



**Bold ideas,  
better solutions**  
2018 > The Hopkins Centre  
Symposium

# The Hopkins Centre

Research for Rehabilitation and Resilience



Metro South Health



A joint initiative of the  
Division of Rehabilitation, Metro South Health, and  
Menzies Health Institute Queensland, Griffith University.

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## BIBS18

NOVEMBER 15TH |  
TRANSLATIONAL RESEARCH  
INSTITUTE | PRINCESS  
ALEXANDRA HOSPITAL  
BRISBANE, AU

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## Keynote presentations

### Inclusive person-centred research and social policy

Prof Karen Fisher, Professor in Social Policy Research Centre, University of Sydney

#### Abstract

The purpose of inclusive research or peer-led practice is to improve the quality of research and services. Ways to include people affected by research in project teams include employment, governance or collaboration with organisations who represent them. Karen Fisher will discuss examples of these inclusive and collaborative research practices to explore the ethical and practical considerations of this approach to research. She will also discuss how these examples demonstrate impact on the quality of the research and service improvement.

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## Oral presentations

### Mapping, access and outcomes – Parallel session 1 (TRI Auditorium)

#### Trajectories of rehabilitation across complex environments (TRaCE): Progress and preliminary findings

Dr Melissa Legg, The Hopkins Centre

#### Plain language synopsis

The TRaCE project will provide a comprehensive understanding of health and rehabilitation service use after catastrophic injury via numerous data collection strategies which track patients up to 12-months after discharge from inpatient rehabilitation. In all, 165 individuals with spinal cord injury and acquired brain injury were recruited from March, 2017 to March, 2018. Baseline characteristics and preliminary findings on service use, unmet needs, quality of life, and psychosocial wellbeing at six-months after discharge will be presented. This project will have strong translational impact on strategies for more targeted health interventions to support individuals with catastrophic injury in the long-term. Investigation team (other associated authors): Professor Michele Foster, Dr Sanjoti Parekh, Professor Timothy Geraghty, Professor Jennifer Fleming, Dr Mandy Nielsen, Rachel Jones, Professor Elizabeth Kendall

#### Abstract

*Background: Timely access to appropriate health and rehabilitation services following catastrophic injury is critical to health and wellbeing. The Australian system is rapidly changing given recent policy reforms (e.g. National Disability Insurance Scheme) to improve lifetime care and support.*

*Rationale: Problematically, there is scant research which provides a comprehensive understanding of the health and rehabilitation system for individuals with catastrophic injury.*

*Method: TRaCE is a multi-component longitudinal cohort study which tracks inpatients with catastrophic injury up to 12-months after discharge from the Brain Injury Rehabilitation Unit and Spinal Injury Unit at the Princess Alexandra Hospital. It combines and collects data from numerous sources to identify and examine system pathways: spatial data on service accessibility, routinely-collected rehabilitation and service use data, follow-up surveys on health and wellbeing, and in-depth qualitative interviews.*

*Results: In all, 165 individuals with catastrophic injury were recruited over a 12 month period. Baseline characteristics and preliminary findings on service use, unmet needs, quality of life, and psychosocial wellbeing at six-months after discharge from inpatient rehabilitation will be presented.*

*Conclusion: TRaCE will have strong translational impact on strategies for more targeted interventions to improve the health and rehabilitation system and support individuals with catastrophic injury in the long-term.*

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## Filling the transitional care gap: First year outcomes of the Acquired Brain Injury Transitional Rehabilitation Service Pilot Program

Dr Mandy Nielsen, The Hopkins Centre and Division of Rehabilitation, Metro South Health

### Plain language synopsis

The Acquired Brain Injury Transitional Rehabilitation Service (ABITRS) was established to help people with acquired brain injury leave hospital earlier and improve their return to the community. The Acquired Brain Injury Transitional Rehabilitation Service (ABITRS) aims to help people with acquired brain injury leave hospital earlier and improve their return to the community. Outcome measures were collected before and after program completion to see if the ABI TRS meeting these aims. Outcomes were also compared to a quasi-control (CON) group, data collected when no formal transition service existed. The ABITRS clients were more impaired than the CON group. Despite this, ABITRS clients improved more than/equal to the CON group in their function and psychological wellbeing. The ABITRS clients generally have better outcomes than the CON group at program end. Investigation team (other associated authors): Areti Kennedy, Kerrin Watter, David Borg

### Abstract

**Background:** The Acquired Brain Injury Transitional Rehabilitation Service (ABITRS) is a 5-year pilot program which aims to facilitate earlier discharge from hospital and improve community reintegration for persons with ABI and their families.

**Rationale:** To determine the impact of ABITRS on community re-integration, a formal service evaluation is currently being undertaken. This study presents outcomes from the first year (2017–2018).

**Method:** Persons with ABI (n=68) completed the 3 month ABITRS community-based program, involving allied health service visitation 3-4 d/wk. Self or practitioner-rated questionnaires were completed at 0 (baseline) and 3 months, and compared to a quasi-control (CON) where no transition service existed. Data were analysed using linear mixed models in a Bayesian framework.

**Results:** Baseline ratings in all outcomes measures were statistically worse at baseline compared to CON. There were statistical improvements in measures of global function (MPAI-4) and psychological wellbeing (DASS-21) compared to CON. Psychosocial function (SPRS-2) was statistically improved at 3 months compared to baseline.

**Conclusion:** ABITRS clients demonstrated statistically improved or matched outcomes at 3 m compared to the quasi-control. The ABITRS program sees a clinically diverse range of individuals, and clients generally exhibit superior outcomes following program completion.

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## Minor stroke patients have health service and social needs that are not met by current healthcare systems

Dr Emma Finch, University of Queensland and Princess Alexandra Hospital

### Plain language synopsis

Despite its name, minor stroke is a chronic health condition with life-long consequences. The aim of the project was to conduct a two-part pilot study to understand the health, service and social needs of minor stroke patients recently discharged from hospital. In part 1, minor stroke patients completed questionnaires and an interview 2-weeks and 2-months after being discharged from hospital. In part 2, we calculated how easy it was for stroke patients living in the community to access health care services. The next step will be to use these findings to develop a new service for minor stroke patients.

### Abstract

**Background:** Medical advances have reduced the impact of disability from severe stroke. Yet, less is known about the needs of people with minor stroke.

*Rationale: To understand the health, service and social needs of minor stroke patients recently discharged from hospital.*

*Methods: Part 1 used a mixed methods exploratory cohort design to explore the unmet health, service and social needs of 19 minor stroke patients. Participants completed questionnaires and an interview 2 weeks (T1) and 2 months (T2) post-hospital discharge. Part 2 used a Geographic Information System to map the discharge location of stroke patients (N = 1,595, January 2011 – January 2017) and the spatial distribution of primary care services across a single healthcare region, to determine the accessibility of the primary care services.*

*Results: 9 participants reported unmet needs at T1, while 7 participants reported unmet needs at T2. Participation in society was rated statistically significantly better at T2. Access to primary care services was variable across the region and between services.*

*Conclusion: Minor stroke patients may have health, service and social needs unmet by existing services. The next step will be to translate these findings into the development of a new service pathway for minor stroke patients.*

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## **My access: patient experiences of service use after leaving inpatient rehabilitation**

*Professor Michele Foster, The Hopkins Centre*

### **Plain language synopsis**

Despite its name, minor stroke is a chronic health condition with life-long consequences. The aim of the project was to conduct a two-part pilot study to understand the health, service and social needs of minor stroke patients recently discharged from hospital. In part 1, minor stroke patients completed questionnaires and an interview 2-weeks and 2-months after being discharged from hospital. In part 2, we calculated how easy it was for stroke patients living in the community to access health care services. The next step will be to use these findings to develop a new service for minor stroke patients. Investigation team (other associated authors): Professor Michele Foster, Jennifer Fleming<sup>2</sup>, Tegan Cruwys<sup>5</sup>, Linda Worrall<sup>2</sup>, Darshan Shah<sup>6</sup>, Katherine Jaques<sup>6</sup>, Philip Ait

### **Abstract**

*Background: Medical advances have reduced the impact of disability from severe stroke. Yet, less is known about the needs of people with minor stroke. Rationale: To understand the health, service and social needs of minor stroke patients recently discharged from hospital. Method: Part 1 used a mixed methods exploratory cohort design to explore the unmet health, service and social needs of 19 minor stroke patients. Participants completed questionnaires and an interview 2 weeks (T1) and 2 months (T2) post-hospital discharge. Part 2 used a Geographic Information System to map the discharge location of stroke patients (N = 1,595, January 2011 – January 2017) and the spatial distribution of primary care services across a single healthcare region, to determine the accessibility of the primary care services. Results: 9 participants reported unmet needs at T1, while 7 participants reported unmet needs at T2. Participation in society was rated statistically significantly poorer at T2. Access to primary care services was variable across the region and between services. Conclusion: Minor stroke patients may have health, service and social needs unmet by existing services. The next step will be to translate these findings into the development of a new service pathway for minor stroke patients.*

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## **Identifying structural barriers inhibiting the access and use of health services among people with spinal cord injury**

*Mr Peter Harre, Spinal Life Australia, affiliate partner of the The Hopkins Centre*

### **Plain language synopsis**

A survey sent out to Spinal Life Australia members and clients with a spinal cord injury clarified that structural barriers inhibiting physical access are apparent across the health services they use. Structural barriers common across diverse health services relate to the exterior building and specialist equipment. It is important that advocacy efforts concerning health service design address these domains as they may be adversely impacting the equitable use of health services among people with a spinal cord injury.

