



Programme

See full programme for further details.

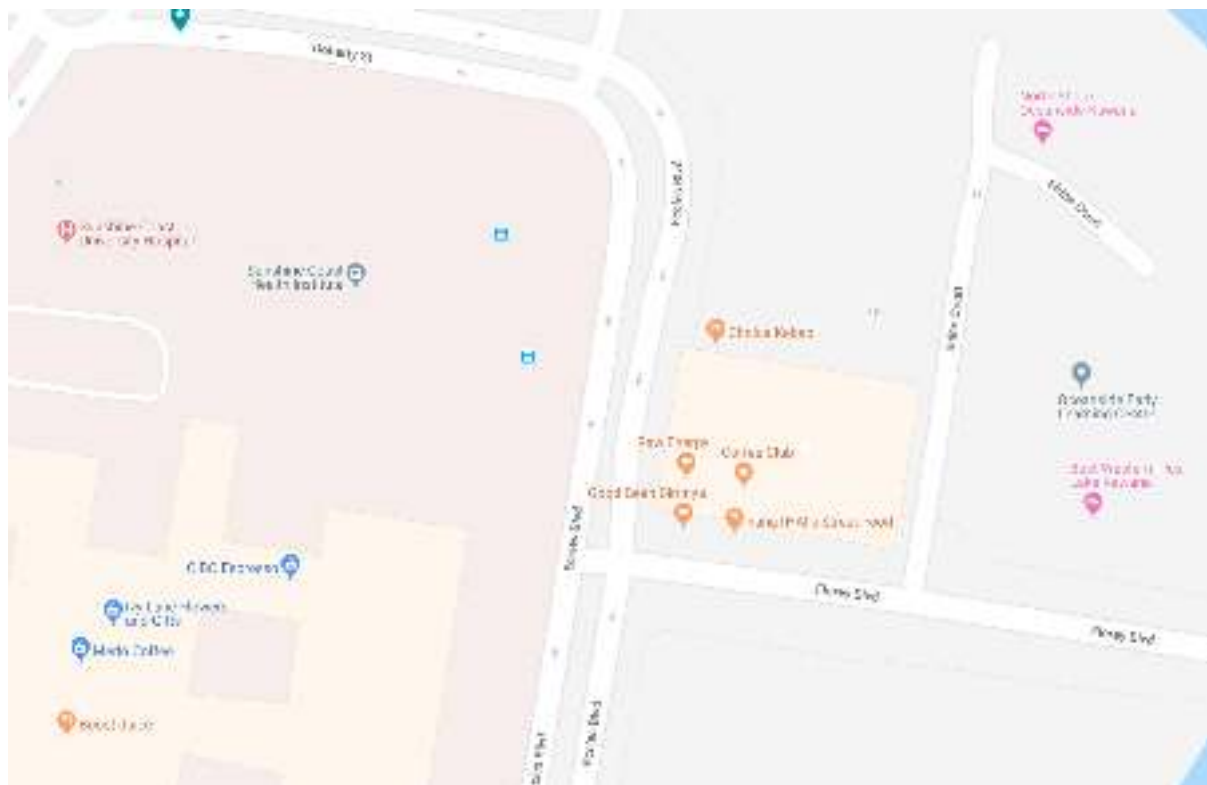
Wednesday 28 th November	
0700-0800	Workshop 1: Celia Woolf & Sarah Wallace Assistive technologies to support reading for people with aphasia: The Communicate Clinic Approach (Pre-registration essential – limited to 40 places)
0800-0845	Registration
0845-0900	Welcome & opening remarks: Dr Rohan Grimley Senior Staff Specialist, Sunshine Coast Hospital & Health Service
0900-1000	Keynote address: Professor Julius Fridriksson Does tDCS with aphasia treatment improve outcomes?
1000-1030	Oral presentations
1030-1100	Morning tea / Poster session 1 <i>Tea & coffee provided</i>
1100-1145	Lightning presentations
1145-1230	Oral presentations
1230-1330	Lunch: Delegates to organise their own lunch (see map)
1330-1415	Oral presentations
1415-1445	Lightning presentations
1445-1515	Afternoon tea / Poster session 2 <i>Tea & coffee provided</i>
1515-1545	Lightning presentations
1545-1645	Keynote address: Professor Nina Simmons-Mackie The State of Aphasia: Service Gaps and Needs
1830 -	Conference dinner: Wildflower Restaurant, Best Western Hotel, Lake Kawana (Pre-registration essential – limited to 70 places – please remember to bring your ticket from Eventbrite)

Thursday 29 th November	
0700-0800	Workshop 2: Kirstine Shrubsole & Emma Power Prioritising the evidence-practice gaps in aphasia management (Pre-registration essential – limited to 40 places)
0800-0830	Registration
0830-0845	Welcome & opening remarks: Sponsors – Wishlist, Just Better Care
0845-0945	Keynote address: Associate Professor Erin Godecke Does intensive early aphasia therapy improve outcomes? Results of the VERSE trial
0945-1045	Oral presentations
1045-1115	Morning tea / Poster session 1 <i>Tea & coffee provided</i>
1115-1135	Lightning presentations
1135-1235	Oral presentations
1235-1335	Lunch: Delegates to organise their own lunch (see map)
1335-1450	Oral presentations
1450-1515	Lightning presentations
1515-1545	Afternoon tea / Poster session 2 <i>Tea & coffee provided</i>
1545-1645	Keynote address: Professor Cathy Price Predicting recovery from aphasia after stroke
1645-1700	Awarding of prizes; closing remarks: Linda Worrall & Miranda Rose

SUNSHINE COAST UNIVERSITY HOSPITAL MAP



NEARBY FOOD OUTLETS



Abstracts



Julius Fridriksson

Professor Julius Fridriksson is a speech-language pathologist and world renowned researcher in the field of aphasia. Professor Fridriksson is the founder and Director of the Aphasia Laboratory at the University of South Carolina. His vision for the development of tools to help clinicians better understand and predict patient outcomes may provide patients with long awaited answers about the extent to which their language will recover post-stroke, which may lead to increased motivation and engagement from patients in the therapy setting.

