Stolwyk and Professor Jennie Ponsford are collaborators on the project, along with Doctor of Psychology student David Lawson.

Doctorate of Clinical Neuropsychology thesis submissions

Congratulations to our doctoral research students Jacqui Owens and Sylvia Nguyen, who graduated from their Doctorate of Neuropsychology degrees in May this year.

Jacqui's study was titled *Neuroanatomical Correlates of Attention and Working Memory Deficits Following Traumatic Brain Injury*. This thesis investigated the association between alterations in brain structure and function, and attention deficits following TBI. Attentional deficits are frequent following TBI and can greatly impact everyday functioning, thus understanding the type of damage that underpins these outcomes is critical. Results highlighted the association between widespread white matter damage and slowed speed of thinking post-TBI. Additionally, this study provided evidence for the disruption of the dopamine system following brain injury, although these alterations were not found to be significantly related to attention deficits. Overall, these findings provide further understanding of the type of damage that underpins attentional impairments, which is vital for treatment planning. The results of Jacqui's work has been published in the journal *Brain and Behaviour*.

Sylvia's study was titled *Cognitive Behaviour Therapy for Fatigue and Insomnia following Acquired Brain Injury (ABI)*. This thesis investigated the efficacy of CBT in treating these symptoms. Sleep disturbance and fatigue are persistent and disabling consequences



MERRC students Jacqui Owens (left) and Sylvia Nguyen (right) submitting their Doctoral theses.

of TBI and stroke. CBT improved sleep quality and fatigue and reduced depression symptoms in both groups, but had more lasting effects on sleep in TBI, and on fatigue following stroke. These promising findings will underpin larger clinical trials aiming to improve quality of life following brain injury. Sylvia's studies have been published in *Archives of Physical Medicine and Rehabilitation and Disability and Rehabilitation*.

Congratulations to both!



FOR CURRENT/PAST PARTICIPANTS WHO ARE INVOLVED IN OUR RESEARCH STUDIES, CONTACT DETAILS CAN BE UPDATED VIA OUR WEBSITE [HTTP://WWW.MED.MONASH.EDU.AU/PSYCH/RESEARCH/CENTRES/MERRC/PARTICIPANTS.HTML](http://www.med.monash.edu.au/psych/research/centres/merrc/participants.html)



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