### **Abstract**

**Background:** Access to quality health care is a fundamental determinant of health directly impacting the health and wellbeing of people with disability. The inequitable access of health services among people with disability is in part due to interior and exterior structural barriers inhibiting access. **Rationale:** There is a lack of clarity around the aspects of health services which are physically inaccessible for people with disability. Identifying structural barriers is the initial step to promote the development of accessible health services in Queensland. The identification of structural barriers also provides evidence to inform advocacy efforts. **Method:** Spinal Life Australia members and clients completed a cross-sectional survey to identify interior and exterior aspects of health services that are physically inaccessible. **Results:** Distinct aspects of health services (general practitioners, occupational therapists, physiotherapists, dentists, and specialists) were identified as inaccessible. Common inaccessible areas across health services include: exterior building, examination rooms, specialist equipment, and restrooms. **Conclusions:** Physical structural barriers are apparent across a variety of health services in Queensland. These barriers may adversely impact health service access among people with spinal cord injury. Greater emphasis should be placed on the design of health services to ensure equitable access.

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## **Predictors of self-rated health post-injury: findings from claimants in Queensland**

*Dr Srinivas Teppala, The Hopkins Centre*

### **Plain language synopsis**

Majority of previous studies examined self-rated health in patients with severe injuries. Predictors of self-rated health in those with less severe injuries remains unclear. In the current study we examined a population of post-injury claimants from the CTP insurance program living within the community in Queensland, Australia. Age, unemployment, problems with mobility, pain & discomfort, self-care, usual activities and anxiety or depression were significantly associated with Poor Self-Rated Health, even after accounting for differences in patient demographics and injury severity. Our results identify potential areas of outreach for patients with unmet health care needs, living with within the community post-injury. Investigation team (other associated authors): Dr. Srinivas Teppala, Dr. Sanjoti Parekh and Prof. Elizabeth Kendall

### **Abstract**

*Background: Self-Rated Health is an established marker of general health status. Patients post-injury experience challenges with self-efficacy and return to workforce that extend beyond the immediate time frames of discharge from Acute Care.*

*Rationale: There is an abundance of literature on satisfaction with health after treatment for major trauma. Information on factors associated with poor Self-Rated Health in those treated for less severe injuries however is limited. In this context, we examined predictors of poor Self-Rated Health post-injury.*

*Methods: Retrospective cohort of 205 community dwelling Compulsory Third Party (CTP) insurance claimants (age ≥22 years) from Queensland, Australia. Multivariate logistic regression models were used to assess predictors of poor Self-Rated Health.*

*Results: A total of 55 participants (26.8%) had poor Self-Rated Health. Odds ratios (95% confidence intervals; p-value) for poor Self-Rated Health were: 1.06 (1.02-1.09, p-value=0.003) for age, 3.44 (1.48-7.98, p-value=0.004) for unemployment, 8.89 (1.95-40.62, p-value=0.02) for those with problems*

in more than 2 categories of 4 EQ-5D domains (pain/discomfort, mobility, self-care and usual activities) and 2.50 (1.07-5.83,  $p$ -value=0.03) for those with anxiety/depression.

Conclusion: Our results suggest that post injury return to work, management of pain and improvement in self-efficacy may improve health outcomes.

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## Responsible Service Systems – Parallel Session 2 (Seminar Room)

### Examining vocational rehabilitation in early ABI rehabilitation

Ms Alena Murray, Acquired Brain Injury Transitional Rehabilitation Service, Metro South Health

#### Plain language synopsis

Clients with acquired brain injury (ABI) receive rehabilitation to address their goals, including return to work (“vocational”) goals. In 2017 two-thirds of our clients had vocational goals. However, there are no frameworks in Queensland health to guide vocational rehabilitation (VR). This project (i) looked at how VR was provided to adults with ABI in Queensland, (ii) identified aspects of “best-practice”; and (iii) created a framework to deliver VR services in early ABI rehabilitation. This framework should improve services by providing a structure to deliver VR and help people work towards their goals of return to work in a structured way. Investigation team (other associated authors): Murray, Alena, Watter, Kerrin, Jeffery, Sarah, Spitzer, Elizabeth, Ehlers, Shelley, Nielsen, Mandy; Kennedy, Areti

#### Abstract

Following acquired brain injury (ABI) productive roles (paid/voluntary/sheltered work or study) are often disrupted. A productive role is related to better health status, social integration, and quality of life. Rationale: The importance of appropriate, coordinated vocational programs for adults with disability (including ABI) is recognized in Queensland and beyond. No current vocational rehabilitation (VR) service or framework exists within Queensland Health for adults with ABI. Method: A quality activity was undertaken to examine the extent, range and nature of VR in ABI in Queensland, and inform development of a framework for delivering community VR for adults with ABI. This included investigating frameworks and identifying elements of VR, reviewing the literature, gathering views and experiences of expert ABI clinicians and identifying gaps in existing services for people with ABI in Queensland. Results: A VR framework for early community ABI rehabilitation was developed, and will be presented. The model involves different client vocational ‘streams’, identifies clinical activities across streams, and can be used to assist in planning VR. Early clinical findings will be presented. Conclusions: We have created a clinical framework for early community VR that can be implemented by a community ABI rehabilitation team.

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### Addressing client needs through interdisciplinary multi-site groups in Acquired Brain Injury Transitional Rehabilitation Service

Ms Nina Wegener, Acquired Brain Injury Transitional Rehabilitation Service, Metro South Health

#### Plain language synopsis

The Acquired Brain Injury Transitional Rehabilitation Service (ABI-TRS) provides therapy and support for people transitioning home from hospital and getting back into life. People with ABI can have

difficulty with physical function, thinking and communication which impacts independence and community integration. ABI-TRS developed an interdisciplinary group therapy program in response to client feedback and to meet clients' identified needs: to improve rehabilitation access and increase therapy; practice skills in real-life situations; and better address client goals. Group is delivered face-to-face and via video-link, and in different community locations near client homes. Client feedback has acknowledged the value of the group. Investigation team (other associated authors): Sarah Jeffery, Sarah Kekki, Elizabeth Beadle, Kerrin Watter, Areti Kennedy

### **Abstract**

*Background: Transition from hospital-to-home is a critical time for people with acquired brain injury (ABI) and their families. Recognised issues include changes to physical, cognitive and communication skills, which impact independence, reintegration and community access. The ABITRS provides community-based rehabilitation to people with ABI discharging home from hospital. Rationale: The ABITRS identified the clinical need to implement a new therapeutic model-of-care (MOC) to: increase therapy intensity, practise rehabilitation skills in real-life situations, improve clients' access to community rehabilitation, and address clients' goals of reintegration and independence. Method: The ACI framework was used to develop a new MOC in ABITRS – i.e., interdisciplinary group rehabilitation. This involved: (i) reviewing the literature, benchmarking, stakeholder consultation, resource review; (ii) identifying components aligned to ABI transitional rehabilitation; and (iii) translating these components to create an innovative goal-focused interdisciplinary group program, while considering client-related barriers (e.g. isolation). Results: An interdisciplinary group program was developed: Clinical content: functional goal-focused activities; utilising expert-clinician delivery; targeting psychosocial, physical, cognitive-communication, self-management and education. Service Delivery: group-based intervention, telehealth for isolated clients, offsite groups to encourage local community-access, interdisciplinary team delivery. Conclusion: A new MOC has been successfully integrated into ABITRS. Consumer feedback has influenced ongoing program development and acknowledged the clinical benefit of the program.*

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### **The Guddi Framework**

*Ms Cathy Paxton, Synapse, affiliate partner of The Hopkins Centre*

#### **Plain language synopsis**

The extent and experience of Australia's First Peoples with neurocognitive disability is unknown but is thought to be high. Many remain disengaged from research and mainstream services due to a lack of culturally safe methodologies. The suite of projects that will be described in this presentation aim to develop an accurate, culturally informed evidence base to better address policy and service responses to First Peoples experiencing complex neurocognitive disablement. The use of community partnerships and culturally safe methodologies facilitate service user engagement in research and contribute to the building of a data repository to inform effective policy and service development. Investigation team (other associated authors): Dr Paul White, Jennifer Cullen, Dr Ali Lakhani, Dr Michelle McIntyre, Jason Bishara, Professor Heidi Zeeman.

### **Abstract**

*Background: The extent, experience and assistance needs of Aboriginal and Torres Strait Islander peoples with neurocognitive disability is unknown. Many remain disengaged from research and mainstream services due to a lack of culturally safe methodologies and practices. Rationale: The Guddi Partnership includes Synapse, Hopkins, SDSAOT and Aboriginal and Torres Strait Islander communities. It aims to develop an accurate, culturally informed evidence base to better address policy and service responses to First Australians experiencing neurocognitive disablement. Method: The framework includes a suite of complementary projects. Central to the framework is the Guddi Protocol, a culturally safe assessment tool, and 'Proper Way' methodologies. Projects are underpinned by community partnerships and rigorous mixed method data analysis. Results: Results include high levels of illness, trauma and complex disablement amongst marginalised First Australians with neurocognitive disability. Training in The Guddi Protocol has increased workforce and*

organisational capacity. The establishment of a data repository provides evidence to influence policy Conclusion: Community partnerships and culturally safe methodologies facilitate service user engagement in research and contribute to an accurate evidence base to inform the development of policy and services which more effectively meet the needs of Aboriginal and Torres Strait Islander people affected by neurocognitive disability.

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## Introducing Australia's first purpose built, transitional housing complex for Aboriginal and/or Torres Strait Islander people with acquired brain injury

Dr Courtney Wright, The Hopkins Centre

### Plain language synopsis

Little is known about culturally appropriate housing for Aboriginal and/or Torres Strait Islander people with brain injury. In 2011, Synapse received funding from the Commonwealth Government to build Australia's first purpose-built, transitional housing complex for Aboriginal and/or Torres Strait Islander people with brain injury. This research used culturally appropriate research methods to evaluate this new housing complex. This presentation will describe the original intent of this new housing complex. It will also present early findings about tenant and staff experiences at the housing complex. It is hoped that the research will inform future housing developments that are culturally appropriate for Aboriginal and/or Torres Strait Islander people with brain injury.

