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## Sensory processing patterns in healthy adults and their association with demographic factors

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## ELECTRONIC POSTER DISPLAYS

### ASSISTIVE TECHNOLOGY / ADAPTIVE EQUIPMENT / ENVIRONMENTAL MODIFICATIONS

#### EXPLORING THE ROLE AND RESPONSIBILITY OF THE OCCUPATIONAL THERAPIST IN PROVIDING EFFECTIVE AND COMPLIANT HANDRAILS WITHIN A DOMESTIC SETTING

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#alliedupdate #powerofrails

**Introduction:** Rails prescribed by Occupational Therapists across the eastern catchments of Melbourne were noted to be ineffective in providing support for users. It was noted that rails installed over a four-year period were failing to provide adequate support due to poor matching of the product, person and the environment.

It was noted that failure to appropriately match these three elements resulted in ineffective rails, with product failure (cracking), environmental failure (dislodgement from substrates) or inaccessible positioning within the context of the task leading to an unsafe, inaccessible or ineffective script.

Anecdotal evidence indicated that therapists provided limited information to installers regarding product or environmental considerations, citing that product choice and interface of product with environment was outside scope.

In contrast, anecdotal evidence from installers indicated that therapists were responsible for ensuring safe rail provision was achievable. The wide range of perspectives and practices observed indicated a need to explore the evidence on which rail provision was founded.

**Objectives:** The project sought to identify the role and scope of the occupational therapist within the context of rail prescriptions.

**Approach:** A review of available evidence including literature, models of practice, legislation, funding body expectations and interviews with key stakeholders was completed.

**Practice implications:** The project highlighted disparity between the perceived and actual complexity of handrail provision with therapists having a greater value add and responsibility than anecdotally thought with key elements for consideration highlighted.

**Conclusion:** Occupational therapists provide handrails and grabrails across the health care continuum and is considered a core, foundational skill for many occupational therapists. It was identified that further clinical education in handrail provision and application of the competency checklist would be beneficial to ensure best practice is achieved across the health care continuum.

### BEATPAIN. AN APPLICATION DELIVERING EFFECTIVE PAIN MANAGEMENT STRATEGIES TO CONSUMERS EXPERIENCING PERSISTENT PAIN

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**Introduction:** Persistent Pain affects one out of five Australians,<sup>1</sup> and creates a massive individual, financial and societal burden. Less than ten percent of those with chronic pain gain access to effective care, even though current knowledge would allow 80% to be treated effectively, if there was adequate access to pain services<sup>1</sup>. To enable consumers fair and equitable access to treatment, we need to think innovatively about how we deliver pain services.

**Objective:** To describe a process of creating and delivering a platform providing effective pain management strategies to all consumers experiencing persistent pain.

**Approach:** With an expert multidisciplinary team of contributors and a review of the literature, the Beatpain application was created, delivering occupation-based strategies to reduce the impact of persistent pain. Self-guided strategies addressing everyday activities are now available to all in real time in their own environment at their own pace.

The app has a built-in analytics system so as users complete their 'Weekly check up', scores are measured and provided as direct feedback for each user. These scores are recorded at the backend. Number of downloads and user reviews are also logged by the App stores. As use of the app increases, data will become available for analysis.

**Practice implications:** Preliminary evidence and feedback obtained indicates positive outcomes are being experienced through using this application. Updates that include fine tuning existing content, adding activities or creating more cohort specific apps in the future will only enhance the consumers' experience and therefore uptake of the Beatpain strategies in future.

**Conclusion:** A novel platform used to deliver effective pain management strategies can improve access for consumers allowing the right information to get to the right consumer, at the right time and place, reducing the burden of persistent pain for all.

**Reference:** <http://painaustralia.org.au/about-pain/painful-facts>. Accessed 21.07.20188.

### USING A SMARTPHONE APPLICATION TO MANAGE SYMPTOMS OF ARTHRITIS

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**Introduction:** Smartphone technology is increasingly being used as a tool to help manage chronic health conditions. People who have chronic health conditions such as arthritis may find using technology such as smartphone applications as a useful intervention strategy to manage their symptoms.

**Objectives:** The objectives of the study were to answer the following research questions:

- 1: Do people living with arthritis report the use of a smartphone HRV application as useful in monitoring their condition?
- 2: Does the use of a smartphone HRV application improve key symptoms of arthritis (pain and fatigue)?

**Method:** Eighty-six people living with arthritis (mean age = 63 ± 7.7 years) used the HRV4Training application to record key physiological responses such as pain, muscle soreness and fatigue, once a day over 10 weeks. The HRV4 application synthesised data given by the participant to give daily advice on how intensely the participant should engage in daily occupations. An exit survey took place at the end of the study, which described participants' experience with the application.

**Results:** Of the participants that met the inclusion criteria, the mean duration of the intervention was 8.85 weeks. The use of the application did not seem difficult to 94.2% of the participants and 90.4% of them found it helpful to manage their arthritis. Moreover, 65.4% of the participants found the routine use of the application to be easy and 59.6% felt that they would like to continue using the application. However, there was no change in self-reported symptoms of sleep quality ( $P = 0.181$ ), muscle soreness ( $P = 0.178$ ) and fatigue ( $P = 0.599$ ) for levels between the first week and the last week.

**Conclusion:** These findings indicate that the HRV4training application has the potential to be used to help manage the symptoms of arthritis. However, in this study there was no significant changes in the symptoms being measured.

### THE KNOWLEDGE NEEDS AND PERSPECTIVE OF CONSUMERS AND PRESCRIBERS - IMPROVING PRESSURE CARE PRACTICE

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**Introduction / rationale:** The provision of education and assistive devices to maintain skin integrity has become part of Occupational Therapy practice within many health care organisations, yet education to staff of how is largely completed post-graduation. Health network incident data had highlighted new onset of pressure injuries as an area of high clinical risk emphasising the importance of this as an area of practice.

Long recognised, consumers need to know how to best direct their own health needs. We took to understand their satisfaction with education provided, and what they wanted from this education.

**Objectives:** A novel study was completed to understand the knowledge needs and satisfaction with current education of two groups - consumers and clinicians.

**Method:** The study included three arms of pressure care practice>

- A survey of clinicians reported practice, perceived knowledge gaps and desired education
- A phone survey of satisfaction with education and clinical practice
- An audit of current documented practice by clinicians from medical records

**Results/ Practice implications:** Fifteen clients were interviewed by phone and sixty-three Occupational Therapists responded to the survey. Clients were positive about the service received and satisfied that they had received the information that they were required, despite less than 20% recalling receiving written support information. Therapists identified that a large percentage of therapists described wanting further education to increase their level of confidence in staging pressure injuries. The documentation audit arm identified areas for improvement in a comprehensive, yet concise documentation format.

**Conclusion:** Further education in pressure care management training for occupational therapists is required to increase clinical reasoning and confidence when prescribing and documenting pressure care interventions.

### POSTURAL SEATING EQUIPMENT IMPROVES FUNCTION, INCREASES SITTING TOLERANCE AND CONTRIBUTES TO A REDUCTION IN PAIN AND PRESSURE INJURY IN AGED CARE

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**Introduction:** Older people in Aged Care settings often have mobility restrictions due to multi-pathology or frailty. They sit for longer, are less able to adjust their position and are less able to participate due to postural restrictions.

Many Occupational Therapists in Aged Care recognise the need for assistive equipment for postural support, pressure care, comfort and safety. However, they often have limited access to postural seating solutions, are constrained by limited equipment funding or contend with procurement directives that demand a 'one size fits all' approach resulting in limited or inappropriate solutions like basic wheelchairs, static high back chairs or air comfort bed chairs.

**Objectives:** Describe methods to simplify postural seating assessment and prescription.

Collect qualitative data through a case study approach to support clinical justification to assist funding approval.

Demonstrate the benefits of, and clinical rationale for, different seating solutions through the case studies.

**Method:** Complete a prospective cohort study in a selected Aged Care facility to identify case study participants who require postural seating interventions.

Use an observational checklist of behaviours to complete baseline observations over three 4-hour periods for each participant.

Provide postural seating interventions and complete further observation sessions to identify and describe changes in function, sitting tolerance and quality of life.

**Results/Practice implications:** Five case studies demonstrate improvement in function, comfort and quality of life for participants derived from effective seating, such as increased hand use, purposeful activity and engagement, reduced need for hands-on repositioning, reduction in pain, pressure injuries, skin tears and falls.

**Conclusion:** Prescribed individualised seating in aged care illustrates that benefit can be derived from low cost options like support cushions and back rests as well as specialised posture chairs and mobility systems. Appropriate Occupational Therapist prescribed seating interventions improves the Aged Care consumers' quality of care and quality of life.

### 4XDECISION-MAKING MODEL FOR SUPPORTING COMPLEX ASSISTIVE TECHNOLOGY SELECTION: EVIDENCE-BASED STRATEGIES FOR ADVANCING PRACTICE CONFIDENCE

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**Introduction / rationale:** Current occupational therapists practising within assistive technology procurement services have had to evolve within a developing National Disability Insurance Scheme environment. Its policy parameters of participant-centred 'control and choice' encased within 'reasonable and necessary' needs designed to 'enhance community participation' require succinct practice strategies. Practice strategies that inform participants, expedite decision-making and select appropriate assistive technologies / services.

**Objectives:** A 4XDecision-Making model describes a service pathway designed to assist occupational therapists to articulate and collaborate with essential stakeholders (participants, carers and providers) to match assistive technology for complex disability. The 4XDecision-Making model integrates evidence-based strategies to propel 'person-centric' decision making - where the participant and their needs are central to - during selecting assistive technology / services.

**Method:** 4XDecision-Making model design were informed by evidence-based research data: an in-depth case study into Australian complex wheelchair-seating service/procurement experience (2014) and a literature critique activity into 24 hours Posture Positioning & Wheelchair-Seating intervention effectiveness (2016).

- 4XDecision-Making model defines four essential and linked practice strategies are:
1. Articulating a transparent service pathway,
  2. Highlighting influential factors that impact upon person-centric decision making,
  3. Building collaborative decision-making partnerships and
  4. Evaluating consumer satisfaction of complex assistive technology and service effectiveness.

**Practice implications:** The 4XDecision-Making model synthesizes specific evidence-based strategies designed to build professional and personal decision-making confidence. Occupational therapy strategies that focus upon working together with all essential stakeholders ensures appropriate assistive technology solutions meet individualised complex needs, wants and aspirations. The 4XDecision-Making model supports and expands decision-making skill and confidence throughout the complex assistive technology procurement process.

**Conclusion:** Newly formulated 4XDecision-Making model empowers occupational therapy practice to articulate and collaborate with their stakeholder groups for positive participant well-being outcomes designed for enhancing personalised Quality of Lifestyle.

### EVALUATION OF A SMALL GRANT PROGRAM TO SUPPORT PARTICIPATION FOR PEOPLE WITH DISABILITY LIVING IN THE COMMUNITY

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**Introduction:** People with disabilities often depend on access to a range of equipment, aids and services to support participation in their community. This can be costly and access depends on the ability to keep up to date and knowledgeable about funding mechanisms yet social inclusion and participation are increasingly recognised as significant contributors to health and well-being.

**Objective:** This study aimed to evaluate a small grant program which provides funding for up to \$10,000 to support equipment and services for participation when the funding is not available elsewhere.

**Method:** A qualitative descriptive research design was chosen to gain the perspectives of grant recipients. Participants were recruited through letters sent by the granting body with people volunteering directly to the researchers. Semi-structured in-depth interviews were conducted with 22 participants. The majority lived in the urban area (72%) and were male (77%). Data were analysed thematically.

**Results:** Items and services purchased helped to (1) reverse narratives of restriction and (2) enable the building of community. Access to physical environments was enhanced through the provision of mobility aids and specialised pieces of equipment. Sporting opportunities were opened up via the provision of both customised and 'off the shelf' sporting equipment. The grant provides access to communities previously financially unavailable to people with disabilities. The provision of memberships is very successful in increasing participation and enabling people to build community, however did not appear to result in self-funding once the grant expires (1 year) and was experienced as a significant loss.

**Conclusion:** A small grant program contributed significantly to the lives of people with a disability and enabled participation and social inclusion. How the grant continues as NDIS plans are put in place remains to be seen but is likely to still be needed.

### CANCER / PALLIATIVE CARE

#### OCCUPATIONAL THERAPY GROUPS IN ONCOLOGY: A SCOPING REVIEW

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**Introduction:** Most people with cancer experience difficulties with participating in everyday activities and roles. Overcoming these difficulties and maintaining occupational performance is crucial to this population. Group-based interventions are considered an effective and efficient way of providing occupational therapy yet it remains unclear how suitable this is for the oncology population.

**Objective:** To conduct a scoping review exploring the association between occupational therapy based groups and improved functional activity of daily living (ADL) outcomes for patients with cancer.

**Method:** A scoping literature review was undertaken. Searches of Medline, CINAHL, AMED, OTSeeker and Health Source: Nursing/Academic Edition were completed for peer-reviewed articles published between 1997 to 2018. Inclusion criteria were articles published in English focusing on adult cancer inpatients and outpatients and occupational therapy based group interventions. Search terms included occupational therapy, activities of daily living and cancer patients.

**Results:** Two hundred and seventy three articles were retrieved once duplicates were removed. Thirty-three articles were then further assessed based on the inclusion criteria. Eight articles matched the inclusion criteria. These included two randomised control trials, one longitudinal comparative descriptive study, two pretest-posttest studies, one mixed-method study, one qualitative descriptive exploratory research and one case study. Occupational therapy groups were found to lead to an increase in occupational performance and satisfaction, function, fatigue and occupational engagement. Participating in important occupations and sharing with others was also highly valued. Further mixed method research is indicated in this area; particularly in the inpatient setting with a mixed gender sample.

**Conclusion:** Occupational therapy groups in oncology lead to improved functional outcomes including occupational performance, engagement and fatigue. They also resulted in increased participation in valued occupations. This review aims to inform occupational therapy oncology practice, by highlighting the value of occupational therapy group interventions.

## OCCUPATIONAL THERAPY PRACTICE IN CANCER CARE: A SCOPING REVIEW

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**Introduction:** Cancer is a leading cause of morbidity and mortality worldwide. Cancer diagnosis and treatment can disrupt participation in everyday occupations and engagement in meaningful roles. Despite increasing interest, a need remains, to clearly articulate the scope of the occupational therapy role within Australian cancer care.

**Objective:** To conduct a scoping review of the literature documenting occupational therapists' roles in cancer, across the disease trajectory and lifespan, providing a summary of the current scope of practice for occupational therapists.

**Methods:** Five electronic data bases were searched in June, 2018, for English language articles, using the key words cancer care, oncolog\*, oncologic care, neoplasms, cancer survivors, terminal cancer, cancer rehabilitation and occupational therap\*. No date restrictions were imposed. Grey literature was included. Following the Arksey and O'Malley (2006) framework for scoping reviews, titles and abstracts were screened and identified by the first author; all authors reviewed the full text of the included articles. Conflicts were discussed until consensus was reached.

**Results:** After evaluating 305 titles and abstracts, and 111 full text articles, 89 papers were included. Articles meeting review criteria included research studies (n=43), review articles (n=15), grey literature/non-peer reviewed articles (n=16), practice analysis (n=14), and an editorial. The occupational therapy roles described were diverse, however largely descriptive with little evidence of outcomes. Further, the majority of papers focused on adult populations, with minimal articles addressing adolescent and young adult populations. All papers addressed specific stages of the disease; no papers addressed the disease along its trajectory.

**Conclusion:** There is a need for quality empirical evidence supporting the occupational therapy role in cancer care throughout the disease trajectory and lifespan. The occupational therapy role with adolescents and young adults, was particularly deficient. Low quality literature found, highlights the need for professional discourse, research, and advocacy.

**Reference:** Arksey, H., & O'Malley, L. (2006). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19-32.

## CHILDREN, YOUTH AND FAMILIES

### ASSESSING PARTICIPATION LEVEL CHANGE ARISING FROM INTERVENTION FOR CHILDREN WITH CEREBRAL PALSY

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**Introduction:** Establishing practice based evidence will be essential to support intervention approaches in the reformed disability services sector. Assessment tools are needed that are sensitive to clinically significant change among heterogeneous population groups with diverse needs and treatment goals.

**Objectives:**

- Analyze effectiveness, validity, and efficacy of our practice as therapists in the context of practice models.
- Investigate potential child, family and clinically friendly outcome measures.
- Explore potential research protocols based on the 'Magic Room' [D1] and beyond.

**Method:** Various methodological approaches were employed to investigate goal focussed multi-modal intervention targeting the functional performance needs identified by children and their family members. Multi-modal intervention involved a synthesis of neurodevelopmental and neurocognitive intervention approaches.

Therapists were engaged in predicting functional outcomes based on clients' requested goals. Changes sought by children and families focussed on children participating more fully in their daily lives. Assessment tools and findings validated and substantiated outcomes reported by participants and aligned with client requested goals, intervention strategies and research protocol. The assessment tools and intervention strategies were responsive to the diversity of goals and functional performance needs of children, diverse classifications of motor function and life circumstances. Client requested goals also informed research undertaken in parallel to operationally define intervention.

**Results:** Therapists and family members collaborated in the development of fully inclusive research assessment tools necessary to investigate and substantiate intervention approaches and contribute to practice based evidence. These tools were based on client requested goals.

**Conclusion:** Children, families and therapists can benefit from participation in the development and use of research assessment tools that deepen understanding and substantiate meaningful change.

\*Standardised performance recording in a dedicated child friendly space using video and Vicon recording.

## FIDELITY INSTRUMENT FOR THE ALERT PROGRAM FOR SELF-REGULATION®

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**Introduction/rationale:** Occupational therapists are required to work with evidenced based practices that are effective, collaborative and accessible for clients, therefore it is imperative to have the tools available to improve the rigour and validity of interventions currently available. In order to achieve this a fidelity instrument has been developed for the Alert Program for Self-Regulation®.

**Objectives:** The objective of this paper is to describe a fidelity tool for use with the Alert Program for Self-Regulation®.

**Approach:** The fidelity tool was developed using data extracted from a narrative review of the literature and a close review of the Alert Program for Self-Regulation® intervention manual. The preliminary instrument was reviewed by 3 experts from Australia and the United States. The revised instrument undertook further testing by the authors using video recorded sessions of the Alert Program for Self-Regulation® being delivered to children with autism to rate the therapist's adherence to the Alert Program for Self-Regulation® and to further fine tune the instrument. Each fidelity criterion was scored by two independent raters assessing whether therapists remained faithful to the core elements of the Alert Program for Self-Regulation®. Inter-rater agreement was calculated and using the feedback gathered from the expert panel and the trial of the fidelity tool, the fidelity instrument was refined to generate the final instrument.

**Practice implications:** To date there has been limited research into the effectiveness of the Alert Program for Self-Regulation® and with the development of the fidelity instrument, therapists will have a tool to measure adherence to the underlying principles of the Alert Program for Self-Regulation®.

**Conclusion:** This fidelity tool provides researchers and clinicians with an instrument to further provide rigour and validity to the implementation of the Alert Program for Self-Regulation® intervention for children with ASD.

## BUILDING FAMILY'S CAPACITY AND CONFIDENCE USING THE NDIS ECEI APPROACH

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The NDIS has been described as the biggest shift in social supports since the implementation of Medicare. One of the key features of the NDIS is the provision of individualised supports. Individualised funding has been shown to provide participants a greater choice and control over how they use their funding but has also been found to be more challenging for people who are new to the scheme due to the understanding required to make informed choices regarding their supports. To support families to gain this understanding in the NDIS the ECEI approach was established as the entry point for children under 6 to become participants of the NDIS. Key elements of the ECEI approach are family centred practice and building the capacity of families. Through connection with the community, training of staff and engagement with service providers, the ECEI approach can be implemented in a way that builds the confidence of families to navigate the disability system.

