

Conference Booklet

**Post Graduate Research Conference Organising Committee**

**Students:**

Salma Charania (Chair)

Alana Hutchison (Vice Chair)

Marie-Pier McSween

Nicola Bell

Katelyn Melvin

Riaz Uddin

Deokhoon Jun

Nafiseh Khalaj

Victoria Jones

Nathalia Costa

**Staff:**

Leanne Brennan

Pascale Nijssen

Professor Paul Hodges and the Research & Postgraduate Studies Committee

**Conference Graphic Designer:**

Phillip Normando

**The 2017 Post-Graduate Research Conference was generously supported by:**











SHRS Post-Graduate Research Conference Timetable Physiology Lecture Theatres

(Building 63), St Lucia, UQ

22November 2017

|  |  |  |  |
| --- | --- | --- | --- |
| Time | Session | | |
| 8:30am-9:00am | Registration | | |
| 9:00am-9:15am | Welcome | | |
| 9:15am-10:10am | Keynote panel discussion  Prof David Copland to facilitate a discussion with Prof Bill Vicenzino, Assoc Prof Sally Bennett, Assoc Prof Petrea Cornwell and Dr Barbra Timmer | | |
| 10:10am-10:15am | Cross-Over/Session Change | | |
| 10:15am-11:00am | Session 1a  (Room 348)  Neuroscience & Rehabilitation | Session 1b  (Room 358)  Participation & Disability | Session 1c  (Room 360)  Neuroscience & Rehabilitation |
| 11:00am-11:25am | Morning Tea | | |
| 11:25am-12:10pm | Session 2a  (Room 348)  Neuroscience & Rehabilitation | Session 2b  (Room 358)  Participation & Disability | Session 2c  (Room 360)  Healthy Start to Life |
| 12:10pm-12:15pm | Cross-Over/Session Change | | |
| 12:15pm-1:00pm | Session 3a  (Room 348)  Neuroscience & Rehabilitation | Session 3b  (Room 358)  Participation & Disability | Session 3c  (Room 360)  Professional Education & Practice |
| 1:00pm-2:00pm | Lunch | | |
| 2:00pm-2:45pm | Session 4a  (Room 348)  Neuroscience & Rehabilitation |  | Session 4b (Room 360) Neuroscience & Rehabilitation |
| 2:45pm-3:10pm | Afternoon Tea | | |
| 3:10pm-3:55pm | Networking Workshop with Lawrence Casey | | |
| 3:55pm-4:10pm | Infographic Competition | | |
| 4:10pm-4:30pm | Awards & Conference Close | | |

2017 School of Health and Rehabilitation Sciences Postgraduate Research Conference   
 Session Outline

Session 1: 10:15am – 11:00am

**Session 1a: Neuroscience & Rehabilitation (Room 348)**

|  |  |
| --- | --- |
| Time | Title of Presentation/Presenter |
| 10:15am-10:30am | IS STEPPED PSYCHOLOGICAL CARE THE SOLUTION? PERSPECTIVES OF STROKE HEALTH PROFESSIONALS AND PEOPLE WITH APHASIA ON MANAGING DEPRESSION.  **Caroline Baker** |
| 10:30am-10:45am | UNDERSTANDING THE BENEFITS OF ECOLOGICAL REHABILITATION FOR PATIENTS POST-STROKE  **Adriana Jorge Barbosa** |
| 10:45am-11:00am | EXPLORING THE LIVED EXPERIENCE OF THE TRANSITION FROM HOSPITAL TO HOME AFTER MILD STROKE THROUGH A MARITAL DYAD: AN INTERPRETATIVE PHENOMENOLOGICAL CASE STUDY ANALYSIS  **Tenelle Hodson** |

**Session 1b: Participation & Disability (Room 358)**

|  |  |
| --- | --- |
| Time | Title of Presentation/Presenter |
| 10:15am-10:30am | IMPACT OF PILATES INTERVENTION ON PAIN, FITNESS, AND PARTICIPATION IN CHILDREN AND YOUTH WITH JOINT HYPERMOBILITY SYNDROME: A SYSTEMATIC REVIEW  **Elizabeth Hornsby** |
| 10:30am-10:45am | **T**HE EFFECTIVENESS OF PHYSICAL ACTIVITY INTERVENTIONS IN ASIAN CHILDREN AND ADOLESCENTS: A SYSTEMATIC REVIEW  **Kazi Ahmed** |
| 10:45am-10:53am | HONOURS PRESENTATION, DETAILS TO BE PROVIDED.  **Bryan David** |
| 10.53am-11.00am | HONOURS PRESENTATION, DETAILS TO BE PROVIDED.  **Daniel Innes** |

**Session 1c: Neuroscience & Rehabilitation (Room 360)**

|  |  |
| --- | --- |
| Time | Title of Presentation/Presenter |
| 10:15am-10:30am | ISOMETRIC EXERCISE OR WAIT-AND-SEE ON PAIN, DISABILITY AND GLOBAL IMPROVEMENTS IN PATIENTS WITH LATERAL EPICONDYLALGIA: A RANDOMIZED CLINICAL TRIAL  **Viana Vuvan** |
| 10:30am-10:45am | UTILISING DOSIMETRY TO INFORM THE CLINICAL MANAGEMENT OF DYSPHAGIA IN PATIENTS UNDERGOING (CHEMO)RADIOTHERAPY FOR A HEAD AND NECK CANCER (HNC)  **Alana Hutchison** |
| 10:45am-11:00am | ARE INTRA-ARTICULAR FINDINGS ASSOCIATED WITH PATIENT REPORTED OUTCOMES PRIOR TO HIP ARTHROSCOPY?  **Matthew Freke** |

Session 2: 11:25am – 12:10pm

**Session 2a: Neuroscience & Rehabilitation (Room 348)**

|  |  |
| --- | --- |
| Time | Title of Presentation/Presenter |
| 11:25am-11:40am | CHARACTERISING THE PHYSICAL ACTIVITY BEHAVIOURS OF PEOPLE WITH PARKINSON’S DISEASE (*HONOURS PAPER*)  **Elissa Addison** |
| 11:40am-11:55am | HOW IS SYMPTOM FLARE DEFINED IN MUSCULOSKELETAL CONDITIONS: A SYSTEMATIC REVIEW  **Nathalia Costa** |
| 11:55am-12:10pm | ACTIVE VIDEO GAMES FOR REHABILITATION IN RESPIRATORY CONDITIONS: A SYSTEMATIC REVIEW AND META-ANALYSIS  **Joshua Simmich** |

**Session 2b: Participation & Disability (Room 358)**

|  |  |
| --- | --- |
| Time | Title of Presentation/Presenter |
| 11:25am-11:40am | A SYSTEMATIC REVIEW OF THE BARRIERS AND FACILITATORS TO THE PROVISION AND USE OF LOW TECH AND UNAIDED AAC SYSTEMS FOR PEOPLE WITH COMPLEX COMMUNICATION NEEDS AND THEIR FAMILIES  **Alison Moorcroft** |
| 11:40am-11:55am | EFFECTS OF PHYSICAL INACTIVITY AND SEDENTARY BEHAVIOUR ON PSYCHOLOGICAL DISTRESS AMONG YOUNG ADULTS: A LONGITUDINAL STUDY  **Riaz Uddin** |
| 11:55am-12:05pm | THE IMPACT OF CANINE ASSISTED INTERVENTIONS ON THE SOCIAL BEHAVIOURS OF CHILDREN ON THE AUTISM SPECTRUM: A SYSTEMATIC REVIEW  **Jessica Hill** |

**Session 2c: Healthy Start to Life (Room 360)**

|  |  |
| --- | --- |
| Time | Title of Presentation/Presenter |
| 11:25am-11:40am | INTERPERSONAL TRUST AND ITS ASSOCIATIONS WITH ATTACHMENT, MENTALIZATION, AND LANGUAGE: A RESEARCH PLAN  **Angela Clarke** |
| 11:40am-11:55am | SELF-CARE IN PRESCHOOL CHILDREN WITH CEREBRAL PALSY AND ITS RELATIONSHIP TO MANUAL ABILITY: A LONGITUDINAL STUDY  **Andrea Burgess** |
| 11:55am-12:05pm | COCHLEAR IMPLANTATION IN CHILDREN WITH SINGLE SIDED DEAFNESS: LISTENING AND LANGUAGE OUTCOMES (*HONOURS PAPER*)  **Anna Hyland** |

Session 3: 12:15pm – 1:00pm

**Session 3a: Neuroscience & Rehabilitation (Room 348)**

|  |  |
| --- | --- |
| Time | Title of Presentation/Presenter |
| 12:15pm-12:30pm | DYSPHAGIA FOLLOWING NON-TRAUMATIC SUBARACHNOID HAEMORRHAGE  **Katrina Webster** |
| 12:30pm-12:45pm | THE ACUTE APHASIA IMPLEMENTATION STUDY (AAIMS): A PILOT CLUSTER RANDOMISED CONTROLLED TRIAL  **Kirstine Shrubsole** |
| 12:45pm-1:00pm | THE EFFECTIVENESS OF EARLY PURPOSEFUL OCCUPATION-BASED RETRAINING IN INTENSIVE CARE: PROTOCOL FOR A SINGLE-SITE RANDOMISED CONTROLLED FEASIBILITY TRIAL  **Andrea Rapolthy-Beck** |

**Session 3b: Participation & Disability (Room 358)**

|  |  |
| --- | --- |
| Time | Title of Presentation/Presenter |
| 12:15pm-12:30pm | THE PSYCHOLOGICAL FEATURES OF PATELLOFEMORAL PAIN: A CROSS-SECTIONAL STUDY  **Liam Maclachlan** |
| 12:30pm-12:45pm | NECK/ SHOULDER AND VISION PROBLEMS AMONG SURGEONS: A SCOPING REVIEW  **Ameer Alhusuny** |
| 12:45pm-1:00pm | CLINICAL IMPAIRMENTS, PAIN AND DISABILITY IN POSTERIOR TIBIAL TENDON DYSFUNCTION: A SYSTEMATIC REVIEW  **Megan Ross** |

**Session 3c: Professional Education & Practice (Room 360)**

|  |  |
| --- | --- |
| Time | Title of Presentation/Presenter |
| 12:15pm-12:30pm | SENSORY MODULATION IN MENTAL HEALTH CARE: INVESTIGATING THE FACTORS AFFECTING IMPLEMENTATION IN INPATIENT MENTAL HEALTH UNITS  **Lisa Wright** |
| 12:30pm-12:45pm | INCLUDING A RELATIONSHIP FOCUS IN EARLY CHILDHOOD INTERVENTIONS: CHANGE IN THERAPY PRACTICE AFTER A ONE-DAY WORKSHOP  **Jacqui Barfoot** |
| 12:45pm-12:53pm | AN INVESTIGATION OF AGREEMENT BETWEEN CLINICAL EDUCATORS AND PEERS IN RATING SPEECH PATHOLOGY STUDENTS’ FOUNDATIONAL CLINICAL SKILLS (*HONOURS PAPER*)  **Hannah Reece** |
| 12:53pm-1:00pm | EXPLORING STUDENT LEARNING OUTCOMES FOLLOWING PARTICIPATION IN AN INTENSIVE EARLY LANGUAGE THERAPY PROGRAM (*HONOURS PAPER*)  **Eloise Bowen** |