### Abstract

*There remains a significant lack of understanding regarding culturally responsive housing environments for Aboriginal and/or Torres Strait Islander people with an acquired brain injury (ABI); particularly in the transitional stage between primary healthcare facilities and the person's return to Community. In 2011, Synapse was successful in securing capital funding from the Commonwealth Government to build the first purpose-built, transitional housing complex in Australia for Aboriginal and/or Torres Strait Islander people with ABI. Given the need to increase the number of culturally responsive housing environments for Aboriginal and/or Torres Strait Islander people with ABI, this research involves a post-occupancy evaluation of the novel housing complex. Method: This research is underpinned by Proper Way research protocols and is comprised of three consecutive studies. Study 1 used yarning research methods to understand the original physical and socio-cultural intent of the purpose-built housing complex. Study 2 aimed to investigate consumer experiences of the novel environment by utilising yarning and observational research methods. Data for Study 2 will be collected from participants at seven specific time points over a period of 18 months (4 of 7 waves of data have been collected). Study 3 will synthesise and compare the data collected in Study 1 and Study 2, to indicate whether the physical and socio-cultural performance of the housing complex fulfils its original intention. Results: This presentation will report on the original intent of the purpose-built housing complex (Study 1 results). It will also describe preliminary findings regarding tenant and staff experiences at the novel housing complex (Study 2 results). Conclusion: It is envisaged that the research findings will provide an evidence base to inform future transitional housing developments that are culturally responsive to Aboriginal and/or Torres Strait Islander people with ABI.*

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## Identifying areas with high levels of greenspace in relation to people with disability in South-east Queensland

Dr Ali Lakhani, The Hopkins Centre

### Plain language synopsis

Access to greenspace can favourably impact the health and wellbeing of diverse populations including people with a disability. A spatial analysis was conducted to identify regions in South-East Queensland with significantly high numbers and percentages of people with disability and high levels of

greenspace. Regions with high levels of greenspace have the unique potential to foster rehabilitation and recreation programs which can favourably impact the health and wellbeing of people with disability. Lakhani, A.Parekh, S.Norwood, M.

### **Abstract**

*Background: Research has clarified that exposure to greenspace can favourably impact individual health and wellbeing outcomes. For people with a neurological disability, a limited but growing body of research has established that increased exposure to greenspace is associated with higher quality of life outcomes, and improved psycho-emotional health.*

*Rationale: The geographic dispersion of greenspace in relation to people with disability in South-East Queensland is not clear. Identifying the extent of greenspace in relation to people with disability is the first step towards developing community rehabilitation programs that utilise the natural environment.*

*Method: Spatial analysis using ArcGIS involved ascertaining regions in South-East Queensland where there are significantly high numbers and percentages of people with disability, and high levels of greenspace.*

*Results: Findings are mixed, whereby regions with significantly high numbers and percentages of people with disability in South-East Queensland may have high levels of greenspace, or low levels of greenspace.*

*Conclusions: There is potential for distinct recreation and rehabilitation programs that utilise the natural environment to be offered to people with disability throughout regions in South-East Queensland, especially regions with high-levels of greenspace.*

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## **Optimising Clinical Interventions – Parallel Session 3 (TRI Auditorium)**

### **Designing an App-based platform to promote activity-based therapy adherence for spinal cord injury**

Associate Professor James St John, Menzies Health Institute Queensland, Griffith University

#### **Plain language synopsis**

A cell transplantation therapy to repair the injured spinal cord is anticipated to commence in 2020. An essential component of the overall therapy is to have an intensive long-term activity-based program to ensure that the regenerating neurons are able to target correctly and reach threshold activation. To aid participants in maintaining adherence to the activity-based program, we have developed an app that guides and monitors clients' progress. Researchers and clinicians have constant access to the clients' progress and can intervene if participation drops off in order to implement changes and help motivate adherence to the program. Investigation team (other associated authors): A/Prof Jenny Ekberg, Dr Matt Barton, Dr Jolon Faichney, Dr Michael Todorovic.

#### **Abstract**

*Background: In preparation for a clinical trial to test a cell transplantation therapy for spinal cord injury, it is essential that a suitable activity-based program designed specifically for regenerating the spinal cord is developed. Rationale: We have designed a dynamic and user-friendly smart device app for use by service providers, clinicians and clients to promote adherence to personalised activity-based programs. Method: In conjunction with neurorehabilitation specialists (Making Strides, Burleigh, Australia), app development enterprise (App Factory, Gold Coast, Australia), and Griffith University (Spinal Injury Project), a secure mobile app and web portal were developed for iPhone and Android platforms. Results: The Spinal Injury Project Rehabilitation (SIPR) app manages client data and the web portal provides raw data access for practitioners and researchers. A web portal provides practitioners and researchers access to the raw data for each client to evaluate adherence and progress, with client data maintained with high security including one-way encrypted passwords. Conclusion: The SIPR mobile app enables rehabilitation service providers, clinicians and the researchers with a means to constantly monitor client participation and compliance. Importantly, it provides early warning indications when*

clients are not participating to enable support professionals to intervene with clients to help maintain participation.

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## **Bold Patients, Better Outcomes: Three year outcomes from the bone clinic**

Professor Belinda Beck, The Hopkins Centre and Professor of Exercise Science, Griffith University

### **Plain language synopsis**

High intensity resistance and impact training (HiRIT) is known to improve bone, muscle and function in postmenopausal women with low bone mass under strict research trial conditions. The Bone Clinic is a translational research clinic in which HiRIT is offered alongside systematic monitoring to examine whether the program is safe and effective as an osteoporosis intervention in the 'real world'. We report three-year outcomes of The Bone Clinic clients who have trained in HiRIT for at least 12 months. We conclude that supervised, bone-targeted exercise training is safe and reduces risk for osteoporotic fracture in postmenopausal women with low bone mass in a 'real world' clinical setting.

Investigation team (other associated authors): Lisa Weis

### **Abstract**

*Background: High intensity resistance and impact training (HiRIT) was safe and improved bone, muscle and function in postmenopausal women with low bone mass under strict RCT conditions. The Bone Clinic is a translational research clinic in which HiRIT is offered alongside systematic longitudinal monitoring to examine effectiveness, feasibility and acceptability of the program as an osteoporosis intervention in the 'real world'. The aim of the current work was to report three-year client outcomes.*

*Method: Clinic clients undergo testing for height, weight, lumbar spine (LS), total hip (TH) and femoral neck (FN) bone mineral density (BMD), lean and fat mass, kyphosis angle, back extensor strength (BES), functional performance, falls and fracture, at baseline and annually thereafter.*

*Twice-weekly supervised HiRIT with balance training is undertaken on a voluntary basis.*

*Compliance and injuries are recorded. Clients with >30% HiRIT compliance were included in the current analyses. In the absence of a control group, training effects were examined using one-sample T-tests of percent change.*

*Results: We report outcomes from 121 patients (64.2±10.1yrs, 161.0±11.1cm, 60.8±14.8kg, LS T-score -2.39±0.94, average training compliance 85.1±29.8%, 6.7% men). Improvement was observed in every measured parameter and reached significance for LS (4.0±4.1%, P<0.0001), TH (1.5±3.4%, P<0.0001) and FN BMD (2.4±4.5%, P<0.0001), lean mass (1.8±4.1%, P<0.0001), functional reach (8.1±12.0%, P<0.0001), timed up and go (12.0±12.8%, P<0.0001), tandem walk (20.5±28.8%, P<0.0001), sit to stand (10.7±17.6%, P<0.0001), and BES (27.8±49.1%, P<0.0001). Previous 12 month falls decreased 45% (P<0.053) and fractures decreased 91.7% (P<0.0001). Twenty minor injuries were sustained in a combined total of 27,840 training sessions.*

*Conclusion: Supervised, bone-targeted high intensity resistance and impact training is safe and reduces risk for osteoporotic fracture in postmenopausal women with low bone mass in a 'real world' clinical setting.*

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## **Mouthpiece ventilation – Positively INSPIRational**

Mrs Gabrielle Ferguson, The Hopkins Centre

### **Plain language synopsis**

Respiratory complications affect the majority of people with new spinal cord injuries of the neck (tetraplegia), requiring a stay in intensive care (ICU) and a breathing tube. The risk of respiratory failure when the breathing tube is removed is high. Mouth piece ventilation (MPV) may be able to reduce this risk and provide breathing support. Method: All patients with tetraplegia who require a breathing tube are included. On removal of the breathing tube the Philips Trilogy portable ventilator

delivers breathing support via a mouth piece. Key findings: Fourteen patients have utilised MPV. Patients and medical staff have reported positive benefits. Significance: This team is leading the way towards determining if MPV can be utilised to deliver breathing support in ICU. Investigation team (other associated authors): Peter Kruger, Chris Joyce, Craig Hukins, Jenny Paratz, Gabrielle Ferguson, Duncan Brown, Brooke Duggan, Timothy Geraghty

### **Abstract**

*The majority of all newly diagnosed patients with tetraplegia are admitted to the intensive care unit (ICU) and the incidence of intubation ranges from 74% - 90%. Rationale: Respiratory failure and the need for re-intubation for those suffering acute tetraplegia is a known risk which extends ICU stay and costs, delays rehabilitation and increases stress for patients and their families. Early application of mouth piece ventilation (MPV) combined with standard conventional treatment in patients with tetraplegia is being evaluated by our team to determine whether MPV can be utilised to deliver post extubation breathing support. Method: All patients with cervical spinal cord injury who were intubated and admitted to our ICU were included. Inclusion commenced at the time of extubation, and finished on discharge from ICU or in the event of a tracheostomy. Participants utilised on demand MPV prophylactically from the time they were extubated with settings titrated to individual need. Feedback from participants and clinicians was collected in addition to physiological data and support required to implement use for each participant.*