The objective of this paper is to describe the implementation and evaluation of an ECEI service in metropolitan Melbourne.

The ECEI approach has shown to develop the confidence of families to engage with service providers. Key learnings include the importance of involvement of families in service design, the importance of recruiting high quality health professional staff, the development of a regular program supporting the ongoing training and development of staff and the need for continued review, development and innovation within the ECEI approach.

When implemented in a family centred manner, the ECEI approach provides a valuable opportunity for families to develop their knowledge, skills and understanding of how to navigate the disability sector. When implemented in this way it can play a valuable role in supporting families to understand and expect quality in service provision within the disability sector.

### INTERACTIVE METRONOME: EFFECTS ON HANDWRITING ASSESSED BY THE EVALUATION TOOL OF CHILDREN'S HANDWRITING

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**Background:** The purpose of this study was to determine if the Interactive Metronome® (IM) is a viable OT intervention for children with handwriting deficiencies.

**Methods:** A single subject pre-/post-test study design was used. The study included six children ( $n = 6$ ; female,  $n = 2$ ; male,  $n = 4$ ) aged seven to twelve years of age. Handwriting performance, in terms of legibility, was tested using the Evaluation Tool of Children's Handwriting (ETCH) before and after 12 IM sessions.

**Results:** Statistical analyses were performed to compare the pre-/post-test ETCH legibility scores with the IM scores using Cohen's  $d$  with a Dunlap correction. A small effect size was found for word ( $dc = 0.099$ ), letter ( $dc = 0.0211$ ), and numeral ( $dc = 0.069$ ) legibility. Task averages for the IM showed improvement over the course of the treatment for all participants.

**Conclusion:** The results of this study suggest that, although there were improvements in IM scores, the IM intervention did not have a significant impact on handwriting legibility. Further research is needed to determine if the IM is a viable OT intervention for improving handwriting performance.

### A SOCIAL-COGNITIVE INTERVENTION PROGRAM FOR STUDENTS WITH AUTISM IN MAINSTREAM SCHOOL

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**Introduction:** Promoting occupational development and performance that includes social participation for students with a disability is one of the core roles of school-based occupational therapy (Rodger & Ziviani, 2006).

**Objectives:** This study explored the efficacy of a social-cognitive intervention program for students with Autism Spectrum Disorder (ASD) in mainstream school.

**Methods:** Forty-five students with ASD (mean age = 9.91 years) attended a 10 weeks social cognitive intervention program. Social Skills Improvement System Rating Scales, Goal Attainment Scaling (GAS), Strange stories tests and Theory of Mind Inventory was administered at baseline, immediately after the program and post 2-months. Changes in social skills, theory of mind and friendship quality were explored through between-group and within-group comparison from pre-test to post-test and from pre-test to 2-month follow-up.

**Results:** There were significant positive gains in social skills and theory of mind knowledge and in individualized goals (of GAS), and there were further gains after two months.

**Conclusion:** This study has added to the understanding of the potential impact of social skills programs run in school.

### THE UNIQUE EXPERIENCES OF CARERS WITH DISABILITY

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**Introduction:** Carers and people with disability experience challenges in life, including limited access to employment, financial strain, social isolation, and occupational deprivation. One-third of Australian primary carers also have a disability; however, no research exists regarding the unique experiences of carers with disability.

**Objectives:** To identify unique challenges and supports experienced by carers with disability.

**Approach:** A phenomenological study using semi-structured interviews of carers with disability. To identify experiences unique to carers with disability, their lived experiences were contrasted with published qualitative research findings reporting the lived experiences of carers in general. Data from interview transcripts of 11 carers with disability and 10 research articles were thematically analysed to identify codes, categories, and themes.

**Results:** Three themes common to all carers were identified: "Carers appreciate support but struggle to access it"; "Caring impairs the health and wellbeing of the carer"; and "Carers are motivated to provide care". Two themes unique to carers with disability were "Disability is a barrier to care provision" and "Caring exacerbates disability". Care duties took longer to perform due to disability, and carers often put their own care and occupational needs second to the needs of their caree. This affected the health and wellbeing of carers with disability, increased their stress levels, and reduced their ability to provide quality care. Informal supports were valuable but not always available. Formal support services did not cater sufficiently to the specific needs of carers with disability.

**Conclusion:** Carers with disability experienced unique challenges in caring that related to and exacerbated their level of disability. Occupational therapists can promote occupational balance and occupational performance among people with disability by addressing their role as a carer. Strategies include advocating for improved access to appropriate formal supports, and providing advice on adapting care tasks through compensatory techniques, assistive technologies, and environmental modifications.

### DEVELOPMENT OF AN INFORMATION GATHERING TOOL FOR TOILETING CHILDREN WITH AUTISM SPECTRUM DISORDER IN A SPECIAL SCHOOL PROGRAM

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**Introduction:** Toilet training children on the Autism Spectrum is often complicated due to their unique communication styles, sensory needs, repetitive behaviours and comorbidities. To ensure that all areas of the toileting process are considered during intervention, a systematic approach to information gathering is needed. A comprehensive information gathering tool was developed by occupational therapists at a school for children with autism to address this need.

**Objectives:** This paper describes the information gathering tool used to guide toilet training intervention within the school setting and support families to generalise these skills in the home environment.

**Approach:** The information gathering tool examines the caregivers readiness and resources, medical considerations, diet, routine steps, independence skills, communication needs, sensory preferences and the bathroom environment. Information is gathered from both parents and teachers, as well as through task analysis. Occupational Therapists are able to collaboratively assess, set goals, plan intervention, evaluate and adapt toileting programs with information gathered from the tool across both the home and school environments.

**Practice implications:** From therapists' perspectives, the information gathering tool has the benefits of: guiding practice, individualising interventions, supporting collaboration, ensuring all aspects are considered, and facilitating regular reviews. School staff and families report that regular reviews ensure strategies are relevant and concerns are addressed in a timely manner ensuring consistency. They reported that electronic data clearly demonstrates progress and highlights when changes are required. While it is anticipated that student outcomes have improved due to the implementation of the assessment tool, further formal evaluations of student outcomes will occur in the future.

**Conclusion:** A holistic information gathering tool is crucial for developing individualised toileting plans which consider the unique needs of the child, family and school. This tool guides therapists to develop effective strategies and collaborate with parents and teachers to achieve positive outcomes.

## WEB-BASED TRAINING FOR CAREGIVERS OF CHILDREN WITH CEREBRAL PALSY: DEVELOPMENT AND A PRELIMINARY STUDY

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**Introduction:** Caregivers of children with cerebral palsy have to spend a long time to take care of their child. Also taking care of these children is a source of stress for their caregivers. Dealing with stressful situations has a negative impact on the quality of life of caregivers. The aim of the study was to develop a user-friendly web-based intervention for training parents of children with CP and evaluate the process of development using modified CeHRes road map.

**Method:** The study was conducted in four main steps including determine the needs of users, content development, design, operational development and evaluation.

**Results:** The website for caregiver training provided nine general topics and had the possibility that the caregivers could determine their educational priorities. Also, the users can share their experiences with other users and can ask questions from an expert. 10 caregivers completed a usability questionnaire after four weeks use. The average score of 70.5 out of 100 was shown among caregivers. The average score of all statements were above three on a Likert scale between 1 and 5.

**Conclusion:** The website has the usability for training caregivers of children with CP. Furthermore, it has other capabilities including registering caregivers of children with CP, confirming registration with an SMS and the possibility to determine the caregiver educational priorities.

## THE REGULATION ROCKET: A COMPREHENSIVE AND OCCUPATION BASED MODEL OF SELF REGULATION DEVELOPMENT

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**Introduction/Rationale:** Occupational therapists working in paediatrics are frequently required to support self regulation development as part of their role. Recent research indicates that different aspects of self regulation development are emphasised at different ages, resulting in other important developmental areas being neglected at certain ages (e.g. emotional regulation in adolescents, co-regulation in preschool aged children and above). Occupational therapists must look at the needs of an individual to ensure their support addresses the correct area of development.

**Objectives:** To create a holistic, occupation based model, that can also be used by children, adolescents and key stakeholders (family, educators) to guide clinical reasoning when supporting an individual's self regulation development.

**Approach:** A thorough review of self regulation development theory and research was conducted. Key aspects of regulation development were selected and integrated into a visually interesting, child friendly and occupation focussed model. The Regulation Rocket was created as a self regulation development specific adaption of the Person-Environment-Occupation model.

**Implications:** Individuals and their stakeholders (therapists, family, community, educators) will have a thorough understanding of regulation development, and the role each person plays in supporting it's development.

**Conclusion:** The Regulation Rocket is a holistic, family centered, strengths and occupation based approach to supporting regulation development in children and young adults. Occupational therapists can use the model to tailor support to an individual regardless of age or stage.

## A THEORETICAL FRAMEWORK FOR ACQUIRING AND MAINTAINING HANDWRITING LEGIBILITY

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**Introduction:** Handwriting is still one of the most common referrals to paediatric occupational therapists. The evidence for systematic and sequential instruction, self-monitoring and self-evaluation is unequivocal. But despite instruction to learn to handwrite, some students continue to display poor legibility. What is missing is an overarching theoretical framework, congruent with occupational therapy's core beliefs about person, task, and environment in order to explain this.

**Objective:** To present a theoretical framework to describe legibility acquisition and performance through the lens of person, task, and environment.

**Approach:** The framework borrows from Colheart's distinction between proximal and distal causes to evaluate legibility acquisition, and from cognitive load theory (Sweller and colleagues) to evaluate legibility performance. Proximal causes are cognitive mechanisms necessary to handwrite legibly. Distal causes are those that positively or negatively influence the acquisition of proximal causes. When students are learning to handwrite legibility is governed by intrinsic cognitive load (writing task complexity).

**Practice implications:** Poor legibility warrants further assessment of proximal and/or distal causes and/or adjustment of cognitive load when learning to handwrite. Treatment success is influenced by what intervention is provided, but more specifically when this intervention is provided.

**Conclusions:** This presentation provides an overarching theoretical framework for acquiring and maintaining handwriting legibility.

## COMMUNITY LEVEL PRACTICE / COMMUNITY DEVELOPMENT

### OCCUPATIONAL THERAPY VOLUNTEERS – WORKING TOGETHER WITH INTERNATIONAL COMMUNITIES FOR FUTURE DEVELOPMENT

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**Introduction:** Occupational therapists are well placed to work as volunteers and contribute to community development in local and international settings. With a focus on occupational performance and enabling engagement, they can mentor local staff and exchange cultural knowledge, skills and experiences. Occupational therapy has not been well-established in the Pacific nation of the Solomon Islands. Rehabilitation services are driven by physiotherapists and though a community-based rehabilitation program exists, there aren't occupational therapists working in community or hospital settings.

**Objectives:** To describe the experiences of an occupational therapist on assignment with the Australian Volunteers Program in the Solomon Islands and to promote volunteering to other occupational therapists.

**Approach:** The Australian Volunteers Program supports a range of health programs in the Solomon Islands, aiming to work operationally and support long-term capacity development. In 2017 they recruited an Occupational Therapist/Mentor to work in the area of rehabilitation programs and delivery. Based at the National Referral Hospital in Honiara, the role aimed to improve and increase occupational therapy services and support a local graduate occupational therapist recently trained in Australia.

**Practice implications:** There were numerous challenges in implementing capacity building activities, particularly mentoring. The supervision and development of the new graduate didn't eventuate so other opportunities to build capacity and share occupational therapy knowledge and skills were pursued. A diploma in community-based rehabilitation is offered through the local university and the occupational therapist was able to contribute to the training of this future rehabilitation workforce. Hospital colleagues also received training, mentoring and support.

**Conclusion:** Occupational therapists play a crucial role in improving a person's ability to participate more fully in life. As volunteers, their skills and knowledge can be shared with staff, patients and families in resource poor settings to enhance outcomes. The therapist and community can benefit from cross-cultural learning.

## SOCIAL EXPERIENCE OF MEN WITH PARAPLEGIC SPINAL CORD INJURY IN BANGLADESH

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**Introduction:** Social inclusion is a foremost and requisite of community reintegration for the people with disabilities to experiences the sense of social being. Effective social participation is an indicator of successful rehabilitation. Participation in social activities after spinal cord injury is an ongoing process which influences rehabilitation and it depends on personal attributes, family and social support, available services and rights enjoyment.

**Objective:** The objective of the study was to explore the social experiences of Men with paraplegic SCI.

**Methodology:** The study followed the interactive approach of qualitative design for search the impact of the modified home environment. In-depth face to face interview were preceded for the participants. The qualitative Content analysis was used to analyze data.

**Result:** The consequences were presented by performing the content analysis of the data and four themes were produced outcome. In this research, 09 (nine) participants the mean age of participants 18-65 and ratio of male and female was 86:14. According to selected inclusion and exclusion criteria, 70% samples were recruited from different villages and 30% from urban. On the basis on multiple responses, all participants seem to face various problems such as poor accessibility, negative outlook, and lack of assistance from their family members, relatives and community people and negligence that leads to withdrawal tendency from social engagement

**Conclusion:** Proper rehabilitation service (including services, right establishment, awareness, education, and encouragement), family member, and community people supports can facilitate social inclusion for people with SCI. It also ensures the successful community participation that drives individuals being more resilient to cope and learn across a range of different environments.

**Keywords:** Spinal Cord Injury, Paraplegia, Social experience, Bangladesh

## THERAPY PRO - INNOVATIVE COMMUNITY BASED ALLIED HEALTH SERVICES FOR PEOPLE IN THEIR CHOSEN ENVIRONMENTS

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**Introduction:** The implementation of the NDIS has delivered increased choice to participants and disrupted the existing disability therapy market. Emerging NDIS therapy business models offer diverse approaches to supporting therapists. Therapy Pro is a provider established in May 2017 with a service model designed specifically for the NDIS context.

**Objective:** Therapy Pro emphasises investment in organisational culture and practice support for therapists over investment in bricks and mortar infrastructure. Therapists are community based but strongly connected through technology. Therapy Pro's operating model is examined structurally, and from the perspectives of therapist and client satisfaction to articulate one example of an emerging NDIS focussed services.

**Method:** The components of Therapy Pro's service model is described, and a case study used to provide comparison with alternative models. Therapists participated in surveys that investigated their satisfaction at work, and their perceptions of culture and support provided. Clients were surveyed using voluntary surveys. Both staff and client surveys yielded quantitative data, and thematic analysis was undertaken of short answer responses.

**Results:** Therapy Pro's model differs from traditional models and both early career and experienced therapists report that they feel Therapy Pro's service model supports them to excel. Therapists feel strongly connected with each other despite not working from a hub. Clients also report strong satisfaction with services.

**Conclusion:** Therapy Pro's service model is effective in meeting the expectations of both therapists and NDIS clients. It provides an example of successful innovation driven by the disability system reform.

## OCCUPATIONAL THERAPY STUDENTS PARTICIPATION IN THE DEVELOPMENT OF A NEW HAND THERAPY PROGRAM IN AGED CARE SETTINGS – A PARTICIPATORY COMMUNITY PROJECT

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**Introduction/rational:** Occupational therapists are required to work in communities and advocate for communities. Therefore, in order to develop students' understanding of the importance of community development, occupational therapy students are required to participate in this community placement to develop and conduct a project.

**Objectives:** The objective of this paper is to describe the process and content of the new hand therapy program within aged care settings developed by students during a 10-week participatory community project.

**Method:** The 10-week participatory community project was completed following the program logic cycle. Needs analysis were conducted by students through surveys and communications to identify residents' and agency's needs of a new hand therapy program. Followed by that, action plan was developed and further implemented through 4 trials by students. A variety of evaluation methods were carried out to monitor the process of the project. Lastly, dissemination and the hand over process were conducted by students through a formal meeting to introduce the developed resource manual and kit to the allied health team and to discuss any considerations for the sustainability of the project.

**Implications for practice:** Hand function is of great importance in older people's health and well-being. Due to the plenty of evidence on the efficacy of hand therapy interventions, occupation-based hand therapy needs to be further established in aged care settings to contribute to the maintenance and/or improvement of older people's hand functions.

**Conclusion:** This 10-week community placement reinforces students' understanding of the importance of clients' voice and supports students to develop their knowledge and skills to work in communities as an allied health team member. It also contributes to students' increased capacity to develop relevant program to meet clients' needs.

## CONSUMER LED OR CO-DESIGNED RESEARCH OR SERVICES

### OUTCOMES OF PARTICIPANT LED VIDEOS: SUPPORTING PEOPLE WITH SEVERE BRAIN INJURY TO HAVE CHOICE AND CONTROL, SET GOALS AND DIRECT THEIR SUPPORTS

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**Objectives:** This study aims to evaluate a novel project that set out to co-design, pilot, and document a process for working with NDIS participants to produce participant led training videos (PLV) that inform disability support workers about how the person with disability wants to be supported.

**Method:** The initial study used semi-structured interviews to documented multiple perspectives and obtain quantitative and qualitative data from 14 participants: five primary participants (PP), five close other supporters and four staff facilitators (SFF). Primary participants included four men and one woman. They all had acquired brain injuries (ABI) with resultant cognitive and communication impairments and very high support needs. Participants will also be invited to participate in a follow-up study to evaluate the impact of the PLVs four months after the production of the videos.

**Results:** Initial provide evidence of high levels of satisfaction with the process across all participants. The usefulness of the approach was also highly endorsed by participants in the three groups. Primary participants and their supporters recommended the process for others with an average rating exceeding 8 on a 10-point scale. Critical results revealed in the evaluation included the importance of people with disability having a voice and taking control in directing their lives, personal growth through participation and engagement, and feeling validated through the experience.

**Conclusion:** The production and use of PLV training resources has potential to dramatically improve the delivery of support and maximise support outcomes for people with disability. Indeed the results of this initial study indicate it provides a feasible approach that can enable people with cognitive and communication impairments to have choice and control, set their own goals and direct their supports. Thus, it delivers a methodology through which several principles of the National Disability Insurance Scheme can be operationalized for individual participants.

## DEVELOPMENT OF A SAFEGUARDING APPROACH TO ENABLE PEOPLE WITH SEVERE INJURY TO SELF-MANAGE THEIR SUPPORTS

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**Introduction:** Lifetime Care aims to enhance opportunities for people with severe injury to be independent and have increased choice and control over the way their supports are delivered and managed.

### **Objective:**

1. Develop a service model which provides opportunities for Lifetime Care participants to have increased choice and control over the management of their supports
2. Identify and manage risk to participants and to the scheme associated with direct funding agreements with participants.
3. Provide an approach for Lifetime Care to manage requests for direct funding by participants, including planning for appropriate safe guarding strategies.

**Methods or Approach:** The presentation will outline the development Lifetime Care's safeguard planning approach to participant requests to manage their own supports through a direct funding arrangement. Participants may have cognitive and behavioural disability following their injury, or may have complex social histories. The safeguard planning approach considers individual participant risk and their skills to manage the tasks involved in self-management. Capacity building and other risk mitigation factors are considered as part of the plan.

**Results:** Self-management became available for participants in 2016. To date, 35 participants are self-managing their care, with an annual cost of \$4.5mil.

The safeguarding approach has been successful in identifying participant risk, skills and strategies to develop capacity and to mitigate risk to participants and the scheme, enabling participants to achieve their goal of self-management.