Session 4: 2:00pm – 2:45pm

**Session 4a: Neuroscience & Rehabilitation (Room 348)**

|  |  |
| --- | --- |
| Time | Title of Presentation/Presenter |
| 2:00pm-2:15pm | DOES THIS PATIENT NEED REHAB? EXPLORING ACUTE AND REHABILITATION CLINICIANS’ DECISION-MAKING AROUND POST-STROKE REHABILITATION REFERRALS **Kerry Marnane** |
| 2:15pm-2:30pm | CURRENT PRACTICE IN APHASIA MANAGEMENT IN MALAYSIA: A RESEARCH PLAN **Zhi Zhi Diong** |
| 2:30pm-2:45pm | IMPROVING THE CARE OF THE OLDER ADULTS WITH OR AT RISK OF DELIRIUM IN THE ACUTE CARE SETTING: PATIENT AND CARER PERSPECTIVES **Karen Lee-Steere** |

**Session 4b: Neuroscience & Rehabilitation (Room 360)**

|  |  |
| --- | --- |
| Time | Title of Presentation/Presenter |
| 2:00pm-2:15pm | PSYCHOLOGICAL FACTORS NOT STRENGTH DEFICITS ARE ASSOCIATED WITH SEVERITY OF GLUTEAL TENDINOPATHY  **Melanie Plinsinga** |
| 2:15pm-2:30pm | THE EFFECT OF TARGETED HIP STRENGTHENING ON PAIN AND FUNCTION IN PEOPLE WITH KNEE OSTEOARTHRITIS: A SYSTEMATIC REVIEW AND META-ANALYSIS  **Andrew Hislop** |
| 2:30pm-2:45pm | COMPARISON OF GOAL ENGAGEMENT AND OUTCOMES FOR INDIVIDUALS WITH CHANGES IN SELF-AWARENESS AFTER ACQUIRED BRAIN INJURY  **Sarah Prescott** |

Physiology Building Floorplan



2017 School of Health and Rehabilitation Sciences Postgraduate Research Conference Keynote Speakers

|  |  |
| --- | --- |
|  | |
| **Head of School** | |
| **Professor Louise Hickson** | Louise is Professor of Audiology and Head of the School of Health and Rehabilitation Sciences. She is also Co-Director of the Communication Disability Centre at UQ. Louise is an elected Fellow and past President of the International Collegium of Rehabilitative Audiology and a Fellow and current President of Audiology Australia. Louise has published extensively in her field and received numerous professional awards including the 2013 International award from the American Academy of Audiology and the UQ leadership award in 2014. |
|  |  |
| **Panel Members**   |  |  | | --- | --- | | **Professor Bill Vicenzino** | Bill is a Professor in Sports Physiotherapy at the University of Queensland, Australia. He is the Director of the Master of Physiotherapy programs in Musculoskeletal & Sports Physiotherapy and of the Sports Injury Rehabilitation and Prevention for Health research unit. Bill's focus is on musculoskeletal health, pain and injury. He has received over $25 million in research funds (from NHMRC, ARC and industry) and conducts clinical trials on treatments such as exercise, manual therapy, injections, advice/education, and orthoses/taping. One trial on physiotherapy versus steroid injections for tennis elbow was rated as a top 15 /29,000 (PEDro-indexed) ‘…ground breaking trials that changed the way people are treated…’ and ‘…mark important milestones in the evolution of physiotherapy treatment…’ He has supervised 21 PhD completions and has communicated his research in over 200 peer-reviewed journal publications, 2 books, 35 chapters, and in over 300 podium/workshop presentations. | | **Associate Professor Sally Bennett** | Sally is an Associate Professor in Occupational Therapy in the School of Health and Rehabilitation Sciences at The University of Queensland. She has a long standing interest in evidence-based practice and knowledge translation with substantial research, teaching, service, and presentations in this area both nationally and internationally. She has approximately 90 publications and has received over $3.22 million in research funding. She is a co-editor of a text on evidence-based practice, and is a founder of OTseeker: a database of randomised controlled trials and systematic reviews relevant to occupational therapy used extensively worldwide. Currently she is leading a large NHMRC funded knowledge translation project to investigate the implementation of an occupational therapy program to support people with dementia and their carers who live at home in the community. She is actively involved in disseminating research about occupational therapy and is on the editorial board of both the Australian Occupational Therapy Journal and Canadian Journal of Occupational Therapy. | | **Associate Professor Petrea Cornwell** | A/Prof Cornwell is a speech pathologist with 20+ years clinical and research experience in the field of acquired brain injury (ABI) rehabilitation. She graduated from the University of Queensland with her PhD in 2003). For the past 14 years she has worked across academic and health care environments conducting her own research and supporting clinicians to develop their research skills. Her research investigates issues relating to goal-setting, assessment and management of cognitive-communication disorders, and interdisciplinary models of acquired brain injury rehabilitation. She has places significant emphasis on her research being focused on clinically relevant issues. Petrea is the author or co-author of approximately 100 publications, has been awarded approximately $1.5 million in grant funding, supported 10 doctoral candidates to completion, and is currently working with 12 doctoral candidates. | | **Dr Barbra Timmer** | Prior to commencing her PhD, Barbra gained clinical audiology experience at Australian Hearing and the Free University of Amsterdam, and industry experience at Sonova AG in Australia and Switzerland. One of her motivations in pursuing a PhD was to build a stronger bridge between academia and the hearing care industry, and she hopes to achieve this in her concurrent roles as Adjunct Senior Research Fellow, Audiology, at the School of Health and Rehabilitation Sciences and Research Programs Manager at Sonova AG. Her current research interests include the real-world challenges and audiological outcomes for adults with hearing impairment, the implementation of family-centred care in audiological practice, and teleaudiology. | | **Panel Facilitator** | | | **Professor David Copland** | Professor David Copland is a Principal Research Fellow and Speech Pathologist conducting research in the areas of language neuroscience, psycholinguistics, and neuroimaging of normal and disordered language. He is Deputy Chair of the Research and Postgraduate Studies Committee of the UQ School of Health and Rehabilitation Sciences and is a group leader at the UQ Centre for Clinical Research where he leads the Language Neuroscience Laboratory. | | |
|  | |
|  |  |
|  |  |
| **Afternoon Keynote**  **Job searching & Networking workshop** | |
|  |  |
|  | Having over 13 years’ experience in the Education, Employment and Disability sector, Lawrence has held a variety of roles from Disability advocacy and work readiness programs to heading up government funded initiatives targeting disadvantaged young people and their re-engagement with education and the workforce. As a Careers Adviser within the UQ Careers Service, Lawrence assists students to connect with industry and prepare for ever changing gradate recruitment processes. Additionally, he is responsible for guiding academic staff across the university on ‘Work Integrated Learning’ activities to provide students authentic experiences and career focussed assessment items. |
| **Mr Lawrence Casey** |  |

Table of Abstracts

[CHARACTERISING THE PHYSICAL ACTIVITY BEHAVIOURS OF PEOPLE WITH PARKINSON’S DISEASE 1](#_Toc498959209)

[EFFECTIVENESS OF PHYSICAL ACTIVITY INTERVENTIONS IN ASIAN CHILDREN AND ADOLESCENTS - A SYSTEMATIC REVIEW 2](#_Toc498959210)

[NECK/SHOULDER AND VISION PROBLEMS AMONG SURGEONS: A SCOPING REVIEW 3](#_Toc498959211)

[IS STEPPED PSYCHOLOGICAL CARE THE SOLUTION? PERSPECTIVES OF STROKE HEALTH PROFESSIONALS AND PEOPLE WITH APHASIA ON MANAGING DEPRESSION 4](#_Toc498959212)

[UNDERSTANDING THE BENEFITS OF ECOLOGICAL REHABILITATION FOR PATIENTS POST-STROKE 5](#_Toc498959213)

[INCLUDING A RELATIONSHIP FOCUS IN EARLY CHILDHOOD INTERVENTIONS: CHANGE IN THERAPY PRACTICE AFTER A ONE-DAY WORKSHOP 6](#_Toc498959214)

[EXPLORING STUDENT LEARNING OUTCOMES FOLLOWING PARTICIPATION IN AN INTENSIVE EARLY LANGUAGE THERAPY PROGRAM 7](#_Toc498959215)

[SELF-CARE IN PRESCHOOL CHILDREN WITH CEREBRAL PALSY AND ITS RELATIONSHIP TO MANUAL ABILITY: A LONGITUDINAL STUDY 8](#_Toc498959216)

[INTERPERSONAL TRUST AND ITS ASSOCIATIONS WITH ATTACHMENT, MENTALIZATION, AND LANGUAGE: A RESEARCH PLAN 9](#_Toc498959217)

[HOW IS SYMPTOM FLARE DEFINED IN MUSCULOSKELETAL CONDITIONS: A SYSTEMATIC REVIEW 10](#_Toc498959218)

[CURRENT PRACTICE IN APHASIA MANAGAMENT IN MALAYSIA: A RESEARCH PLAN 11](#_Toc498959219)

[ARE INTRA-ARTICULAR FINDINGS ASSOCIATED WITH PATIENT REPORTED OUTCOMES PRIOR TO HIP ARTHROSCOPY? 12](#_Toc498959220)

[THE IMPACT OF CANINE ASSISTED INTERVENTIONS ON THE SOCIAL BEHAVIOURS OF CHILDREN ON THE AUTISM SPECTRUM: A SYSTEMATIC REVIEW 13](#_Toc498959221)

[THE EFFECT OF TARGETED HIP STRENGTHENING ON PAIN AND FUNCTION IN PEOPLE WITH KNEE OSTEOARTHRITIS: A SYSTEMATIC REVIEW AND META-ANALYSIS. 14](#_Toc498959222)

[EXPLORING THE LIVED EXPERIENCE OF THE TRANSITION FROM HOSPITAL TO HOME AFTER MILD STROKE THROUGH A MARITAL DYAD: AN INTERPRETATIVE PHENOMENOLOGICAL CASE STUDY ANALYSIS 15](#_Toc498959223)

[IMPACT OF PILATES INTERVENTION ON PAIN, FITNESS AND PARTICIPATION IN CHILDREN AND YOUTH WITH JOINT HYPERMOBILITY SYNDROME: A SYSTEMATIC REVIEW 16](#_Toc498959224)

[UTILISING DOSIMETRY TO INFORM THE CLINICAL MANAGEMENT OF DYSPHAGIA IN PATIENTS UNDERGOING (CHEMO)RADIOTHERAPY FOR A HEAD AND NECK CANCER 17](#_Toc498959225)

[CHARACTERISING THE PHYSICAL ACTIVITY BEHAVIOURS OF PEOPLE WITH PARKINSON’S DISEASE 18](#_Toc498959226)

[Improving the care of the older Adult with or at risk of delirium in the acute care setting: patient and carer perspectives 19](#_Toc498959227)

[A CROSS-SECTIONAL STUDY OF PSYCHOLOGICAL FEATURES IN INDIVIDUALS WITH PATELLOFEMORAL PAIN 20](#_Toc498959228)

[DOES THIS PATIENT NEED REHAB? EXPLORING ACUTE AND REHABILITATION CLINICIANS’ DECISION-MAKING AROUND POST-STROKE REHABILITATION REFERRALS 21](#_Toc498959229)

[A SYSTEMATIC REVIEW OF THE BARRIERS AND FACILITATORS TO THE PROVISION AND USE OF LOW TECH AND UNAIDED AAC SYSTEMS FOR PEOPLE WITH COMPLEX COMMUNICATION NEEDS AND THEIR FAMILIES 22](#_Toc498959230)