*Results: Fourteen participants have utilised MPV and participated in this study. MPV has been tentatively incorporated into ICU with patient and clinician participants reporting positive benefits. MPV has also been utilised on discharge from ICU to assist with breathing support in the acute transition phase on the wards. Conclusion: MPV is a promising non-invasive ventilation technique for this group. This study is ongoing with a multi-site study planned in 2.*

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### **Can we avert the negative psycho-behavioural consequences of diagnostic spinal imaging?**

*Dr Daniel Harvie, The Hopkins Centre and NHMRC Fellow, Menzies Health Institute Queensland, Griffith University*

#### **Plain language synopsis**

While imaging is performed with the intended goal of assisting clients with spinal pain, results can have a negative clinical impact – with detrimental impacts on disability and sense of well-being suggested by current literature. This may be due to the reporting of degenerative or anomalous findings that, when read by clients, might have unintended psychological and behavioural consequences — even though such findings are normal and not well correlated to symptoms. This presentation will discuss some modern controversies related to spinal imaging, while suggesting possible ways forward. Investigation team (other associated authors): Luke Wheeler, Lyell McEwin Hospital, Elizabeth Vale, South Australia; Emma Karran, University of South Australia

#### **Abstract**

*Lower back pain is the principal cause of years lived with disability worldwide. For complex reasons, adherence to clinical guidelines remains limited in some important areas, such as the use of diagnostic imaging, which may subsequently impact outcomes.*

*Rationale: While imaging is performed with the intended goal of assisting clients, results can paradoxically cause negative clinical impacts. This may be due to the reporting of degenerative or anomalous findings that, when read by clients, might have unintended psychological and behavioural consequences — even though such findings are often normal and not well correlated to pain or disability.*

*Methods: This presentation will be based on a narrative synthesis of current research. Results: Detrimental impacts of spinal imaging on disability, health care costs, and sense of well-being are suggested by the current literature. These findings and the related controversies, with particular attention to non-specific low back pain, will be discussed. Conclusion: Potential practical ways forward regarding the use, reporting, and presentation of spinal imaging will be presented, and an*

invitation to the musculoskeletal community to advance productive conversations and research will be extended.

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## Supporting enhanced networks – Parallel Session 3 (Seminar Room)

### Person-centred approaches to disability support: why families are important

*Emeritus Professor Lesley Chenoweth, The Hopkins Centre, Menzies Health Institute Queensland, Griffith University*

#### **Plain language synopsis**

We looked at whether workshops with people with disability and families was helpful in person centred services. The project covered seven places in New South Wales. We attended workshops to see how they went, asked them to fill in a survey and spoke with some family members. More than 800 people were in the study. We found that with workshops were helpful to most people and people learned new things and were more confident. But we also learned that families like people with disability have to deal with barriers too. Investigation team (other associated authors): Dr Kathy Ellem University of Queensland

#### **Abstract**

*The NSW Resourcing Families project aimed to build the knowledge and skills of families of people with cognitive disability in preparation for the NDIS. The project ran for 18 months delivering five workshops and follow up to families in seven sites (total 863 participants)*

*Rationale: The success of individualised approaches to support for people with cognitive impairments is largely predicated on the ability of people with a disability and their families to drive the quality of services, and exercise individual choice.*

*Method: An evaluation of the project was conducted over a two year period using participant observation, survey (n=242) and interviews (n=26) with family members.*

*Results: Family members reported increased knowledge and confidence in developing a vision and planning for their family member. However apathy and discrimination to disability from extended family, community and service providers also emerged as barriers.*

*Conclusion: Educational and capacity building workshops were an effective way to building families' knowledge and skills. Such initiatives could have other applications in new service systems but need to be safeguarded. Asking families to be the primary support in individualised approaches needs to take account of the impacts of structural and psycho-emotional disablism on all family members.*

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### Understanding network responses after catastrophic injury: a study of family workload and capacity

*Associate Professor Carolyn Ehrlich, The Hopkins Centre*

#### **Plain language synopsis**

When an individual experiences a brain or spinal cord injury entire families are disrupted and need to absorb and adjust to this disruption. In this research, we interviewed six family networks, with a total of 23 people) to understand how families absorbed and adjusted to this disruption. We found that families distributed activities between members of the network. The way that activities were distributed was dependent on capacity of individual family members, their role in the family, individual expertise and how they were geographically placed in relation to the person who had been injured. Investigation team (other associated authors): Dr Annerley Bates, Ms Elizabeth McNevin Dr Michelle McIntyre Professor Grahame Simpson Professor Michele Foster.

#### **Abstract**

*When a person sustains a brain or spinal cord injury, their life narrative is disrupted. Entire family and socially constructed networks are also disrupted.*

*Rationale: Individual and family disruption creates work for all network members, not just an individual and a primary carer. Network responses to new work is dependent on network capacity to absorb and adjust to disruption. This study aimed to explore how: (1) catastrophic injury impacted entire family networks and (2) work was allocated and distributed between members of family networks.*

*Method: This mixed methods study incorporated the principles of thematic analysis with social network analysis to map supportive networks and to explore work distribution throughout the network. A minimum of three members, including the injured person, were recruited from each family network and participated in semi-structured interviews.*

*Results: Six family networks (N=23 individuals) participated. Multiple aspects of work were identified. Network size and work distribution between network members was diverse. Network members made decisions about work allocation individually and collectively. Work was distributed according to network membership and networked defined capacity of individual members to do the required work. Capacity was role, expertise and geography dependent.*

*Conclusion: This study provides a unique conceptual approach to understand the interrelationship between family workload and capacity in the context of catastrophic injury. Health professionals can apply this knowledge when engaging service users and their families in rehabilitation planning and support.*

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## **Building Evidence-informed services for functioning, disability and health in northern Australia**

*Associate Professor Ruth Barker, James Cook University*

*To be provided.*

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## **How is this working for you? Early insights from a masterclass to advance frontline rehabilitation nursing research**

*Dr Letitia BurrIDGE, The Hopkins Centre*

### **Plain language synopsis**

Compassion is expected in nursing. How rehabilitation nurses deal with day-to-day dynamics that enable or disable compassion is unclear. We explored perceptions of and experiences with compassion in discussions with 21 nurses from spinal and brain injury rehabilitation wards in a Queensland hospital. Analysis of the transcripts identified three major themes: explaining and expressing compassion and compensating for its absence in frontline practice. Street-level bureaucracy theory (Lipsky 1980) will frame the findings and what they mean for practice. Rehabilitation nurses use discretion to preserve compassion toward patients, families and colleagues. This requires constant flexibility and reflexivity. Patients and nurses need compassion. Investigation team (other associated authors): Dr Letitia BurrIDGE, Professor Michele Foster, Professor Timothy Geraghty,

### **Abstract**

*Compassion is widely regarded as integral to nursing. It can strengthen the quality of rehabilitation patients' experience of a long and difficult recovery. The underlying assumption is that compassion is a core aspect of frontline rehabilitation nursing practice. Rationale: Little is known about rehabilitation nurses' experiences of dealing with factors that enable, disable, deplete or replenish compassion and how they manage these dynamics in daily frontline practice. Method: Focus groups were conducted to explore 21 consenting nurses' perceptions of and experiences with compassion. Participants worked in inpatient brain injury and spinal injury rehabilitation units in a tertiary hospital in Queensland. The audio-recorded discussions were transcribed and analysed thematically. Results: Three major themes will present participants' perceptions and experiences, in terms of explaining and expressing compassion and compensating for its absence in frontline practice. Street-level bureaucracy (Lipsky 1980) will provide a theoretical framework for understanding these*

findings and discussing their significance and implications for practice. *Conclusion: Rehabilitation nurses use discretion to sustain compassion toward patients, families and colleagues. Constant flexibility and reflexivity are key aspects of frontline rehabilitation nurses' experience. Compassion is critical to the wellbeing of both patients and nurses.*

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## Poster Presentations

### Integrating telehealth into a community based interdisciplinary brain injury service

Dr Elizabeth Beadle, Queensland Health

*To be provided*

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### Factors that contribute to nurses' wellbeing in tertiary mental health care

Assoc. Prof. Carolyn Ehrlich, The Hopkins Centre

#### Plain Language synopsis

Quality patient care is dependent on individual nurses care work in combination with the care environment. Nurses' wellbeing is an important component of quality patient care, but is also associated with retention, job satisfaction and being engaged in nursing work. We undertook a review of the literature to identify workplace factors that promote wellbeing of mental health nurses. We found that multiple organisational factors that influence wellbeing of nurses. Nurses need to have meaningful roles, be well supported by leadership and management, work in a supportive team culture, and have access to clinical supervision. Investigation team (other associated authors): Ms Kate Knudsen, Dr Emma Harqvist

#### Abstract

*Background: Responsive, integrated, safe and effective, that is, quality patient care depends on individual nurses professional practice in combination with the practice environment. Internationally, nurses' wellbeing has been identified as an integral component of practice environments, and is closely aligned with job satisfaction, work engagement, patient care and workforce turnover.*

*Rationale: A health promoting workplace is one that aims to improve employees and manager's engagement and wellbeing by addressing organisational and individual factors that contribute to a resourceful work environment. This study aimed to identify workplace factors that promote wellbeing of mental health nurses, and the ways that the identified factors influence wellbeing.*

*Method: A scoping review methodology was used. A search strategy was specified, studies were selected according to pre-defined criteria, and data were extracted, charted, collated summarised, and reported.*

*Results: 39 papers were included. The practice environment, which when added to individual practitioner factors contributed to nurses' wellbeing. Influential factors in the practice environment included: nurses' organisational role; nursing management and support; leadership support; interdisciplinary relationships; workload; benefits, rewards and opportunities; a supportive team culture and clinical supervision.*

*Conclusion: Frontline capacity to deliver quality patient care is dependent, in part, on nurses' wellbeing. In this review, we have identified a number of organisational factors that influence nurses engagement, personal health and wellbeing and potential for burnout.*

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## Consumer engagement in healthcare

Assoc. Prof. Carolyn Ehrlich, The Hopkins Centre

### Plain Language synopsis

Engaging consumers in health services is essential to improving care quality and meeting National Quality and Safety Health Service Standard 2. We surveyed consumer and carer representatives across Queensland to explore their experience of engaging with health services. 128 consumers completed the survey. We found that the majority of consumer and carer representatives regularly engage with health services and they are satisfied with the way that they are involved. When Health Consumers Queensland assists individuals prepare for their engagement role, they feel more prepared to perform the engagement work required by health services.