**Conclusions:** Lifetime Care's self-management service model is presented including the ways participants are currently using the service options within the model to meet their needs. The safeguarding approach will be discussed including the role of monitoring risk to ensure participants achieve successful outcomes. Case examples will be used to demonstrate the model and the application of the safeguarding approach.

## THE DEVELOPMENT OF A SCHOOL BASED INTERVENTION TO IMPROVE THE SCHOOL PARTICIPATION AND CONNECTEDNESS OF STUDENTS WITH ASD IN MAINSTREAM PRIMARY SCHOOLS

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**Introduction:** Occupational therapists work in schools with students with Autism Spectrum Disorder (ASD) with participation restrictions. There is currently a gap in curriculum embedded school-based interventions that address the range of participation barriers students with ASD experience in mainstream schools.

**Objective:** To gain perspectives of stakeholders and obtain a consensus of opinion on the content, delivery and feasibility of a school-based intervention to improve the school participation and connectedness of students with ASD in mainstream primary schools.

**Methods:** Focus groups were used to explore the challenges and experiences of parents and educators on the participation of primary school students with ASD. A two-round Delphi study was used to gain expert consensus on the content, delivery and feasibility of the intervention.

**Results:** Focus group findings emphasised the importance of a school-based intervention targeting student skills and environmental barriers impacting student school participation. Focus group findings and empirical literature were used to inform the development of the Delphi questionnaire. Consensus was achieved in the first Delphi round on the application of a framework of participation to students with ASD and its use as a theoretical base for the intervention. Intrinsic student factors targeted within the intervention will include students' sense-of-self, activity competence, preferences and school connectedness. Consensus on the intensity, frequency and duration of the classroom program and pre-intervention professional learning was achieved in the second Delphi round.

**Conclusion:** Occupational therapists working in schools have a key role in supporting educators to implement evidence-based interventions to maximise the school participation of students with ASD. Implications for occupational therapists working in schools will be discussed.

## MY OUTCOMES FRAMEWORK: SYNTHESISING THE EVIDENCE ON VALUED OUTCOMES INTO A SET OF USER-LED AND POLICY-RELEVANT TOOLS

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**Introduction:** Numerous published outcome measures individually capture various dimensions related to health and disability. Disabled persons organisations identify the need for a way to translate evidence-based outcome measurement into useable tools for people with disability. My Outcomes Framework was developed to provide a set of tools to assistive technology (AT) users and their allied health practitioners.

### **Objectives:**

**this poster introduces an online tool which enables AT users to:**

- Compare their personal situation to benchmarks in the areas of technology outcomes, human rights, participation, cost effectiveness, and good practice.
- Collate information systematically
- Contribute as researchers to the evidence base about life for AT users in Australia.

**Practice implications:** My Outcomes Framework is an evidence-based, co-produced means to collaboratively render an individual story into measurable data. Systematic collection of information against recognised frameworks enables AT users and their practitioners to make their case to individualised funding schemes such as NDIS or My Aged Care

**Conclusion:** My Outcomes Framework as an online tool enables AT users and their occupational therapists to tell their personal 'story' in a methodical way, supporting individual funding applications, and contributing to systemic advocacy.

## DRIVING / COMMUNITY MOBILITY

### APPLICATION OF THE CHANGE BLINDNESS MODEL TO DISCOVER KEY DRIVESAFE MECHANISMS: A SUBTEST OF DRIVESAFE DRIVEAWARE

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**Introduction / rationale:** DriveSafe, a subtest of DriveSafe DriveAware (DSDA) and test of cognitive fitness to drive, has shown sufficient sensitivity and specificity to accurately predict driving performance. The pre-cursor test was developed 20 years ago to reflect the visual search ability required in real-world driving. Our group converted DSDA to touchscreen.

**Objectives:** Prior to the conversion, I wished to examine existing driving models to place DriveSafe within the context of an established model and identify key concepts and mechanisms underlying DriveSafe performance. I needed this knowledge to ensure critical test mechanisms were retained in the touchscreen conversion and for future test development.

**Approach:** I reviewed literature via four online databases: Medline; Cinahl; Scopus; and, PsycTESTS. Search terms included: automobile driving, driver-behaviour models, motivational and trait models, traffic psychology, and cognition. I applied Michon's 2-way classification system to organise the analysis, and criteria for a successful driving model identified by researchers: simple, explicit, usable, validated and predictive.

**Practice implications:** Trait-based models have been widely researched but criticised for relying on correlations without defined theoretical concepts and operationalisation of mechanisms, resulting in lack of success in identifying safe driving predictors. However, trait-based research consistently identifies selective attention as the strongest predictor of accident involvement, leading researchers to propose the visual search paradigm as a promising new direction for modelling driver behaviour. I found the change blindness model, arising from the visual search paradigm and widely applied in driving research, consistent with DriveSafe test assumptions and protocol. I discovered key DriveSafe mechanisms and found that trait-based model criticisms could be addressed by suitable study outcome measures and statistical methods that allow calculation of predictive validity.

**Conclusion:** The change blindness model fits the criteria of a successful driving model and could be applied to discover key DriveSafe mechanisms so these could be retained.



## IMPROVING THE SAFETY AND COMMUNITY PARTICIPATION OF OLDER ADULTS WHO USE MOTORISED MOBILITY SCOOTERS: 'WE KNOW OUR WHEELS' MMS TRAINING PROGRAM

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**Introduction:** Australia's aging population; policy focussed on allowing people to age in place; and many older adults experiencing reduced mobility, impacts on participation and engagement in meaningful occupations which are fundamental to living a functional and autonomous life. Using a motorised mobility scooter (MMS) can facilitate opportunities for continued participation. However, MMS are not regulated and limited assessments are available to guide selection and use.

**Objectives:** This research investigated the level of trauma and near misses experienced by MMS users and their perception of their own safety before and after a training session. The 'We Know our Wheels' project enrolled participants, who were current MMS users, in a MMS Training Program. This program, designed and delivered by a collaboration of clinicians and researchers, focussed on educating participants on safe use of MMS.

**Method:** Participants were recruited using purposive, convenience sampling of current MMS users. A mixed methods design employed Quantitative pre and post surveys with MMS users to assess knowledge related to rules of operating their device before and after taking part in the MMS training course. Focus groups gathered additional information about participants experience and perceptions of safety.

**Results:** Sixteen participants over the age of 60 participated. Surveys and focus group discussion indicated the training increased: knowledge of MMS features, safety considerations, and road rules. Training also improved knowledge, skills and confidence to use MMS safely in the community.

**Conclusion:** Training potential MMS users prior to MMS acquisition may improve the experience of using an MMS and reduce risk for the users as well as the public. The training enabled MMS users to engage in their communities, while keeping themselves and those around them safe.

## 'I'D LOVE TO BE ABLE TO GO TO THAT': THE COMMUNITY MOBILITY NEEDS AND EXPERIENCES OF PEOPLE LIVING WITH MILD COGNITIVE IMPAIRMENT AND DEMENTIA

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**Introduction:** Maintaining community mobility is an important goal for older people. People living with dementia and mild cognitive impairment (MCI) may face a range of challenges that prevent them from regularly accessing and moving around in their community.

**Objectives:** To explore the community mobility experiences and needs of older people living with dementia or MCI.

**Methods:** A mixed methods observational study was undertaken with participants from an existing longitudinal study. Participants carried smartphones to passively collect geolocation data for one week. They also participated in semi-structured interviews about their community mobility experiences and perspectives. Framework analysis used the Person Environment Occupation model.

**Results:** Nineteen people (with MCI or dementia) aged between 81–90 years participated. Five family members were also interviewed. During framework analysis, key aspects of community mobility needs and experiences were identified. *I've changed but I'm the same* highlighted how participants experienced the impact of their life history and beliefs related to community mobility as they encountered changes to their abilities with ageing. *Home is (mostly) safe, challenges of the community*, highlighted the experiences of mobility both in home and in the community. While the relative danger of the community was noted, they highlighted that there was *A reason to go - community makes meaning*. Participants also identified their supports and strategies in *Help to keep going*.

Lifespace data indicated that participants experienced a range of lifespace with five participants spending more than 95% of their time at home, 10 participants 85–94% of time and 3 spending less than 85% of time at home. Noting the lifespace metrics alongside reported experiences helped explore connections between perceived restrictions and lived mobility.

**Conclusion:** The study identifies a range of community mobility issues for clinicians to consider, including the associated meaning for the person, the impact on identity and the local environment.

## ENTREPRENEURSHIP / BUSINESS DEVELOPMENT

### ENTREPRENEURSHIP IN EMERGING SCOPES OF OCCUPATIONAL THERAPY PRACTICE; ELITE SPORT CASE EXAMPLE

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**Introduction:** Sport has traditionally been the domain of exercise physiology, physiotherapy and chiropractic professions. The International Olympic Committee recently published a consensus statement highlighting "daily hassles" as a major contributing risk factor in athlete injury and illness. This inclusion has opened opportunities to include occupational therapy within rowing elite sport programs as application of affective neuroscience and vestibular sense development research evolves.

**Objectives:** To share practical strategies from multiple entrepreneurial education sources, using the emerging occupational therapy role in sport as a successful case example.

**Approach:** Through participation in several entrepreneurial education programs, skills in; presenting knowledge in language other professions understand, building therapeutic opportunities through partnerships, and having leadership to establish new clinical pathways were learned. Additionally, the logistics of sharing positive outcomes respecting regulations and privacy laws, and the sustainability of training occupational therapists with new techniques were also considered.

**Practice implications:** In this case example, occupational therapy practices have been successfully implemented into athlete injury and performance management strategies with elite rowers. The program continues to develop screening and treatment methods alongside coaches, athlete feedback, and outcome measures.

Additionally, the practical entrepreneurial strategies presented will translate to occupational therapy roles in the disability sector where consumers have increasing choice and control. The ability of occupational therapy private practices to articulate the unique attributes of the profession is becoming increasingly important. The greater potential for emerging scopes of practice to develop will support additional employment opportunities for those returning to the workforce, looking for career change or new graduates.

**Conclusion:** Elite sport presents a population highly aligned with performance, often viewed by the public as role models for health. Entrepreneurial education enables Occupational Therapists to communicate the value in our unique clinical reasoning skills and present outcomes in a way our potential professional partners and clients can understand.

## HEALTH PROMOTION / POPULATION HEALTH

### A PROFILE OF POLE WALKERS IN AUSTRALIA AND FACTORS RELATING TO PARTICIPATION

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**Objectives:** The objectives of this study were to describe the characteristics of pole walking programs in Australia, and of those who lead and participate in these programs.

**Method:** Two self-administered surveys were sent to pole walking leaders and walkers in 2012. Sociodemographic and health information, program characteristics, and perceptions of pole walking were collected. Data were analysed using SPSS. Open ended comments were thematically analysed.

**Results:** Response rate to the surveys was 86% ( $n = 31$ ) for leaders and 72% ( $n = 107$ ) for walkers. Walkers and leaders were generally Australian born, older and female. Most walked regularly in groups, about once per week for about an hour, at a light to moderate intensity. The most strongly endorsed reasons for instructing or participating in pole walking for both leaders and walkers were social and personal enjoyment, health, fitness and physical activity benefits, support of poles, and being in the outdoor environment.

**Conclusion:** In Australia, pole walking is being practiced by a health conscious population, who are mostly over 65 years. It is perceived as an enjoyable and health enhancing outdoor activity. Health and exercise practitioners may find that pole walking is a potentially useful form for increasing physical activity in older Australians.

## THE ROLES, CHALLENGES AND BARRIERS FOR OCCUPATIONAL THERAPISTS IN INTEGRATING POPULATION-BASED APPROACHES IN PRIMARY HEALTHCARE

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Occupational therapists around the globe are employed in numerous healthcare settings, providing unique and valuable healthcare services to clients across the lifespan. The role of occupational therapists in developing, influencing and delivering occupational therapy interventions at the population level are evidenced in the practice and within the health policies of a number of countries (Braveman, 2016). However, the contemporary literature on the scope of this important area of population-based approaches in healthcare by occupational therapists, which includes community collaborations as well as promotion and prevention initiatives, remains limited and incomplete (Naidoo, Van Wyk & Joubert, 2016). This paper will provide a snapshot of the contemporary beliefs, situation and understanding of the role that occupational therapists plays in the area of population-based healthcare approaches.

An online survey has been developed by a project team from the World Federation of Occupational Therapists (WFOT) and will be distributed to member nations as widely as possible. The survey explores the perceived barriers and challenges of integrating population-based approaches in healthcare by occupational therapists around the world. Survey responses will be used to identify relevant trends and themes to assist with the development of recommendations and strategies to help overcome any identified challenges.

## SHIRES (SUTHERLAND, HEALTH IMPROVEMENT, REFERRAL AND EDUCATION SERVICE): AN INTERPROFESSIONAL STUDENT LED CLINIC, EMPOWERING PEOPLE TO IMPROVE THEIR HEALTH, USING A BEHAVIOUR CHANGE APPROACH

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**Introduction:** The incidence of chronic disease is rising. The health system will be unsustainable unless we prioritize prevention and health improvement. Occupational Therapists have the expertise to do this.

As a four years Quality Improvement project, SHIRES provides a well-developed Model of Care. Students support clients to develop Personal Health Improvement Plans. Clients identify their health issues, prioritize main health goals and set small goals towards improving their health.

**Objective:** The two main aims of SHIRES are to meet a gap in service and to increase capacity for student placements. The purpose of this paper is to promote SHIRES' Model of Care as replicable in many different settings.

**Method:** SHIRES' core workforce is senior students from Occupational Therapy and Physiotherapy. Overlapping placement blocks over the year ensure continuum of care and peer teaching of clinic operations to incoming students. Supervision is provided by a senior Occupational Therapist.

The Health Change Australia framework is the basis for the clinical pathway in SHIRES. The student workforce allows flexible support; in person, via phone or emails. Students have the time to listen, research, help with referrals and provide education.

Students are trained in power chart and the client database. Analysis of these and other measures, as described in SHIRES' Service Plan (2017), has been the basis for reports on client, student and service outcomes.

**Practice implications:** The SHIRES' Model of Care is easily replicated. Minimal resources are required. The student workforce is available. SHIRES' activity is exceeding that which is required to recoup the cost of an Allied Health Level 4 position.

**Conclusion:** SHIRES' clinic has provided increased capacity for student placements ( $n = 167$ ) and supported a large number of clients ( $n > 160$ ) in their health improvement journey. The replication of the Model of Care is a viable strategy to employ across the health system.

## ORGANIZING A TEDX EVENT: AN OUTSIDE THE BOX COMMUNITY PARTNERSHIP AND ADVOCACY OPPORTUNITY

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**Introduction:** There has been over 30 TEDx and TED talks by occupational therapy practitioners and students globally. However, due to the invite nature of TED and TEDx events, our profession must rely on general public for this type of advocacy opportunity. An active event license must be obtained prior to running a TEDx event. Once a license is issued, organizers have up to one year to run the event or they would need to reapply for a license. After the event is completed, organizers may choose to reapply for another license, or risk losing the event name after one year.

**Objectives:** Attendees will discover the process of a TEDx event application. Attendees will identify necessary steps to create a successful TEDx event.

**Approach:** Presenter will share his experiences of running his own TEDx event in Los Angeles in 2019.

**Practice implications:** The ability for occupational therapy students and practitioners to learn how to organize a TEDx event can potentially increase the number and the degree of consistency of opportunities for advocacy of our profession. Moreover, occupational therapy students and practitioners can use the opportunity to select important messages for the general public to increase awareness of while providing advocacy opportunities to deserving peers.

**Conclusion:** Occupational therapy students and practitioners are well equipped as community partners. Occupational therapy students and practitioners should consider organizing TEDx events to facilitate advocacy opportunities for their peers.

## KNOWLEDGE TRANSLATION / BRINGING EVIDENCE INTO PRACTICE

### EMOTIONAL INTELLIGENCE: THE CATALYST FOR SUCCESSFUL PERSONAL AND PROFESSIONAL RELATIONSHIPS

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**Introduction:** Emotional intelligence, commonly referred to as EI or emotional EQ, is a timely topic for current and future occupational therapy practitioners. Although emotional intelligence originated in the business world, it has gained publicity and is applicable to occupational therapy practitioners, students, instructors, and clients/families.

**Learning Objectives:** At the conclusion of this session, participants will be able to:

1. Discuss the role emotional intelligence plays in interpersonal and professional relationships.
2. Explore one's personal level of emotional intelligence via interactive learning activities.
3. Analyze video vignettes and case examples used in a fieldwork curriculum.

**Approach:** Utilizing emotional intelligence as a catalyst for therapeutic use of self can positively influence client-centred care. This workshop will cover background information, neurological components, and current research related to emotional intelligence. Attendees will have the opportunity to participate in interactive learning activities, collaborate on challenging case vignettes, and recognize how emotional intelligence can be utilized on a personal and professional level. Resources and strategies will be provided to encourage incorporation of and reflection on materials presented.

**Practice implications:** The very nature of occupational therapy practice, which is inherently challenging and possibly traumatic, begs the necessity of self-care and fostering of emotional intelligence to be able to effectively collaborate. Regulation of emotions can contribute to and enhance the therapeutic process and allows for self-awareness, flexibility, and adaptability. According to recent research, a heightened awareness of emotional intelligence can lead to providing more evidence based, personal, and client-centred treatment. Higher levels of emotional intelligence can positively impact team collaboration, resulting in improved conflict resolution and communication.

**Conclusion:** Emotional intelligence can contribute to and enhance the therapeutic process and allows for self-awareness, flexibility, and adaptability. This presentation highlights the important role emotional intelligence has in occupational therapy education and practice.

### BRIDGING THE KNOWLEDGE GAP: OCCUPATIONAL THERAPISTS PERCEPTIONS OF THEIR CONFIDENCE AND KNOWLEDGE TO USE, PRESCRIBE AND TRAIN OTHERS WITH STANDING AIDS AND HOISTS

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#### Enter an abstract for your paper:

**Introduction:** There are an increasing number of patients requiring hoists to maximise participation with transfers. Occupational therapists play a pivotal role within the multidisciplinary team in the prescription and training of patients and their carers in the use of hoists.

Local inter-disciplinary education models of face to face and theoretical training enable a base level of knowledge in using standing aids and hoists. It was suspected that this training model alone was insufficient to guide the clinical reasoning required when prescribing and educating others.

**Objective:** This project aimed to understand occupational therapist's perceptions of their clinical knowledge and confidence in prescribing, using and training patients and carers with hoists.

**Method:** A custom designed, anonymous, online survey was used to gather perspectives of occupational therapy staff working across the continuum of care at a large healthcare network.

**Results:** Twenty-Six Occupational Therapists responded to the survey. Results identified that in addition to the completion of mandatory inter-disciplinary manual handling training, a range of informal education approaches occurred as required.

Varying levels of confidence were reported with 60% of staff extremely confident in use of standing aid, 13% in standing hoist, 17% in mobile hoist and 4% in ceiling hoist. It was found that confidence levels correlated with clinical exposure to hoist use, prescription and carer training.

Respondents identified that the current face to face manual handling education model offered a variety of exposure to training with hoists and standing aids. However, on exploration of preferred training models, 74% of respondents reported that practical, hands on training within their clinical environment was most beneficial.

**Conclusion:** More targeted hoist training for occupational therapists is required to increase clinical reasoning and confidence when using, prescribing and training others to use hoists. The results of this study will support future work to address this knowledge gap.

