**Allied Health Research News March 2022**

Allied Health research on the rise: 2021 Allied Health Research Report

Every year the Allied Health Clinical Research Office compiles a report of Allied Health research activity. The report for the 2021 calendar year will soon be released and made available for download from Allied health research page of the Eastern Health website.

Our Allied Health researchers have continued to demonstrate great resilience and agility despite another challenging year. Allied Health Research activity at Eastern Health continues to flourish.

**16 projects** approved by ethics and commenced in 2021.

**81 publications** in peer-reviewed journals

**36 presentations** at local, national or international conferences

**19 students enrolled in research higher degrees**

Growth in the number of publications continues despite steadying of new projects and delays in current projects resulting from COVID-19 restrictions. Publications tend to be an indicator not just of quantity, but of quality of work completed and dissemination beyond the boundaries of Eastern Health. These findings suggest that our collective research energy is going into higher quality projects with more substantial outcomes.

There was an uptick once again in conference presentations from EH clinicians, with conference activity resuming as organisations became more proficient in online delivery. Flexibility in conference format added convenience, to enable EH clinicians opportunities to share their work nationally and internationally.

We continue to see growth in the number of higher degree research students, from 5 back in 2008 to 19 in the current report. This is a great sign for the future of research at Eastern Health.

Many thanks to everyone who contributed to the 2021 Allied Health Research Report.

The feasibility of prescribing a walking program to improve physical functioning after hip fracture

Led by Nick Taylor and trial co-ordinator Anne Thompson, a team of Eastern Health and La Trobe   
University researchers evaluated the feasibility of prescribing a walking program for community-dwelling people recovering from hip fracture.

Using a randomised controlled trial design, 38 older people were recruited. They had a mean age of 80 years and were living in the community after hip fracture. Half received a home-based walking program supervised by a physiotherapist, while the others received usual care. The 12 week program involved supervised walking once weekly, and a prescribed home walking program with the target of 100 min/week at moderate intensity in addition to usual activities.

The walking program was implemented as intended with the experimental group receiving a mean of 11.1 physiotherapist consultations and average weekly walking time exceeding 100 min. It was well accepted, with the connection with the physiotherapist highly valued, and it was found to be practical, with no serious adverse events such as falls or hospital admissions, associated with the intervention.

There were moderate to large effect sizes for physical activity outcomes favouring the experi- mental group, who increased moderate-intensity physical activity compared to the usual care control group (MD 8.1 min, 95%CI 2.5 to 13.1), demonstrating evidence of efficacy.

The one area that was less positive was that there was relatively low demand for the program with only 24% of potentially eligible patients participating; the most common reasons for declining the invitation were not being interested or being too busy. The results demonstrate that a supervised walking program is feasible and beneficial for those who take part. The challenge in the future is to promote the benefits and expectation of continued physical activity and rehabilitation following discharge home after hip fracture to increase uptake of these sort of programs.

PhD Spotlight: Sophie Hatzipashalis, Social Work

Sophie is a social worker on the palliative care ward at Wantirna Health with over 17 years of   
experience. Social work is a profession dedicated to working with individuals to promote social justice and enhance well-being. A strong interest in palliative care and desire to improve health care access for vulnerable groups led Sophie to enrol in a part time PhD at The University of Melbourne. She will explore the experience of suffering in non-English speaking populations living with advanced cancer.

The experience of cancer often causes traumatic stress and suffering, and language and   
communication issues mean that individuals from culturally and linguistically diverse backgrounds (CALD) face create additional challenges. Yet this population have often been neglected in research on suffering in palliative care.

This research aims to address this gap by exploring the perspectives of patients and health care workers using a qualitative phenomenological study design involving semi-structured interviews.

Data will be thematically analysed to address explore four questions:

* How do individuals describe and define the concept of suffering?
* What factors contribute to individuals’ experience and intensity of suffering?
* How do communication and language issues impact on the individual’s experience of suffering?
* What factors are identified as helping to relieve the individual’s feelings of suffering?

Sophie plans to begin data collection in June 2022.

Winner of the 2021 Allied Health Research paper of the Year:

Cathy Senserrick, Physiotherapy

Each year at Eastern Health, an award is granted to the Allied Health Research   
Paper of the Year. A short list is nominated by the Professor of Allied Health Nick Taylor from all of the papers included in the research report. These papers are reviewed by an independent judge who selects a winner.

This year’s winning paper was led by Cathy Senserrick from physiotherapy. Cathy conducted a randomised controlled trial that tested whether three short sessions of physiotherapy during   
rehabilitation after hip fracture were more effective in improving mobility than a single longer session. Cathy’s research question stemmed from her clinical work in rehabilitation, and the trial was conducted within the context of her clinical role. This is a great example of how research can be embedded in clinical practice.

Independent judge’s comment: ‘This very impressive paper ticks all the boxes in research design and addresses a highly clinically relevant project. The findings have strong impact for service delivery. Published in a world class Physiotherapy journal.’

The winning paper is called: Three short sessions of physiotherapy during rehabilitation after hip fracture were no more effective in improving mobility than a single longer session:   
A randomised controlled trial (Physiotherapy, 2021. Vol 112 (87))

Paper Abstract:

Objectives: To determine if three short daily sessions of physiotherapy for   
rehabilitation inpatients after hip fracture is more effective than roviding one long daily session in improving mobility.

Design: A single-blinded randomised controlled trial.

Setting: Two inpatient rehabilitation wards at a hospital in Melbourne,   
Australia.