At ASA 2018, Professor Fridriksson will share his ground-breaking research findings about aphasia treatment and recovery patterns.

More information about Professor Fridriksson and his work can be found at: <https://web.asph.sc.edu/aphasia/>



Nina Simmons-Mackie

Nina Simmons-Mackie Ph.D., BC ANCDs is Professor and Scholar in Residence at Southeastern Louisiana University in the USA. She is internationally recognized for contributions in the area of social models of aphasia, person-centered management and aphasia advocacy. Professor Simmons-Mackie contributed to developing Aphasia United and Aphasia Access, and has received the Honors of the American Speech-Language-Hearing Association, the Academy of Neurologic Communication Disorders & Sciences and the Louisiana Speech-Language-Hearing Association.

At the 2018 ASA she will discuss findings from a recent 'white paper' evaluating life consequences of aphasia and gaps in services to address these consequences.



Erin Godecke

Associate Professor Erin Godecke is a Senior Research Fellow at Edith Cowan University and completed her PhD in 2009. She has been a practising speech pathologist for 21 years, working in acute stroke care and rehabilitation. Her research primarily focuses on therapy intensity and therapy type in very early aphasia recovery after stroke and measuring stroke outcomes in healthcare services. Erin is a Chief Investigator on six national and international competitive funded research projects directly involved with improving clinical and service outcomes for people with aphasia. She is the Clinical Director of the largest trial in early aphasia recovery; VERSE, which is investigating the clinical and health-economic effects of very early aphasia rehabilitation. Erin is Chair of Communicate WA, a consumer advocacy organisation for people with aphasia. She is passionate about improving and promoting community participation for people with aphasia and their families and about working with health professionals to develop holistic methods to improve communication and quality of life outcomes for people with aphasia.



Cathy Price

Professor Cathy Price is a speech-language pathologist and researcher in the field of aphasia. She is the Director of The Wellcome Trust Centre for Neuroimaging in London, which is an interdisciplinary centre for neuroimaging excellence. At the ASA 2018, Professor Price will present her team's research into the prediction of language outcomes in people with aphasia using neuroimaging techniques. Professor Price has a strong history of international collaborations and active public engagement, and will be instrumental in facilitating discussion about the role of neuroimaging in developing our understanding of outcomes in aphasia.

More information about Professor Price and her work can be found at: <http://www.fil.ion.ucl.ac.uk>

Wednesday
28th November

WORKSHOP ON ASSISTIVE TECHNOLOGIES TO SUPPORT READING FOR PEOPLE WITH APHASIA: THE COMMUNICATE CLINIC APPROACH

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INTRODUCTION

Mainstream technologies may facilitate reading in aphasia by circumventing acquired dyslexia through features such as text-to-speech. For some people with aphasia (PWA), such technologies can enable them to return to reading activities and increase their participation in social activities (e.g. Cauter & Woolf, 2016). However, the features of the technologies that bring about this change and their accessibility to PWA have not yet been greatly explored. The CommuniCATE research project at City, University of London positively evaluated several technologies to support reading in PWA. Recently, CommuniCATE Aphasia Clinics have been established at City, University of London and at the University of Queensland to help translate these research findings into practice. This workshop will showcase technologies for reading impairments in aphasia. Participants will gain hands-on experience using the technologies, view aphasia friendly therapy materials, case studies and videos, learn how to evaluate the technologies in terms of accessibility for PWA, and discuss implications for their service or research. The workshop will illustrate the positive effect the technologies have had on the lives of PWA.

METHODS

The workshop will include an introduction to the reading therapies of the CommuniCATE research project and Clinics. Attendees will circulate around workstations trialling the assistive technologies. They will work in small groups using the technology to perform reading tasks (e.g. reformatting pages, adjusting text to speech settings). They will be facilitated to use aphasia-friendly technology manuals and guided in how to evaluate the suitability of new technologies for PWA. Case studies will be presented illustrating how technology enhanced reading approaches have been implemented into aphasia therapy, and outcomes achieved.

RESULTS

By the end of the workshop, participants will be familiar with a range of technology-enhanced approaches to reading in aphasia therapy. They will understand how to evaluate suitability of new technologies for people with aphasia, and be familiar with effective methods for supporting people with aphasia to use reading technologies.

DISCUSSION

Technology-enhanced therapy approaches can be effective in addressing the needs of people with acquired reading impairments. Although use of assistive technology for PWA is a growing area of interest for SLTs (RCSLT Bulletin, March 2017), there is limited evidence base for its use. The CommuniCATE project is the first major project to explore use of mainstream technologies to facilitate reading in PWA and has the potential to influence decisions about the scope of SLT practice in this area.

DOES tDCS WITH APHASIA TREATMENT IMPROVE OUTCOMES?

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Transcranial direct current stimulation (tDCS) has been shown to modulate cortical excitability in human and animal models. The effects of tDCS are thought to be activity dependent, which suggests pairing tDCS with a cognitive task may modulate performance on the task. In a recently completed randomized controlled trial, we tested the effect of anodal tDCS as adjuvant to aphasia therapy. The premise of the trial was that if anodal tDCS and aphasia therapy interact to modulate cortical activity then perhaps this setup could lead to improved outcome. In addition, we examined whether genotype, as described in animal models of tDCS, would determine anodal tDCS response. The results from the trial as well as potential implications will be discussed.