[PSYCHOLOGICAL FACTORS NOT STRENGTH DEFICITS ARE ASSOCIATED WITH SEVERITY OF GLUTEAL TENDINOPATHY 23](#_Toc498959231)

[COMPARISON OF GOAL ENGAGEMENT AND OUTCOMES FOR INDIVIDUALS WITH CHANGES IN SELF-AWARENESS AFTER ACQUIRED BRAIN INJURY 24](#_Toc498959232)

[THE EFFECTIVENESS OF EARLY PURPOSEFUL OCCUPATION-BASED RETRAINING IN INTENSIVE CARE: PROTOCOL FOR A SINGLE-SITE RANDOMISED CONTROLLED FEASIBILITY TRIAL 25](#_Toc498959233)

[AN INVESTIGATION OF AGREEMENT BETWEEN CLINICAL EDUCATORS AND PEERS IN RATING SPEECH PATHOLOGY STUDENTS’ FOUNDATION CLINICAL SKILLS 26](#_Toc498959234)

[CLINICAL IMPAIRMENTS, PAIN AND DISABILITY IN POSTERIOR TIBIAL TENDON DYSFUNCTION – A SYSTEMATIC REVIEW 27](#_Toc498959235)

[THE ACUTE APHASIA IMPLEMENTATION STUDY (AAIMS): A PILOT CLUSTER RANDOMISED CONTROLLED TRIAL. 28](#_Toc498959236)

[ACTIVE VIDEO GAMES FOR REHABILITATION IN RESPIRATORY CONDITIONS: A SYSTEMATIC REVIEW AND META-ANALYSIS 29](#_Toc498959237)

[EFFECTS OF PHYSICAL INACTIVITY AND SEDENTARY BEHAVIOUR ON PSYCHOLOGICAL DISTRESS AMONG YOUNG ADULTS: A LONGITUDINAL STUDY 30](#_Toc498959238)

[ISOMETRIC EXERCISE OR WAIT-AND-SEE ON PAIN, DISABILITY AND GLOBAL IMPROVEMENT IN PATIENTS WITH LATERAL EPICONDYLALGIA: A RANDOMIZED CLINICAL TRIAL 31](#_Toc498959239)

[DYSPHAGIA FOLLOWING NON-TRAUMATIC SUBARACHNOID HAEMORRHAGE 32](#_Toc498959240)

[Sensory Modulation in Mental Health are: Investigating the factors affecting implementation in inpatient mental health unitS 33](#_Toc498959241)

# CHARACTERISING THE PHYSICAL ACTIVITY BEHAVIOURS OF PEOPLE WITH PARKINSON’S DISEASE

E. Addison (1), S. Lee (1), R. Lamont (1), and S. Brauer (1)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1).

INTRODUCTION

Many people with Parkinson’s disease (PD) fail to achieve the recommended physical activity guidelines. A daily step threshold to predict achievement of activity guidelines exists for older adults, but not for people with PD. This study examines differences between people who do/do not reach a steps threshold; and determines the value of this threshold to predict achievement of activity guidelines in people with PD.

METHODS

Fifty people with mild-moderate PD had their physical activity monitored over three days using an accelerometer. Participants were divided into two groups, dependent on daily steps (*active* ≥7000, *inactive* ≤6999). Personal characteristics, disease factors and physical function were collected and compared between the groups. The value of step grouping to predict achievement of activity guidelines was calculated.

RESULTS

Forty-four percent were classified as *active* and 56% as *inactive*. A faster Timed Up and Go (TUG) test time in the *active* group was the only difference between groups (p = 0.035). All bouts of discontinuous and continuous moderate to vigorous physical activity were greater in number and length in the *active group*, excluding the length of discontinuous moderate intensity bouts. The 7000 step/day threshold has a 73% positive predictive value and a 79% negative predictive value in correctly identifying those who will achieve intensity recommendations.

DISCUSSION

Factors influencing daily steps taken are complex and each individual with PD may have differing influencing factors. A 7000 step/day guideline could be recommended to people with PD to predict the attainment of weekly activity intensity guidelines.

# EFFECTIVENESS OF PHYSICAL ACTIVITY INTERVENTIONS IN ASIAN CHILDREN AND ADOLESCENTS - A SYSTEMATIC REVIEW

K. R. Ahmed (1), R. Uddin (1), T. Kolbe-Alexander (2), and A. Khan (1)

School of Health & Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1) and School of Health & Wellbeing, University of Southern Queensland, Ipswich, Australia (2).

INTRODUCTION

The health benefits of physical activity (PA) for children and adolescents are well established. Despite this, physical inactivity is on the rise among Asian school-aged children and adolescents. Although there are various interventions in developed countries to promote PA, it is unclear how successful the interventions (if any), have been to increase PA among children and adolescents of the Asian countries. The aim of this systematic review is to investigate the effectiveness of interventions to promote PA among Asian children and adolescents.

METHODS

Studies were identified through a comprehensive search of eight electronic databases. Original English-language studies published between January 1990 and August 2017 were included if they reported any interventions to increase PA with Asian children (aged 3-12 years) and adolescents (aged 13-18 years). The Downs and Black's checklist was used to assess each study’s methodological quality and for data extraction.

RESULTS

Ten of the 31 articles that met eligibility criteria were randomised controlled trials. Sixteen of the included studies were with children, ten with adolescents and five with both age groups. Most studies used self-report questionnaires to assess PA. All but 2 of the 23 studies that resulted in increased levels of PA, were school-based. There were 12 PA-focused interventions, some of which included a PA session on its own while others combined it with an educational component, and their average intervention length was 16 weeks. Some of the interventions resulted in significant improvements in PA knowledge, attitude and beliefs. Similar findings were observed for multi-component interventions (n=11) which included PA together with other outcomes. The other eight studies were not effective in increasing PA where six were multi-component.

DISCUSSION

School-based interventions, either PA-focused or multi-component, resulted in significant improvements in PA among Asian children and adolescent. Future research should use more rigorous study design and objective measures of PA.

# NECK/SHOULDER AND VISION PROBLEMS AMONG SURGEONS: A SCOPING REVIEW

A. Alhusuny (1), Y. Xie (1), V. Johnston (2), M. Cook (3), and A. Khalil (4)

School of Health and Rehabilitation Sciences, University of Queensland (1), RECOVER Injury Research Centre, University of Queensland (2), School of Earth and Environmental Sciences, Faculty of Sciences (3), and School of Medicine, University of Queensland, Brisbane, Australia (4)

INTRODUCTION

The last two decades has seen the introduction of Minimal Invasive Surgery (MIS) such as 2-Dimensional (2D)/ 3-Dimensional (3D) laparoscopic and robotic surgeries as one of the fundamental changes in the delivery of health care across many surgical specialties. Despite the benefits of MIS to patients, many studies have reported the concerning prevalence of musculoskeletal and vision symptoms among surgeons who regularly perform MIS. This study aims to examine and map the range of risk factors of neck/shoulder and/or vision problems for the surgical team members.

METHODS

This scoping review follows the methodology outlined by Arksey and O’Malley. The steps were: (1) Identification of the Research Question; (2) Identification of Relevant Studies; (3) Study Selection; (4) Charting of the Data; (5) Collating, Summarising, and Reporting. Critical appraisal of the eligible studies was assessed independently by two members of the research team. Electronic databases searched for relevant documents included: Pubmed, Embase, CINAHL, Cochrane Library, Web of Science and Scopus. Original journal articles and conference papers that focused on surgeons who perform MIS with neck/shoulder and vision problems of any duration.

RESULTS/DISCUSSION

The literature search conducted from April to July 2017, produced a total of 657 citations for potential inclusion after removing duplicates. 594 records were excluded after reading titles and abstracts. Among 63 full papers were assessed for eligibility, 53 full papers were excluded with reasons: 17 full papers were among ergonomics considerations, 17 full papers were about musculoskeletal disorders without vision problems, 15 full papers were about vision problems without musculoskeletal problems and 3 full papers were about indirect physical assessment through using of Surgical-Task Load Index (TLX-SURG). This study is still in progress.

# IS STEPPED PSYCHOLOGICAL CARE THE SOLUTION? PERSPECTIVES OF STROKE HEALTH PROFESSIONALS AND PEOPLE WITH APHASIA ON MANAGING DEPRESSION

C. Baker (1), L. Worrall (1), M. Rose (2), and B. Ryan (1)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1) and School of Allied Health, La Trobe University, Melbourne, Australia (2).

INTRODUCTION

Aphasia, commonly caused by stroke affects the ability to talk, understand, read and write. Approximately 60% of people with aphasia have depression 12 months after stroke onset. Australian psychological services after stroke are inadequate due to reduced resources. The multidisciplinary, evidence-based framework of stepped care offers a potential solution to the gap in services for people with aphasia. The aims of this research are to explore the perspectives of: 1) stroke health professionals on current practice and the barriers and facilitators to stepped psychological care in aphasia and 2) people with aphasia on experience of mood and/or depression and views of stepped psychological care.

METHODS

Two qualitative studies were conducted through 1) five focus groups with 39 stroke health professionals and 2) interviews with 10 people with aphasia. Verbatim transcripts were analysed and themes derived from the data using Interpretive Description.

RESULTS

Themes of current practice included an overarching theme that aphasia and mood is a challenging area of practice. Barriers exist, however stroke health professionals reported ways to overcome these, such as skill training. Preliminary findings of the experience of people with aphasia include the trauma at the onset of stroke and aphasia and the importance of communication and support in helping to manage emotions and mood.

DISCUSSION

This research challenges stroke health professionals and researchers to develop innovative ways to overcome the challenges of supporting mood change and depression in people with aphasia. Future research is warranted to explore strategies to implement components of stepped care, such as training for stroke health professionals.

# UNDERSTANDING THE BENEFITS OF ECOLOGICAL REHABILITATION FOR PATIENTS POST-STROKE

A. Barbosa (1), S. Bennett (1), and L. Gutafsson (1)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1)

INTRODUCTION

Globally, stroke is a burden that results in frequent impairments and high risk of death. A current challenge for stroke rehabilitation teams is how to include the elements recommended for rehabilitation within a hospital based environment. This includes the elements of client-centred care, individualised goal setting and family-centred care which are all promoted to enhance outcomes following a stroke.

The Sarah Network of Rehabilitation Hospitals in Brazil, has developed an ecological rehabilitation method that integrates many of these key elements for the treatment of neurological and orthopaedic conditions, including stroke. The Sarah Method was initially developed and research conducted for the rehabilitation of children. There has been limited research of the approach for adults. This study will conduct a preliminary exploration of the experiences and outcomes of the ecological rehabilitation method for stroke survivors in one Sarah hospital. The research questions are: What are the pre-post changes in functioning and quality of life for stroke patients who receive a rehabilitation using the Sarah method? What are the experience of patients and families?

METHODS

This research will include a pre-post study and a case study design. Participants will be recruited from a Neurological Rehabilitation ward at Sarah Hospital if they are stroke patients, first admission and adult. The pre-post study involves the administration of the Functional Independence Measure and Stroke Impact Scale with 70 stroke patients before and after attending an Ecological Rehabilitation approach. Statistical comparison will explore change over time. The case study will recruit three participants who are representative of early, middle, and late adulthood. Data will be collected through an audit of the patients’ electronic records to systematically record patient goals and the individual therapy program and activities. Each patient and their family/caregiver will also participate in email interviews at admission, discharge and two weeks after discharge.