Investigation team (other associated authors): Dr Maddy Slattery, Professor Elizabeth Kendall, Ms Melissa Fox

### Abstract

*Background: Engaging consumers in health services improves care quality and is essential to meet National Quality and Safety Health Service Standard 2. Health Consumers Queensland is a non-government organisation that supports consumers and health services to engage in multiple ways.*

*Rationale: As one part of a larger study, we report consumer and carers experience of engaging with health services in Queensland, and the ways that Health Consumers Queensland is supporting them to engage.*

*Method: A 51-item online survey was developed to provide information about how consumers and carers were engaged with health services and with Health Consumers Queensland. Data were analysed using the Statistical Package for Social Sciences (SPSS Version 25, 2018). Chronbach alpha was calculated to assess the reliability of measurement tools. Descriptive statistics were used to present data. Bivariate correlations were conducted to identify relationships among variables and chi-square analyses and independent sample t-tests were used to identify significant differences.*

*Results: The majority of consumers and carers engage with their health service regularly and report being clear about what is required of them. They feel satisfied with the way the organisation involves them. Perceived self-efficacy in the consumer and carer representative role was associated with Health Consumers Queensland helping individuals prepare for their role.*

*Conclusion: Consumers and carers are being engaged at multiple levels in health services. Both health services and Health Consumers Queensland have an important role in the consumer engagement landscape across Queensland.*

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## Integrating technology into a new acquired brain injury rehabilitation service

Gisela Brittain, Queensland Health

### Plain Language synopsis

We wanted to understand what types of technology we could use to give our clients the best outcomes after brain injury. We read the literature and reviewed the technology, benchmarked with other services to see how they use technology, and spoke to our team to see what would work best. We purchased technology that was evidence-based (e.g., ipads, apps, wireless internet, telehealth) and worked with the staff to use this in every day service. Staff and clients now have increased access to technology for rehabilitation. Investigation team (other associated authors): Gisela Brittain; Elizabeth Beadle; Elizabeth Spitzer; Kerrin Watter; Areti Kennedy

### Abstract

*Integrating technology in rehabilitation after brain injury is common, including telehealth, smartphones, and social media. The Acquired Brain Injury Transitional Rehabilitation Service (ABI TRS) commenced*

*in Brisbane in 2017 and provides interdisciplinary community rehabilitation for clients with a brain injury. The ABI TRS aimed to include technology into service delivery.*

*Rationale: To implement evidence-based technology to enhance rehabilitation for clients with ABI into a new community transitional rehabilitation service.*

*Method: A change management approach was used to establish the use of technology into the rehabilitation service. This included literature review of current evidence-based practice, consultation with the interdisciplinary team, exploration of affordability and type of technology suitable for the service, and benchmarking with other community rehabilitation teams. Clinician skill, knowledge and experience of use of technology was also explored.*

*Results: New technology implemented included iPad's and software applications (apps), laptops, smart phones, portable wireless internet and telehealth. Clinical processes, training and education were provided and technology items have been successfully embedded within the community rehabilitation program.*

*Conclusion: Technology was successfully implemented into a new transitional rehabilitation service, and has enabled clinicians to enhance rehabilitation through using alternative modes of treatment.*

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## **Fostering self-management within an upper limb therapy group**

Carly Gomura, Queensland Health

### **Plain Language synopsis**

Being able to self-manage a chronic condition requires specific skills, and the confidence to use these skills to change our health behaviours. A process for developing self-management skills was trialled in a hospital-based upper limb education group for stroke survivors and their caregivers. This was to explore whether this process was useful in a group setting, and before stroke survivors left hospital.

Stroke survivors and their caregivers who took part in the group found the peer support and encouragement helpful. They reported improved knowledge, skill and confidence in looking after their arm after stroke. These results were greater than for those stroke survivors who did not take part in the group.

We believe this shows that self-management activities can be successfully included in a therapy group to help stroke survivors and their caregivers learn how to look after their arm after stroke. Investigation team (other associated authors): Kylie Bower, Vickie Mills

### **Abstract**

*There is increasing interest in the literature for exploration of self-management practices for stroke survivors within the acute inpatient setting (Pearce et al 2015; Warner et al 2015).*

*Rationale: Existing models outline a process for which self-management behaviours may be developed and adopted (Parke et al 2015). This process involves the provision of effective therapeutic interventions to allow stroke survivors to acquire self-management skills and self-efficacy, necessary to perform self-management behaviours. Our project explored the first step of this process: the impact of therapeutic interventions in imparting self-management skills, behaviours and self-efficacy for upper limb management post-stroke.*

*Method: A stroke-specific upper limb education group in an inpatient rehabilitation setting was redesigned to reflect those interventions supported in the literature for the development of self-management skills and behaviours (Warner et al 2015; Parke et al 2015).*

*Evaluation of the upper limb education group was conducted via pre-post survey of participants, and compared to a like inpatient stroke cohort who did not participate in the group.*

*Results: Participants demonstrated improved self-ratings of knowledge, skill and confidence in upper limb self-management following participation in the group; which were higher in comparison to a like population group who did not participate. Participants identified a continued practice of upper limb self-management behaviours following completion of the group, and the benefit of peer support and encouragement that the group provided.*

*Conclusion: A self-management framework can be successfully incorporated into a group setting to foster self-management knowledge, skills and behaviours. A group setting provides an opportunity for peer support amongst participants, and can be an appropriate setting for consolidating self-management skills.*

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## Delivery of persistent pain management to people with a refugee background

Assoc. Prof. Saras Henderson, Griffith University

### Plain Language synopsis

Clinicians need to understand how pain is interpreted by refugees from their cultural perspectives. Refugee patient records (37) were examined over a three-year period to capture the characteristics of this population attending the Persistent Pain Clinic. The results showed that most suffered anxiety, stress and depression with all showing signs of Post-Traumatic Stress Disorder. Measure of trust in the patient-clinician relationship, communication difficulties due to non-English speaking, seen by multiple health services led to refugees frequently not keeping appointments. Cultural reasons preventing clinicians to physically examine patients, waiting for interpreters and refugees' inability to complete self-report measures and engage in group programs led to less than optimum pain management. Exploration of the findings is needed to develop strategies and improve pain management for refugees. Investigation team (other associated authors): A/Prof Saras Henderson, Dr Aston Wan, Mrs Ruth Hills, Dr Samantha Siyambalapatiya Dr Joseph Kluver, Ms Leeanne Schmidt

### Abstract

*Clinicians at the Persistent Pain Clinic at Princess Alexandra Hospital have observed that refugees are not using this service adequately leading to poor health outcomes. In response a three-year retrospective chart audit (2015-2017) was conducted to gain an understanding of the characteristics of the refugees attending the clinic.*

*Rationale: The chart audit provides contextual data as the first step towards improving persistent pain management in refugees.*

*Method: Records of 37 refugee patients were audited using the modified Minnesota Complexity Assessment Method that encompassed psychosocial, readiness to engage, health system's resources, language/s spoken, work, and appointment keeping. Descriptive statistical analysis was conducted.*

*Results: Most suffered anxiety, stress and depression with nearly all showing signs of PTSD. Measure of trust in the patient-clinician relationship, communication difficulties due to non-English speaking, being seen by multiple health services led to refugees frequently not keeping appointments. Cultural reasons preventing clinicians to physically examine patients, waiting for interpreters and refugees' inability to complete self-report measures and engage in group programs led to less than optimum pain management.*

*Conclusion: Exploration of the findings is needed to develop strategies and improve pain management for refugees.*

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## How can hospital environments support self-management for stroke survivors and their caregivers?