PLACES AND SPACES: LEARNING ABOUT (RE)LEARNING IN HOME-BASED REHABILITATION FOR PEOPLE WITH APHASIA

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INTRODUCTION

In the UK, People with Aphasia (PWA) receive their rehabilitation in a variety of settings, including acute hospitals, specialist stroke units and at home, through Early Supported Discharge (ESD). In ESD, PWA receive input from Healthcare Professionals (HCPs), with a professional qualification, as needed. The intensity of rehabilitation is increased by Rehabilitation Assistants (RAs) and Assistant Practitioners (APs), who implement programmes developed by the professional staff, up to two times a day, seven days a week.

(Re)learning is crucial to recovery after stroke, placing it as a central tenet of rehabilitation. Cognitive dependent processes, such as practice, intensity, saliency, setting and feedback, impact on neuroplasticity and, therefore, (re)learning. Little is known, about how the home-based environment can be optimised, to maximise these learning processes, during routine rehabilitation.

The aim of this study was to explore, in the context of home-based rehabilitation: what conditions exist to enhance (re)learning; what is the nature of these conditions; how do they arise and are they consistently realised.

METHODS

This paper focuses on observational data from a larger study of (re)learning for PWA. Purposive sampling was used in order to obtain a diverse data-rich sample. Ten PWA and 22 HCPs were video-recorded during routine rehabilitation in the patient's home, including a wide range of professional groups, representative of the ESD team and PWA with a variety of presentations and severities. 42 routine rehabilitation sessions were recorded, totalling 33.5 hours of video data. These sessions included a range of activities, HCP and PWA dyads and materials. These data were analysed using analytic induction, thematic and conversational analysis and combined within an Activity-based Communication Analysis approach.

RESULTS

The home environment was a central theme – providing opportunities to enhance communication practice, rapport and positive emotions for PWA and HCPs. It also provided opportunities to enhance the saliency of rehabilitation. Occupational therapy and physiotherapy colleagues used more of the space and place, of the home environment, than speech and language pathology. In addition, there were breaks and transitions between rehabilitation activities that provided opportunities for conversational practice.

DISCUSSION

Opportunities to enhance (re)learning, for PWA, during routine rehabilitation were identified but inconsistently realised. This research provided a deeper understanding of the complexities in routine rehabilitation that can act as barriers to or facilitators of the uptake of these opportunities. Better understanding of the conditions for (re)learning, in the home context, can help us to *change practice* to enhance rehabilitation for PWA.

HOW HARD CAN IT BE? OVERCOMING OBSTACLES TO POSITIVE COMMUNITY APHASIA GROUP PARTICIPATION

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INTRODUCTION

Involvement in group activity has been shown to assist people to mitigate a range of negative consequences associated with living with a chronic illness and disability. In the case of people with aphasia, group activity may present both opportunities and risks to how they live and experience their communication disability. A range of personal and environmental factors are likely to influence how people with aphasia transition and engage in a community aphasia group, yet these factors have been largely unexplored.

This paper considers the experience of a clinician (the first author) and a client with chronic aphasia (Geoff), who over the course of six months worked together in attempt to establish community aphasia group participation. The results of a qualitative study exploring contextual factors associated with community aphasia group participation are presented in relation to this client-clinician relationship. Facilitators and barriers to group participation are considered with recommendations provided for policy makers, clinicians, people with aphasia and their significant others.

METHODS

A qualitative study was conducted between 2012 and 2017 to explore the experiences of people with aphasia in relation to community aphasia group participation. In the final arm of the study the transcripts from 22 in-depth, semi-structured interviews with people with aphasia were analysed using a framework analysis. Analysis focused on exploring factors associated with individual decisions to participate, remain or leave the community aphasia group.

RESULTS

Three main themes associated with the personal and environmental context of the individual were identified: 1) Reconceptualising my situation; 2) Weighing up risks and benefits of group attendance; and 3) Gaining access to the group. The results of this analysis are considered in relation to the challenges experienced by the clinician and client when working towards community aphasia group participation.

DISCUSSION

Whilst community aphasia groups hold great potential for people living with aphasia it is imperative that focus is placed on the factors that support people with aphasia to access and engage in the group. The results of the qualitative study, as well as the clinical experience of supporting client participation, highlight the vital role of acceptance of the chronic nature of the disability, the need for clear personal objectives in relation to group participation and the requirement to be supported to overcome environmental and social barriers to participation. The results provide evidence of the need for additional focus on the physical environment and personal context in which group participation occurs in order to enhance uptake and long-term participation.

DESCRIPTION OF A SUCCESSFUL COMMUNICATION PARTNER TRAINING

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INTRODUCTION

Few studies have described in detail how speech-language pathologists (SLP) perform communication partner training (CPT) with dyads with a person with aphasia (PWA). Several authors stress the importance of a good description of the trainings to identify the elements promoting his effectiveness. The aim of this study is to describe how a successful CPT was conducted with a dyad with a PWA, in order to detail the activities realized and the interaction between the SLP and the members of the dyad.

METHODS

Qualitative analysis of five training sessions with a woman with a severe aphasia and her spouse was performed. Analysis of Conversation was realized on more than 3 hours of therapy meetings.

RESULTS

The training consists of views by the dyad of recorded excerpts of their own conversations and practical exercises realised with the support of the SLP. The actions taken by the SLP during the meetings were classified as interventions on communication (60%), organisation of activities and meetings (20%) and the actions that were more interactional in nature (20%) like for example, counselling, support for participants involvement and personal investment from SLP.

DISCUSSION

This study described how a CPT can be performed and made assumptions about the active ingredients of the therapy. Further research is needed to describe more precisely these elements in order to improve CPT and better support persons with aphasia and their conversational partners.