# INCLUDING A RELATIONSHIP FOCUS IN EARLY CHILDHOOD INTERVENTIONS: CHANGE IN THERAPY PRACTICE AFTER A ONE-DAY WORKSHOP

J. Barfoot (1), P. Meredith (1), J. Ziviani (1, 2), and K. Whittingham (3, 4)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1), Children’s Health Queensland, Brisbane, Australia (2), Queensland Cerebral Palsy and Rehabilitation Research Centre, School of Medicine, The University of Queensland, Brisbane, Australia (3), and School of Psychology, The University of Queensland, Brisbane, Australia (4).

INTRODUCTION

There is growing evidence that the effectiveness of early intervention for children with developmental delays is related to the ability of parents to read their child’s cues and respond sensitively. However, literature suggests therapists spend very little time focusing on parent-child interactions in early childhood interventions. A one-day training event was developed to support changes in therapists’ knowledge about relationship-focused approaches for children with developmental delays, their therapy skills in applying a relationship-focus, and their comfort with emotion during therapy. The main aim of this study was to evaluate these outcomes and consider therapists’ application of the principles of this training.

METHODS

A longitudinal survey design with both quantitative and qualitative response data was conducted. Therapists from a range of settings across Queensland were invited to attend the training. In total, 137 therapists participated in the research by completing a brief purpose-designed survey: pre-, post- and three months after the training. Analysis of changes to therapist knowledge and perceptions of practice over time was conducted using SPSS (Version 22). Content analysis of qualitative data was conducted.

RESULTS

Preliminary results suggest improvements in knowledge scores and therapists’ perceptions of the value of including a relationship-based approach. Qualitative data indicated that therapists made shifts in their clinical practice to include more of a relationship focus. Therapists reported observing benefits for both parents and children with developmental delays when they were able to include a relationship focus. Some evidence suggested that misunderstandings of the approach remained, and participants commonly requested additional support and training.

DISCUSSION

Results of this study indicated that, while there were changes in participants’ knowledge and perceptions of a relationship-focused approach, further training and support is required for therapists to effectively implement a relationship-focused approach in their practice.

# EXPLORING STUDENT LEARNING OUTCOMES FOLLOWING PARTICIPATION IN AN INTENSIVE EARLY LANGUAGE THERAPY PROGRAM

E. Bowen (1), A. Hill (1), and T. Rose (1)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1).

INTRODUCTION

Speech-language pathology (SLP) students need to gain skills in the delivery of early language intervention during pre-professional training. It is therefore important clinical placements that provide exposure to evidence-based interventions and family-centred care (FCC) are incorporated into pre-professional programs. Intensive intervention programs may offer students valuable learning experiences difficult to attain in traditional clinical education models. This study aimed to 1) investigate changes in students’ perceived knowledge, skill, experience, and confidence for working with young children with language delay and their significant others following participation in an intensive Early Language Therapy Program (ELTP), 2) explore rationales for student participation in an intensive ELTP, and 3) explore student perceptions of the learning experience of an intensive ELTP.

METHODS

Thirteen SLP students participated in the ELTP on five consecutive mornings for three hours each day. Students completed surveys gathering both qualitative and quantitative data within the two weeks prior, and following participation in the ELTP.

RESULTS

Statistically significant differences were identified between the students’ pre- and post-program ratings of perceived level of knowledge, skill, experience, and confidence related to paediatric language. The most commonly reported reason for volunteering was to gain experience. Students reported that gaining knowledge, skills, experience, and confidence within a short time period was a key benefit of participation.

DISCUSSION

While previous literature has explored student learning outcomes following participation in intensive programs in fluency and dysphagia, the current study extends these findings by providing evidence of the positive learning outcomes for SLP students following intensive early language intervention. Findings from this study may be particularly relevant for university educators planning pre-professional clinical experiences for students.

# SELF-CARE IN PRESCHOOL CHILDREN WITH CEREBRAL PALSY AND ITS RELATIONSHIP TO MANUAL ABILITY: A LONGITUDINAL STUDY

A. Burgess (1), R. N. Boyd (1), J. Ziviani (2, 3), R. S. Ware (4, 5), and L. Sakzewski (1)

Queensland Cerebral Palsy and Rehabilitation Research Centre, Faculty of Medicine,

The University of Queensland, Brisbane, Australia (1), School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (2), Children’s Health Queensland, Brisbane, Australia (3), Menzies Health Institute Queensland, Griffith University, Brisbane, Australia (4), and Queensland Centre for Intellectual and Developmental Disability, The University of Queensland, Brisbane, Australia (5)

INTRODUCTION

Cerebral palsy (CP) is a neurodevelopmental disorder which occurs as a result of a non-progressive insult to the developing brain. Severity of impairments may range from minimal to severe, and impact the ability to be independent in self-care activities. This presentation will describe the longitudinal development (rate and limit) of self-care in children with CP aged 18 to 60 months with relationship to the Manual Ability Classification System (MACS).

METHODS

Two hundred and ninety children (n=178 (61%) male) were recruited from birth years 2004, 2005 (Victoria) and 2006 to 2009 (Queensland), Australia.  Children entered the study at 18 months or later depending on time of diagnosis and referral.  Children were classified by MACS and motor type.  Self-care was measured using the parent reported Pediatric Evaluation of Disability Inventory (PEDI) Functional Skills Scale, Self-care domain.  Measures were taken at 18, 24, 30, 36, 48 and 60 months of age.  At the 60 month appointment (n=242), MACS I=113(47%), MACS II= 61(25%), MACS III=24(10%), MACS IV=14(6%), MACS V=30(12%), unilateral spastic CP= 79(33%), bilateral spastic CP= 129 (53%), dystonic CP=12(5%) ataxic CP=7(3%), hypotonic CP=7 (3%), athetoid CP=8 (3%).  Longitudinal analysis was performed using mixed-effects linear regression modelling with the self-care trajectories represented as an interaction effect of time and MACS.

RESULTS

Participants were seen between 1 and 6 occasions (mean 3.4 SD X) with a total of 1063 unique observations. Distinct developmental trajectories for self-care over time were found for children in the MACS levels I to V.  Estimated change in scaled scores of the self-care domain of the PEDI per month for each MACS level (with 95% confidence interval) were MACS I=0.61 (0.57, 0.65), MACS II=0.46 (0.42, 0.51), MACS III=0.31 (0.23, 0.38), MACS IV=0.16 (0.07, 0.26), MACS V=0.03 (-0.04, 0.09).

DISCUSSION

This large Australian longitudinal study provides information on the rate of self-care development in children with CP according to MACS levels.  The clinical implications of this is that it will inform discussions on goal setting and the likely service requirements during early childhood. Future research directions involve extending the development of self-care trajectories into later childhood.

# INTERPERSONAL TRUST AND ITS ASSOCIATIONS WITH ATTACHMENT, MENTALIZATION, AND LANGUAGE: A RESEARCH PLAN

A. Clarke (1), P. J. Meredith (1), and T.A. Rose (1)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1).

INTRODUCTION

Interpersonal trust is the expectation held by an individual that the word, promise, or statement of another individual can be relied upon. Interpersonal trust has been linked with psychosocial adjustment, educational attainment, and long-term health outcomes. To date, the relevance of interpersonal trust to speech-language pathology (SLP) clinical practice has received little theoretical or empirical attention.

There are two key aims of this presentation. The first aim is to describe the concept of interpersonal trust, and discuss its relationship with parent-child attachment and mentalization (theory-of-mind). As part of this aim, the importance of interpersonal trust in adolescence will be explained, and theoretical support for a relationship between trust and language functioning proposed. The second aim is to outline the research plan for three quantitative studies. The proposed studies will investigate associations between trust, attachment, mentalization, and language skills, in older adolescents.

METHODS

In study one, approximately 100 male and female older adolescents (aged 16, 17, or 18 years) from a non-clinical population will be recruited to participate in a cross-sectional quantitative study. Study one will involve participants completing self-administered, online, survey measures of trust, attachment, and mentalization. In study two, approximately 30 male and female older adolescents (aged 16, 17, or 18 years) from a non-clinical population will be recruited to participate in a cross-sectional quantitative study. This study will employ self-report measures of trust, attachment, and mentalization (as per study one), plus face-to-face standardised assessment of language skills. Study three will replicate study two; however, participants will be recruited from a clinical population of older adolescents living with mental illness.

# HOW IS SYMPTOM FLARE DEFINED IN MUSCULOSKELETAL CONDITIONS: A SYSTEMATIC REVIEW

N. Costa (1), M.L. Ferreira (2), M. Cross (2), J. Makovey (2) and P.W. Hodges (1)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1), Institute of Bone and Joint Research, The Kolling Institute, Sydney Medical School, The University of Sydney, Australia (2).

INTRODUCTION

Musculoskeletal conditions are prevalent with major individual and society burden. Most fluctuate and it is essential to understand symptom flares. The term flare can have different meanings to patients, clinicians and researchers. Outcomes demand unambiguous measures of disease state to optimise understanding and management. This study aimed to systematically review the definitions for “flare” in musculoskeletal conditions, the derivation processes, and validation of definitions for the 12 most burdensome musculoskeletal conditions.

METHODS

Musculoskeletal conditions considered were the “major” and “other musculoskeletal conditions” determined by Global Burden of Disease (GBD) 2010 Study. We used the search term “flare” combined with each of those conditions to conduct a systematic search in MEDLINE, EMBASE CINAHL, AMED, PsycInfo and Lilacs from the earliest record to February 2017. No restriction was applied on study design or language. Studies were considered eligible if they; (1) derived a flare definition (phrase or domains), or (2) assessed validity of flare definitions/domains.

RESULTS

Studies deriving flare definitions were found for 9/12 musculoskeletal conditions. Validation studies were identified for 4/12. Diverse methods have been used to derive and/or validate a definition for flare or its domains in musculoskeletal conditions with varying consultation with patients, clinicians and experts. Definitions encompassed multiple domains and mostly included pain, impact on function, joint symptoms and emotional elements. Validation compared flare definitions/domains against measures of disease activity, clinicians’ diagnosis, response to drug therapy or a combination.

DISCUSSION

This systematic review suggests the concept of flare differs from other definitions commonly used to describe fluctuations of symptoms (e.g. episode, recurrence) and is considered to be a multilayered experience. Greater breadth of flare domains was used when patient’s perspectives were considered. As some elements are disease-specific flare definitions cannot be extrapolated to other conditions. Research regarding flare in back pain (most burdensome disease) is limited.

# CURRENT PRACTICE IN APHASIA MANAGAMENT IN MALAYSIA:

A RESEARCH PLAN

ZZ. Diong (1), T. Rose (1), C. Meyer (1), E. Power (2), and S. Samantha (3)

School of Health and Rehabilitation Sciences, The University of Queensland, St Lucia, Australia (1), Faculty of Health Sciences, The University of Sydney, Sydney, Australia (2), and School of Allied Health Sciences, Griffith University, Gold Coast, Australia (3).