Kylie Bower, Queensland Health

### **Plain Language synopsis**

Improved medical care and an ageing population means numbers of Australians living with stroke are expected to rise. We hope to determine how a hospital environment enables stroke survivors and their caregivers to develop knowledge, skills, behaviours and confidence to self-manage their stroke, and at what point in the hospital journey this is most important. We expect this information will help to prioritise those aspects of hospital-based stroke care that are perceived as valuable, and shift or modify those which are not. We hope this results in stroke survivors and their caregivers feeling prepared to proactively manage their stroke when they leave hospital, and return to productive and meaningful life roles. Investigation team (other associated authors): Carly Gomura

### **Abstract**

*For stroke survivors and their caregivers, self-management skills training has growing evidence for efficacy when implemented in a community environment. Improved stroke survival and a shift towards consumer-directed care provides an opportunity for stroke care delivery to be evaluated.*

*Rationale: Limited evidence exists regarding the importance of stroke self-management practices within the inpatient hospital environment. In addition to the growing demand for consumer-led stroke care, this gap in evidence supports the concept of exploring how to best prepare stroke survivors and their caregivers to develop knowledge, skills and behaviours to effectively self-manage their stroke, and develop the confidence to put these into action.*

*Method: Descriptive qualitative design, using purposeful sampling and either content or thematic analysis. Semi-structured staff interviews with allied health, nursing and medical staff; and with stroke survivors and caregivers at different time points within their hospital episode at Princess Alexandra Hospital and following their return to the community.*

*Results: This project aims to identify which interventions are perceived as valuable in developing self-management knowledge, skills, behaviours and confidence, and at what point in the hospital journey this is most important.*

*Conclusion: The outcomes from this project will assist to prioritise, shift or modify care delivery across the hospital setting to promote a positive recovery experience for our consumers; and address gaps, unmet need or variation in stroke care. Given the existing gap in the literature, publication and presentation of project findings is anticipated.*

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### **Identifying dispersion of disability services in relation to people with disability in greenspace**

Dr Ali Lakhani, The Hopkins Centre

### **Plain Language synopsis**

Disability support services are crucial to promote the health and wellbeing of people with disability. In Australia, the proximate availability of such services has been put into question. A spatial analysis was conducted to identify regions in South-East Queensland with significantly high numbers and percentages of people with disability and the geographic dispersion of disability support services. Distinct regions in South-East Queensland are underserved and as a result people with disability may not be receiving the health and social support, and advocacy necessary to promote favourable health and wellbeing outcomes. A Lakhani and S Parekh

### **Abstract**

*Background: Disability support services are crucial to promote the health and wellbeing of people with disability. Recent research has established that such services are effective towards addressing the comorbidities that some people with disability face and enhancing interdisciplinary communication between clients and other services.*

*Rationale: It is imperative that disability support services are proximately available and adequately distributed among potential end users. In relation to Queensland, the proximate availability of such services has been put into question. Establishing the proximate availability of support services across Queensland is worthwhile as it will distinguish potentially underserved regions.*

*Method: Spatial analysis using ArcGIS involved identifying regions in South-East Queensland where there are significantly high numbers and percentages of people with disability, and clarifying the geographic dispersion of disability support services in relation to these regions.*

*Results: Distinct regions in South-East Queensland are underserved and as a result people with disability may not be receiving the health and social support, and advocacy necessary to promote favourable health and wellbeing outcomes.*

*Conclusions: Support services must provide support and advocacy to diverse geographic regions. Furthermore, it is important that an up to date directory clarify the extent and scope of disability of support services.*

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## Filling the transitional care gap

Dr Mandy Nielsen, Queensland Health

### Plain Language synopsis

The Acquired Brain Injury Transitional Rehabilitation Service (ABITRS) was established to help people with acquired brain injury leave hospital earlier and improve their return to the community. The Acquired Brain Injury Transitional Rehabilitation Service (ABITRS) aims to help people with acquired brain injury leave hospital earlier and improve their return to the community. Outcome measures were collected before and after program completion to see if the ABI TRS meeting these aims. Outcomes were also compared to a quasi-control (CON) group, data collected when no formal transition service existed. The ABITRS clients were more impaired than the CON group. Despite this, ABITRS clients improved more than/equal to the CON group in their function and psychological wellbeing. The ABITRS clients generally have better outcomes than the CON group at program end. Investigation team (other associated authors): Areti Kennedy, Kerrin Watter, David Borg

### Abstract

*Background: The Acquired Brain Injury Transitional Rehabilitation Service (ABITRS) is a 5-year pilot program which aims to facilitate earlier discharge from hospital and improve community reintegration for persons with ABI and their families.*

*Rationale: To determine the impact of ABITRS on community re-integration, a formal service evaluation is currently being undertaken. This study presents outcomes from the first year (2017–2018).*

*Method: Persons with ABI (n=68) completed the 3 month ABITRS community-based program, involving allied health service visitation 3-4 d/wk. Self or practitioner-rated questionnaires were completed at 0 (baseline) and 3 months, and compared to a quasi-control (CON) where no transition service existed. Data were analysed using linear mixed models in a Bayesian framework.*

*Results: Baseline ratings in all outcomes measures were statistically worse at baseline compared to CON. There were statistical improvements in measures of global function (MPAI-4) and psychological wellbeing (DASS-21) compared to CON. Psychosocial function (SPRS-2) was statistically improved at 3 months compared to baseline.*

*Conclusion: ABITRS clients demonstrated statistically improved or matched outcomes at 3 m compared to the quasi-control. The ABITRS program sees a clinically diverse range of individuals, and clients generally exhibit superior outcomes following program completion.*

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## Partnering with consumers

Dr Mandy Nielsen, Queensland Health

### Plain Language synopsis

Service users (consumers) can make valuable contributions to rehabilitation services. The Division of Rehabilitation (DoR) and The Hopkins Centre (THC) want to make engagement and partnership with

consumers meaningful. A 12-month project to develop a Consumer Engagement Strategy will be completed in October 2018. This has involved consultation with DoR staff and service users, and members of THC, and a review of the literature about consumer engagement. The process of developing the Strategy and the completed Strategy will be discussed in this presentation. Investigation team (other associated authors): Delena Amsters; Ray Quinn; Sarita Schuurs

### **Abstract**

*Consumers of rehabilitation services (also known as service users) have a valuable role to play in the development and delivery of rehabilitation services and in conducting and translating rehabilitation research. How to meaningfully partner with consumers in these activities is an important issue for the Division of Rehabilitation (DoR) and a key focus of The Hopkins Centre (THC).*

*Rationale: The DoR and THC recognised that an appropriate and coherent strategy was required to effectively engage and partner with service users. A 12-month Consumer Engagement Strategy Project (the Project) was conducted. The Project aimed to design, plan and document a sustainable consumer engagement strategy which embeds into clinical, management, education and research activities of the DoR and THC.*

*Method: Commencing in October 2017, the Project will conclude in October 2018. Processes included consultation with stakeholder groups i.e. DoR staff and service users and THC members, and a literature review. A reference committee comprising service user, DoR and THC representatives was convened to support the Project.*

*Results: The process of developing the Strategy and the completed Strategy will be discussed.*

*Conclusion: The DoR and THC are committed to meaningful partnership with consumers, and the Strategy will provide a framework to guide this.*

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## **Predictors of self-rated health post-injury: findings from claimants in Queensland**

Dr Srinivas Teppala, The Hopkins Centre

### **Plain Language synopsis**

People with Motor Vehicle Accident (MVA) injuries experience challenges with health that extend beyond the immediate time frames of discharge from Acute Care or Rehabilitation Services. Information on long-term health after MVA injuries is limited, especially in Australia. In this context, we examined factors associated with General Health Status after MVA injuries in community dwelling Compulsory Third Party (CTP) insurance claimants from Queensland, Australia.

We studied 205 participants from a survey conducted by the Centre of National Research on Disability and Rehabilitation Medicine (CONROD), Griffith University and the Motor Accident Insurance Commission (MAIC) in 2010. The EuroQol-5D (EQ-5D) an established marker of general health was the main outcome of interest. Regression analyses examining participant demographic and injury related variables and the five EQ-5D health states (Mobility, Self-Care, Usual Activities, Pain or Discomfort and Anxiety or Depression) were performed.

Our results show that male gender, being born in Australia (vs. Other Countries), post-injury unemployment status and longer time since injury were significantly associated with poor health. However, our study was based on cross-sectional data and was therefore limited in terms of causality. Future studies that prospectively examine health over time may need to validate our findings.

### **Abstract**

*Self-Rated Health is an established marker of general health status. Patients post-injury experience challenges with self-efficacy and return to workforce that extend beyond the immediate time frames of discharge from Acute Care.*

*Rationale: There is an abundance of literature on satisfaction with health after treatment for major trauma. Information on factors associated with poor Self-Rated Health in those treated for less severe injuries however is limited. In this context, we examined predictors of poor Self-Rated Health post-injury.*

*Methods: Retrospective cohort of 205 community dwelling Compulsory Third Party (CTP) insurance claimants (age ≥22 years) from Queensland, Australia. Multivariate logistic regression models were used to assess predictors of poor Self-Rated Health.*

*Results :A total of 55 participants (26.8%) had poor Self-Rated Health. Odds ratios (95% confidence intervals; p-value) for poor Self-Rated Health were: 1.06 (1.02-1.09, p-value=0.003) for age, 3.44 (1.48-7.98, p-value=0.004) for unemployment, 8.89 (1.95-40.62, p-value=0.02) for those with problems in more than 2 categories of 4 EQ-5D domains (pain/discomfort, mobility, self-care and usual activities) and 2.50 (1.07-5.83, p-value=0.03) for those with anxiety/depression.*

*Conclusion:Our results suggest that post injury return to work, management of pain and improvement in self-efficacy may improve health outcomes.*

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## Designing accessible educational resources for people with Spinal Cord Injury

Michael Todorovic

### Plain Language synopsis

Spinal cord injury is a devastating disorder that can result in significant physiological and psycho-social disability. Over the years, many institutions and third-party providers have produced educational resources to address these important topics. Interestingly, a number of people with spinal cord injury have indicated that there are certain educational resources that are either unavailable, inaccessible, or not relevant to their injury type. We aim to identify these themes and produce free, and easily accessible, educational resource for people with spinal cord injury. Investigation team (other associated authors): Todorovic, M., Barton, M.J., Reshamwala, R, Ekberg, A., St. John, J.A

### Abstract

*To identify themes of interest for the production of educational resources for people with spinal cord injury (SCI).*