COMMUNITY APHASIA ADVISORS (CAAs): RECONNECTING PEOPLE WITH APHASIA IN AOTEAROA NEW ZEALAND

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INTRODUCTION

Aphasia has been described by those with aphasia as like being in a library after an earthquake; all of the information is still there, but it's not where it used to be, and it's hard to find what you're looking for. The Aphasia New Zealand (AphasiaNZ) Charitable Trust has, since 2015, been offering a Community Aphasia Advisor (CAA) expert aphasia field-officer service with the aims of connecting and reconnecting people with others with and affected by aphasia; providing information, education and resources; communication strategy training; and ensuring those with aphasia have access to the tools to live a successful life with a communication difficulty.

METHODS

Initially piloted in Christchurch, AphasiaNZ now offers this service across New Zealand's main centers. The roles are filled by seven Speech-language Therapists and one person living with aphasia. Although SLT services are not contracted, and the role precludes the provision of therapy or therapeutic interventions, there are distinct advantages of SLT training in a non-SLT role.

RESULTS

The CAAs' in-depth knowledge of the psychosocial consequences of living with aphasia, alongside an ability to facilitate groups and promote communication opportunities, has resulted in a unique and successful model for providing long-term support to those with and affected by aphasia.

DISCUSSION

AphasiaNZ is, as far as we are aware, the only organisation in the world delivering support services to and for people with aphasia in this way. As a charity receiving no government funding, viability and accessibility of this innovative and unique service remains in the hands of philanthropic funders to see value in the work we do for those affected by the life-long difficulties and frustrations living with aphasia brings.

PAVING THE PATHWAY FOR STROKE SURVIVORS – AUGMENTING BEST PRACTICE ACROSS THE SPEECH PATHOLOGY APHASIA JOURNEY WITHIN SYDNEY LOCAL HEALTH DISTRICT

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INTRODUCTION

Aphasia is a common consequence of stroke, affecting up to 38% of stroke survivors. In 2014, the Aphasia Rehabilitation Centre for Clinical Research Excellence Aphasia released Best Practice Statements (BPS) to supplement the Australian Aphasia Rehabilitation Pathway (AARP) in order to improve the consistency of care for people with aphasia (PWA). In response to the release of the AARP BPS, speech pathologists (SP) within the Stroke Clinical Network (SCN) in the Sydney Local Health District (SLHD) initiated a quality project with the aims to: 1) determine which of the BPS were being met across the stroke pathway in the SLHD; 2) identify the areas in the pathway with low compliance through the completion of a gap analysis and 3) implement innovations in service provision to fill identified gaps and thus improve services for stroke survivors with aphasia.

METHODS

A selection of AARP BPS relevant to the SLHD setting was identified, and then an audit was conducted of current practise across the SLHD speech pathology stroke pathway. These audit results were analysed to identify key gaps and led to planning and implementation of changes to clinical practice, including the development of specific resources.

RESULTS

44 out of the 65 BPS were being met with 100% compliance across the stroke pathway in the SLHD. The following were areas of practice with the lowest compliance (below 60%): PWA and their family/carers should be offered information about stroke and aphasia using relevant language and communication formats; SP should offer support and training to family/carers of PWA; SP should provide hospital staff with individualised communication strategies; suitable outcome measures should be collected and reported; assessments should be used that are appropriate to the cultural backgrounds of each client; and SP should be involved in discharge planning and provide written information at times of transition.

DISCUSSION

The SCN developed a package of resources to address these areas. Two particular resources were: an individualised aphasia bedside sign for use in inpatient settings to enhance communication success; and the development of an aphasia-friendly report template. The SCN is continuing to develop a data system to support SP to implement the BPS at key points along the stroke pathway. Future direction of the SCN also includes the development of a package for communication partner training.

DO APHASIA CLINICIANS CONSIDER MOBILE TECHNOLOGY A SUPPLEMENT TO FUNCTIONAL COMMUNICATION ASSESSMENT?

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INTRODUCTION

People with aphasia can experience significant and chronic communication disability. Functional communication assessment is an important part of the rehabilitation process, taking the form of self-report, significant other report or observation. Little research has explored the potential for mobile technology to assist the assessment process. Mobile technology may feature internet connectivity, wearable sensors, including microphones, cameras, GPS and accelerometers and is easily programmable using downloadable applications (apps). Hence, they have the capacity to collect information and analyse data. The aim of this study was to determine the type of information aphasia clinicians sought during a functional communication assessment, how this information is currently being collected, and their perception of the role of mobile technology in these assessment processes.

METHODS

Experienced clinicians (n=11) currently working with people with aphasia completed four stages of semi-structured email interviews which were then analysed for content and themes. All participants had more than 10 years of experience working with people with aphasia across the continuum of care in rural or metropolitan locales within Australia and abroad.

RESULTS

Five overarching themes emerged from the data. (1) Observation and interview is the main methodology used to assess functional communication. (2) Clinicians define functional communication as a measure of performance within specific contexts. (3) Assessment data which was unobtainable but valued by clinicians. (4) Clinicians currently use mobile technology for personal use and in their clinical practice, and (5) mobile technology can provide additional assessment data in some instances. Clinicians recommended mobile technology be used as an adjunct, not a replacement, to current functional communication assessment practices.

DISCUSSION

The interviews returned mixed results. Some clinicians encouraged the development of mobile technology to improve functional communication assessment, while other clinicians were concerned that mobile technology could not replace the nuances obtained via direct observation or through discussion. All clinicians reported the use of informal observations of their client and stated that additional observational samples would be beneficial. These contextualised conversation samples lend themselves to assessment via mobile technology. Which would provide a more comprehensive, measured, individualised, and contextual assessments of communication in the lives of people with aphasia.