INTRODUCTION

Aphasia is a common consequence of stroke, affecting 21-38% of acute stroke patients. Aphasia affects verbal understanding, expressive language, reading, and writing. The incidence of stroke is known to be higher in low-and middle-income countries (LMIC) compared to developed countries. Furthermore, the mortality and disability rate is 10 times higher in LMIC than in developed countries due to a lack of primary-care and post-stroke rehabilitation services. Data captured in the Acute Stroke Registry Malaysia shows there has been a substantial increase in the incidence of stroke in Malaysia in recent years, indicating there is a sizeable population of people living with aphasia in Malaysia. However, little is known about speech-language pathology (SLP) services for people living with aphasia in Malaysia. The overall aim of this research project is to obtain perspectives from SLPs, people with aphasia, and their family members regarding current and desired aphasia service provision in Malaysia throughout the continuum of care. This presentation will outline the research plan for the first two studies in this program of research.

METHODS

      Study one involves a literature review exploring aphasia management practices in countries with emerging SLP services. In Study two, approximately 200 SLPs practicing in Malaysia will be recruited to complete an online survey exploring; 1) current practice in SLP services for people with aphasia in Malaysia, 2) challenges and facilitators in providing aphasia services in Malaysia, and 3) research priorities for future aphasia studies in Malaysia. The survey will collect both quantitative data, which will be reported descriptively, and qualitative data which will be analysed using qualitative content analysis. Findings will inform the subsequent phase of research which will involve interviews with SLPs, people with aphasia, and their family members.

# ARE INTRA-ARTICULAR FINDINGS ASSOCIATED WITH PATIENT REPORTED OUTCOMES PRIOR TO HIP ARTHROSCOPY?

M. Freke, (1,2), K. Crossley (3), K. Sims (2), T. Russell (2), A. Semciw (2)

Enoggera Health Centre, Gallipoli Barracks, Enoggera, Queensland, Australia (1), School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (2), and School of Allied Health, College of Science, Health and Engineering, La Trobe University, Australia (3).

INTRODUCTION

The relationship between hip pathology and patient reported outcome (PRO) responses post hip surgery has been previously investigated. No studies have investigated the relationship between pathology and PRO responses in people prior to surgery. The objectives of this study were to: 1) Determine the prevalence of chondral and labral pathology identified during hip arthroscopy, and; 2) Determine the association between intra-articular findings and PRO scores in a pre-arthroscopy hip pain population.

METHODS

Sixty-seven (22 female) participants scheduled for hip arthroscopy after clinical examination and radiographic assessment completed a series of PROs (Hip Disability and Osteoarthritis Outcome Score (HOOS); International Hip Outcome Tool (iHOT-33); Pain on Activity visual analogue scale (POA)). Pathology discovered/addressed during arthroscopy was classified. Univariate and multivariate linear regression models were used to assess the relationship between demographics, pathology and PRO responses.

RESULTS

91% of participants had labral pathology; 76% had acetabular chondropathy and 31% had femoral head chondropathy. Across the ten PRO subscales, severe femoral head chondropathy and large labral tears had the greatest number of significant associations with PRO scores. The strongest association was with ‘HOOS symptoms and stiffness’ subscale, where severe femoral head chondropathy explained 26% of variability in symptoms and stiffness, when adjusted for BMI and presence of pincer morphology (p=0.002).

DISCUSSION

Within this population, severe femoral head chondropathy and large labral tears, often undetected with imaging, were a relatively common finding during hip arthroscopy and were associated with poorer pre-operative scores on the HOOS-S and HOOS-A subscales, as well as the POA. Movement-related questions make up a high percentage of these subscales. However, at best, pathology only explained 26% of the variability. Conversely, at least 74% of PRO response variability arises from factors other than intra-articular pathology and could potentially be addressed non-surgically.

# THE IMPACT OF CANINE ASSISTED INTERVENTIONS ON THE SOCIAL BEHAVIOURS OF CHILDREN ON THE AUTISM SPECTRUM: A SYSTEMATIC REVIEW

J. Hill (1), J. Ziviani (1), C. Driscoll (1) and J. Cawdell-Smith (2)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1), and School of Agriculture and Food Sciences, The University of Queensland, Brisbane, Australia (2).

INTRODUCTION

Autism spectrum disorder (ASD) is a neurodevelopmental condition impacting an individual’s social communication and interaction. Recent literature has highlighted the positive impact canine assisted interventions (CAI) can have on the social behaviours of children on the autism spectrum. Our aim was to systematically review the current literature exploring the impact of CAIs on the social behaviours of children on the autism spectrum.

METHODS

A comprehensive review was completed following the preferred reporting items for systematic reviews and meta-analyses (PRISMA). Studies were included if participants were under 18, had a primary diagnosis of ASD and participated in CAIs with an aim to explore social behaviour outcomes. The quality of studies was appraised using two formal checklists.

RESULTS

A total of 13 articles were found to meet criteria, with participants ranging from 3 to 18 years. Studies consisted of eight research designs, all including a relatively small sample size, between 1 to 26 participants. Social behaviours identified within this review included: verbal communication, non-verbal communication, desired behaviours and undesired behaviours. Four studies reported positive results for verbal communication, whilst three reported mixed results. Four reported positive results for non-verbal communication, two reported mixed results and one reported no change. Five reported positive results for desired behaviours, six reported mixed results and one reported no change. Four studies reported positive results for undesired behaviours, whilst four reported mixed results.

DISCUSSION

Studies were characterised by methodological weaknesses, including: small sample size, inconsistent use of terms, lack of randomisation, lack of blinding, and minimal use of treatment protocols. This reduced the studies’ generalisability and transferability, and increased risk of bias. Whilst outcomes were mixed, preliminary evidence suggest possible benefits of CAI with children on the autism spectrum. Further research is required to support the efficacy of including canine assisted therapy within traditional therapy modalities.

# THE EFFECT OF TARGETED HIP STRENGTHENING ON PAIN AND FUNCTION IN PEOPLE WITH KNEE OSTEOARTHRITIS: A SYSTEMATIC REVIEW AND META-ANALYSIS.

A.C. Hislop (1,2), N. Collins (2), K. Tucker (2), M. Deasy (2), and A. Semciw (2)

Department of Physiotherapy, The Prince Charles Hospital, Brisbane, Australia (1), School of Health & Rehabilitation Sciences, University of Queensland, Brisbane, Australia (2).

INTRODUCTION

Land-based exercise, especially quadriceps strengthening, is the cornerstone of conservative management of people with knee osteoarthritis (KOA). Research has demonstrated that it has a mild to moderate short-term effect on function and patient reported outcomes (PROs). Few studies have compared the content and type of exercise interventions employed. The aim of this study is to investigate the effect of hip strengthening on physical function and PROs for people with KOA.

METHODS

A systematic review with meta-analysis of randomised controlled trials was conducted. Studies were identified by a search of electronic databases including MEDLINE, EMBASE, Sportdiscus, Cochrane and Cinahl. Studies were included if they reported an RCT for the following: population- knee osteoarthritis; intervention- hip strengthening; comparison- control or alternative exercise intervention (e.g. quadriceps strengthening); outcome- pain, physical function tests, patient reported outcomes. Standardised mean differences were calculated and pooled in a meta-analysis with a random effects model. Sub-group analyses were also performed by grouping according to resistance or neuromuscular exercises.

RESULTS

11 trials were identified, with eight able to be pooled in a meta-analysis. Hip and quadriceps exercises vs quadriceps alone: significantly more effective for physical function (5 studies, -0.95[-1.64,-0.26]) but not pain (5 studies, 0.09[-0.96,0.79]) or patient reported outcomes (5 studies, -0.74[-1.56,0.08]). Resistance exercise appears more effective than neuromuscular for improving patient reported outcomes (p<0.0001).

DISCUSSION

The addition of hip strengthening to quadriceps strengthening can provide additional functional benefit for those with knee osteoarthritis. Resistance exercises are more favorable to neuromuscular exercises with patient reported outcomes.

# EXPLORING THE LIVED EXPERIENCE OF THE TRANSITION FROM HOSPITAL TO HOME AFTER MILD STROKE THROUGH A MARITAL DYAD: AN INTERPRETATIVE PHENOMENOLOGICAL CASE STUDY ANALYSIS

T. Hodson (1), L. Gustafsson (1), and P.Cornwell (2)

School of Health and Rehabilitation Sciences, University of Queensland, St Lucia,

Australia (1), and School of Allied Health Sciences, Griffith University, Mt Gravatt, Australia (2)

INTRODUCTION

Historically, there has been an assumption that people with mild stroke are free of ongoing difficulties or impact on meaningful occupations and quality of life. Recent research has suggested that this may not be the case, with people in this population identifying difficulties upon return home and participation in complex activities associated with daily life. People with mild stroke comprise approximately a third of the stroke population within Australia, and therefore it is vital that any ongoing difficulties they face are identified and targeted.

This study aimed to investigate the phenomenon of returning home after an acute stay in hospital, following a mild stroke. Furthermore, it aimed to identify what this experience looks like within the context of a marital dyad and under a novel allied health led, stroke specific self-management (SSSM) program.

METHODS

The study adopted an interpretative phenomenological analysis case study approach and included one marital dyad (male participant with mild stroke and female significant other). The two participants each completed four semi-structured interviews at 1-, 3-, 6- and 9- months post-hospital discharge. Analysis of interviews was completed by the first author, with cross-checking completed by the second author.

RESULTS

Preliminary analysis indicates five key themes: (1) The Unexpected, Undesired and Short-Lived, (2) The Unknown, (3) The Unseen, (4) The New Normal, and (5) Services: Situational Satisfaction.

DISCUSSION

This study provides the first in-depth exploration of life after mild stroke from the perspective of one marital dyad. Findings from this study support previous knowledge regarding residual impacts of mild stroke, including physical issues and fatigue. Novel findings shed light on contextual factors that impact on the mild stroke transitional experience.

# IMPACT OF PILATES INTERVENTION ON PAIN, FITNESS AND PARTICIPATION IN CHILDREN AND YOUTH WITH JOINT HYPERMOBILITY SYNDROME: A SYSTEMATIC REVIEW

E. Hornsby (1, 2), and L. M. Johnston (1)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1), andKids Care Physiotherapy, Brisbane, Australia (2)

INTRODUCTION

The study aims to evaluate the effectiveness of Pilates on pain, fitness and participation in children and youth with Joint Hypermobility Syndrome. The study is a systematic review.

METHOD

Six electronic databases were searched from inception to August 2016 using the term ‘Pilates’. Articles were included if (1) published in English in a peer-reviewed journal, (2) reporting original data for a Pilates intervention and (3) with children or youth 0-22 years of age. Two reviewers independently screened all studies, then extracted and assessed the data. Level of evidence was classified using NHMRC criteria and quality was assessed using the PEDRO scale.

RESULTS

The searches identified 1028 papers. Eleven fulfilled the inclusion criteria. Findings showed that Pilates may reduce pain (n=2, all p<0.001), improve muscle strength (n=5, p<0.017), and flexibility (n=5, p<0.012) in children with musculoskeletal pathology. Three studies were high quality, six were medium quality and two were poor quality. No studies were specific to Joint Hypermobility Syndrome. Pilates content varied from group-based mat classes to individualized programs using specialized equipment. Dose and intervention frequency varied widely.

DISCUSSION

This is the first systematic review of the effect of Pilates intervention for children and youth. Although research is in the preliminary stage, Pilates does appear to be able to reduce pain and improve strength and flexibility in children with musculoskeletal pathology. No specific studies are available for children or youth with Joint Hypermobility Syndrome and research is warranted to test the potential effectiveness of Pilates for children and youth with Joint Hypermobility Syndrome.