### BE HEALTHY AN INTERPROFESSIONAL, AND OCCUPATIONAL THERAPY LED PROGRAM FOR PEOPLE WITH AN ENDURING MENTAL HEALTH CONDITION AND AT RISK OF DEVELOPING PHYSICAL HEALTH PROBLEMS

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**Introduction/rationale:** Edith Cowan University's (ECU) School of Medical and Health Sciences (SMHS) and Joondalup Catchment Area Mental Health Service (JCAMHS) acknowledged the poor physical health outcomes experienced by people living with a mental illness. The program was developed to provide access to a structured occupational therapy facilitated program addressing physical activity, exercise, dietary advice and health promotion activities for a vulnerable group of people who may not be able to easily access community-based facilities due to their current mental health condition and financial restrictions.

**Objectives:** Be Healthy. This presentation will describe the outcomes of an inter-professional, occupational therapy led program for consumers of a Perth, Western Australian local mental health service who were identified as being at risk of developing serious physical health problems.

**Method or approach:** Quantitative and qualitative data based on the outcomes for these consumers and the students' perceptions will be discussed.

**Results or practice implications:** In 2016 a pilot program called Be Healthy commenced for those consumers who were at risk of developing metabolic syndrome and other physical health problems. The program continues to run in 2018 with an increase in referrals and consumer participation.

**Conclusion:** The Be Healthy program provides an inter-professional, student led group and individual sessions with occupational therapy, dietetics and exercise physiology supervisors and students involved. The occupational therapy clinical educator coordinates the program and students design and facilitate targeted dietetic and exercise rehabilitation in the group sessions as well as being offering 1:1 sessions. This innovative program includes activities exploring different options for participation in healthy occupations to support personal fitness, diet and healthy lifestyle choices. A community integration/facilitation component is facilitated by an occupational therapist for consumers to assist in the continuation of occupational routines and goal achievement external to the "Be Healthy" program.

### CHALLENGES AND FACILITATORS OF MAINTAINING INTERDISCIPLINARY TEAM GOAL SETTING PRACTICES WITHIN A NEW ACQUIRED BRAIN INJURY TRANSITIONAL REHABILITATION SERVICE

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**Introduction:** Traditionally, Queensland's acquired brain injury rehabilitation services are provided using a multi-disciplinary approach, with multi- and single-discipline goals. A new rehabilitation service model for adults with brain injury was implemented in Queensland. The acquired brain injury transitional rehabilitation service (ABI-TRS) commenced clinical service in January 2017, providing interdisciplinary team (IDT) community rehabilitation. The ABI-TRS implemented IDT goal setting practices including Goal Attainment Scaling (GAS) as standard care. Establishing and maintaining new clinical practices, including IDT practice and IDT goal setting, can be challenging for teams.

**Objective:** To address challenges and facilitators that arise to ensure maintenance of IDT goal setting practices as standard care in the ABI-TRS.

**Approach:** A team-based change management process was used to maintain the IDT goal setting practices. This involved identifying skill, knowledge and previous experience; providing training and education; and implementing supported goal setting. ABI-TRS clinicians provided qualitative information regarding IDT goal setting through completion of surveys and team discussion. Discussions were analysed for themes related to information about local processes, confidence, challenges, and facilitators.

**Results or Practice implications:** The process of maintaining the ABI-TRS IDT goal setting practice as standard care will be presented; as well as results of team surveys and discussions including challenges and facilitators identified by the team; and practical examples of GAS.

**Conclusion:** IDT goal setting processes are feasible; and establishing and maintaining team change is enhanced by planned change management and support processes.

### SEARCHING FOR AN OUTCOME MEASURE IN AGED CARE - USE OF THE 'HOME ASSESSMENT PROFILE' TO REVIEW CURRENT PRACTICE OF OCCUPATIONAL THERAPY HOME ASSESSMENTS

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**Introduction:** With the rising cost of health service provision and mounting demand, occupational therapy services are increasingly required to demonstrate the effectiveness of the services they deliver. The aged care subacute service of a large metropolitan health service identified the need to understand the value and contribution of home assessments on patient outcomes.

**Objectives:** To determine if the 'Home Assessment Profile' is appropriate for use as a quantifiable outcome measure in aged care and as a tool to review current practice within Home Assessments.

**Method:** A mixed methods approach was undertaken using the 'Home Assessment Profile' instrument and consumer feedback. The Home Assessment Profile is a valid and reliable, quantitative performance based instrument used to assess patient performance of representative activities within the home. Hazardous person-environment encounters were rated pre and post home assessment according to the degree of hazard together with the frequency with which the hazard is encountered. Consumer feedback is routinely sought within the Occupational Therapy Department for patient based interventions.

**Results:** Twelve clinicians completed the 'Home Assessment Profile' with 60 patients over a three month period in 2017. Results showed an average risk reduction of 77% between pre and post scores (range between 44-100%), with a reduction in both the frequency and number of risks being observed. Use of the tool was found to be effective as a measure of reduction of hazards. Occupational therapy home assessment recommendations were comprehensive and varied and were able to be themed into six key areas of practice.

**Conclusion:** Findings from this research support home assessments as an effective intervention for inpatient aged care populations to reduce risk and increase participation in meaningful occupations within their homes. The results identified that subacute Occupational Therapists are conducting home assessment in line with Occupational Therapy conceptual practice frameworks.

## AN EVALUATION OF THE IMPLEMENTATION OF THE PATHWAYS TO PARTICIPATION (P2P) PROGRAM IN ADULT MENTAL HEALTH

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**Introduction:** The sustainable implementation of innovative practices into healthcare is known to be a complex and challenging process, involving multiple stakeholders and systems. However, knowledge translation in occupational therapy cannot succeed without a comprehensive understanding of this process.

**Objective:** The aim of this study is to explore the experience of implementing the P2P program across four adult mental health services.

**Methods:** A mixed methods approach was adopted, integrating qualitative interpretative phenomenological analysis with quantitative descriptive analysis of fidelity checklists. Semi structured interviews with occupational therapists, occupational therapy students and peer support workers delivering this program explored; 1) the programs strengths, opportunities and areas requiring further improvement, 2) the co-facilitation model of delivery and relationships between different facilitator groups, and 3) the alignment of the implementation process with the Translating Allied Health Knowledge framework. Descriptive analysis of the fidelity checklists completed by facilitators have highlighted the 'core' and 'optional' aspects of the program, and highlight the clinical reasoning behind the programs adaptation to local contexts.

**Results:** Data collection is currently underway, and a total sample of approximately 15 participants is expected. Preliminary analysis has described how the program has been adapted to meet consumer need, and several logistical issues that affect its delivery. Fidelity checklists are also providing a detailed description of varied approaches adopted in each service.

**Practice implications:** The findings of this study will complement a simultaneous study of consumer outcomes, by providing process data to supplement the outcome data. An understanding of the core and optional aspects of this manualized intervention will guide future adopters in their own implementation process, supporting the longer term sustainability of the P2P program in community mental health.

## PROVIDING A SUSTAINABLE FALLS PREVENTION PATHWAY FOR OLDER PEOPLE IN A BUSY OUTPATIENT DEPARTMENT

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**Background:** One in three older people over the age of 65. However there was no clear pathway from referral base to Occupational and Physiotherapy treatment in our Outpatient Department

**Objectives:** Establishment of the POW falls prevention pathway was accental in preventing best practice in a timely manner through a busy outpatient department This program had to be sustainable

**Approach:** Consistent passionate dedicated staff support from PT and OT dept. funding from MOH NSW

No interruption in service They were recruited from Emergency Department, Falls Clinic, wards, GP outpatient services and Community based services.

**Results:** We have a clear pathway for 13 years from Referral base to Stepping On program to Moving On program to follow-up letter to General practitioner! 300 people have completed this pathway program

**Conclusion:** This pathway can be duplicated in any large hospital.

With passionate energetic staff we were able to redesign our services to provide best practice health care to frail high risk population of older fallers

Clemson et al (2004) The effectiveness of a community-based program for reducing the incidence of falls in the elderly: a randomised trial. J Am Geriatr Soc, 52: 1487-1494.

## TED AND TEDX TALK 101: QUICK TIPS TO INCREASE LIKELIHOOD TO BE INVITED ON TED OR TEDX TALKS FOR OCCUPATIONAL THERAPY STUDENTS AND PRACTITIONERS

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**Introduction:** There has been over 30 TED and TEDx Talks by occupational therapy students and practitioners in existence. Majority of such TED and TEDx Talks are based in the United States. TED is short for technology, entertainment, and design. The "x" after that means that the event are independently run with a valid TED event license. TED and TEDx Talks are great avenues to share occupational therapy's distinct values because many of such presentations are easily found on YouTube and can be shared across different social media platforms.

**Objective:** Participants will gain confidence to apply to speak at TEDx events. Participants can describe components of a strong TEDx speech. Participants can distinguish between a TED and TEDx talk.

**Approach:** Session will be in Q & A format after presenter makes brief introduction to the topic and the significance to the occupational therapy profession.

**Practice implications:** TED and TEDx talk are part of mainstreamed social media platforms. Given TEDx talks's Youtube channel has over 13 million subscribers and TED talk's YouTube channel has over 10 million subscribers, occupational therapy students and practitioners should be courageous to try to apply for opportunities to speak on TED and TEDx talks as opportunities to share the profession's distinct values due to these avenue's massive global reach.

**Conclusion:** If occupational therapy students and practitioners can be aware of tips to increase their likelihood to be featured on TED or TEDx Talks, it can be an avenue to help increase visibility of the occupational therapy profession to general public.

## MENTAL HEALTH / MENTAL ILLNESS AND RECOVERY

### WORKING TOGETHER: IMPROVING COMMUNICATION WITH COMMUNITY SUPPORT PROVIDERS VIA A FEEDBACK TOOL

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**Introduction:** With the roll out of the National Disability Insurance Scheme there has been an increase in the number of community organisations providing support to consumers accessing mental health services in Australia. Staff raised concern about capturing a handover of the support and activities offered by the support workers. In response, a Community Supports feedback tool was developed. The tool aimed to highlight changes in risk to promote swift management responses by the team. Additionally, it assesses activity functional performance to support occupational therapists track changes in performance over time and in an unstructured environment.

**Objective:** To develop and review current communication pathways and create a feedback tool. The tool aims to assist external support providers and hospital services work collaboratively and transparently and enhance communication.

**Method:** A review of existing Community Supports evaluation tools was completed. Feedback from key stakeholders: mental health medical, allied health staff and community providers were sought on the use of a community feedback tool. A Nine months trial of the feedback tool was conducted and will be followed by a quantitative and qualitative review of the tool.

**Results:** A trial of the community support tool has commenced. Data on the use of the community support tool in electronic medical records (eMR) entries will be conducted. Qualitative data will be gathered from semi-structured interviews with key stakeholders about the usability and reliability of the tool.

**Conclusion:** Increasing communication between hospital and external service providers is important for efficient consumer care. It assists establishing positive working relationships to allow for early identification of risk and changes in performance to be addressed as a team. It provides occupational therapists with ongoing intervention opportunities to address functional performance issues. Additionally, it highlights where occupational therapists can assist support workers optimise engagement and improve the consumers' performance outcomes.

## PARTICIPATORY RESEARCH DRIVING REAL CHANGE IN YOUTH RESIDENTIAL MENTAL HEALTH RECOVERY SERVICES

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**Introduction:** Youth residential recovery services provide therapeutic accommodation and support for people aged 16–25 for 12 months. Young people who use these services typically have experienced complex lives, trauma, and mental ill-health and many have disconnected from education, employment and family.

**Objectives:** This presentation will share the findings and how they informed practice change. It will include how the findings influenced the way success is now measured in these contexts, and how they continue to drive reflection and improvement in a process that is shared by staff and the young residents.

**Method:** A long term participatory action research project explored what mattered most to young people and staff in these settings. This research was directed by a steering group involving three young people living in the services, two staff, a peer researcher, and researchers from Neami National and Orygen, the National Centre for Excellence in Youth Mental Health. The study involved interviews and focus groups with 18 young people and 17 staff, followed by a series of embedded consultations, experiments in practice change, and routine feedback from young people.

**Results:** It found that *real relationships* are enablers to young people *feeling safe, feeling known and feeling they belong* in these settings. This allows young people to exercise agency as they become *experts of themselves by working out their goals and directions and developing skills required for their future*.

**Conclusion:** The findings have allowed staff new insights, resulting in changes to routines and practice. The learnings have underpinned the use of individual and service level outcome measures that evaluate what matters, ensuring the service is delivering on these. This project demonstrates how embedded participatory action research can positively impact service delivery and consumer outcomes.

## DEVELOPING AND IMBEDDING AN ADULT NEUROSCIENCE-BASED SENSORY APPROACH OF OCCUPATIONAL THERAPY SERVICE ACROSS ADDICTION AND MENTAL HEALTH SERVICES

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**Introduction:** This quality activity was a short term project aimed at developing and imbedding an adult neuroscience-based sensory approach of occupational therapy service across Addiction and Mental Health Services, Metro South. Combined with the locally developed Therapy Capability Framework, the clinical leaders designed the process to align clinical practice and full scope of practice for occupational therapists across the system.

### Objectives:

1. Delivery of comprehensive training and establishment of peer networks with a direct translation to the delivery of therapy programs
2. An increase in all Occupational Therapists' clinical capability
3. Development of trauma informed programs and therapy processes
4. Consistent evaluation and fidelity across therapy services
5. Development of a sustainable plan and future directions.

**Method:** An evaluation of occupational therapists' perceived therapy capabilities and a scoping review was conducted to determine how many sites had started to implement the sensory approaches via group or individual's sessions following the training strategy and clinical peer supervision longitudinally.

**Results:** Manual and online resources have been developed and used across the Service. The use of Neurosequential Model of Therapeutics (NMT) modified programs is being utilised across all group and individual sessions within the Occupational Therapy group. The focus has been to ensure meaningful occupation as a priority in both individual and group design and implementation.

**Conclusions:** There is a need for better systematic support for the collection, development and evaluation of sensory approaches. A professional leader position will manage the overall coordination of sensory approaches, including the collection of the evaluation tool. Separate to evaluation of the sensory programs, there is a need for specific research related support focussed on the neurosciences and sensory approaches.

## A CONTEMPORARY LEISURE ACTIVITY INVENTORY: EXPLORING THE GENERAL POPULATION CURRENT LEISURE INTERESTS IN THE 21<sup>ST</sup> CENTURY

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**Introduction:** An Interest Checklist is designed to capture a person's overall leisure profile, routine and to understand their interest areas. When it was discovered that the checklist was being used alongside the Model of Human Occupation, it was adapted (i.e., the Modified Interest Checklist) to fit with the model's constructs. The checklist items were activities meaningful to the generation of the day. The aim of the project is to understand the current occupational profile the general population to determine if current tools reflect the leisure activities applicable to persons in contemporary society.

**Method:** This study followed an integrated methodological design which was informed a pragmatic approach, which enabled the subjective perspective of the participant. Participants were asked to complete an online survey using Survey Monkey (designed to take approximately 15 minutes) using the general population who completed the existing Modified Interest Checklist in its current form and answer open ended questions to provide feedback. The form was then revised to include contemporary leisure occupations (e.g., use of social media, Xbox). A second online survey (designed to take approximately 10 minutes) was conducted to validate the Leisure Activity Inventory and establish its basic psychometric properties.

**Discussion:** A total of 96 participants completed round one and 79 round two. Feedback received from participants identified the checklist would benefit from design and activity changes. Participants also responded positively to changes in activities such as the inclusion of leisure-based activities only. Previous checklists included other activities that are considered interests such as instrumental activities of daily living.

**Conclusion:** Participants responded positively to a newly designed checklist that primarily focussed on leisure activities rather than general interests which may include a variety of occupational areas.

## SENSORY PROCESSING PATTERNS IN HEALTHY ADULTS AND THEIR ASSOCIATION WITH DEMOGRAPHIC FACTORS

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**Introduction:** Sensory processing is a concept that summates the human being's ability to receive and organize and use sensory information in everyday occupations. Sensory processing patterns (SPP) have been studied in children however SPP in adults are less understood.

**Objectives:** This study sought to explore sensory processing in healthy adults. It focussed on associations between sensory processing patterns, and four demographic factors of age, sex, education, and ethnicity in healthy adults.

**Methods:** A total of 71 participants aged 18 years and over were recruited from the community, using convenience sampling. Participants were then categorised into three age groups: 18–34, 35–64, and 65 +. Each participant completed the Adolescent/Adult Sensory Profile (AASP). Further demographic information on sex, education, and ethnicity was also collected. The Depression Anxiety Stress Scales -short version (DASS-21) was also administered. Results were then analysed using descriptive statistics, and MANCOVA.

**Results:** Results indicated that there was a statistically significant multivariate effect for age group ( $p = 0.009$ ) at the Bonferroni adjusted alpha level of 0.0125, partial = 0.145. Stress, anxiety and depression scores as measured by the DASS were also found to play a significant role on the dependent variables ( $P < 0.001$ ). Education category showed significance in the seeking domain ( $P = 0.008$ ,  $\eta^2 = 0.10$ ) after controlling for DASS. There was no significant correlation between sensory processing patterns (SPP) and gender or ethnicity in the general population. Results also indicated that mean scores of participants in this study were "similar to most people" as standardised in the AASP.

**Conclusion:** We concluded that SPP are associated with age and education in the general population. We suggest taking into consideration these sensory differences particularly when designing interventions that enhance occupational performance and participation for individuals, groups or communities.

## COGNITIVE STRATEGY UTILISATION CHANGES OVER 12 MONTHS OF LONG STAY MENTAL HEALTH INPATIENTS

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**Introduction:** Deinstitutionalisation has had positive results and seen inpatients move into the community. However, some inpatients have prolonged admissions, and due to their length of stay are considered long stay mental health inpatients. These long stay inpatients are admitted to mental health units within large main stream hospitals where the expectation for discharge is weeks, not months or years. Little is known about how cognitive strategy use and the ability to use internally generated thinking strategies for occupational performance is impacted by living in a structured hospital setting. Current intervention focuses on treatment for mental health inpatients for short term stays only.

**Objective:** To examine how cognitive strategy use of inpatients with admissions over 300 days changes over time in a structured hospital setting. To discuss how occupational therapist can reduce the impact of living in a structured hospital environment.

**Method:** The Perceive, Recall, Plan and Perform (PRPP) System was used at 3 monthly intervals to collect data from consenting participants who had inpatient stays over 300 days during a 12 months period. Data were analysed to examine changes over time.

**Results:** The percentage of tasks performed independently by inpatients reduced over time. Total scores for quadrants Perceive, Recall, Plan, Perform and the cognitive strategy items all decreased over time. The Recall quadrant had the highest overall scores, followed by perceive, perform and plan.

**Conclusions:** Living in hospital for over a year reduces cognitive strategy utilisation for mental health inpatients. Knowledge about cognitive strategy utilisation changes can direct occupational therapists intervention. The results will assist to better develop therapy programs to target the maintenance, and development of cognitive strategy utilisation while people are on mental health inpatient units for extended periods of time.

## PSYCHIATRIC INTENSIVE CARE UNITS: DEVELOPING A ROLE FOR OCCUPATIONAL THERAPISTS

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**Introduction:** Psychiatric Intensive Care Units (PICU) have traditionally been the domain of psychiatric nurses and medical staff. The focus of treatment in PICUs has been on containment through medical management in a low stimulus environment. Limited literature is published on the role of the occupational therapists in PICUs. The occupational deprivation and sensory needs of the individuals admitted to the intensive care units can be overlooked by use of the medical model, in the provision of care. Occupational therapist working in PICUs are faced with a risk adverse culture and individuals experiencing significant psychiatric distress This can make it a challenge to provide meaningful activities.

**Method:** A quality improvement project was conducted to explore the feasibility of providing group and individual occupational therapy interventions in one psychiatric intensive care unit. Occupational Therapy services were provided 3 afternoons a week to the PICU over a period of 6 months. A record of all referrals and interventions were maintained during the project to explore the referral sources, patient demographics, diagnosis and interventions provided. A log was also maintained recording of challenges experienced in providing the service.