DIGGING DEEP – GOAL SETTING IN INPATIENT REHABILITATION

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INTRODUCTION

Evidence from the Aphasia pathway and National Stroke Foundation guidelines highlight the importance of goal setting with patients with aphasia and their families and/or carers. Goal setting is thought to assist with achieving improved outcomes for patients. Recently at the National Acute Stroke Quality Improvement workshop (2018) it was reported that patients in hospital receive the appropriate care only 57% of the time. Goal setting is a complex issue especially with patients with severe aphasia. Worrall et al (2011) identified that people with aphasia were able to communicate meaningful goals and often these goals were heavily based around activity and participation as per the ICF.

METHODS

A retrospective clinical audit was completed. This involved reviewing 20 files of inpatients with aphasia admitted to an inpatient rehabilitation unit. Descriptive data was collected including: cohort demographics, length of stay, number of therapy sessions, number and type of goals set and evidence that these goals were a collaboration between the person with aphasia, their family and multidisciplinary team.

RESULTS

This stage of the research is in progress at the time of the submission, and the results will be available at the time of the presentation.

DISCUSSION

It is expected that this descriptive data will identify the amount of ownership a person with aphasia has when establishing goals in inpatient rehabilitation, possible barriers with goal setting with patients with aphasia and the types of goals set as identified in the ICF. This work will assist in identifying areas for improvement in the service and add to the current evidence base.

CONSUMER INPUT INTO THE DESIGN AND DEVELOPMENT OF AN APHASIA PATIENT EDUCATION MATERIAL (PEM) IN THE HOSPITAL SETTING

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INTRODUCTION

It has long been known that people with aphasia have information needs that are not being met by current methods of information provision. It has been suggested that aphasia education be provided in a manner that is aphasia-friendly; and tailored to individual needs and preferences. An informal review of aphasia patient education material (PEM) within the Victorian metropolitan region showed that many PEMs were directed towards carers, with varying content, level of detail, and accessibility. Our aim was to utilise co-design principles to develop an aphasia PEM in collaboration with consumers, for use with people with aphasia in the inpatient setting.

METHODS

Two semi-structured interviews were conducted with two community-dwelling people with aphasia and one carer. Examples of aphasia PEMs and supported communication techniques were used to facilitate discussion. The responses were transcribed and reviewed separately by two experienced speech pathologists to identify key themes to inform the development of the new aphasia PEM. Five inpatient consumers with aphasia were supported to review the PEM using an aphasia-friendly feedback scale. The feedback will be collated and incorporated into further modifications to the PEM.

RESULTS

Four key themes were identified from the initial interviews with consumers: 1) aphasia education was not always understood or remembered, 2) aphasia education should be aphasia-friendly, 3) aphasia education should be tailored to the individual, 4) aphasia education should include information about strategies, rehabilitation and recovery. Additional consumer feedback will be reported here.

DISCUSSION

The first three themes confirmed previously identified issues with comprehension and retention of aphasia education; the need for education to be individually tailored; and the need to ensure information is accessible for people with aphasia. Validating these findings in our clinical setting facilitated the translation of existing evidence into practice. Aphasia-friendly formatting principles were used to develop an aphasia PEM, information was streamlined through specific consumer feedback and tick-boxes were included to enable individual tailoring. The final theme highlighted a preference for proactive information. Therefore, the PEM content is focused on communication strategies and recovery, rather than the cause of aphasia or types of difficulties the person may experience (as is commonly described in aphasia PEMs). Further consumer feedback will be analysed by the time of presentation to determine if the new PEM conveys the desired information effectively to people with aphasia.

CURRENT PRACTICE AND BARRIERS AND FACILITATORS TO APHASIA OUTCOME MEASUREMENT

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INTRODUCTION

Outcome measurement is a crucial aspect of speech pathology service provision. In clinical practice, outcomes are measured to draw conclusions about the effectiveness of treatment — capturing change, demonstrating impact, supporting accountability, and aiding treatment planning. In recent years, aphasia treatment has broadened from traditional impairment-based language interventions to include approaches which aim to maximise participation in communication activities and life roles; psychosocial well-being; and the impact of aphasia on significant others. While speech pathologists use an eclectic mix of aphasia treatment approaches, research indicates that they still primarily measure the outcomes of treatment using impairment-based outcome instruments (Rose, Ferguson, Power, Togher, & Worrall, 2013; Verna, Davidson, & Rose, 2009). To date, no research has explored the factors motivating clinician practices in aphasia outcome measurement. *Aims:* This research aimed to describe current clinical practice in aphasia outcome measurement, specifically: (1) what constructs are being measured; (2) what outcome measurement tools are being used; and (3) perceived barriers and facilitators to outcome measurement.

METHODS

Study design: This study used a convergent parallel mixed methods survey design. Ethical approval for this study was granted by an Ethical Review Committee at The University of Queensland, Australia. *Participants:* Participants were Australian speech pathologists who currently work with people with aphasia. Criteria for inclusion required that speech pathologists had worked for at least one year since graduating and had sufficient English language and adequate vision levels to participate in an online survey. *Procedures:* Both quantitative and qualitative data were collected using the freely available online survey platform, survey monkey (www.surveymonkey.com). The survey was open for 6 weeks in May and June 2018. *Analysis:* Survey data were analysed using SPSS to generate descriptive statistics. Qualitative data were analysed using qualitative content analysis (Graneheim & Lundman, 2004). Identified barriers and facilitators to outcome measurement were mapped to the Theoretical Domains Framework and Behaviour Change Wheel (Atkins et al., 2017).

RESULTS

Data analysis is currently in progress. Qualitative and quantitative survey results will be presented.

DISCUSSION

Information regarding current practice and barriers/facilitators will be used to design interventions which support aphasia outcome measurement in clinical settings.

NEW INSIGHTS INTO LIVING POSITIVELY WITH PRIMARY PROGRESSIVE APHASIA

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INTRODUCTION

Knowledge about living positively with chronic communication conditions has grown considerably over the past two decades. Understanding the lived experiences of individuals with communication impairment is vital so health professionals can understand how best assist them and also advocate to promote their voices.