# UTILISING DOSIMETRY TO INFORM THE CLINICAL MANAGEMENT OF DYSPHAGIA IN PATIENTS UNDERGOING (CHEMO)RADIOTHERAPY FOR A HEAD AND NECK CANCER

A. Hutchison (1,2), B. Cartmill (1,2,3), L. Ward (1, 2), and L. Wall (1,2)

Queensland Health, Centre for Functioning & Health Research (1), University of Queensland, School of Health and Rehabilitation Sciences, Division of Speech Pathology (2), and Princess Alexandra Hospital, Speech Pathology Department (3).

INTRODUCTION

Radiotherapy therapy (RT) is a common treatment approach used for patients with non-surgical head and neck cancer (HNC). The complex geometrical arrangement of structures within the head and neck, and the commonly arising sites for primary disease, complicates the delivery of RT. Patients experience a multitude of acute, chronic and debilitating sequelae during and long-term post RT. A number of anatomical structures in the head and neck region have been identified in previous studies as “dysphagia-aspiration risk structures” (DARS), with increasing RT dose to these structures impacting on optimal swallowing function, leading to dysphagia. Evidence suggests that active sparing, or RT dose optimisation, to these structures can minimise the damage to the swallowing mechanism, due to the lower doses received by non-target surrounding structures (Eisbruch et al., 2004; Levendag, 2007). This overall objective of this thesis is to examine how optimising radiotherapy treatment techniques may inform the clinical management of dysphagia in patients undergoing (chemo)radiotherapy ([C]RT).

METHODS

Four different studies will be included within this thesis. These include: 1) an electronic survey which aims to explore the current practices and perspectives of speech pathologists and radiation therapists; 2) a systematic review coalescing the current evidence surrounding swallow structure sparing radiotherapy techniques; 3) prospective evaluation of the interplay between dose and physiological change within the oropharyngeal swallow mechanism; 4) comparison of dose delivered to swallowing structures across two RT techniques.

# CHARACTERISING THE PHYSICAL ACTIVITY BEHAVIOURS OF PEOPLE WITH PARKINSON’S DISEASE

E. Addison (1), S. Lee (1), R. Lamont (1), and S. Brauer (1)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1).

INTRODUCTION

Many people with Parkinson’s disease (PD) fail to achieve the recommended physical activity guidelines. A daily step threshold to predict achievement of activity guidelines exists for older adults, but not for people with PD. This study examines differences between people who do/do not reach a steps threshold; and determines the value of this threshold to predict achievement of activity guidelines in people with PD.

METHODS

Fifty people with mild-moderate PD had their physical activity monitored over three days using an accelerometer. Participants were divided into two groups, dependent on daily steps (active ≥7000, inactive ≤6999). Personal characteristics, disease factors and physical function were collected and compared between the groups. The value of step grouping to predict achievement of activity guidelines was calculated.

RESULTS

Forty-four percent were classified as active and 56% as inactive. A faster Timed Up and Go (TUG) test time in the active group was the only difference between groups (p = 0.035). All bouts of discontinuous and continuous moderate to vigorous physical activity were greater in number and length in the active group, excluding the length of discontinuous moderate intensity bouts. The 7000 step/day threshold has a 73% positive predictive value and a 79% negative predictive value in correctly identifying those who will achieve intensity recommendations.

DISCUSSION

Factors influencing daily steps taken are complex and each individual with PD may have differing influencing factors. A 7000 step/day guideline could be recommended to people with PD to predict the attainment of weekly activity intensity guidelines.

# Improving the care of the older Adult with or at risk of delirium in the acute care setting: patient and carer perspectives

K. Lee-Steere (1, 2), A. Mudge (2, 3), P. McRae (2), S. Fraser (4), S. Bennett (1), and J. Liddle (5)

School of Health and Rehabilitation Sciences, University of Queensland, Brisbane, Australia (1), The Royal Brisbane and Woman’s Hospital, Brisbane, Australia (2), Institute of Health and Biomedical Innovation, Queensland University of Technology, Brisbane, Australia (3), The Prince Charles Hospital, Brisbane, Australia (4), and School of Information Technology and Electrical Engineering, University of Queensland, Brisbane, Australia (5)

INTRODUCTION

Delirium is a common and serious complication in hospitalized older adults and increases the risk of adverse outcomes. It is also distressing to patients, families and care providers. Multi-professional non-pharmacological strategies for delirium prevention are well evidenced. The ‘Eat Walk Engage’ (EWE) program was developed at Royal Brisbane and Women’s Hospital (RBWH) as a multi-component delirium prevention program for older inpatients. Partnering with patients and staff, the EWE program supports multidisciplinary teams to improve care for older patients through implementation of evidence-based strategies. Preliminary findings indicate the program improves patient outcomes including falls, pressure injuries and length of stay. However, evaluation has not yet addressed patient perspectives of the program.

METHODS

This descriptive qualitative study will explore older patient perspectives of delirium and delirium prevention. It will analyse patient interview data collected as part of a multisite trial implementing the EWE program in hospitals in South-East Queensland called CHERISH. Interviews were conducted in the implementation and control wards in three hospitals. Participants were 10 patients in each ward, aged 65 years or older, admitted for three days or more, who were able to give consent. Semi-structured interviews administered included open-ended and closed questions and observations of the environment. Interviews explored patient’s experience of activities related to nutrition, mobility and cognition; perceived importance of participation; barriers and enablers to participation; and experiences and perspectives of confusion or delirium. Interviews were audio-recorded and transcribed verbatim. Analysis of transcriptions will apply framework analysis, informed by the Promoting Action on Research Implementation in Health Services (PARiHS) implementation framework. This will enable comparisons and explorations of differences in experiences, beliefs and perspectives of participants according to their characteristics and exposure to the EWE program. Understanding the range of perspectives will assist in future development and translation of the program, to improve patient outcomes.

# A CROSS-SECTIONAL STUDY OF PSYCHOLOGICAL FEATURES IN INDIVIDUALS WITH PATELLOFEMORAL PAIN

L.R. Maclachlan (1), M.L.G. Matthews (1), N.J. Collins (1), P.W. Hodges (1), and B. Vicenzino (1)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1).

INTRODUCTION

The three aims of the study were to: 1) compare psychological profiles between individuals with and without patellofemoral pain; 2) compare psychological profiles, physical function and pain between subgroups with different levels of patellofemoral pain severity; and 3) explore relationships between psychological factors, pain and physical function in this condition.

METHODS

100 participants (72 females, mean+SD age 27+5 years, BMI 25.3+4.8 kg/m2) with non-traumatic patellofemoral pain completed measures of pain severity, disability, kinesiophobia, catastrophizing, anxiety and depression. The patellofemoral group were partitioned into less- and more-severe groups using K-means cluster analysis of all sub-scales of the Knee injury and Osteoarthritis Outcome Score. 50 pain-free controls, matched by sex, age and activity level (36 females, age 27±5, BMI 22.9±4.46) also completed psychological measures.

RESULTS

Overall, there were no differences in psychological features between patellofemoral pain and pain-free groups. When sub-grouped by severity, the more-severe patellofemoral pain group demonstrated significantly higher levels of depression and catastrophizing than pain-free controls (p<0.01). When compared to the less-severe cases of patellofemoral pain, the more severe group had significantly higher pain severity, kinesiophobia, depression, catastrophizing and disability (p<0.01). The only significant correlation was that between kinesiophobia and knee-related quality of life (r = -0.6; p = <0.0001).

CONCLUSION

Physiotherapists assessing and managing patellofemoral pain need to be aware of the link between physical and psychological presentations. The presence of high levels of pain and disability in patients presenting with more severe patellofemoral pain warrants early consideration of psychological factors.

# DOES THIS PATIENT NEED REHAB? EXPLORING ACUTE AND REHABILITATION CLINICIANS’ DECISION-MAKING AROUND POST-STROKE REHABILITATION REFERRALS

K. Marnane (1), L. Gustafsson (1), and S. Bennett (1)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1).

INTRODUCTION

Cerebrovascular accident, or stroke, is one of the world’s leading causes of mortality and disability. Many stroke survivors require rehabilitation – in an inpatient, outpatient or community setting – to address the physical, cognitive, and social impacts of stroke. There is growing literature around the patient- and non-patient-related factors associated with the receipt or denial of rehabilitation post-stroke. However, these factors do not fully predict referral and rehabilitation practices, and it is believed that the decision-making processes undertaken by clinicians involved in stroke care account for variations in these practices.

This Queensland-based, qualitative study aims to: (1) explore the processes and experiences of acute stroke clinicians around referral to post-stroke rehabilitation; and (2) explore the processes and experiences of rehabilitation clinicians, about acceptance of patients for rehabilitation. The methodology and early stage findings will be described in this presentation, while data collection and analysis is ongoing.

METHODS

This study is utilising mixed-methods ethnographic methodology, across five (5) public hospitals in Queensland. This methodology was chosen as the aims of the study are exploration of the practices of the ‘cultural groups’ of acute and rehabilitation clinicians. Meetings of clinicians, where rehabilitation is often discussed and decisions are made, will be observed and recorded with field notes and audio recording. Documents used in the rehabilitation decision-making and referral process will also be examined. Finally, key informant interviews will be utilised to delve deeper into the meanings behind actions and processes observed by the researcher at the site.

Data analysis will consist of constant cyclical analysis in the field, as well as content analysis of transcripts, field notes, and documents. The data will be coded – organised into domains and factors – by the primary researcher, in collaboration with the co-researchers, and used to produce rich, thick descriptions of the rehabilitation decision-making processes of clinicians.

RESULTS/DISCUSSION

Early findings and reflections will be discussed in this presentation.

# A SYSTEMATIC REVIEW OF THE BARRIERS AND FACILITATORS TO THE PROVISION AND USE OF LOW TECH AND UNAIDED AAC SYSTEMS FOR PEOPLE WITH COMPLEX COMMUNICATION NEEDS AND THEIR FAMILIES

A. Moorcroft (1), N. Scarinci (1), and C. Meyer (1)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1)

INTRODUCTION

Speech pathologists may introduce augmentative or alternative communication (AAC) systems to people who are unable to use speech for everyday communication. Systems may be high tech (i.e., electronic devices), low tech (e.g., symbol books), or unaided (e.g., sign language). Despite the benefits AAC systems, they are significantly underutilised by people with complex communication needs. While there has been a systematic review investigating the barriers and facilitators to the provision and use of high tech AAC systems, no such review has been conducted with regards to low tech and unaided systems. Therefore, the current review aimed to synthesise the barriers and facilitators to the provision and use of low tech and unaided AAC systems.

METHODS

Relevant literature was identified via a systematic search strategy. Retrieved papers were included if they (1) explored the real or perceived barriers and/or facilitators to communication using low tech or unaided AAC; and (2) contained findings in the form of qualitative data. Included articles (n=43) were evaluated using the Critical Appraisal Skills Programme. Qualitative framework analysis was then completed with reference to the International Classification of Functioning, Disability, and Health (ICF).

RESULTS

Most barriers and facilitators were coded as contextual factors in the ICF. Of most prominence were environmental factors, including attitudes of and supports provided by professionals, family members, and society at large. Themes were also identified with regards to personal factors, including the user’s own attitude, socioeconomic status, and culture. Beyond these contextual factors, the remaining codes related to body functions such as cognition and movement.