**Results:** This presentation will describe the challenges of implementing this new service within a traditional medical model of the PICU environment. A summary of referrals and interventions will be presented. Several case studies will be described in detail to illustrate the value of occupational therapy services in a PICU.

**Conclusions:** This presentation highlights the critical role occupational therapists can play in the acute management of people admitted to PICUs by addressing both occupational deprivation and sensory needs of individuals admitted to the unit.

## MUSCULOSKELETAL / HAND THERAPY

### PATIENT SATISFACTION WITH OCCUPATIONAL THERAPY LED CONSERVATIVE MANAGEMENT OF CHRONIC HAND AND WRIST CONDITIONS IN QUEENSLAND

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**Introduction:** Occupational Therapy led conservative management of chronic hand and wrist condition was introduced in Queensland Health in 2016 for the following common hand conditions:

- Carpal tunnel syndrome (CTS)
- Trigger finger/thumb (TF/TT)
- De Quervain's Tenosynovitis
- First Carpometacarpal joint osteoarthritis (CMC OA)
- Ganglions (Queensland Health, 2016).

Eight Queensland hospitals implemented the programme for patients considered Category 2 and 3 patients on their Specialist Outpatient waiting list. Consumer satisfaction with their hand related Occupational performance and treatment warranted enquiry.

**Objectives:** The link between physical hand dysfunction and an individual's capacity to connect with and function in their environment is clear (Brand, 1985; Kielhofner, 2014). Occupationally centred practice remains highly relevant in Hand therapy and valued by the consumer.

**Method or Approach:** During the first 12 months of these clinic operating, three sites requested their participants to complete a Patient Satisfaction survey at the completion of their treatment (226 patients). At the request of the Human Research Ethics Committee de-identified satisfaction surveys were administered. The survey related to the patient's satisfaction with the treatment and use of their affected hand.

**Results or Practice implications:** Pearsons Correlation coefficients were performed to identify relationships between the seven survey responses. A significant correlation of 0.75 was reported between patient's level of satisfaction with their ability to use their affected hand post-treatment and their change in symptoms post-treatment, showing a strong positive relationship.

**Conclusions:** Growing evidence for the benefit of Occupational Therapy led hand services and the value on which the consumer places on this treatment and the use of their hands is noteworthy for service planning now and for the future.

### GRIP STRENGTH, FUNCTIONAL RANGE AND ANTHROPOMETRIC DIMENSIONS; AND INDICATION ON RETURN TO FUNCTION IN THE HOME AND WORKPLACE

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**Introduction:** Little is known about the relationship between the types of grip strength, functional range, anthropometric measures and return to function in the home and workplace for people with an upper limb injury.

**Objectives:** The study aimed to determine the relationships between three grip strength measures, the functional ranges and two anthropometric dimensions, and explore the contributions of these measures to return to usual duties in participants with and without upper limb injury. It also aimed to explore the contributions of these to firstly return to usual duties and secondly overall function in people with upper limb injury.

**Methods:** Participants were recruited by convenience sampling method at a local Hand Therapy Unit. They were measured on Maximal Voluntary Isometric Grip Strength, Rapid Exchange Grip Contractions and Isometric Endurance, Forearm Length and Volumetry and the Dart Thrower's Motion (DTM) measure. They also completed two patient-rated questionnaires on their upper limb function and return to usual duties.

**Results:** All three grip measures significantly correlated with the Forearm Length and Volumetry ( $r = 0.392-0.763$ ). The Isometric Endurance, DTM measure and Forearm Length were found to be contributing factors for participants with upper limb injury when returning to usual duties and overall function.

**Conclusion:** Isometric Endurance, DTM measure and Forearm Length are measures that could assist clinicians in determining suitable rehabilitation targets for people with an upper limb injury, resulting in a better return to function in the home or workplace for this patient population.

Quantitative Research

### OUTCOMES OF OCCUPATIONAL THERAPY INTERVENTIONS FOR PEOPLE WITH CARPAL TUNNEL SYNDROME

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**Introduction:** Carpal tunnel syndrome (CTS) affects an individual's ability to perform daily activities. Common rehabilitation therapies include immobilisation using splints, exercise programs, education as well as massage. However, the effectiveness of these treatments is questionable due to low-quality evidence and research failing to include follow up to gain an understanding of the long-term outcomes.

**Objectives:** To conduct an audit review to investigate the effectiveness of the occupational therapy (OT) service delivery in a local hospital from 2008 to 2013 on hand and arm function for Carpal Tunnel Syndrome (CTS) and its long-term outcomes.

**Methods:** A retrospective study was conducted to evaluate the effectiveness and long-term outcomes of the OT intervention for people with CTS. A total of 243 participants were included in the study. Participants attended the clinic underwent OT between 2008 and 2013 and were given splints, education and/or exercises to improve their symptoms. 43 who received treatment from 2010-2012 completed the five-year follow-up review. They were assessed using the QuickDASH before and after the intervention and during the five-year follow-up.

**Results:** Significant differences were found between the QuickDASH score before and after the intervention ( $P = 0.000$ ), before the intervention and in the follow-up ( $P = 0.000$ ), and after the intervention and in the follow-up ( $P = 0.042$ ). Significant correlations were found between pre-intervention score, and age ( $r = .15$ ) and gender ( $r = 0.17$ ); post-intervention score, and age ( $r = .13$ ), gender ( $r = .16$ ) and language spoken ( $r = 0.19$ ); and follow-up score and duration of intervention ( $r = 0.44$ ).

**Conclusions:** The OT intervention enhanced the participants' hand and upper limb function. Carry-over effects were also indicated five years after the intervention. The overall outcomes assist us to understand the effectiveness of the program and to ensure we are providing the best quality care for our clients.

## NEUROSCIENCES

### DRIVING VERY EARLY INFANT DEVELOPMENT AND REHABILITATION: TRANSLATING RECENT THEORY AND EVIDENCE INTO INTER-PROFESSIONAL CLINICAL PRACTICE

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**Introduction/Rationale:** Our tertiary infant team service provides very early intervention for high-risk infants. Outcomes of research including early detection guidelines and features of successful early intervention have driven earlier referral. This, together with knowledge surrounding neural tract development and principles of neuroplasticity has provided our team with an opportunity and mandate to embed a number of novel theories and research findings into practice.

**Objectives:** The aim was to design evidence based therapy collaborative services for very young infants who were at risk following neurological injury or as a result of complex medical conditions. Focus was optimum use of the period surrounding development of goal directed movement and communication (2-5 months in particular)

**Method /Approach:** This presentation will highlight use of our Interaction focussed Multi-Modal Action Observation Training to influence neural pathway development in the transition to goal directed movement and communication. Current theory surrounding the role of central pattern generators, infant responses, the mirror neuron system and the central role of interaction and imitation will be considered.

**Results /Practice implications:** The interventions described suggest an interpretation of current evidence into collaborative inter-professional practice. It is hoped that practice observations can be shared and discussed with a view towards research evaluation.

**Conclusion:** The translation of current research directions holds exciting possibilities for early intervention with infants under 6 months of age.

### EFFECTIVENESS OF FIRST-PERSON VERSUS THIRD-PERSON MOTOR IMAGERY ON RELEARNING DAILY HAND TASKS IN PEOPLE WITH CHRONIC STROKE: A RANDOMISED CONTROLLED TRIAL

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**Introduction:** Motor imagery is a rehabilitation training approach through which a person mentally practices a task. When engaging in imagery, a first-person or third-person perspective can be used. In the first-person perspective, people imagine themselves doing the task, whereas in the third-person perspective, they imagine another person doing the task. It is hypothesised that the first-person imagery may resemble the actual motor performance. The third-person imagery is thought to enhance the motivation and self-perception in addition to motor functions. This hypothesis has not been distinctly investigated in people with chronic stroke.

**Objectives:** To determine whether the imagery perspective used influences the outcome of relearning daily hand tasks in people with chronic stroke.

**Method:** A double-blind randomised multicentre clinical trial was conducted. This three-armed trial composed of the first-person imagery, the third-person imagery and conventional occupational therapy groups, all underwent 6 weeks of intervention. Both the first- and third-person imagery groups involved actual practice of the tasks. Nine outcome measures were used to assess the effectiveness of the upper limb and hand function, self-perceived upper limb functions, imagery ability, performance at activities of daily living and quality of life. All outcomes were assessed at baseline, 6 and 10 weeks.

**Results:** Data analysis is ongoing. Preliminary results suggest that both imagery perspectives enhanced upper limb and hand functions in a slightly different way. However, the third-person imagery program appears to be more beneficial in improving activities of daily living and quality of life of people post stroke.

**Conclusion:** Motor imagery with actual practice has been proven to improve hand function. This study will further provide evidence on the use of specific imagery methods. At the conference, we will present the different benefits of the first- and third-person imagery perspective in improving hand functions and the implication of two perspectives in neurological rehabilitation.

### EVALUATING A SENSORY APPROACHES PROGRAM IN COMMUNITY MENTAL HEALTH

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**Introduction:** Sensory modulation is an emerging field in occupational therapy which has seen increased application in mental health settings across the lifespan. With this in mind a sensory approaches group was piloted with adults experiencing severe mental illness at a community mental health setting.

**Objectives:** Sensory therapies are designed to support effective emotional regulation. The aim of this group was to support consumers to recognise physical and emotional states, develop positive coping strategies and improve understanding of self-regulation using sensory based approaches.

**Approach:** A formal structured closed group was conducted weekly for 5 weeks. Participants were selected on perceived benefit from expanding coping strategies with particular focus on strategies that are accessible to all levels of cognition and intellect. Pre and post questionnaires were used to evaluate the group outcomes.

**Results:** Using a 5-point Likert rating scale pre and post group questions focussed on skill development and management of emotions and arousal levels. Prior to this group 9% reported having a good understanding of sensory therapies with 45% reporting an ability to manage their distress. At the end of the program 91% consumers indicated a good to excellent understanding of sensory based therapies with 100% reporting an ability to manage their emotional distress. Qualitative data were also gathered.

**Conclusion:** According to results of pre and post measures the group successfully met its objectives. Future research opportunities include post group follow up to determine effectiveness and retention of skill acquisition, offering ongoing individual support to continue using sensory strategies, and running a delayed treatment trial to establish the effectiveness of sensory approaches within this population.

## OCCUPATIONAL THERAPY FOR PEOPLE WITH BRAIN ARTERIOVENOUS MALFORMATION: INDICATORS FOR PRE-OPERATIVE ASSESSMENT AND INTERVENTION

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**Introduction:** Occupational therapy is provided for survivors of an intracerebral haemorrhage caused by the rupture of a brain arteriovenous malformation (bAVM), however it is not commonplace for patients with an unruptured bAVM. This study examined whether function and quality of life (QOL) were adversely affected by conservative and surgical management of bAVM to identify indicators for preventive occupational therapy intervention.

**Objective:** The indicators for occupational therapy intervention were determined for conservative and surgical management of unruptured bAVM.

**Method:** Between January 2011 and 2016 patients with a new diagnosis of unruptured bAVM were prospectively enrolled in a study. Assessment was performed at referral, 6 weeks after surgery and at 12-months (for surgical or conservative management). Assessment included: the Physical Component Score (PCS) and Mental Component Score (MCS) of the Short Form 36 (SF36); DriveSafeDriveAware (DSDA); the modified Barthel Index (mBI); and the modified Rankin Scale (mRS). Continuous ordinal regression was used to examine the relationship between the outcome DSDA score and potential predictors.

**Results:** 45 patients enrolled in the study, of whom, 35 (78%) had their bAVM managed by surgery. There was a difference between the surgical and conservative groups with respect to grade of bAVM. There was no significant decline in function between the initial and 12-months assessments between the conservatively and surgically managed groups with respect to the distribution of mRS or the mean DS, mBI, PCS or MCS scores. The surgical group had significantly higher QOL scores from pre-surgery to 12 months post-surgery (PCS  $P < 0.01$ ; MCS  $P = 0.02$ ). Higher grade bAVM was significantly related to poorer function in the surgical group ( $P = 0.04$ , mean difference  $-12.4$ , 95% CI  $-24.3$  to  $-0.4$ ).

**Conclusion:** Occupational therapy is recommended for high grade bAVM patients. Function and QOL are not diminished after conservative management or surgical repair of low grade unruptured bAVM.

## OCCUPATIONAL REHABILITATION

### COMPUTERISED DEVICE USE AND POSTURE: DIFFERENCES BETWEEN HEALTHY INDIVIDUALS AND THOSE WITH NECK PAIN

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**Introduction:** Use of computerised devices such as a laptops, tablets and desktop computers has rapidly increased over the past decade in response to greater internet access and device affordability. Poor posture is associated with computer use and a likely contributor to neck and wrist pain, with neck pain the 4th largest contributor of global disability.

**Objectives:** To identify and define specific postural differences between individuals with neck pain and healthy controls working on computers, laptops and tablets devices.

**Methods:** Differences in upper body joint angles measured with Qualisys motion capture were assessed during a computerised editing task during four conditions: tablet, laptop and desktop computer (sitting and standing) between 22 individuals with chronic neck pain  $>3$  months and 22 asymptomatic age and gender matched individuals. Repeated measures ANOVA with Bonferroni post-hoc tests determined differences between conditions, while independent  $t$ -tests determined differences between groups for each condition.

**Results:** Of all conditions, tablet use resulted in the greatest magnitude of neck flexion angles for each group (e.g., mean difference of tablet compared to desktop sitting in pain group  $-14.42^\circ$ , 95% CI  $-19.88$ ,  $-8.96$ ,  $P < 0.001$ ; asymptomatic group  $-14.35^\circ$ ,  $-19.03$ ,  $-9.68$ ,  $P < 0.001$ ). Less head-neck segment relative to trunk (HNT) flexion was demonstrated in the pain group for each condition (mean difference between pain and asymptomatic groups for tablet  $8.55^\circ$ , 95% CI  $2.75$ ,  $2.99$ ,  $P < 0.003$ ; laptop  $8.22^\circ$ ,  $3.30$ ,  $1.36$ ,  $P < 0.019$ ; PC sit  $5.65^\circ$ ,  $2.75$ ,  $0.081$ ,  $P < 0.047$ ; PC stand  $6.38^\circ$ ,  $2.39$ ,  $1.54$ ,  $P < 0.011$ ).

**Conclusion:** Less flexion of the head-neck segment on the trunk in the pain group may suggest greater forward head posture. These results provide insight into the biomechanical differences potentially related to neck pain when working on a desktop, laptop or tablet that can be used to inform practice in the work setting.

## OCCUPATIONAL THERAPY EDUCATION

### INTERPROFESSIONAL EDUCATION: A VARIETY OF OPTIONS FOR HEALTH SCIENCES EDUCATION

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**Introduction:** The University's College of Health and Human Services Interprofessional Education (IPE) Committee created four pilot projects which align with the Core Competencies for Interprofessional Collaborative Practice. The committee included faculty representatives from Dietetics, Social Work, Speech Therapy, Occupational Therapy, Physician Assistant, Nurse Practitioner, Pharmacy, Public Health, Psychology, and Athletic Training. The Core Competencies include Values & Ethics, Roles & Responsibility, Interprofessional Communication, and Team & Teamwork.

**Objectives:** Four interprofessional projects were developed which included: Shared Case Study, Interprofessional Simulation, Grand Rounds, and Clinical Conversations. **Methods:** Shared Case Study: students interacted via online, faculty-guided discussion boards throughout a semester-long course. Students communicated their discipline's role and responsibilities toward the case and made team decisions regarding treatment priorities.

**Interprofessional Simulation:** students completed prep work prior to a simulation interaction with a high-fidelity manikin. Faculty and students observed student interactions via video streaming, with a debrief session to discuss roles, responsibilities and effective collaboration.

**Grand Rounds:** a case from a University affiliated clinic was presented. Interprofessional groups of students discussed their role in the treatment of this client and developed a comprehensive intervention plan.

**Clinical Conversations:** students met and discussed a peer-reviewed journal article. Emphasis was on increasing student comfort level with interpreting and discussing peer-reviewed literature amongst an interprofessional team.

**Results:** Preliminary data showed students gained a stronger understanding of the purpose and roles of interprofessional collaboration. 90 students completed the pre- and post-experience questionnaires. An analysis of variance indicates significant changes ( $P = 0.04$ ) with reported improvements in students' opinions of interaction and values.

**Conclusion:** Development of IPE projects across clinical health sciences education is essential to increase occupational therapy students' understanding of interprofessional collaboration for optimal client care. The multi-project approach to these activities proved to be favourable with reported improvements in student learning outcomes.

### TOGETHER FROM DESIGN TO DELIVERY OF SUSTAINABLE PRACTICE EDUCATION IN THE DISABILITY SECTOR: STUDENTS, PROVIDERS AND ACADEMICS IN PARTNERSHIP

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**Rationale:** Demand for occupational therapy practice education placements is ever high. Providers are also facing pressures with major reforms shifting the structure and funding of services. This includes the implementation of the National Disability Insurance Scheme (NDIS). While increasing the demand for occupational therapists, the NDIS has also shifted the provider mix and created an environment of uncertainty that has limited the capacity and willingness of providers to offer student placements. New strategies are required to meet these challenges and generate the placements that will prepare tomorrow's workforce.

**Objectives:** To illustrate how students, a disability service provider, and academics, working together, have been able to generate solutions to shared challenges with outcomes of mutual benefit.

**Approach:** In this case study, a provider-university partnership was established at the start of a service redesign process. A partnership framework developed from literature and practice experience was used to guide the collaboration. A variety of practice education placement designs have enabled students to contribute to the partnership at different stages from early design through to delivery.

**Practice implications:** Together students, providers, and academics can generate innovative solutions to challenges affecting both practice and practice education. In this partnership, students have given voice to the perspectives of both consumers they have interviewed and, importantly, students for whom the design needs to work in delivery. Providers have contributed unique practice experience from the sector. Academics have contributed expertise in student practice education. All have learned from each other in the process. The result is a redesigned service that is grounded in best practice and research, while incorporating innovative solutions to emerging challenges.

**Conclusion:** The considered process in this case study has produced a service redesign to address emerging challenges and embody shared values. Having a partnership framework has been key to the successful outcomes.



### OCCUPATIONAL THERAPY AND PHYSIOTHERAPY STUDENTS COLLABORATIVE WORK INTEGRATED LEARNING EXPERIENCE PROVIDING REHABILITATION SERVICES AT RESIDENTIAL AGED CARE FACILITIES

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**Introduction:** The Federal Government has outlined a strategic imperative for the future aged care workforce. This includes multidisciplinary teams delivering client-centred care. To successfully achieve this, health care students must be able to work collaboratively within multidisciplinary teams. The University has developed an authentic, team-based learning experience for occupational therapy and physiotherapy students that is beneficial to both the students and the residents.

**Objectives:** To describe this two-year experience with occupational therapy and physiotherapy students.

**Approach:** This is a five-week program, conducted once a year. The students (teams of three) assess the resident per discipline and implement a three-week focussed rehabilitation program. Students gain valuable insights into our older population needs and challenges as the residents play an active role in the student's learning journey. Students are supported by discipline specific and cross-discipline staff via a multidisciplinary lecture on the alternate discipline, and development of client-centred SMART goals; guided team meetings to develop a resident specific agreed management plan and team communication; and online learning platforms. Facility staff support onsite supervision.