Individuals with primary progressive aphasia (PPA) are living with the realities of aphasia and other communication impairments, with the additional knowledge that they have incurable neurological disease. Currently the voices of people with PPA remain largely unheard on a public or global scale. As awareness of the communicative challenges and treatment options for PPA increases, so should our understanding of the impacts of living with the condition, and how best to support a perspective of positivity. Anecdotally, some people with PPA are naturally inclined to be more positive about their situation or engage in positive behaviours and activities than others. Thus, in this study, the views of people with PPA were sought, first about the concept of 'living positively with primary progressive aphasia', and second, on what facilitates this positive outlook.

METHODS

Individuals with PPA participated in in-depth, semi-structured interviews about living positively with PPA. Eight individuals with a range of PPA variants have been interviewed at the time of writing. They were between 14 months to four years post symptom-onset at the time of interview. The interview topics and questions closely mirrored those described by Grohn et al. (2012), designed for use with stroke-aphasia. Transcripts will be analysed using thematic analysis (Braun & Clarke, 2006) adopting an essentialist and inductive approach.

RESULTS

Themes identified in the data with accompanying statements from individuals with PPA will be presented.

DISCUSSION

Results will be compared to existing knowledge about living positively with other similar conditions such as stroke-aphasia and typically presenting dementia. Increased understanding of the lived experience of individuals with PPA will augment the voices of people with PPA. It will also enable clinicians to view and manage PPA in a holistic way and design services which can promote quality of life and positivity.

INTRODUCTION OF AHA SUPERVISED PRACTICE GROUPS FOR ADULT COMMUNICATION THERAPY WITHIN AN INPATIENT REHABILITATION SETTING

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INTRODUCTION

Group therapy is utilised to assist speech pathologists (SP) to meet high intensity therapy guidelines. Hybrid models of therapy (individual, group and computer) have been shown to be effective in improving communication. However, traditional group therapy models are challenging to implement, as they require patient cohorts to have similar presentations, or resources need to be adapted for group members with varying deficits. A supported practice group therapy model was implemented with rehabilitation inpatients to facilitate the effective and efficient provision of appropriate therapeutic intensity to a cohort of patients with varied language difficulties.

There were two aims of the quality project, (1) to determine whether the introduction of group communication therapy using allied health assistants (AHA) can provide an equivalent service to standard 1:1 SP led therapy; and (2) to determine whether a group therapy model which aims to include patients with a range of language disorders and severities, could result in improved communication function.

METHODS

The groups were led by AHA's under SP supervision. Sessions involved individualised independent practice with AHA support for challenging tasks, and group activities with a social component.

Patient data collected for the language group included therapy intensity, impairment based outcome measures and post group surveys. Staff data included SP and AHA surveys pre and post introduction of the groups.

RESULTS

Following implementation of the language group, 100% of patients were above intensity recommendations for aphasia therapy, compared with 66.67% pre introduction of the groups. All patients demonstrated measurable improvements in impairment based outcome measures. Confidence when talking was reported to increase in 83.3% of surveyed patients. All AHA's found group therapy to be a more appropriate service delivery model option compared to 1:1 for delivering AHA led SP programs.

DISCUSSION

Implementation of an AHA group therapy service delivery model resulted in increased therapy intensity, with less demand on SP's to provide individual therapy. Patients did not demonstrate preference for either individual or group therapy. Patients with varying deficits were able to successfully participate in the language group together (e.g. severe aphasia and mild high level language impairment).

IMPLEMENTING APHASIA RECOMMENDATIONS IN THE ACUTE SETTING: A PROCESS EVALUATION OF A BEHAVIOUR CHANGE INTERVENTION

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INTRODUCTION

Evidence-practice gaps have been identified in the implementation of post-stroke aphasia guideline recommendations. Implementation interventions that promote uptake of research evidence have been developed and evaluated. However, what best facilitates speech pathologists' implementation in post-stroke aphasia management is not well understood. In order to address this gap, an implementation intervention tailored to local barriers was developed to target speech pathologists' implementation of two aphasia recommended management guidelines in the acute setting. A qualitative process evaluation is recommended to understand the mechanisms of action and how context affects the implementation.

This study aimed to investigate speech pathologists' perceptions of the feasibility, acceptability, and potential effectiveness of the tailored implementation intervention for information provision and collaborative goal setting recommendations.

METHODS

Focus groups were conducted as part of the process evaluation with speech pathologists (n=18) following completion of targeted implementation interventions at four acute hospital sites. Focus groups explored speech pathologists' perceptions on the feasibility, acceptability, and potential effectiveness of the implementation strategy. Using content analysis, the qualitative data were analysed to determine themes across feasibility, acceptability, and potential effectiveness.

RESULTS

Six interrelated themes were identified to describe the feasibility, acceptability, and potential effectiveness: (1) acute speech pathologists' understanding of the workshop facilitators; (2) the powerful impact of the workshop on clinical practice; (3) their understanding of facilitators for implementation of aphasia recommendations; (4) the perceived challenges impacting the workshop and implementation; (5) the perceived change in practice; and (6) the focus group acting as follow-up. The findings provide support for the perceived efficacy of the implementation intervention, key explanations for its perceived success, and areas for improvement.

DISCUSSION

This study highlights speech pathologists' perspectives regarding facilitators, barriers, and potential mechanisms for change. Implementation interventions should be embedded in context with consideration of local barriers and facilitators. Identification of key facilitators – such as audit and feedback, interactive workshops, team learning, accessible resources, reminders, and follow-up – provides direction to speech pathologists to design implementation interventions to close the evidence-practice gap in acute aphasia management.

WHAT ARE THE TOP BARRIERS AND FACILITATORS TO IMPLEMENTATION OF STROKE COMMUNICATION PARTNER TRAINING ACCORDING TO A NATIONAL SURVEY OF 122 CLINICIANS?