DISCUSSION

There are numerous barriers to the provision and use of low tech and unaided AAC systems, which may contribute to the inadequate use of these systems by people with complex communication needs. Suggestions for reducing these barriers are presented at professional, organizational, university, and government levels.

# PSYCHOLOGICAL FACTORS NOT STRENGTH DEFICITS ARE ASSOCIATED WITH SEVERITY OF GLUTEAL TENDINOPATHY

M.L. Plinsinga (1), B. Coombes (2), R. Mellor (1), P. Nicolson (3), A. Grimaldi (4), P. Hodges (5), K. Bennell (3), and B. Vicenzino (1)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1), School of Biomedical Sciences, The University of Queensland, Brisbane, Australia (2), Centre for Health, Exercise and Sports Medicine, Department of Physiotherapy, University of Melbourne, Carlton, Australia (3), Physiotec, Tarragindi, Australia (4), and NHMRC Centre of Clinical Research Excellence in Spinal Pain, Injury and Health, School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (5).

INTRODUCTION

Gluteal tendinopathy is the most commonly presenting lower limb tendinopathy to general practice. It has a high prevalence among middle-aged females and contributes substantially to personal suffering and global burden of care. The aim was to compare a range of physical and psychological characteristics between subgroups of severe and less severe cases of gluteal tendinopathy.

METHODS

A multi-centre cross-sectional cohort of 204 participants (mean age 55 years, 82% female) who had a clinical diagnosis of gluteal tendinopathy with MRI confirmation were assessed. A range of physical and psychosocial characteristics were recorded. Pain and disability was measured with the VISA-G Questionnaire. A cluster analysis was used to identify mild, moderate and severe subgroups based on VISA-G scores. Between group differences were then evaluated with a MANCOVA, including sex and study site as covariates, followed by a Bonferroni post-hoc test. Significance was set at 0.05.

RESULTS

There were significantly higher pain catastrophizing and depression scores between mild, moderate and severe subgroups. Lower pain self-efficacy scores were found in the severe group compared to the moderate and mild groups. Greater waist girth and body mass index, lower activity levels and poorer quality of life was reported in the severe group compared to the mild group. Hip abductor muscle strength and hip circumference did not differ between subgroups of severity.

DISCUSSION

Individuals with severe gluteal tendinopathy present with psychological distress, poorer quality of life, and greater BMI and waist girth. These features place these individuals at greater risk of health care utilisation and work absenteeism. Research into the economic impact of severe gluteal tendinopathy is needed.

# COMPARISON OF GOAL ENGAGEMENT AND OUTCOMES FOR INDIVIDUALS WITH CHANGES IN SELF-AWARENESS AFTER ACQUIRED BRAIN INJURY

S. Prescott (1), J. Fleming (1),and E. Doig(1)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1).

INTRODUCTION

Changes in self-awareness are common after acquired brain injury (ABI), including impaired self-awareness or hyper-awareness of impairments. These changes in self-awareness result in reduced community and social participation and impact on rehabilitation engagement. Understanding how engagement in rehabilitation differs according to changes in self-awareness is therefore necessary, particularly engagement in goal setting which is a fundamental rehabilitation process. Despite this, no studies have investigated how changes in self-awareness influence engagement in goal setting. Therefore, the aim of this study was to examine engagement in goal setting and goal outcomes of clients with ABI according to their self-awareness.

METHODS

A total of 44 community-dwelling adults with ABI were recruited using a prospective cohort design. Participants were receiving rehabilitation at an outpatient day hospital or community-based private practices. Data collected were 66 audio-recorded goal setting sessions, questionnaire data collected immediately after goals were set, and goal outcome data twelve weeks later. Participants were classified into three self-awareness groups: hyper-aware, accurate awareness and impaired self-awareness.

RESULTS

Engagement in goal setting and goal outcomes did not differ across the three awareness groups, with high levels of therapeutic alliance in each group. The hyperaware group was significantly more motivated than the impaired self-awareness group (*p*<0.05). The total time to set goals was significantly higher in the hyper-aware group compared to participants with accurate awareness (*p*<0.05).

DISCUSSION

Participants with changes in self- awareness were as engaged in rehabilitation goal setting to develop and achieve client-centred goals as those without impaired self-awareness. Establishing a strong therapeutic alliance may be necessary to engage clients with changes in self-awareness in goal setting.

# THE EFFECTIVENESS OF EARLY PURPOSEFUL OCCUPATION-BASED RETRAINING IN INTENSIVE CARE: PROTOCOL FOR A SINGLE-SITE RANDOMISED CONTROLLED FEASIBILITY TRIAL

A. Rapolthy-Beck (1,2), J. Fleming (1), and K. Hoffman (3)

Occupational Therapy Department, Logan Hospital (1), School of Health and Rehabilitation Sciences, The University of Queensland, Australia (2), and Queen Mary University London and Barts NHS Trust, United Kingdom (3).

INTRODUCTION

Admissions to intensive care units (ICU) within Australian hospitals have increased over the last 10 years with approximately 114 000 patients requiring a stay in an intensive care unit between 2013-2014. This number is expected to grow as the population ages. While survival rates are increasing, 30-80% of survivors will acquire post-intensive care syndrome (PICS), a collection of complications including persistent cognitive dysfunction, acquired weakness and post-traumatic stress disorder. These co-existing morbidities significantly influence quality of life and patient outcomes.

The traditional model of intensive care is being amended with evidence supporting the implementation of interdisciplinary early rehabilitation programs to prevent long term deconditioning. While traditionally, critical care occupational therapy practice has focused on splinting and positioning, it has not included therapeutic functional activities or early self-care rehabilitation.

It is hypothesised that critically ill patients who participate in an early occupation-based rehabilitation program will demonstrate increases in functional ability, cognition and participation compared to those patients who receive standard medical, nursing and allied health care. The introduction of regular occupational therapy intervention will be feasible and effective.

METHODS

Prospective single-centre, single blinded, equally randomised controlled trial (1:1) comparing standard occupational therapy care to an increased activity-based daily functional occupational therapy, with an embedded qualitative component to gain consumer perspectives.The study will be conducted in a level two adult eight bed medical / surgical Intensive Care Unit at Logan Hospital, Brisbane. Asample size of 30 participants has been determined as clinically feasible with 8 participants included in the qualitative component. A consecutive sampling model with be used. Variables measured include functional ability and cognition at discharge from ICU and 3 months follow up, in addition to quality of life and emotional status at follow up.

# AN INVESTIGATION OF AGREEMENT BETWEEN CLINICAL EDUCATORS AND PEERS IN RATING SPEECH PATHOLOGY STUDENTS’ FOUNDATION CLINICAL SKILLS

H. Reece (1), A.E. Hill (1), and A. Penman (1).

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1).

INTRODUCTION

Peer learning frameworks including peer assessment and feedback are being used more frequently in health science education as these have been shown to enhance self-directed learning and improve professional performance. As these attributes are reflected in Competency Based Occupational Standards for Speech Pathologists (CBOS), it can be postulated that peer assessment would be a worthwhile addition to tertiary speech pathology programs. It is important to determine whether peer assessment outcomes are reliable. To the author’s knowledge there is currently no research investigating peer and clinical educator agreement in speech pathology. However, there is conflicting evidence in the current medical and health education literature comparing peer and educator assessment outcomes.

METHODS

This study investigated the level of agreement between clinical educators and peers when rating the same student on a validated tool during standardised patient interviews. Participants in this study were 104 undergraduate speech pathology students and six clinical educators who were required to rate students’ foundation clinical skills on the Standardised Patient Interview Rating Scale (SPIRS). Students’ skills including communication, interviewing and professional practice were rated by a clinical educator and a peer. Data from two separate interviews were analysed to determine the agreement between clinical educators and peers in rating a student on individual items on the SPIRS form.

RESULTS

Results indicated that there was no statistically significant agreement levels (percent exact agreement and kappa) between clinical educators and peers in both weeks 4 and 8.

DISCUSSION

Recommendations for improving agreement between peers and clinical educators were made including increasing explicit training in the form for both students and clinical educators. Further research is required to investigate the use of peer assessment in a summative capacity in speech pathology student education.

# CLINICAL IMPAIRMENTS, PAIN AND DISABILITY IN POSTERIOR TIBIAL TENDON DYSFUNCTION – A SYSTEMATIC REVIEW

M.H. Ross (1), M.L. Plinsinga (1), M.D. Smith (1), and B. Vicenzino (1)

Department of Physiotherapy, School of Health and Rehabilitation Sciences, University of Queensland, St Lucia, Australia (1).

INTRODUCTION

Posterior tibial tendon dysfunction (PTTD) is a painful, progressive tendinopathy that reportedly predominates in middle-age, overweight women. There is no evidence based guidelines that clinicians can use to guide treatment planning, which leaves clinicians to make decisions on the basis of presenting clinical impairments and self-reported pain and disability. The purpose of this systematic review was to quantify reported clinical impairments, pain and disability in individuals with PTTD compared with controls.

METHODS

Five databases were searched for terms referring to the posterior tibial tendon and flatfoot up to and including 13 June 2016. Studies were included if measures of clinical impairment, pain or disability were evaluated in individuals with PTTD compared to controls. Standardised mean differences (SMDs) were calculated where possible and meta-analysis was performed when homogeneity of outcomes allowed.

RESULTS

Ten studies were included and meta-analysis was performed on five clinical impairments and three subscales of the self-report Foot Function Index. Meta-analysis revealed strong effects for poor heel rise endurance (SMD -1.52, 95% CI -2.05 to 0.99) and lower arch height (SMD -1.76, 95% CI -2.29 to -1.23) as well as more self-reported stiffness (SMD 1.45, 95% CI 0.91 to 1.99), difficulties caused by foot problems (SMD 1.42, 95% CI 0.52 to 2.33) and social restrictions (SMD1.26, 95% CI 0.25 to 2.27). Large effects were also found from individual studies for lower heel-raise height (SMD -1.99 (-2.82 to -1.15)) and greater pain following activity (SMD 1.25, 95% CI 0.51 to 1.99).

DISCUSSION

Individuals with PTTD when compared to matched controls demonstrate evidence of substantially impaired tibialis posterior capacity and lowered arch height which manifest as pain and functional limitations on self-report. While evidence was found for deficits in clinical impairments and self-report measures, knowledge of which clinical factors most influence an individual’s perception of functioning, may further direct assessment and improve overall disability associated with PTTD.

# THE ACUTE APHASIA IMPLEMENTATION STUDY (AAIMS): A PILOT CLUSTER RANDOMISED CONTROLLED TRIAL.

K. Shrubsole (1), L. Worrall (1), E. Power (2), and D.A. O’Connor (3)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1), The University of Sydney, Australia (2), and School of Public Health and Preventive Medicine, Monash University, Australia (3).

INTRODUCTION

Australian speech pathologists working in the acute setting have reported more barriers to implementing guideline recommendations for aphasia than those working in inpatient rehabilitation settings, resulting in a large evidence-practice gaps. However, little is known about the effectiveness of behaviour-change strategies in speech pathologists providing acute aphasia management. Hence, the aim of this study test the feasibility, acceptability and potential effectiveness of a tailored implementation strategy to improve acute speech pathologists’ uptake of evidence.