**Results:** Residents, students, university staff and the wider community benefit from this programme. 35 residents/year, 180 students, and 8 academic staff members have taken part in the program. The student's interventions produce positive changes to the resident's ability to take part in meaningful occupations, including developing the next generation of health professions and taking up recommended opportunities outside the facility. This at no cost to the resident, their family (time or money) or the facility. The students demonstrate an increased appreciation of the alternate discipline and older people's perspective on ageing, with some noting an increased willingness to work in aged care.

**Conclusion:** The longer appointments and multi-disciplinary peer to peer learning facilitates deeper engagement with the residents and mutually beneficial experiences for residents, students and the facility.

### GROUND-BREAKING CLINICAL RESEARCH: REVEALING THE EFFECTIVENESS OF THERAPEUTIC SEATING IN REDUCING PRESSURE INJURIES

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**Introduction:** While guidance is available on most aspects of pressure injury prevention and management, there is little information on addressing these issues in seated patients. The role of specialised seating can be overlooked. This research investigates the effectiveness of a specialised seating programme and its impact on pressure injury incidence, sliding & falls, patient function and manual handling in long-term care.

**Objectives:** 1. Identify the goals of individualised seating and the effect this can have on; pressure injury incidence; functional independence, reducing falls, and enhancing quality of life.

2. Evaluate the clinical results, discovering practical tips on how to replicate the research.

**Method:** A mixed methods design was ethically approved and employed. 40 participants were recruited from three long-term care settings before random allocation. The control group continued using their existing seating while the intervention group was provided with following a complex assessment. Participants were observed for pressure care, posture, function, saturated oxygen levels and comfort.

**Results:** The findings revealed; an 88.3% reduction in pressure injury incidence. The intervention participants who had red skin areas at the beginning of the trial no longer presented with these at the end of the 12 weeks trial period. None of the intervention participants developed skin redness. There was an 80% reduction in the use of high-cost cushions; 49.2% reduction in postural correction; 85% had an 11% average increase in blood oxygen levels.

**Conclusion:** Prescribed seating contributes to a reduction in pressure injury incidence. It highlighted that each client has differing needs, subsequently requiring individualised evaluation. The research provides evidence-based solutions through therapeutic seating. The findings are replicable by clinicians continuing to improve patient care through utilising therapeutic seating to reduce pressure injuries, encourage early mobilisation and reduce caregiver manual handling.

### MAINTAINING THE BALANCE BETWEEN STUDENT SUPERVISION ON PLACEMENT AND MANAGING AN OCCUPATIONAL THERAPY PRACTICE: LESSONS LEARNT IN A PAEDIATRIC STUDENT-LED CLINIC

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**Introduction:** Practice Placements are one of the most important ways that students get to apply the theory learnt in the classroom to real-life situations. Supervisors need to provide students with meaningful learning opportunities while still continuing to juggle the administrative tasks and the need to provide quality care for clients. This can be stressful and may lead to a reluctance by occupational therapists to offer student placements. Having set up a new Occupational Therapy student-led clinic in 2016 and subsequently having supervised dozens of students on placement has prompted me to share some of the insights gained during this experience that may give other supervisors more confidence in taking on students, particularly in a setting where more therapists are working in sole practices or privately.

**Objective:** Describe different well researched approaches that have been used to help manage the balance between student supervision, practice management and client care in the Paediatric Student-led occupational therapy clinic at the university of Canberra.

**Approach:** This presentation will discuss the experience of setting up a paediatric occupational therapy student-led clinic at the University of Canberra and how the use of various approaches including peer-assisted learning, student feedback and student reflections have assisted in enhancing student experience and decreasing supervisor load.

**Practice implications:** This aims to provide practical examples of how supervisors can confidently take on students in their practices and provide students with the learning opportunities they need to become qualified Occupational Therapists.

**Conclusion:** It is possible to juggle student supervision and practice by using a few simple strategies.

### INTRODUCING A CLINICAL EDUCATOR ROLE INTO AN OCCUPATIONAL THERAPY SERVICE

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**Introduction / rationale:** In August 2018, a collaboration between a local University and local area health service resulted in the trial of a 17 weeks, two days a week Clinical Educator position within the Lower Hunter Occupational Therapy service. The Clinical Educator was responsible for implementing two rounds of a two-week first-year student rotational placement program that catered for a total of 16 students.

**Objectives:** The purpose of this paper is to describe the process of development, implementation and evaluation of the first-year student rotational placement program.

**Method:** Descriptive statistics on demographic data of the occupational therapists who provided clinical supervision as well as the students who participated in the program. A qualitative analysis is provided of a pre- and post-placement questionnaire completed by both the occupational therapists and students.

**Results:** Eight first-year students from the University of Newcastle participated in the first round of the two-week rotational placement program. The students spent the first and last day with the Clinical Educator. On the remaining eight days, students were paired up and spent two days at each rotation. The students had exposure to the following caseloads: inpatient acute, inpatient subacute, inpatient rehabilitation, community and outpatient paediatrics. Thirteen occupational therapists provided clinical supervision to the first round of students. Preliminary findings indicate that the students' knowledge of occupational therapy increased and benefits of the rotation and student pairing were acknowledged.

**Conclusion:** The development and implementation of a first-year student rotational placement program has been successful in creating an enhanced placement experience for students and increasing the number of students through a placement site.

### INTEGRATING EDUCATION FOR ALLIED HEALTH PROFESSIONALS AND SOCIAL WORK TO MEET THE HEALTH AND SOCIAL CARE NEEDS FOR TOMORROW'S SCOTTISH POPULATION

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**Introduction:** Integration of health and social care services in Scotland has been described as being the most significant change to health and social care provision since 1948 (Scottish Government, 2018). With a greater emphasis on joining up services and focusing on anticipatory and preventative care, integration aims to improve support for all people who use services, their families and carers: placing the person at the centre. Allied health professionals specifically Occupational Therapy and Physiotherapy and Social Work play a key role in taking forward change through innovative thinking, leadership and delivering services in partnership. A shift in education model for these disciplines is necessary to prepare the next generation for careers in health and social care.

This paper will report on the development of integrated Masters Allied Health and Social Work programmes at Edinburgh Napier University mirroring this shift in professional practice. Curricula development places collaboration between disciplines as the norm, whilst professional identity is to the fore. This will lead to a new kind of professional entering the workforce, prepared for the changing face of practice and equipped with the skills to build relationships to make an impact for individuals, families and communities.

**Objectives:**

1. To present the philosophy of the new MSc programme.
2. To outline our approach to evaluation including all key stakeholders perspectives both through the 2 year programme and the transition into the workplace.

**Practice Implications:** Findings will be captured through a range of data collection methods over different time points and shared with practice educators and the wider health and social care community. To conclude, this paper will present the initial findings from this longitudinal study.

### THE EFFECTS OF AN INFORMATION & COMMUNICATION TECHNOLOGY -BASED PREPARATORY LEARNING TASK

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**Introduction:** To determine the effects of the preparatory learning task, I divided the students into two groups based on the time they spent in the activity and then analyzed how their learning outcome scores changed over the course of the exercise.

**Method:** Indices used in this study to measure the effectiveness of using ICT and group learning were students self-evaluation (VAS) and mood (DAMS) as well as self-efficacy (GSES).

**Results:** The VAS scores observed a significant difference in principal effect between the start and end of the exercise. The DAMS positive mood scores looking at the trend in positive mood over time. The DAMS depressed mood scores that the high-viewing time group already had high depressed mood scores at exercise-start, but their scores had significantly declined by class-end. The DAMS anxious mood scores that the high-viewing time group already had high anxious mood scores at exercises-start, but their scores had declined by end-group work 1. The GSES were no significant differences between the start and end of the class, the high-viewing time group reported low self-efficacy.

**Discussion:** The fact that the mood of these students did not become more positive might imply that the preparatory learning task was configured too ambiguously. Another factor might be that the instructor did not provide the students any feedback about the outcomes of the preparatory learning task. Thus, it is possible to surmise the following about the students who spent a long time in the preparatory learning task: engaging in the preparatory learning task made them feel depressed by the time the main class began; accordingly, they went into the group work in a pessimistic frame of mind, and this hindered them from engaging in the group work effectively.

### OCCUPATION-BASED ENTRY-LEVEL EDUCATION: CHARACTERISTICS AND STRATEGIES

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**Introduction:** Occupation is the primary domain of concern for occupational therapy and should be the central focus of practice across all contexts. Entry-level education of occupational therapists is the place where understanding occupation is developed, and so shapes the way future therapists think and practice. Education should, therefore, align with the profession's philosophy and prioritise the organising concept of occupation, to develop graduates with knowledge, skills, and attitudes required to implement occupation-based practice.

**Objectives:** To explore the perspectives of leaders regarding the characteristics of occupation-based entry-level education and associated implementation strategies

**Methods:** Following ethical approval, a qualitative descriptive design was utilised with participants recruited through a combination of expert and snowball sampling to ensure variation and depth of the perspectives. In-depth, semi-structured interviews with professional leaders were conducted, either by telephone or internet conferencing. Interviews were transcribed verbatim and data were analysed using constant comparative analysis to reveal themes.

**Results:** Six leaders from Australia, Canada, and the United States of America participated in the study. Three themes emerged from the data: embodied knowledge and understanding of occupation and its link to health and well-being; deliberate educators who value occupation; and conflicting perspectives.

**Conclusion:** This research highlights the importance of individual academics in the development of a students' understanding and passion for occupation and occupation-based practice. Along with ongoing curriculum review, educators must continue to develop their own knowledge and skills in teaching occupation as a core construct. Future research could explore strategies students identify as important in helping their understanding of occupation and occupation-based practice.

### TO CHANGE OR NOT TO CHANGE? A REVIEW OF AN OCCUPATIONAL THERAPY DEPARTMENT ROTATIONS SYSTEM

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**Introduction:** Developing a workforce that is patient centered and meets the Occupational Therapy department mission statement "enabling people to do the meaningful and productive activity they need and want to do". A rotation system has existed within the Occupational Therapy department on a 6-12 monthly basis. As a tertiary facility, rotations enable the workforce to deliver right patient centred care, to the right patient at the right time.

**Objective:** Standard 1 of the National Safety and Quality Health Services Standards (2017) drives to implement a clinical governance framework that ensures that patients and consumers receive safe and high-quality health care. A rotations system is used to ensure that these standards are met and a flexible workforce with transferable knowledge, skills and experiences are developed at all levels. This review aims to evaluate existing rotation processes and procedures and brain storm creative ideas for management of rotations going into the future.

**Method:** Action were undertaken to review a rotations model that will meet current workforce and organisation needs. Actions included (1) review of current literature; (2) Consumer participation – stakeholders were invited to participate in a focus group or individually. Results were coded, themes were identified, and data were used to generate options for change to current practice.

**Results:** Three options including "do nothing option" for management of rotation were developed in response to information received from focus groups and literature reviewed. Options were presented to the Team Leader group who voted on the preferred option. Outcomes were presented to the Occupational Therapy department and feedback was welcomed prior to change being implemented

**Conclusion:** Overall staff perceived that rotations are a positive experience of working within a tertiary Occupational Therapy department. A change in practice was implemented with a planned 2-year trial, evaluation of the influence of these changes in planned.

## SUPPORTING CLIENTS BEYOND FUNCTION TO BUILD TRUE QUALITY OF LIVING

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**Introduction:** In society, including the clinical setting, are conditioned to see others for their behaviours or diagnosis, not the essence of who they are. In supporting clients who have challenging behaviours, it is important to differentiate the *behaviour* to the *being* and to see the behaviours as simply a bi-product of how well one is equipped to deal with challenging aspects of life.

**Objectives:** Seeing people for 'who they are' versus their limitations, disability, symptoms, what they do or say, offers a solid platform for therapy which then allows skill development and wanted behaviours to naturally unfold, without push for desired outcomes.

**Approach:** Our behaviours do not define who we are; they are simply what we do. This is a valuable application for ourselves as therapists and for our clients and can be of use in supporting people with any unwanted behaviours. In addressing unwanted behaviour, we must bring understanding to underlying triggers.

**Practice implications:** As occupational therapists, we tend to promote improved function and skills as a way of improving one's quality of life. Allowing an appreciation of one's innate qualities and strengths, can naturally support wanted behaviour as it allows a person to identify with who they are versus what they do.

**Conclusion:** Supporting a person's potential requires a focus on who they are - their 'essence' - not desired outcomes. When we do so, we allow an outcome to unfold that is not limited to what we want, need or expect. The intention is purely about the person.

## LEARNING THROUGH THE LENS: PEDAGOGICAL IMPLICATIONS OF VIDEOCONFERENCING FOR OCCUPATIONAL THERAPY STUDENTS' EDUCATION IN RURAL AREAS

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**Introduction:** Occupational therapy students have increasing opportunities to complete undergraduate studies while living in rural locations. Videoconferencing is used within these rural educational settings to address the distance between the students and their peers and educators, but also with the aim of enhancing educational experiences. Accompanying these opportunities is scope to understand more about the notions of 'distributed health professional education' and 'sociomateriality', and grapple with pedagogical implications of 'technologized learning'.

**Objectives:** Collaborative dialogical inquiry, within the critical research paradigm, is being used to explore the question: What are the pedagogical implications of videoconferencing for healthcare students' education in rural areas?

**Approach:** As a team of fifteen UONDRH educators we are working together as co-researchers to investigate our own perceptions and experiences with videoconferencing, as well as those of others (educators, students and IT staff). Reflections from our interdisciplinary research team are in written and verbal formats, undertaken individually and collectively, informally and formally through interviews and focus groups. Through our ongoing reflections we are exploring what we take for granted about videoconferencing in order to deliberately do more of what works well for 'technologized learning' and grapple with what does not. This presentation take a particular focus on educating occupational therapy students in rural areas.

**Results:** Unfolding insights from this research are beginning to transform the educational practice at UONDRH. Some taken-for-granted assumptions are being identified, challenged and explored, including what we can learn if we embrace pedagogical and sociomaterial complexities of learning through videoconferencing.

**Practice implications:** By transforming educational practice, our aim is for pedagogies involving videoconferencing to be visible and positively integrated into the occupational therapy students' experiences in rural areas and beyond.

## TAKING THE PULSE: A HEALTHY CURRICULUM FOR A HEALTHY STUDENT

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**Introduction:** Assessment outcomes and qualification attainment are not the only markers of learner success. Success also relates to students' journeys and transformations that occur throughout their undergraduate study. So, we determined to explore student journeys with a focus on wellness and wellbeing, so these learnings could strengthen our understanding of occupational therapy student wellbeing. In addition, it influenced the design of curriculum in order to better meet students' wellbeing needs.

**Objective:** This presentation will identify factors that impact on occupational therapy student wellness over the course of the academic year and undergraduate programme. We will share how a stronger understanding of student wellbeing has influenced our curriculum.

**Method:** This qualitative study purposively sampled undergraduate occupational therapy students seeking maximum diversity of experience. Over the course of an academic year, up to two students from each year cohort were allocated to one of four one-hour-long focus groups at each campus. Eight groups were run and each group included up to six students with two researchers. Transcriptions of each interview were then analysed using the Qualitative Analysis Guide of Leuven (QAGOL).

**Results:** Three key themes were identified in this project: wellbeing, learning, and professional identity. From these findings, a range of issues, not necessarily connected explicitly with the academic programme, can impact students' wellbeing. As a result, we have developed closer relationships with student support services and identified the periods where student wellbeing is compromised, making adjustments to our curriculum to minimise this.

**Conclusion:** Taking the pulse of our undergraduate student group has allowed for an informal snap-shot at points along the student's journey. We have obtained a range of student perspectives, which have highlighted critical points in the curriculum. This project has enabled us to better inform curriculum design as well as ensure student success in relation to effective support systems.

## DESIGN THINKING FOR OCCUPATIONAL THERAPISTS: THE EXPERIENCE OF OCCUPATIONAL THERAPY STUDENTS AT THE DESIGN FACTORY MELBOURNE

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**Introduction:** Design thinking is an approach which offers potential value to occupational therapy pedagogy. The recently established Faculty of Health, Art and Design at Swinburne University Victoria represents an opportunity for occupational therapists and designers to thread scientific, therapeutic and design approaches together. This paper outlines the interprofessional curriculum which has been developed, and presents the initial findings of research with two cohorts of master-entry occupational therapy students.

**Objectives:**

- to articulate design thinking and its relevance to occupational therapy
- To discuss the value and challenges of teaching design thinking to occupational therapy students.

**Method:** A qualitative study into the Design Factory Melbourne experience of occupational therapy students.

**Results:** Design thinking embedded in curricula has generated a number of benefits and some interesting challenges. Results are reported from the perspective of a range of stakeholders. Discussion includes commentaries upon the contrasting paradigms at play, the impact of creative thinking approaches upon graduate attributes, and the nature of interdisciplinary work outside of allied health.

**Conclusion:** Design thinking offers significant value to occupational therapy, particularly given dynamic environments of technological change, and shifting workplace and policy settings.

## OLDER PEOPLE

### OLDER ADULTS' PARTICIPATION IN OPEN-SKILLED PHYSICAL ACTIVITY

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**Introduction:** Normal cognitive ageing illustrates a deterioration in a variety of cognitive and self-regulation functions, putting increasing strain on not only the health care system but also their families. Older residents of aged care facilities are at increased risk of cognitive decline in comparison to the general population. Regular physical activity may be preventative of cognitive deterioration in these individuals. Open-skilled physical activity has been proposed to catalyse improvements in several cognitive domains including selective attention and inhibition.

**Objectives:** To investigate the feasibility, acceptability and potential effects of an open-skilled physical activity program in older adults living in the community and in an assisted living facility.

**Methods:** This study was conducted as a two-phase feasibility study with older adults. It consisted of an ambulatory open-skilled physical activity program with two community participants and a seated open-skilled physical activity program with five assisted living facility residents. Both phases consisted of a 10-session physical activity program. A feedback questionnaire was completed after the program and standardised cognitive testing was completed before and after the program.

**Results:** The results in Phase 1 indicated the ambulatory program as highly feasible and acceptable. Cognitive domains of immediate memory and attention showed improvements and/or maintenance in function. In Phase 2, the results designated the seated program was also highly feasible and acceptable. Cognitive domains of visuospatial, inhibition, self-monitoring and evaluation function displayed improvements or maintenance in function.

**Conclusion:** Although the results of the study cannot be generalised, these findings support the feasibility and acceptability of an ambulatory and seated open-skilled physical activity program among older adults living in the community and in an assisted living facility respectively. The study provides valuable insight for large-scale studies to be conducted in the future.

### OLDER CARE RECIPIENTS WITH DEMENTIA AND THEIR CARERS: AN EXPLORATION OF ACTIVITIES OF DAILY LIVING FOR PEOPLE WITH DEMENTIA, AND ASSOCIATIONS WITH CAREGIVER BURDEN

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**Introduction:** Older people with dementia are often dependent on informal care at home, and the coping situation for both the care recipient and their carer/s is critical. One key issue for carers is the loss of independence in activities of daily living for the person with dementia. Loss of ADL skills may affect the quality of life experienced by the person with dementia and their carer/s, and is a predictor of carer burden. Caregiving activities such as managing behavioural and psychological symptoms of dementia, physical transfers and assistance with toileting are particular demands for caregivers.

**Objectives:** The aims of this project were to i) identify the specific ADL tasks that people with dementia had difficulty with, ii) determine the association between ADL performance and carer burden, and iii) identify the main correlates with carer burden.

**Method:** The baseline data from the Improving Mood through Physical Activity for Carers and Care recipients Trial (IMPACCT) were analysed. Caregivers of older people with dementia were recruited from 20 caregiver support organisations in Victoria, Australia. A detailed home visit was conducted involving both the caregiver and the care recipient at the beginning of the study, when outcome measures were applied.