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INTRODUCTION

Stroke communication partner training (CPT) can enhance a communication partner's ability to support the communication and participation of people post-stroke. While evidence for CPT efficacy is strong, an evidence-practice gap exists in implementation. It is not clear what the principle barriers and facilitators are to CPT implementation. The Theoretical Domains Framework (TDF), a theoretically driven behaviour change approach, has been utilised in clinical research studies to understand the nature of reported barriers and facilitators to implementation. We aimed to investigate the barriers and facilitators to CPT best practice for Australian speech pathologists through the lens of the TDF in order to inform future CPT implementation initiatives.

METHODS

Participants: Speech pathologists in Australia, who had worked with people post-stroke. Design: An online survey that examined CPT practice patterns with unfamiliar and familiar communication partners and factors influencing implementation. The survey included 29 items from the Determinants of Implementation Behaviour Questionnaire. Participants rated statements based on 16 TDF domains on a 5-point scale from strongly agree to strongly disagree. Two open-ended questions on CPT barriers/facilitators were also included. Analysis: Descriptive statistics was utilised for quantitative data and content analysis was applied to open-ended responses. Rigour: Design and reporting followed relevant guidelines for online survey research.

RESULTS

122 speech pathologists across the acute, inpatient and outpatient continuum of care responded. The top three barriers included reduced CPT behavioural regulation (95% of participants reported having no systems for monitoring whether CPT was provided), CPT skills (75% had no formal training in how to do CPT) and reinforcement (75% of participants reported receiving no recognition/ encouragement to provide CPT). The main facilitators included clinicians' intentions to provide CPT (83% had intentions to provide CPT in the next three months), perception of CPT as part of their role (71% agreed providing CPT was part of their role and that it was recognised by others), and perceived compatibility of CPT in principle with clinical practice (81%). Qualitative responses validated these points of view but also provided insight into divergent opinions.

DISCUSSION

The TDF provided a useful account of the factors influencing CPT implementation. These findings have implications for both researchers and clinicians in the design of CPT clinical implementation initiatives to reduce the evidence-practice gap. Strategies to improve implementation may include embedding of CPT into policies, auditing CPT delivery, freely accessible formal training opportunities and wider recognition of CPT as an important component of stroke rehabilitation services.

HEALING RIGHT WAY: AN RCT DESIGNED TO IMPROVE QUALITY OF LIFE OF ABORIGINAL AUSTRALIANS AFTER BRAIN INJURY

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INTRODUCTION

Despite high rates of stroke and traumatic brain injury in the Australian Aboriginal population, few Aboriginal Australians receive ongoing rehabilitation support after leaving hospital, including people with aphasia. The *Healing Right Way* clinical trial, currently underway across Western Australia (WA), aims to enhance rehabilitation services for Aboriginal Australians after brain injury and ultimately improve quality of life for brain injury survivors. The trial is a collaboration between a multidisciplinary Aboriginal and non-Aboriginal research team and key health service providers throughout the state, and began recruitment in February 2018. This paper focuses on the collaborative development of the two-component culturally secure intervention program, and the partnerships established.

METHODS

This stepped-wedge cluster randomised control trial has two intervention components: i) training of relevant hospital staff in culturally secure rehabilitation practices and ii) implementation of an in-reach Aboriginal Brain Injury Coordinator (ABIC) program to support the brain injury survivor and their family for six months following the injury. Development of both components involved close liaison between partners - the WA Department of Health, the WA Country Health Service, Aboriginal Community Controlled Health Organisations, the Neurological Council of WA, and specialist consultants. The cultural security training (CST) component involved development of content, delivery planning (both staffing and timetabling) and evaluation, while the ABIC positions required development of employment and governance models and crucial community consultation.

RESULTS

Core operationalisation of the interventions was finalised in 2018. This involved local organisation and cultural tailoring of the CST, and employment, training and monitoring of ABICs across sites ongoing for the incremental roll-out involved in the stepped-wedge design. The intervention phase will commence in the first two sites in August 2018 and roll out to the remaining six sites over the next three years. Collaborative partnerships have been consolidated through regular and ongoing meetings and planning processes.

DISCUSSION

This landmark study provides a novel, integrated and complex intervention in an under-served population. The trial will provide vital information to shape much needed service improvements and research for Aboriginal people with aphasia and other brain injury sequelae.

SELF-REPORTED COMMUNICATION OUTCOMES AFTER TELEHEALTH OR IN-PERSON SOCIAL COMMUNICATION SKILLS TRAINING FOR PEOPLE WITH TRAUMATIC BRAIN INJURY AND THEIR COMMUNICATION PARTNERS

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INTRODUCTION

TBI Express is a communication partner training program for social communication skills after traumatic brain injury (TBI). The program intensity creates barriers to using TBI Express in practice, therefore a modified version called TBIconneCT was developed. TBIconneCT has a lower intensity, and capacity to be delivered either via telehealth or in-person. We conducted a study with comparison of outcomes across three groups: telehealth TBIconneCT training, in-person TBIconneCT training, and a control group. This paper reports on participant-reported communication outcomes, which were a subset of the study outcome measures.

METHODS

Participants with TBI in Sydney (n=23) were randomised to telehealth or in-person training at a 1:3 ratio. Participants outside Sydney (n=13) were allocated directly to telehealth. This resulted in 19 telehealth and 17 in-person participants, who were compared to a historical control group of 15 participants. Participants with TBI and communication partners completed the La Trobe Communication Questionnaire (LCQ) at pre-training, post-training and follow-up. LCQ total score and number of LCQ items with improvement were compared at each timepoint across groups.