Participants: Seventy-six rehabilitation inpatients after hip fracture. The key   
exclusion criterion was not being allowed to weight bear.

Interventions: All participants received multidisciplinary rehabilitation.   
Experimental participants received three 15-minute sessions of physio-therapy 5 days per week until discharge. Control participants received one 45-minute session of physiotherapy 5 days per week until discharge.

Outcomes: The primary outcome, mobility, was assessed with the   
de Morton Mobility Index 2 weeks after admission and at discharge.   
Secondary outcomes were Functional Independence Measure mobility (transfers, ambulation, steps), physical activity measured with an   
accelerometer, length of stay, discharge destination, readmissions within 30 days of discharge, and patient and physiotherapist satisfaction.

Results: Sixty-seven (88%) participants completed mobility assessment at discharge and 34 (45%) at 2 weeks. There were a greater proportion of missed sessions in the experimental group (84% adherence vs 95%). There was no between-group difference in mobility at discharge (MD -1.9 points, 95%CI-6.9 to 3.2) or at 2 weeks (MD -3.5 points, 95%CI-15.4 to 8.4). There were no between-group differences in any secondary   
outcomes.

Conclusions: Providing inpatient physiotherapy rehabilitation in three   
shorter sessions resulted in more missed sessions and likely did not   
improve mobility outcomes compared with providing one longer session for patients recovering from hip fracture.

Cognitive Concerns? Maybe it’s not the substance use!

New research from the Turning Point Neuropsychology team has highlighted the importance of considering a range of health, psychiatric and developmental factors when considering reasons for cognitive impairment in patients with significant alcohol and substance use histories.

By looking at clinical data from patients attending addiction services, researchers were able   
to explore relationships between neuropsychological functioning and a whole range of other   
variables, including demographic factors, addiction history and co-morbidities.

While a range of factors are commonly recognised contributors to cognitive functioning in adult populations, for those experiencing alcohol or substance use disorders, there is an unfortunate societal tendency for any cognitive difficulties experienced to be automatically attributed to brain injury caused by their substance use. Such misattributions can contribute to experiences of stigma and discrimination within this clinical cohort and lead to poor treatment and management of health concerns.

Most importantly, some of these factors are treatable with multi-disciplinary (e.g. psychiatric and psychological) input. For instance, our study showed the presence of multiple sedating prescription medications and emotional distress both independently contributed to poor test performance in several cognitive domains. With appropriate management of these modifiable factors, however, it is possible that individuals may experience an improvement in their cognitive functioning which may in turn allow them to better manage other aspects of daily life.

These findings illustrate the need to look beyond the substance use and identify areas where clinical intervention has the potential to improve the health and psycho-social outcomes of individuals in these vulnerable cohorts.

This work was gratefully supported by a Clinical Research Scholarship from the National Centre for Clinical Research on Emerging Drugs (NCCRED). These scholarships are open to all clinicians working in the drug and alcohol field with a particular emphasis on nursing and allied health professions.

More information about the Clinical Research Scholarships can be found at: https://nccred.org.au/generate/programs/scholarship-overview/

Allied Health Research Achievements

**Publications**

Shipton DA, **Dennett AM**, Sayner AM, Tang Y. (2021) A national survey of oncology physiotherapy services for cancer survivors in Australia. Asia Pacific Journal of Clinical Oncology (In Press) doi.org/10.1111/ajco.13739

**Gooden J R**, Cox, CA, Petersen V, Curtis A, Sanfilippo P, Manning V, Bolt GL, Lubman DI. (2021) Predictors of cognitive functioning in presentations to a community based specialist addiction neuropsychology service. Brain Impairment (In Press)

**Gooden J R**, Petersen V, Bolt G L, Curtis A, Manning V, Cox CA, Lubman D I Arunogiri S. (2021) Maybe it’s not the meth: Considering biopsychosocial contributors to cognitive impairment in methamphetamine polydrug use. Frontiers in Psychiatry – Addictive Disorders. (In press)

Hogan G, **Taylor NF**, Robins L, Callisaya M, Snowdon M, Snowdon DA. In press. COVID-19 restrictions increased perceptions of social isolation for older people discharged home after rehabilitation: a mixed-methods study. Australasian Journal on Ageing (accepted 14 February 2022).

Kugler H, **Taylor NF, Boyd L,** Brusco NK. (in press). Nurses sustain manual handling risk assessment behaviours six-months after a training program to move patients safely: a pre-post study. Disability and Rehabilitation (accepted 27 February 2022).

**Manning V, Gooden JR**, Cox C, Petersen V, Whelan D, Mroz K, (2021). Managing Cognitive Impairment in AOD Treatment: Practice Guidelines for Healthcare Professionals, Richmond, Victoria: Turning Point. Available: <https://www.turningpoint.org.au/treatment/clinicians/Managing-Cognitive-Impairment-in-AOD-Treatment-Guidelines>

Bayer JK, Brown A, Prendergast LA, Bretherton L, Hiscock H, Mihalopoulos C, Nelson-Lowe M, Gilbertson T, Noone K, **Bischof N**, Beechey C, Muliadi F, Rapee RM. Follow-up of the Cool Little Kids translational trial into middle childhood. J Child Psychol Psychiatry. 2022 Jan;63(1):88-98.

Morgan DD, Taylor RR, Ivy M, George S, Farrow C, **Lee V.** Contemporary occupational priorities at the end of life mapped against Model of Human Occupation constructs: A scoping review. Aust Occup Ther J. 2022 Feb 23