**Results:** Preliminary results have been explored for the group of 121 care givers and care recipients who were recruited for the trial. Carers had a mean age of 69.83 years (95% CI: 68.14-71.53), and care recipients had a mean age of 78.20 years (95% CI: 76.51-79.88). Most carers were female (82.6%), and 63.6% were wives. Further statistical analysis is ongoing.

**Conclusion:** Data analysis will provide valuable information for occupational therapists in prioritising interventions and identifying ways to better support carers of people with dementia.

### FAMILY CAREGIVER INTERVENTION IMPROVES OUTCOMES FOR PATIENTS WITH DELIRIUM

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**Introduction:** Delirium is a common and serious problem in older hospitalised people, which is under recognised and sub-optimally managed. Utilising the skills of family caregivers as a key part of the multidisciplinary team has the potential to improve outcomes for the patient, family and health system.

**Objective:** To determine if family caregiver involvement in interventions with patients with delirium improves patient outcomes.

**Method:** A systematic review of original research was conducted to determine if family caregiver involvement in interventions with patients with delirium improves patient outcomes. Outcomes measured included length of hospital stay and the duration of delirium. Databases searched were Medline- Ovid, CINAHL and Embase.

**Results:** Five studies involving 505 participants published over a five year period were deemed suitable for inclusion in this review. The results reported family caregiver involvement reduced length of hospital stay for the delirious patient, reduced the duration of delirium, reduced family caregiver's anxiety and hospital staff viewed administration of education to family caregivers as easy and efficient.

**Conclusion:** Family caregivers providing interventions to patients with delirium can improve patient outcomes.

**Clinical Implications:** Utilising family caregivers to provide daily interventions and care to the delirious patient has the potential to reduce pressure on members of the multidisciplinary team to provide this care. In turn this has the potential to influence the multidisciplinary team's efficiency, caseload and work life satisfaction.

### TRICYCLES IN AGED CARE FACILITIES: MORE THAN JUST A NOVELTY, A MEANINGFUL OCCUPATION AND A MEANS TO SOCIAL AND CULTURAL CHANGE

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**Introduction:** The number of people globally over the age of 60 is forecast to reach two billion by the year 2050. As the population ages, the prospect of transitioning to an aged care facility becomes reality. The capacity for residences to facilitate occupational individuality for people is of considerable focus, as individuals, friends, and family members consider aged care.

**Objectives:** Research question: *Does Cycling Without Age, in aged care residences, facilitate a change in culture, based on the social model of care?*

**Study Aims:**

- To investigate resident experiences in the delivery of meaningful occupation, through the Cycling Without Age (CWA) program.

- Explore the social model of care as a framework to impact culture change within aged care.

- To consider occupational performance outcomes of residents from the perspective of CWA personnel.

- To learn about experiences, inform future occupational therapy practice, and explore culture shift in aged care.

**Method:** A sequential explanatory mixed methods study was utilised. Convenience and snowball sampling recruited 42 pilots and personnel from 10 countries globally to participate in an online survey. Survey results informed further semi-structured interviews, conducted via Skype, with six CWA personnel and pilots taking part.

**Results:** Quantitative information suggests participation in CWA enables residents a greater sense of occupational independence. CWA personnel and pilots indicate improved resident quality of life. The social model of care has been seen to contribute to culture change in aged care. While some countries report negative cultural attitudes towards cycling and cycling culture, this has not impacted the reception of the CWA program in these countries.

**Conclusion:** CWA has the potential to facilitate positive culture change in aged care residences, based on the social model of care. This suggests that customised activity programs can provide an antidote to the experience of occupational deprivation in aged care facilities.

## PRIMARY HEALTH CARE

### SUPPORTING THE FALL PREVENTION PRACTICE OF ALLIED HEALTH PROFESSIONALS WORKING IN PRIMARY CARE

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**Introduction:** Despite their key role, little is known about the fall prevention practice of allied health professionals (AHPs) in primary care.

**Objectives:** To examine current fall prevention practice of AHPs working in primary care, explore the impact of educational workshops on their practice and identify supports needed to make fall prevention routine.

**Method:** This study was part of the Integrated Solutions for Sustainable Fall Prevention (ISOLVE) project. Twelve workshops on evidence-based interventions for preventing falls were conducted for AHPs in Northern Sydney across 2015/2016. Workshop topics included exercise interventions, home interventions, the LiFE program, foot and ankle interventions and medication management. Data were collected using surveys at baseline, 3-months and 12-months and interviews.

**Results:** Participants, 309 in total, included physiotherapists (32%), occupational therapists (21%), podiatrists/pedorthists (13%), pharmacists (13%), exercise physiologists (10%) and other health professionals (11%). At baseline over 80% of participants reported assessing falls risk and providing fall prevention interventions sometimes or often, with no change in the frequency of these practices reported at three and 12 months. Changes in fall prevention practice were reported by 51% of participants at 3-months and 39% at 12-months. Changes included making exercises more challenging with a greater focus on balance, use of assessments such as the Quickscreen, introducing functional strength and balance exercises, adding the FootHold exercise program to services provided, using the Health Change Model to assist clients in identifying and reducing falls risks in the home environment and greater monitoring of medications contributing to falls risk. Interview data revealed that fall prevention was valued in practice but was complex to deliver requiring a range of supports.

**Conclusion:** Many AHPs used fall prevention strategies prior to the workshops. The workshops were an important support for AHPs to confirm existing practice and offer strategies to enhance practice.

## REHABILITATION

### OCCUPATIONAL PERFORMANCE OUTCOMES IN A SPECIALISED ACQUIRED BRAIN INJURY COMMUNITY REHABILITATION AND TRANSITIONAL LIVING SERVICE: MOVING FORWARD

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**Introduction:** The degree of recovery from Acquired Brain Injury (ABI) has been shown to be influenced by rehabilitation; community-based rehabilitation is thus essential. Historically, access has been limited by admission timeframes, client accommodation and catchment areas. Our specialist ABI community service pursues goal-directed intervention (not time-limited), serves a state-wide catchment and can work with young people residing in supported care. Our model of care enables client-centred therapy goals to be addressed across the lifespan.

**Objectives:** To discuss the ongoing effectiveness of this community rehabilitation and transitional living model of care, focussing on patterns of independence in occupational performance and community integration, as well as rehabilitation length of stay.

**Method:** A standardised set of outcome measures were implemented into practice in early 2016, completed at admission, 12 months and discharge. Measurement areas included community integration, knowledge, use and access of services in the community, carer burden and functional level within daily living skills, across physical, emotional, psychological, cognitive and behavioural domains and type and level of care.

**Results:** Transitional living and community service admission, progress and discharge measures were compared. At time of writing,  $n = 55$  for the community rehabilitation service and  $n = 10$  data sets for the transitional living service, thus far showing that measures reflecting community integration and occupational performance have improved. Knowledge of available services and supports improved.

**Conclusions:** Using key outcome measures and client-centred goal setting in this specialised community rehabilitation service has enabled occupational therapists to measure and evaluate their intervention, as well as the client's experience. Data have provided valuable information for future therapy and service planning.

### MY PLAN: THE EVALUATION OF A PERSON-CENTRED PLANNING TOOLKIT FOR PEOPLE WITH TRAUMATIC BRAIN INJURY AND SPINAL CORD INJURY

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**Introduction:** We undertook an extensive evaluation of the uptake, stakeholder use and experience of an integrated person-centred planning toolkit (My Plan), 15 months following its implementation.

**Objectives:**

- To determine whether My Plan had been successfully implemented (uptake)
- Whether participants felt engaged and the planning was meeting their needs
- To review the quality of planning using the My Plan toolkit
- To identify changes required to the My Plan toolkit or future training needs

**Method:** The evaluation of My Plan involved quantitative, qualitative information, and the corroboration of information and data obtained through multiple semi-structured interviews, surveys of all stakeholders (participants, planning facilitators, staff), and file reviews of My Plan modules.

**Results:** The evaluation of the integrated person-centred planning My Plan toolkit confirmed participants and families view planning and the My Plan approach positively and the planning facilitators and Lifetime care staff consider the toolkit of value and enables a flexible approach to planning for rehabilitation and adjusted living. My Plan has changed the focus of planning away from a therapy directed planning process to a person-centred approach to goal setting and supports. A total of 853 participants were supported and completed a My Plan completed and a total of 1,381 My Plans were received by Lifetime Care.

**Conclusion:** The presentation outlines evaluation methods, key findings, trends and emerging implications for stakeholders (including participants, planning facilitators, providers and Lifetime Care).

My Plan is used with participants of all ages, injury types, locations, severities and duration post injury and has recently been adapted to plan with people severely injured at work and others with chronic dust diseases such as mesothelioma through exposure at work.

### FEASIBILITY OF A SELF-REGULATION, IMAGERY AND MINDFULNESS PROGRAM FOR INDIVIDUALS WITH CHRONIC LOW BACK PAIN

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**Introduction:** The problem of chronic low back pain (CLBP) is multifaceted. Current evidence does not provide clear or definitive recommendations on an effective intervention that can help to manage the person's multifaceted pain experience and enhance function during daily activities. In response to this, a program utilizing self-regulation, imagery and the concept of mindfulness was developed.

**Objectives:** This study examined the feasibility and acceptability of a newly developed rehabilitation program. Using case series design, the benefits in pain, disability, function and quality of life of individuals participating in the program were also explored.

**Methods:** Five individuals with CLBP participated in a 5-week program with weekly group face-to-face sessions of 60 or 90 minutes duration. Four participants and two program facilitators completed the feedback questionnaire to review the program acceptability. The four participants also completed four outcome measures on pain, disability, function and quality of life before and after the program.

**Results:** In general, all four participants and the two program facilitators agreed that the program was logical and acceptable for people with CLBP and effective in enhancing the individuals' daily functioning. Specific feedback for modifying the program was obtained. The results of the case series revealed positive changes in 2 out of 3 participants on pain intensity, disability, function and quality of life.

**Conclusion:** The initial findings showed high acceptability to implement the program for the participants with CLBP. The results provided insight for making modifications to the program as per participant and facilitator feedback for future studies.

## PSYCHOMETRIC PROPERTIES OF ASSESSMENT TOOLS FOR COGNITIVE IMPAIRMENT AFTER MILD TRAUMATIC BRAIN INJURY

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**Introduction:** Mild Traumatic Brain Injury (mTBI) is common amongst those admitted to rehabilitation in which cognitive symptoms may be missed, undiagnosed or masked. This can have long term consequences in which most experience difficulties with managing complex tasks.

Currently there is no standardized or routinely administered assessment tool for mTBI.

**Objective:** To source and evaluate valid and reliable screening tool(s) for cognitive deficits for mTBI within the inpatient rehabilitation setting.

**Method:** Methods were informed by Cochrane Guidelines and reported via the PRISMA statement. Articles were identified using CINHAL and MEDLINE, Google Scholar and PubMed. Search terms and MeSH terms were based on condition, intervention, setting and patient type. Articles were searched from reference lists.

Two researchers independently screened titles and abstracts with a pre-determined eligibility criteria based on an inclusion and exclusion criteria. Researches extracted data from the included studies based on three areas; basic information about the assessment or tool, psychometric properties and implications for practice.

**Results:** A search yield of 2,823 was generated, 45 articles were read in full, 17 articles were included for analysis and 15 assessment tools were identified. The tools were predominantly self-rated questionnaires or checklists assessing cognitive, somatic, concussive or neurological domains. Assessment tools were measured in terms of their psychometric properties, however some assessment tools did not adequately report their validity. The Rivermead Post-concussion symptoms questionnaire produced the most research evidence with 6 studies however their results were inconclusive. While 7 other tools were identified with adequate to excellent validity or reliability.

**Conclusion:** The validity of measurement tools is important when evaluating cognition following mTBI. A number of assessment tools were identified for the inpatient rehabilitation setting. However it is evident that more research is needed regarding psychometric properties as current results are insufficient to recommend anyone of the identified tools.

## EXAMINING VOCATIONAL REHABILITATION IN EARLY ACQUIRED BRAIN INJURY REHABILITATION

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**Introduction:** Following acquired brain injury (ABI) productive roles (paid/voluntary work or study) are often disrupted. A productive role is related to better health status, social integration, and quality of life.

The Acquired Brain Injury Transitional Rehabilitation Service (ABI TRS) is a pilot project of the statewide Brain Injury Rehabilitation Service (BIRS) in Queensland. The program provides 12 weeks of specialist interdisciplinary ABI rehabilitation to clients aged 16–70 years, using a client focussed, goal directed approach. Of the first 80 clients seen by ABI TRS, over two thirds expressed vocational goals (paid or voluntary work or study).

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.

**Objective:** To inform development of an evidence based framework for delivering VR for adults with ABI in the early transitional stage

**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. The model involves different client vocational 'streams', identifies clinical activities across streams, and can be used to assist in planning VR

**Conclusions:** We have created a clinical framework for early community VR that can be implemented by a community ABI rehabilitation team. This will be presented along with early clinical experiences.

## NON-INVASIVE INTERACTIVE NEUROSTIMULATION (NIN): A CASE REPORT ILLUSTRATING THE USE OF THIS TECHNIQUE WITH A CLIENT WITH ACQUIRED BRAIN INJURY

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**Introduction:** Non-invasive interactive neurostimulation (NIN) uses electrical stimulation to deliver specific interactive, high amplitude, high density pulsing current. NIN delivered with the InterX 5002 neurostimulation device has proven effective for the treatment of post surgical pain and severe chronic orthopedic pain. The use of NIN in central nervous system disorders for the management of pain and associated impairments has not been well documented. Scalp acupuncture integrates traditional Chinese needling techniques with Western medical knowledge and appears to be an effective technique for the treatment of acute and chronic impairments from central nervous system disorders. With this technique, acupuncture needles are subcutaneously inserted into the scalp of the cortical areas to mediate responses from the cerebrum and cerebellum responsible for central nervous system functions. Special manipulation of the needles aims to restore and strengthen the functions of the body, organs and tissues.

**Objective:** To explore feasibility of NIN applied to scalp acupuncture sites during occupational therapy stroke rehabilitation, with specific interest in the effect on pain response, motor and sensory impairments, and function.

**Method:** A 63 years old man who had a stroke in June 2017 was undergoing traditional rehabilitation throughout this time. NIN intervention was introduced in June, 2018 1x/week for eight weeks to scalp, back, arm, face as per the scalp acupuncture protocol by Hao and Hao.

**Results:** Following intervention, improvements were noted in active ROM, functional tasks such as overhead reach, manipulating nuts and bolts, using tweezers and clapping. The client reported subjective improvements in the arm and hand.

**Conclusion:** In our single case review, we tested the feasibility of NIN during occupational therapy stroke rehabilitation instead of dry needling and found improvements in both active ROM and functional tasks. Further research is warranted and the theoretical underpinning and clinical reasoning behind the intervention will be discussed.

## THE PREVALENCE AND MANAGEMENT OF SLEEP DISTURBANCE IN ADULT INPATIENT REHABILITATION: A SCOPING REVIEW

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**Introduction:** People experiencing illness and disability report that sleep disturbance can impact on their ability to perform activities of daily living. However, sleep disturbance is seldom addressed by occupational therapists. Previous reviews have found that prevalence of sleep disturbance is high in acute settings yet little is known about the prevalence of sleep disturbance in inpatient rehabilitation settings and how it is managed.

**Aim:** To explore prevalence and management of sleep disturbance in adults in inpatient rehabilitation settings.

**Methods:** This scoping review considered: What is the prevalence of sleep disturbance in adults undertaking inpatient rehabilitation? And, what interventions have been trialled to address sleep disturbance in this population? We included quantitative studies and searched MEDLINE, CINAHL and PsycINFO. Grey literature and reference list searching was also completed to identify additional relevant studies.

**Results:** Our search revealed 985 citations and we are currently undertaking full text review (with completion of the review anticipated by November 2018). To date, it is clear that studies demonstrate there is an association between sleep disturbance and poorer functional recovery outcomes in rehabilitation inpatients. Furthermore, there are a number of environmental factors that may reduce sleep quality in inpatient units.

**Conclusions:** Occupational therapy advice on environment and sleep hygiene should be considered for people undergoing inpatient rehabilitation.

## EVALUATION OF THE FEASIBILITY AND CLINICAL UTILITY OF COMPUTER ASSISTED ROBOTIC DEVICES FOR UPPER LIMB THERAPY FOR PATIENTS WITH CERVICAL LEVEL SPINAL CORD INJURIES

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**Introduction:** Spinal cord injury (SCI) affects all aspects of a person's life due to the functional and psychosocial implications on their life roles. Loss of upper limb function due to cervical level SCI severely impacts a patient's ability to participate in meaningful activities therefore upper limb therapy is a priority for rehabilitation.

The Tyromotion Diego is a robotic arm-shoulder rehabilitation tool providing three dimensional bilateral upper limb training. The Royal North Shore Spinal Occupational Therapy Team submitted a research proposal to Tyromotion in July 2017 and was subsequently selected as the only Australian/NZ unit to be awarded a Diego for research.

**Objectives:** To investigate the feasibility of the Tyromotion Diego as an upper limb therapy tool in an acute Spinal Injury Unit, specifically establishing a therapy protocol for use with people with SCI and identifying outcomes from the integration of this device in therapy.

**Design:** Pre-test post-test study design consisting of two pilot sub-studies.

### Method:

1. A quantitative study involving the establishment of a treatment protocol for integration of the Tyromotion Diego within an upper limb therapy program and reviewing outcomes from this program.

2. A qualitative study involving interviews with nurses, therapists and patients. This exploratory study using content analysis identifies key themes related to the feasibility of the device, and therapists' and patients' experiences of using the device.

**Results:** Preliminary results show improvements in shoulder and elbow active range of motion, functional performance of self-care tasks and motivation to participate in upper limb therapy.

**Conclusion:** There is currently no high level evidence for the use of robotic devices for upper limb therapy with people with SCI. This research study will establish a protocol for use of the Tyromotion Diego as part of an upper limb therapy program and investigate the feasibility in an acute context.

## A RETROSPECTIVE AUDIT OF DIGITAL HEALTH PLATFORM UTILISATION AND OUTCOMES FOR PATIENTS UNDERGOING TOTAL KNEE REPLACEMENT SURGERY

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**Introduction/rationale:** Digital Health Platforms (DHP) offer interactive software that connects surgeons and therapists with their patients pre and post-operatively. To date, there is little Australian data published in DHP utilization in orthopaedics.

**Objectives:** To determine patient outcomes based on DHP technology utilisation.

**Method:** A retrospective audit of 256 total knee replacement patients from a single site in Townsville Australia, between January 2016 to January 2018, was conducted. All patients were given access to the DHP. Based on the three criteria (App download; Video views; Messages sent), patients were categorized into either "poorly", "moderately" or "highly" engaged groups. Knee Injury and Osteoarthritis Outcome Score (KOOS) Jr was used to assess functional recovery, and the number of outpatient physical therapy and emergency room visits were tracked.

**Results:** Among 256 patients (median age 66; Interquartile range 61–72), 236 (92%) consented to participate in the DHP. Of those opted-in, 40 (17%) were poorly engaged while 141 (60%) and 55 (23%) were moderately and highly engaged, respectively. Of 112 patients who reported their home postcodes, 53 (47%) resided out of town, and 81% displayed moderate-to-high connectivity level.

Progressive functional improvements (KOOS Jr score at 6 weeks post-op versus pre-op) were observed with the median (IQR) of 13% (6–21%), 18% (9–26%), and 21% (14–26%) in poorly, moderately and highly engaged groups, respectively. In terms of outpatient physical therapy and emergency room utilisation (visits per patient), highly engaged patients showed lower usage (7.2 PT; 0.15 ER visits per patient) compared to poorly engaged patients (8.3 PT; 0.22 ER visits per patient).