*Method: A mixed methods exploratory survey of individuals (n=6) with SCI (level of injury: C4-L3; time since injury: 1.5-12 years; age: 39-66 years) was undertaken to qualitatively (open questions) and quantitatively (Likert scale 1-5) identify themes of interest for the design and production of educational resources. Interviewees were surveyed regarding their goals for recovery and physical rehabilitation. They were also asked to rank and provide details regarding the following broad themes; community resources & services; “your” injury; current research; maintaining health & wellbeing; equipment; and body physiology.*

*Results: Interviewees highly rank (Likert median: 5) all broad themes as important for the development of educational resources. Common detailed responses within each theme included the perceived need for information on the following: Community resources & services – gym access; “Your” injury – details on specific injury-type; current research – realistic and in lay terms; maintaining health & wellbeing – mental and physical changes (fitness, infections, pain, and motivation); body physiology – details on specific injury-type. Regarding recovery goals, few interviewees found the information provided after their injury useful/relevant for their recovery goals.*

*Conclusion: We have identified multiple areas of interest for the design and production of educational resources for those with spinal cord injury. Further insight has also been obtained regarding resources that may support and enhance recovery goals and participation in physical rehabilitation.*

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## Addressing client needs through interdisciplinary multi-site groups in Acquired Brain Injury Transitional Rehabilitation Service

Nina Wegener, Queensland Health

### Plain Language synopsis

The Acquired Brain Injury Transitional Rehabilitation Service (ABI-TRS) provides therapy and support for people transitioning home from hospital and getting back into life. People with ABI can have

difficulty with physical function, thinking and communication which impacts independence and community integration. ABI-TRS developed an interdisciplinary group therapy program in response to client feedback and to meet clients' identified needs: to improve rehabilitation access and increase therapy; practice skills in real-life situations; and better address client goals. Group is delivered face-to-face and via video-link, and in different community locations near client homes. Client feedback has acknowledged the value of the group. Investigation team (other associated authors): Sarah Jeffery, Sarah Kekki, Elizabeth Beadle, Kerrin Watter, Areti Kennedy

### **Abstract**

*Background: Transition from hospital-to-home is a critical time for people with acquired brain injury (ABI) and their families. Recognised issues include changes to physical, cognitive and communication skills, which impact independence, reintegration and community access. The ABITRS provides community-based rehabilitation to people with ABI discharging home from hospital.*

*Rationale: The ABITRS identified the clinical need to implement a new therapeutic model-of-care (MOC) to: increase therapy intensity, practise rehabilitation skills in real-life situations, improve clients' access to community rehabilitation, and address clients' goals of reintegration and independence.*

*Method: The ACI framework was used to develop a new MOC in ABITRS – i.e., interdisciplinary group rehabilitation. This involved: (i) reviewing the literature, benchmarking, stakeholder consultation, resource review; (ii) identifying components aligned to ABI transitional rehabilitation; and (iii) translating these components to create an innovative goal-focused interdisciplinary group program, while considering client-related barriers (e.g. isolation).*

*Results: An interdisciplinary group program was developed: Clinical content: functional goal-focused activities; utilising expert-clinician delivery; targeting psychosocial, physical, cognitive-communication, self-management and education. Service Delivery: group-based intervention, telehealth for isolated clients, offsite groups to encourage local community-access, interdisciplinary team delivery.*

*Conclusion: A new MOC has been successfully integrated into ABITRS. Consumer feedback has influenced ongoing program development and acknowledged the clinical benefit of the program.*

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## **Staff experiences of concerning, complex and challenging behaviour in rehabilitation settings: Supporting our frontline workforce**

Dr Karleigh Kwapil, Queensland Health

### **Plain language synopsis**

Spinal cord injury is a devastating disorder that can result in significant physiological and psychosocial disability. Over the years, many institutions and third-party providers have produced educational resources to address these important topics. Interestingly, a number of people with spinal cord injury have indicated that there are certain educational resources that are either unavailable, inaccessible, or not relevant to their injury type. We aim to identify these themes and produce free, and easily accessible, educational resource for people with spinal cord injury. Investigation team (other associated authors): Todorovic, M., Barton, M.J., Reshamwala, R, Ekberg, A., St. John, J.A

### **Abstract**

*Background: Adults undertaking rehabilitation for an acquired brain injury, spinal cord injury, or persistent pain condition can experience a range of emotions and behaviours during the process of injury and adjustment, some of which may be experienced as concerning, confronting or challenging for rehabilitation clinicians. Rationale: Despite the frequency with which staff are exposed to these 'Behaviours of Concern' (BOC), there is limited research regarding the type and the impact of these behaviours on staff. It is also unclear what resources and supports are needed to ensure an environment in which rehabilitation professionals feel optimally supported in working with clients and their families who exhibit BOC. Method & Results: The current study reports on data obtained from a systematic review of rehabilitation literature in addition to data obtained from rehabilitation clinicians regarding their beliefs, expectations and identified areas for the ongoing development of resources to further support frontline rehabilitation clinicians and*

their clients. *Conclusion: The findings of the current study highlight the areas of service development and resourcing necessary to further support rehabilitation clinicians in working optimally with clients who demonstrate behaviours of concern to rehabilitation clinicians.*

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## Frontline dynamics of compassion in inpatient rehabilitation nursing

Dr Letitia Burrridge, The Hopkins Centre

### Plain Language synopsis

Compassion is expected in nursing. How rehabilitation nurses deal with day-to-day dynamics that enable or disable compassion is unclear. We explored perceptions of and experiences with compassion in discussions with 21 nurses from spinal and brain injury rehabilitation wards in a Queensland hospital. Analysis of the transcripts identified three major themes: explaining and expressing compassion and compensating for its absence in frontline practice. Street-level bureaucracy theory (Lipsky 1980) will frame the findings and what they mean for practice. Rehabilitation nurses use discretion to preserve compassion toward patients, families and colleagues. This requires constant flexibility and reflexivity. Patients and nurses need compassion. Investigation team (other associated authors): Dr Letitia Burrridge, Professor Michele Foster, Professor Timothy Geraghty,

### Abstract

*Compassion is widely regarded as integral to nursing. It can strengthen the quality of rehabilitation patients' experience of a long and difficult recovery. The underlying assumption is that compassion is a core aspect of frontline rehabilitation nursing practice. Rationale: Little is known about rehabilitation nurses' experiences of dealing with factors that enable, disable, deplete or replenish compassion and how they manage these dynamics in daily frontline practice. Method: Focus groups were conducted to explore 21 consenting nurses' perceptions of and experiences with compassion. Participants worked in inpatient brain injury and spinal injury rehabilitation units in a tertiary hospital in Queensland. The audio-recorded discussions were transcribed and analysed thematically. Results: Three major themes will present participants' perceptions and experiences, in terms of explaining and expressing compassion and compensating for its absence in frontline practice. Street-level bureaucracy (Lipsky 1980) will provide a theoretical framework for understanding these findings and discussing their significance and implications for practice. Conclusion: Rehabilitation nurses use discretion to sustain compassion toward patients, families and colleagues. Constant flexibility and reflexivity are key aspects of frontline rehabilitation nurses' experience. Compassion is critical to the wellbeing of both patients and nurses.*

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## Perceived costs and benefits of mandating and regulating Livable Housing Design

Dr Courtney Wright, The Hopkins Centre

### Plain Language synopsis

Housing plays an important role in helping people to rebuild their lives after a serious injury. However, there remains a limited number of accessible housing in the community to support the needs of people who have experienced a serious physical injury. Despite an ambitious goal for all new homes to be built to an agreed accessible standard by 2020, there has only been a small number of new accessible housing that have been built. It is thought that the public do not want accessible housing. This research aimed to understand people's views on the costs and benefits to Australian society if all new homes were built to be accessible. The results identified conflicting views of participants about

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the rights of different groups of people (and whose rights are considered more important), as well as the financial cost of making all new homes accessible. Investigation team (other associated authors): Dr Jacinta Colley & Dr Margaret Ward

### **Abstract**

*Many thousands of Australians living with brain and spinal injuries face significant housing challenges post discharge from hospital. This is in part due to existing housing design standards and a subsequent lack of physically accessible housing in the private sector. Despite an industry-led voluntary approach over 10 years, a national guideline, and a strategic plan for all new homes to be an agreed Livable Housing Design standard by 2020, there has been limited uptake by the housing and construction sector, which is often attributed to a perceived lack of consumer demand.*

*Rationale: This research aimed to investigate the perceived costs and benefits to Australian society if all new homes were built to an agreed Livable Housing Design standard.*

*Method: An online mixed-methods survey was available for completion over a three month period. Convenience and snowball strategies were used to recruit a total of 1,329 participants. The sample predominantly reflected the voice of home owners and people whose needs are not met through the current mainstream housing system.*

*Results: Findings from this research revealed conflicting views of participants surrounding a person's rights (and whose rights take priority), as well as the perceived financial impact of change.*

*Conclusion: The reliable provision of Livable Housing will have a major impact on government policies and financial investments in programs to keep people socially and economically included and participating in family and community life.*

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## **Housing for people with an acquired brain or spinal injury: Mapping the Australian funding landscape**

Dr Courtney Wright, The Hopkins Centre

### **Plain Language synopsis**

Funding is often sought from National or State/Territory-based insurance schemes to assist a person with ABI or SCI to make changes to their housing situation and improve their quality of life. Given the crucial role of insurance schemes in contributing toward housing improvements for individuals with ABI and SCI, this scoping review aimed to synthesize publicly available information regarding scheme eligibility and housing funding contributions for people who have sustained an ABI or SCI. The findings have allowed comparison of funded supports across different insurance Schemes, and on a national scale, to inform future decision-making in this area. Investigation team (other associated authors): Dr Jacinta Colley, Ms Kate Knudsen, & Prof Elizabeth Kendall

### **Abstract**

*Due to several personal and systemic factors, individuals with an acquired brain injury (ABI) or spinal cord injury (SCI) are often unable to afford the extent of support required to address their housing needs. Funding is often sought from National or State/Territory-based insurance schemes to assist a person with ABI or SCI to make changes to their housing situation and improve their quality of life.*

*Rationale/Method: Given the crucial role of insurance schemes in contributing toward housing improvements for individuals with ABI and SCI, this scoping review aimed to synthesize scheme eligibility and funding contributions of the NDIS, interstate NIIS schemes, interstate workers compensation schemes, and CTP Insurance schemes in relation to housing infrastructure, tenancy, and service delivery for people who have sustained an ABI or SCI.*

*Results: There were notable differences in available information between different Scheme types and on a national scale (i.e., between different Australian States and Territories). There were also notable*

differences in the housing infrastructure, tenancy, and service delivery supports that were funded across the Schemes.