METHODS

A pilot cluster randomised controlled trial was conducted with four acute hospital speech pathology teams, with two clusters receiving either Intervention A (targeted at improving information provision) or Intervention B (targeted at improving goal setting). An implementation intervention was designed to address the known barriers for each intervention arm, and included a face-to-face workshop incorporating behaviour-change techniques. Outcomes measures addressed the research questions of feasibility (e.g, treatment fidelity), acceptability (e.g., post-study focus groups) and potential effectiveness (e.g., medical record audits).

RESULTS

The majority of participants were female (36/37 = 97.3%), base-grade clinicians (15/37 = 40.5%), with a mean age of 30 years. Overall, there was a significant improvement in the target behaviour for Intervention A (mean improvement 52.78%, *p* = 0.001), but a small non-significant change in the target behaviour for Intervention B (8.46%, *p* = 0.406). There were significant changes seen in several, but not all, of the domains targeted by the interventions and no changes seen in any of the non-targeted domains, with the exception of Skills.

DISCUSSION

A tailored implementation intervention targeting acute speech pathologist’s aphasia management practices was feasible to deliver and acceptable for most participants. The interventions were potentially effective, showing significant improvements in the information provision behaviour targeted by Intervention A. However, goal setting did not significantly improve, and there were more barriers identified by the participants for implementing this behaviour. It was possible to partially explain the mechanisms of behaviour change that occurred during the study, however this needs to be addressed further.

# ACTIVE VIDEO GAMES FOR REHABILITATION IN RESPIRATORY CONDITIONS: A SYSTEMATIC REVIEW AND META-ANALYSIS

J. Simmich (1,2), A.J. Deacon (1,3), and T.G. Russell (1,2)

Centre for Research Excellence in Telehealth, The University of Queensland, Brisbane, Australia (1), School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (2), and School of Electrical Engineering and Computer Science, Queensland University of Technology, Brisbane, Australia (3).

INTRODUCTION

Exercise and physical activity are key components of treatment for chronic respiratory diseases. However, physical activity levels and adherence to exercise programs is low in people with these diseases. This review examines the effectiveness of game-based interventions on physiological outcome measures, as well as adherence and enjoyment, in subjects with chronic respiratory diseases.

METHODS

A systematic search of the literature was conducted, with full-texts and abstracts included where they involved an active video game (AVG) intervention for participants diagnosed with respiratory conditions. A meta-analysis comparing AVGs to traditional exercise was performed for four outcome measures: mean heart rate (HR) during exercise, peripheral blood oxygen saturation (SpO2) during exercise, dyspnoea induced by the exercise and enjoyment of the exercise.

RESULTS

A total of 18 articles (12 full-texts, 6 abstracts) were included in the review. There was no significant difference between AVGs and traditional exercise for HR (mean difference=1.44 beats per minute, 95% CI [-14.31, 17.18]), SpO2 (mean difference=1.12 percentage points, 95% CI [-1.91, 4.16]) and dyspnoea (mean difference=0.43 Borg units, 95% CI [-0.79, 1.66]), but AVGs were significantly more enjoyable than traditional exercise (standardised mean difference=1.36, (95% CI [0.04, 2.68]).

DISCUSSION

Within a single session of cardiovascular exercise, AVGs can evoke similar physiological responses as traditional exercise modalities but are more enjoyable to subjects with chronic respiratory diseases. However, evidence for long-term adherence and effectiveness is very limited.

# EFFECTS OF PHYSICAL INACTIVITY AND SEDENTARY BEHAVIOUR ON PSYCHOLOGICAL DISTRESS AMONG YOUNG ADULTS: A LONGITUDINAL STUDY

R. Uddin (1), N.W. Burton (2), and A. Khan (1)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1), and School of Human Movement and Nutrition Sciences, The University of Queensland, Brisbane, Australia (2)

INTRODUCTION

Insufficient physical activity (PA) and prolonged time spent in sedentary behaviour (SB) may have deleterious consequences for the psychosocial health of young adults. In this study we aimed to examine the independent and interactive effects of PA and SB on psychological distress among young adults in Bangladesh.

METHODS

A self-administered survey was conducted twice, one-year apart, with undergraduate students from six universities in Dhaka, Bangladesh. Wave 1 of the survey had 573 respondents (45% female; average age = 20.7±1.35 years) and wave 2 had 397 respondents (69% retention). Psychological distress was measured using the Kessler 6 Psychological Distress (K6) scale, with higher scores indicating more distress. PA and SB were assessed using the Global Physical Activity Questionnaire, with <150 minutes/week of moderate-to-vigorous PA classified as insufficient PA and ≥480 minutes/day of SB classified as high SB.

RESULTS

Generalized Estimating Equations (GEE) modelling showed that young adults with insufficient PA had more psychological distress than those who had sufficient PA [(ß: 3.10 (95% CI: 2.36-4.83)], after controlling for gender, sleep difficulties, perceived health, fast food and fresh fruit intake and SB. High SB was not independently associated with more distress (p=.638), after controlling for the same set of confounders and PA. Young adults with insufficient PA + high SB, or insufficient PA + low SB had more psychological distress [ß: 3.07 (95% CI: 2.12-4.01) and 2.77 (1.86-3.67), respectively] than those who had sufficient PA + low SB, after controlling for the confounders.

DISCUSSION

In this study, irrespective of SB, insufficient PA was longitudinally associated with poor psychosocial health in young adults in Dhaka, Bangladesh. The protective role of PA should be considered in intervention programs to improve the mental health of young adults.

# ISOMETRIC EXERCISE OR WAIT-AND-SEE ON PAIN, DISABILITY AND GLOBAL IMPROVEMENT IN PATIENTS WITH LATERAL EPICONDYLALGIA: A RANDOMIZED CLINICAL TRIAL

V. Vuvan (1), B. Vicenzino (1), R. Mellor (1), L.J. Heales (2,3), and B.K. Coombes (3)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1), School of Health, Medical, and Applied Sciences, Central Queensland University, Rockhampton, Australia (2), and School of Biomedical Sciences, The University of Queensland, Brisbane, Australia (3).

INTRODUCTION

There is evidence of benefit for multimodal treatments including exercise in the management of lateral epicondylalgia (LE), but little is known of the effects of isometric exercise alone. We investigated the effect of an 8-week home program of graded isometric exercise compared to wait-and-see on clinical outcomes in people with unilateral LE.

METHODS

Forty patients with LE were randomised to either wait-and-see (n = 19) or an 8-week home program of graded isometric exercise (n = 21). During a single session, patients assigned to exercise were instructed to complete a standardised daily program of isometric wrist extension with weekly increase in exercise volume. All participants received reassurance and specific advice regarding activity modification. Primary outcome measures at 8-week follow-up were global rating of change (GROC) and Patient-rated Tennis Elbow Evaluation (PRTEE). Secondary outcome measures at 8-week follow-up were pain on a numerical rating scale (0-no pain, 10-worst imaginable pain), pain-free grip force, and thermal and pressure pain thresholds, as a measure of nervous system sensitisation.

RESULTS

The home exercise group had lower PRTEE scores at 8 weeks compared to the wait–and-see group (standardized mean difference: 0.86, 95% confidence interval 0.2 to 1.5). No significant differences were observed between groups for all other measures.

DISCUSSION

Compared to wait-and-see, a home program of graded isometric exercise improved a validated measure of pain and disability for patients with LE. Success rates in both groups for the 8-week trial were comparable to wait-and-see in previous clinical trials for the same time frame. This could suggest that exercise alone may be insufficient in improving GROC. Consistent with other studies, our findings suggest that isometric exercise may not have an effect on nervous system sensitisation in patients with LE.

# DYSPHAGIA FOLLOWING NON-TRAUMATIC SUBARACHNOID HAEMORRHAGE

K. Webster (1,2), A. Rumbach (2), and E. Finch (2,3,4)

Speech Pathology Department, West Moreton Hospital and Health Service, Queensland Health, Queensland, Australia (1), School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (2), Speech Pathology Department, Princess Alexandra Hospital, Queensland Health (3), and Centre for Functioning and Health Research, Metro South Hospital and Health Service, Queensland Health (4)

INTRODUCTION

Dysphagia following non-traumatic subarachnoid haemorrhage (SAH) can arise as a consequence of the injury or its management. Whilst there have been small cohort reports of dysphagia following non-traumatic SAH, its prevalence, risk factors, and clinical course of recovery are relatively unknown. The current research seeks to address these knowledge gaps. A research plan and results from a retrospective cohort study investigating incidence and predictive factors for dysphagia following non-traumatic SAH will be presented.

METHODS

A retrospective chart audit of 250 patients consecutively admitted over a three-year period (2013-2015) with non-traumatic SAH to a tertiary neurosurgery centre in Australia was conducted. Demographics, medical and surgical information, and speech pathology assessment data were collected from medical charts.

This PhD research will include validation of these risk criteria with a prospective cohort of patients, investigate the clinical progression and recovery of dysphagia in this retrospective cohort, and conduct a systematic review investigating speech pathology intervention in the non-traumatic SAH population.

RESULTS

The results of the retrospective chart audit revealed the incidence of dysphagia to be31.6% (n=79). Speech pathology assessed 29.2% (n=73) of participants for clinical swallowing examination.Individuals with dysphagia had significantly (p<0.01) higher World Federation of Neurosurgical Societies (WFNS) grading scores, were more likely to have an aneurysmal cause, were more likely to have secondary complications such as vasospasm, hydrocephalus or new ischaemia, were older, and had longer intubation and ICU periods than those without dysphagia. Dysphagia risk was significantly associated (p<0.01) with increasing age, ICU length of stay, and length of intubation.

DISCUSSION

Dysphagia is highly prevalent following non-traumatic SAH, and significantly associated with a number of factors. Validation of the established risk factors will improve current knowledge, promote early identification of dysphagia, and inform speech pathology referral criteria and management of this patient cohort.

# Sensory Modulation in Mental Health are: Investigating the factors affecting implementation in inpatient mental health unitS

L. Wright (1, 2), P. Meredith (1), and S. Bennett (1)

School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia (1); The Prince Charles Hospital, Metro North Mental Health Hospital and Health Services, Brisbane, Australia (2).

INTRODUCTION

The elimination of seclusion and restraint in mental health inpatient care has become a national priority as a result of international evidence that these practices can cause signiﬁcant emotional distress and physical harm. The use of sensory modulation is considered best practice for eliminating restrictive practices in Australian mental health inpatient units, and has been showed to reduce patient/consumer distress, agitation, and the need for seclusion and restraint. Nevertheless, there is evidence that implementation of these sensory modulation strategies has been challenging in many psychiatric units. Literature suggests that implementation strategies can effectively support new approaches by addressing potential barriers to change and supporting likely enabling factors. The aims of this study are threefold: to explore mental health clinicians’ experiences of using sensory modulation as a clinical intervention; to explore mental health clinician’s use of sensory modulation and factors that enable or hinder it’s use; and to identify service level enablers and barriers to implementing sensory modulation in inpatient mental health units. The results from this study will be used to develop a multidisciplinary implementation framework for sensory modulation in mental health inpatient units in one health services region.

METHODS

The proposed research uses mixed methodology with exploratory sequential design, and is divided into two stages. Stage one will use a qualitative description methodology to conduct focus groups with staff of this service. The framework method will be used to analyse focus group participants’ comments. Stage two will use a survey to gather information about patterns of use of sensory modulation, and expand on perceived barriers and enablers to its implementation. Responses to the survey will be analyzed using SPSS. This study will improve our knowledge about the use of sensory modulation, barriers and enablers to is use in mental health care and help inform implementation strategies.