**Conclusion:** Utilisation of DHP supports patient engagement to improve patient outcomes. Also, it allows for more convenient/efficient virtual follow-ups for early wound complications, preventing unnecessary in-person visits. DHP Utilisation for integrated patient care has potential to streamline healthcare delivery particularly for rural/remote patients.

## RESEARCH METHODS

### NARRATIVE INQUIRY AND NARRATIVE ANALYSIS: PRACTICAL APPLICATION OF TECHNIQUES FOR OCCUPATIONAL THERAPY RESEARCH

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**Introduction:** Narrative inquiry methods have much to offer within health research. They have the capacity to reveal the complexity of human experience; to understand how people make sense of their lives within social, cultural, and historical contexts. There is no set approach to undertaking a narrative inquiry, and a number of scholars have offered interpretations of narrative inquiry approaches. Various combinations have also been employed successfully in the literature. There are, however, limited detailed accounts of the actual techniques and processes undertaken during the analysis phase of narrative inquiry. This can make it difficult for researchers to know where to start (and stop) when they come to do narrative analysis.

**Objectives:** This presentation will highlight practical steps that can be undertaken during narrative analysis, facilitated through discussion and examples of techniques used in a doctoral study that explored the stories of emerging adults with cerebral palsy.

**Approach:** Drawing on the work of Donald Polkinghorne, both narrative analysis and paradigmatic analysis of narratives techniques will be discussed, as they offer equally useful insights for different purposes. Narrative analysis procedures reveal the constructed story of an individual participant, while paradigmatic analysis of narratives uses both inductive and deductive means to identify common and contrasting themes between stories. These analysis methods can be used separately, or in combination, depending on the aims of the research.

**Practice implications:** Occupational therapists will be guided to make informed decisions around appropriate narrative analysis techniques to answer a range of qualitative research questions. Practical examples will facilitate therapists' understanding of the steps involved in the actual "doing" of narrative analysis.

**Conclusion:** Narrative inquiry methods, and narrative analysis techniques, can be useful for a wide range of occupational therapy research questions with the overall aim of understanding lived experience.

## RURAL AND REMOTE PRACTICE

### RURAL AND REMOTE AUSTRALIA - HERE I COME! REFLECTIONS OF AN OCCUPATIONAL THERAPY STUDENT

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**Introduction:** Occupational therapy students are offered a wide range of placement opportunities in various settings from urban to remote locations during their final years of study. I was fortunate to get my first preference in a rural and remote setting with Western Australia Centre of Rural Health (WACRH) in the Pilbara area of WA.

**Objectives:** This poster will provide:

- Reflections on two different role emerging placement experiences in rural and remote settings
- Reflections on and comparisons of using structured versus unstructured collaborative peer assisted learning approaches
- Reflections on the knowledge, skills and attitudes that can be developed by students in rural and remote, role emerging placements.

**Approach:** The poster will provide reflections on the placement experiences of a fourth years occupational therapy student. The second author contributed by supporting the first author to reflectively analyse and frame her experiences.

**Implications for Practice:** This poster provides some key practice points for students in rural and remote, role emerging placements. It also highlights some key attributes that a student should nurture and the clinical educator foster in rural and remote placements. Some practice points around peer assisted learning shall also be provided.

**Conclusion:** This poster provides some practical tips for both students and clinical educators in rural and remote placements.

### THE KAWA MODEL IN DIVERSE COMMUNITY SETTINGS - AN INTERNATIONALS PILOT PROJECT

**Ornissa Naidoo<sup>1,2</sup>, Monica Moran<sup>2,3</sup>, Jolleen Hicks<sup>2,3</sup>, Chantal Christopher<sup>4</sup>, Thanalutchmy Lingah<sup>4</sup>**

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**Introduction:** The Kawa Model uses the metaphor of a river to depict the life journey and was developed as an alternative therapeutic model that honours the cultural context of the client. There is a paucity of research around use of the Kawa Model to guide the practice of occupational therapy students in rural and remote Australia working with Aboriginal people.

**Objectives:** This project explores the perceptions of the students in using the Kawa model in diverse community placements in Australia and South Africa as a tool for them to understand the narratives, life experiences, culture, enablers and needs of the people.

**Methods:** This presentation reports on the outcomes of a qualitative study conducted with occupational therapy students on placement with the Western Australia Centre of Rural Health (WACRH) in the Pilbara; and diverse community placements in South Africa. At the beginning of their placements the students complete a training session about the Kawa model and how they can use it to engage with clients as a means to understand their lives and guide further engagement. At the end of their placement each student is interviewed on their experience and reflections in using the Kawa Model to inform their practice. Transcripts from the interviews are being analysed using thematic analysis.

**Results:** Preliminary analysis indicates emerging themes around students' needs for training about Kawa to inform their practice and about strategies for building relationships with clients. These and further themes will be outlined and described in detail.

**Conclusion:** The study supports the benefits of having a formal training for students prior to using the Kawa Model to inform practice with clients. Further recommendations shall be presented on the day.

The Kawa Model in diverse community settings – A Pilot Project across the Globe - [Correction added on 06 September 2019, after first online publication: the Authors Jolleen Hicks, Chantal Christopher, Thanalutchmy Lingah, and affiliation University of KwaZulu-Natal, Durban, South Africa have been added in this current version.]

### CLINICAL EDUCATOR AND STUDENT EXPERIENCES OF A RURAL INTER-PROFESSIONAL EDUCATION AND SUPERVISION PILOT PROGRAM: A MIXED METHODS STUDY

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**Introduction:** Inter-professional education (IPE) involves learning with and from health professionals from another discipline. No previous research has been presented on whether inter-professional education provides students with positive professional practice skills.

**Objectives:** The objective of the program was to create an opportunity for two students from different disciplines (occupational therapy and physiotherapy) to complete their clinical placement simultaneously to determine if clinical educators and students felt that IPE enhanced the students' professional development.

**Method:** The program was conducted full-time, over a five weeks period, from 5<sup>th</sup> March to the 6<sup>th</sup> April 2018. The program involved completion of a pre and post readiness for inter-professional learning scale and weekly tutorials with an IPE focus. A focus group was conducted at the end of the fifth weeks – one group for the students and another for the clinical educators.

**Results:** The outcomes of this program included students increased knowledge and understanding of the roles and expertise of team members as well as the importance of inter-professional collaboration in the delivery of healthcare.

**Conclusion:** The success of this program has supported the use of the IPE framework. Further programs would need to be conducted to determine the effectiveness with a larger and more diverse group of students and clinical educators.

### SCOPE OF PRACTICE – E.G. ADVANCED, EMERGING OR CHANGING SCOPE OF PRACTICE OR SCOPE OF PRACTICE

#### EXPLORING THE NEEDS OF, AND POTENTIAL SERVICE GAPS FOR PEOPLE LIVING WITH A MOVEMENT DISORDER: A COMPREHENSIVE NEEDS ANALYSIS

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**Introduction:** The Australian population is aging, the demand for health services is increasing, and the move to a more primary health care approach is enduring. A movement disorder affects both motor and non-motor functions and people can experience many challenges to engaging with daily occupations due to a combination of movement, cognitive, bladder/bowel and swallowing related problems. An occupational therapist is uniquely poised to assist people in this space to continue engaging with their daily occupations, maintain independence and improve overall quality of life.

**Objective:** To equip key South Australian stakeholders with a comprehensive needs analysis which captured the voice of people living with movement disorders and determined how their needs may be better serviced within the Northern Adelaide region.

**Approach:** The project aimed to capture the perceptions of people living with or caring for someone with a movement disorder. This was achieved through the facilitation of several events as part of the comprehensive needs analysis.

**Practice implications:** The comprehensive needs analysis revealed clinicians to have a propensity for attending to the hallmark motor symptoms and are either less experienced or unaware of the disabling spectrum of non-motor symptoms. Non-motor symptoms were reported as being major barriers to occupational engagement and the most likely to be overlooked or unattended to by health professionals operating in a disjointed system.

**Conclusion:** This comprehensive needs analysis revealed the needs, concerns and values of people living with or caring for someone with a movement disorder to be complex and dependent on age, gender and geographical location.

### UNDERSTANDING THE ROLE OF OCCUPATIONAL THERAPISTS IN WOMEN'S HEALTH: A SCOPING REVIEW

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**Background:** Women are more likely than men to experience health challenges such as disability, cardiopulmonary diseases, mental health disorders, and some types of cancer. These forms of ill health take on great complexity when the multiple roles and demanding daily routines of women are also considered. Evidence suggests the opportunity exists for occupational therapy to contribute to the quality of life of women, however, to date there has been no systematic assessment of the interventions, leaving questions regarding scope of practice.

**Objective:** This scoping review will describe the interventions currently being provided by occupational therapists to women and identify the occupational domains being addressed in treatment.

**Method:** Medline, CINAHL, Embase, OT seeker, PsychInfo and Cochrane Library databases were searched. Studies were included if they had a population of women aged 20–59 and addressed an occupational therapy intervention. Studies were excluded if they were not published in English or focussed on perinatal phase or infants' health as this was outside the scope of this study. Conventional content analysis was used to summarise the data from the articles and form results.

**Results:** Searches resulted in 1,325 articles to screen for eligibility. Thirteen were included in content analysis. The interventions being provided address Occupational Therapy Practice Framework domains of client factors, performance skills and occupations through programs working on motor skills, work, toileting and processing skills. Interestingly, not all aspects of these domains are addressed. No literature was found addressing the other domains of performance patterns and contexts and environments.

**Conclusion:** This review has identified the limited scope of occupational therapy practice with adult women. Occupational therapists should consider how they can provide occupationally focussed interventions while holistically addressing the unique needs of women.



### OCCUPATIONAL THERAPY COGNITION COMMUNITY OF PRACTICE - ENSURING OCCUPATIONAL THERAPISTS ARE HOLDING ON TO THEIR CURRENT SCOPE OF PRACTICE WITHIN THE AREA OF COGNITION

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**Introduction:** There is growing knowledge that people with cognitive impairments are at risk of poorer health outcomes in and out of hospital. The role of Occupational Therapists in this area is to complete assessments and interventions that focus on cognition as it relates to participation and occupational performance.

This group was established to ensure that the role of occupational therapy, in providing and planning care for people with cognitive impairments within the health care industry, is continually advancing, recognised and valued within the ever changing health environment.

**Objectives:** The aims of this group are to position the profession firmly in the field of cognition and to enhance the profile of the profession in cognition by supporting a consistent approach to the role of occupational therapy in cognition across the state.

**Approach:** Following the establishment of an executive steering committee a multifaceted approach is being used to guide the movement, including:

- Facilitating networking and innovation across sites and sectors.
- Arranging a branding and communication strategy with learning opportunities to build on the skills and expertise of occupational therapists.
- Evaluation will occur through the completion of surveys and evidenced by the production and completion of projects in the area of occupational therapy and cognition.

**Practice implications:** All occupational therapists in the state's health industry will have the confidence, skill and knowledge regarding their role in cognition. This group is outcomes focussed and aims to influence, drive and support occupational therapists to maintain and consolidate their scope of practice in cognition.

**Conclusion:** In bringing all state occupational therapists together, we aim to ensure that our profession will be recognised and grow with the growing recognition of the impact of cognition on health. This presentation will highlight the process of establishing the group and summarise the outcomes that have been achieved.

### USING THE TECHNOLOGY ACCEPTANCE MODEL TO UNDERSTAND CLINICIAN BARRIERS AND FACILITATORS IN USING EMERGING TECHNOLOGIES FOR REHABILITATION OF THE UPPER LIMB: A MIXED METHODS STUDY

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**Introduction:** It is estimated that up to 85% of stroke survivors have impairment of upper limb function following a stroke. Functional recovery of the paretic upper limb continues to be one of the greatest challenges faced by stroke survivors and their rehabilitation team. Clinical interventions that have the strongest evidence share a common emphasis on task-specific training applied with a higher intensity than usual care. However, there are major barriers associated with the provision of such interventions including limited rehabilitation resources and time constraints. Technological advances in robotics and gaming technology may provide potential solutions to these barriers.

Numerous robotic and gaming devices are now available, and studies have shown that use of these devices can have positive effects. These devices offer a platform for the intensity of practice of upper limb activities that is considered critical for synaptogenesis i.e. neuroplasticity. Despite the growing evidence for using emerging technologies in rehabilitation of the neurologically impaired upper limb, clinical adoption of such devices remains low. Understanding the barriers to implementation of may assist in promoting adoption.

**Objectives:** To explain rehabilitation clinicians intention to use emerging technologies in rehabilitation of the neurologically impaired upper limb, using the Extended Technology Acceptance Model (TAM2).

**Methods:** Mixed methods including surveys, focus groups and clinical observations. **Results:** 18 surveys were completed and 3 focus groups consisting of participants from occupational therapy, physiotherapy and exercise physiology. Clinical observations occurred over a period of 6 weeks in 3 settings, including public and private rehabilitation. Preliminary data analysis suggests that participants believe that emerging technologies can increase work productivity and effectiveness but are too complex to use.

**Conclusion:** The results from this study can be used to inform implementation strategies aimed at enhancing the uptake of emerging technologies into clinical practice.

### EARLY INTERVENTION INJURY MANAGEMENT VIA TELEHEALTH

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**Introduction:** Video-based triage and early intervention provide an opportunity in occupational therapy that has not seen a lot of use. This case study explains the technological setup, practical execution, and results.

**Objectives:**

**There are many advantages to telehealth for triage and early intervention:**

- injured workers get assessed and treated almost immediately post-injury ensuring they get the right advice in a timely manner - no matter where they are,
- their supervisors get immediate advice as to whether a worker has to stop working or what types of efforts to avoid when continuing to work, and
- the employers save on lost time and workers' compensation injury claims.

**Method:** Biosymm is one of Australia's largest occupational physiotherapy providers specialising in early intervention injury management and ergonomic risk reductions. The company works with major retail, industrial, mining, rail, and pharmaceutical clients, many of whom operate in isolated areas across Australia. A mixed in-person and online service is provided. To make this work for the clinicians, Biosymm have integrated video consultation bookings into their practice management software. Availability is checked across all their clinicians across all of Australia and New Zealand when a patient seeks to make a booking and the appointment is immediately scheduled right into the clinician's calendar. For the patients and employers, Biosymm have developed a branded mobile application that allows workers to join a video consultation through devices available at their workplace.

**Practice implications:** Since implementing video consultations for their clients, Biosymm have achieved more than a 98% stay-at-work rate compared to an industry average between 40% and 60% (WorkCover Queensland Statistics 2015/16).

**Conclusion:** Telehealth is a valid and successful means of delivering occupational therapy which is vastly underused.

### USING EVERYDAY TECHNOLOGIES IN PRACTICE / RESEARCH

#### IMPROVING FUNCTIONAL INDEPENDENCE AND QUALITY OF LIFE FOR CLIENTS WITH AN ACQUIRED BRAIN INJURY UNDERGOING COMMUNITY REHABILITATION USING ASSISTIVE TOILETING DEVICES

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**Introduction:** Activities of Daily Living for many individuals with an acquired brain injury (ABI) are highly dependent on staff intervention. Minimising involvement of staff through the use of assistive toileting devices may be beneficial in facilitating independence and improving the quality of life of these individuals.

**Objectives:** To investigate, review and trial technology to support people to toilet more independently; identify opportunities for change in current practice; determine any changes in quality of life for individuals using assistive toileting devices.

**Method:** A study of  $n = 16$  clients with an ABI undergoing community rehabilitation. Data were collected using outcome measures monitoring changes in independence (Functional Independence Measure and Functional Assessment Measure); and quality of life (Quality of Life after Brain injury) pre and post implementation of toileting devices. The data analysis will involve t-tests which will compare pre and post-implementation scores on these measures to look for a statistical significant difference.

**Practice implications:** This study offers a multidisciplinary approach to continence and toileting management, specifically for those individuals with an acquired brain injury. This is significant for practicing occupational therapists in understanding their role within the realm of continence and toileting, and recognising the importance of the occupational therapy profession in optimising independence and quality of life within this complex practice area.

**Conclusion:** It is anticipated that this study will highlight the importance of organisation wide toileting and continence assessments for clients, staff and families; continence management plans; reviews of policies and procedures.

### PODCASTING: AN UNTAPPED AND READILY ACCESSIBLE RESOURCE FOR OCCUPATIONAL THERAPISTS

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**Introduction:** There are over 550,000 podcasts in the world collectively hosting over 18 million episodes so it's a wonder that there are only a handful related to or run by Occupational Therapists. The podcasting medium is not only easily accessible to anyone with a smart phone or computer but also relatively cheap and easy to enter for content creators.

**Objective:** Demystifying the barriers to content creation in a podcasting space will hopefully encourage more therapists to engage in this online phenomenon for the purposes of professional promotion and knowledge dissemination.

**Method:** Occupational therapists have always been welcoming of new methods of engagement in learning, which in recent decades has included the rapid incorporation of online technologies into our daily roles of lifelong learners. Personal experience and knowledge around starting and running an Occupational Therapy podcast will be used to highlight the effectiveness and reach of this online platform.

**Practice implications:** Podcasting offers the ability to reach thousands of Occupational Therapists and expose them to amazing clinicians, new ideas, challenging and critical discussions and unique programs/techniques all in a time and place that is completely controlled and comfortable for them. It is a media that is not intended to replace journal articles and peer reviewed research but more to compliment them and broaden their reach. The opportunity for Occupational Therapists to capitalise on this high accessible free-market industry is currently being highly underutilised.

**Conclusion:** The uptake in podcasting for Occupational Therapists could yield far reaching positive implications in the form of greater exposure to individual's work as well as the shift of critical discussions to a much broader audience.

### SMARTWATCH TRAINING IMPROVES COGNITIVE FUNCTION AND CONFIDENCE IN TECHNOLOGY USE FOR PEOPLE WITH MULTIPLE SCLEROSIS

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**Introduction:** Cognitive dysfunction has been identified as a major concern for people with multiple sclerosis, a chronic neurodegenerative condition.

**Objective:** The aim of this study was to pilot the feasibility and effectiveness of a new Smartwatch based compensatory program for improving cognitive function in MS.

**Method:** Eight people with MS (5 treatment, 3 wait-list controls) completed behavioural (Cambridge Assessment of Prospective Memory Test (CAMPrompt), Behavioural Assessment of Dysexecutive Syndrome (BADS) Key Search) and self-report measures (Brief Assessment of Prospective Memory (BAPM), Perceived Deficits Questionnaire (PDQ)) along with carer reports at pre-intervention, post-4 weeks tailored smartwatch training, and at 8-week follow-up. Memory, executive function and smart technology usability outcomes were evaluated.

**Results:** Repeated Measures Analysis of Variance revealed partial eta-squared values indicative of medium-to-large effect sizes for improved memory, executive function and smart technology confidence. In terms of memory, the CAMPrompt and BAPM demonstrated a medium effect of smartwatch training (0.09, 0.10, respectively), and carers' BAPM revealed a large effect (0.19). For executive function, a large effect was observed on the BADS Key Search (0.24), and PDQ (0.22), corroborated by carers' PDQ (0.09). Additionally, the Confidence subscale of newly developed Smart Technology Satisfaction and Confidence Scale (STSCS) was significant ( $P = 0.03$ ) with large effect (0.57).

**Conclusion:** Behavioural assessment and carer report affirmed self-report of improvement in cognitive function after training. Participants' confidence in using smart technology to enhance compensatory cognitive strategies increased. Results provide preliminary support for the feasibility and effectiveness of a novel smartwatch based program on executive function and memory for people with MS.