*Conclusion: This research has provided individuals with an ABI or SCI, and their families, an overview of available funding for housing supports across Australia (from publicly available information). The findings have also enabled comparison of funded supports across the diverse Schemes, and on a national scale, to inform future decision-making in this area.*

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## The process of patient engagement in cardiac rehabilitation programs

Sepideh Jahandideh, Griffith University

### Plain Language synopsis

Research in the area of patient engagement in cardiac rehabilitation (CR) programs could benefit from the application of a theoretical model that incorporates multiple stages of CR, thus facilitating a more structured approach to research. Lequerica and Kortte (2010) presented a theoretical Model of Therapeutic Engagement which aimed to clarify how and why patients engage in medical rehabilitation. The complete model is yet to be tested in any rehabilitation population. This study broadens the understanding about the multi-stage processes underlying therapeutic engagement, and also identifies potential points of influence for improving engagement.

Investigation team (other associated authors): Sepideh

Jahandideh, Elizabeth Kendall, Samantha Low-Choy, Kenneth Donald, Rohan Jayasinghe

### Abstract

*Coronary vascular disease is associated with the highest rate of mortality in Australia. A large number of eligible patients in Australia do not engage in the cardiac rehabilitation (CR) programs.*

*Rationale: The primary aim of this study was to test the causal structure of the model of therapeutic engagement (MTE) for the first time to examine if the model assists in understanding the process of patient engagement (PE) in cardiac rehabilitation (CR) programs.*

*Method: This study used a prospective design, following up patients from the Gold Coast University Hospital Cardiology Ward who attended Robina Cardiac Rehabilitation Clinic.*

*Results: A structural equation model of the interactions among the proposed variables within the three stages of the MTE (intention to engage in CR programs, CR initiation, and sustained engagement) revealed significant relationships among these variables in a dataset of 101 patients. However, no relationship was discerned between outcome expectancies and patient intention to engage in CR.*

*Conclusion: These findings help clarify the process of PE in the context of CR programs. The findings also reveal information on how patients engage in CR programs. Importantly, this enables healthcare providers to more effectively engage patients according to their stage of PE.*

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## Introducing the My Accessible Home resource: a technological platform to assist consumers in making important housing decisions

Dr Courtney Wright, The Hopkins Centre

### Plain Language synopsis

After a life-changing injury or illness, people often need to modify their homes or find alternative places to live. This is because their previous home is no longer suitable or equipped for their high level physical, mental, or support needs. The My Accessible Home resource is a comprehensive planning and decision tool for people with disability and their families to access relevant housing information and plan for the future. The evidence-based resource will empower consumers to make important housing decisions in early design or purchase processes, thus improving housing suitability and

liveability for people with complex disability. Investigation team (other associated authors): Prof Heidi Zeeman & Youngcare

## **ABSTRACT**

*Background: After a life-changing injury or illness, people often need to modify their homes or find alternative places to live. This is because their previous home is no longer suitable or equipped for their high level physical, mental, or support needs. Despite the clear nature and extent of the problem (1.3 million Australians have a severe/profound disability requiring daily support), many people remain in unsuitable living environments for years or are moved to institutional group homes or nursing facilities in an attempt to 'solve' the problem.*

*Rationale: While there are some housing resources currently available to help consumers modify their homes, they are limited in scope and substance. The My Accessible Home technological resource is a comprehensive planning and decision tool for people with disability and their families to access relevant housing information and plan for the future.*

*Method/Results: The resource content is informed by an intensive PhD research programme. Given that in-depth interviews with consumers were conducted, the technological platform is evidence-based and informed by consumers' voices.*

*Conclusion: The resource will empower consumers to make important housing decisions in early design or purchase processes, thus improving housing suitability and liveability for people with complex disability.*

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## **Impact of central obesity and body composition on energy needs and wound healing in people with spinal cord injury undergoing surgical repair of chronic pressure injuries**

Amy Nevin, Queensland Health

### **Plain Language synopsis**

The presence of chronic PIs, surgical repair or subsequent healing do not appear to impact the energy needs of people with SCI and weight gain is common. Current guidelines recommending increased energy prescription conflict with these findings and may increase risk of unintentional weight gain over the course of healing.

### **Abstract**

*Background: Consensus Dietetic guidelines for people with spinal cord injury (SCI) who have pressure injuries (PIs) recommend an increased energy intake to meet demands of wound healing, but evidence to support this is limited. The impact of PI surgical repair on energy needs is also unknown. The aims of this study were to: 1. Determine the resting energy needs of people with SCI admitted to hospital with established chronic PIs 2. Investigate the energy burden of PI surgical repair and healing. 3. Observe weight change from pre-surgery until discharge from hospital.*

*Methods: Data was collected at the bedside following an overnight fast of  $\geq 8$  hours. Resting energy expenditure (REE) was measured using indirect calorimetry (canopy hood) for  $\geq 20$  minutes one week pre-surgery, one week post-surgery, on removal of stitches and on return to unrestricted wheelchair sitting with complete wound healing (at discharge). Weight was measured one week pre-surgery and at discharge. Clinical energy prescription during admission was based on measured REE.*

*Preliminary Findings: To date, 12 individuals have undergone surgery to repair stage four PIs (100% male, median age 52 years [range 27- 72 years]; C4-T10 AIS A-B, n=1 spina bifida). Pre-surgery, dietetic guidelines for energy prescription overestimated energy requirements by 30-70% in nine out of ten individuals (Figure 1). There was no change to REE across time points ( $< 10\%$  variation), with the exception of two individuals who experienced a clinically significant ( $> 10\%$ ) increase in REE at different time points post-surgery (Figure 2). This may be due to an infection for one individual, and a combination of autonomic dysreflexia and spasticity for the other. Despite energy prescription individualised to REE, weight gain between 2-17kg was observed in three quarters of individuals.*

*Conclusion: The presence of chronic PIs, surgical repair or subsequent healing do not appear to impact the energy needs of people with SCI and weight gain is common. Current guidelines recommending increased energy prescription conflict with these findings and may increase risk of unintentional weight gain over the course of healing.*

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### **Enhancing the operationalisation of person-centred rehabilitation in an acquired brain injury outreach setting – an actional research project**

Delena Amsters, Queensland Health

#### **Plain Language synopsis**

Person-centred rehabilitation (PCR) means treating each service user undergoing rehabilitation as an individual. There is a strong committed drive to provide this type of rehabilitation both nationally and internationally. To help rehabilitation teams improve their ability to deliver person-centred rehabilitation a training package was developed.

#### **Abstract**

To be provided

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### **Integrating an evidence-based clinical exercise physiology service model into a comprehensive multi-professional rehabilitation service for people with brain impairment: an Integrated knowledge translation approach**

Dr Kelly Clanchy, Griffith University

#### **Plain Language synopsis**

Conventional, multiprofessional rehabilitation does not routinely include a practitioner with an explicit mandate to empower clients to pursue optimal health and functioning through engagement in physical activity which is safe, effective, enjoyable and sustainable. The Clinical Exercise Physiologist appointed to the newly established Acquired Brain Injury Translational Rehabilitation Service (ABI-TRS) will have this mandate and the aim of our project is to translate a service delivery model which has been demonstrated to be effective in a stand-alone setting into the integrated, multi-professional ABI-TRS context. The impact of this project is to enhance the prospect of the successful incorporation of the Clinical Exercise Physiology service by: □ Establishing a working group that will bring together leading researchers and practitioners in the field to ensure key elements of successful translation are incorporated; □ Developing training materials specific for use in ABI-TRS for the promotion of physical activity participation in adults with acquired brain injury; □ Upskilling of ABI-TRS practitioners in the use of evidence-based strategies and theoretical frameworks for behaviour change that can be applied in multidisciplinary practice; and □ Development of plan for the successful translation of the practice-specific evidence into clinical practice that has been evaluated by leading practitioners and researchers in the field.

#### **Abstract**

*The Adapted Physical Activity Program (APAP) is a stand-alone model of physical activity promotion for people with acquired brain injury (ABI) developed by CIA(KC) and CIB(ST). It has demonstrated efficacy and is valued by multi-professional clinical teams. Based on this evidence, an exercise physiologist (CIE-SJ) has been appointed to the multi-professional team in the newly established Acquired Brain Injury Transitional Rehabilitation Service, a novel inclusion in Queensland neurorehabilitation. Aims: The Integrated Knowledge Translation Framework (ITKF) will be applied to translate the successful, stand-alone APAP model of service into the multi-professional ABI-TRS setting. Process: The IKTF comprises a collaborative approach to developing context-relevant materials; a framework for conducting translational processes; and a protocol for evaluating success. Benefits: Our project will enhance the prospects of successfully incorporating exercise physiology into*

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*the multiprofessional ABI-TRS service, thereby empowering people with ABI to engage in health-enhancing, self-managed physical activity which is effective, safe and enjoyable.*