RESULTS

The study included participants with severe (n=50) or moderate (n=1) TBI (mean PTA duration = 54.2 days, mean time post injury = 91.3 months, mean age = 44.1 yrs, 43 M: 8 F). For self-rated total scores, there was no significant interaction between treatment group and time. For partner-rated total scores, there was a significant interaction between treatment group and time for pre-post comparisons ($p=.045$). Post-hoc analyses of partner-rated scores found a significant difference between telehealth and control ($p=.036$), but no other significant group differences. Participants with TBI and partners in both training groups reported more items with positive change compared to controls at post and follow-up assessments ($p < 0.001$ for all but one comparison).

DISCUSSION

Telehealth-based TBIconneCT training improved overall ratings of social communication after TBI relative to a control group, whereas in-person TBIconneCT training did not. Participants of both telehealth and in-person TBIconneCT training reported positive change on more items after training than did controls, regardless of training mode. Further analysis will investigate reasons for differences in outcomes between the training groups.

WHAT ARE THEY GOING TO DO ANYWAY? WHAT SHOULD OUR RESPONSE BE TO GENERAL PRACTITIONERS' PERCEPTIONS OF SPEECH PATHOLOGY WITH ABORIGINAL ADULTS WITH ACQUIRED COMMUNICATION DISORDERS?

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INTRODUCTION

General practitioners (GPs) are often the initial point of contact into the health system for people in the community, including those discharged from hospital and rehabilitation following stroke or traumatic brain injury (TBI). GPs' decisions about ongoing referrals and management have a considerable influence on opportunities, decisions and care for patients. This presentation focuses on a component of data from the *Missing Voices* study relating to GPs' perceptions of the needs of Aboriginal patients with acquired communication disorders (ACD). It looks specifically at GPs' decisions for referral to speech pathology (SP), understandings of ACD, and assumptions of what SP might offer. Clear evidence exists for the considerable impacts of chronic ACD on quality of life, and for the value of rehabilitation options beyond the subacute period. Hence, it is important for SPs to understand the attitudes and decision-making of GPs when working with Aboriginal adults, given stroke and TBI occur at higher rates and at younger ages compared to the non-Aboriginal population.

METHODS

A qualitative descriptive approach was employed using audiorecorded interviews and focus groups with 23 GPs from metropolitan Perth and five regional sites in Western Australia. Transcripts were uploaded into NVivo 10/11 for coding and the data were analysed thematically.

RESULTS

GPs from both metropolitan and rural sites reported very low referral rates to SP for adults with ACD although they did refer for swallowing disorders. Referrals to physiotherapy were far more frequent. GPs reported having little in their training on ACD, and generally did not regard communication intervention as a priority in the context of other co-morbidities. They demonstrated limited knowledge of what SP could offer clients, particularly beyond the subacute period, and found SP hard to access, citing limited services and concerns about cost effectiveness. In relation to Aboriginal adults, they experienced difficulties distinguishing ACD from language and cultural differences, and reported that few patients requested assistance with ACD.

DISCUSSION

This research raises multiple issues for SPs to consider, including how SP is viewed by GPs, how SPs currently communicate with and educate GPs, how low referral rates might disadvantage Aboriginal patients (who may have limited knowledge of what SP has to offer), and whether SPs have appropriate resources, capacity and interventions if referrals were to increase.

TREATMENT FIDELITY IN VERY EARLY REHABILITATION IN SPEECH (VERSE): AN EXPLORATION OF THERAPIST FACTORS

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INTRODUCTION

Treatment fidelity (TF) processes ensure that interventions are delivered as per the study protocol and examine how closely the intervention matches its theoretical underpinning. TF is at the heart of evidence based practice and will assist in uncovering the 'active ingredients' in aphasia therapy. Therapist behaviours such as cueing and feedback are essential to the therapeutic process and may represent core features of a treatment.

METHODS

This study is a sub study of the Very Early Rehabilitation in SpeEch (VERSE) trial which is an RCT investigating whether two different types of intensive aphasia therapy, beginning within 14 days after acute stroke provided greater treatment and cost-effectiveness than usual care. VERSE recruited 246 participants who were randomised to one of three arms: usual ward based care (UC) only, Usual Care Plus (UC+) or VERSE. UC+ was usual ward based aphasia therapy, provided five times per week (45-60 minutes per session) for 20 sessions within a maximum of 25 working days after baseline assessment. VERSE therapy was a prescribed aphasia therapy provided at the same intensity as UC+. As part of the TF process therapists in the intensive arms were required to video record one session per week of intervention. Within the current study 54 videos (27 from UC/UC+ and 27 from the VERSE arm) were randomly selected and stratified according to aphasia severity. These videos were transcribed verbatim and coded for therapist behaviours including cueing and feedback.

RESULTS

As at April 2018, 34 videos have been analysed (16 UC+, 18 VERSE). Sessions were on average 51 minutes (*range* = 40-61) contained 69 cues (*range*= 0-249) across an average of 616 therapist utterances (*range* = 229-1214). Cues were successful in eliciting the target response from the person with aphasia 37% of the time (*range*= 0-100). The phonemic cue was the most frequently used (*M* =17.2, *range*=0-84) and, when used, this was successful 41.5% of the time. Therapists most frequently gave yes/no accuracy feedback after a person with aphasia's response (*M* =37.53 *range*=0-125) followed by supportive encouragement (*M* =32.15 *range*=0-120). Eighty two percent of sessions contained no explanation of the rationale behind the treatment. Final results including the correlation of therapist factors with patient outcome are due in August 2018 and a full analysis of the dataset and comparative results will be presented.

DISCUSSION

This research will assist in understanding the therapeutic process and will build on the understanding of how different treatment variables may affect how a patient responds to treatment. Practical tips will be provided to assist therapists in tailoring their cueing and feedback to best benefit the person with aphasia.

BARRIERS AND FACILITATORS TO IMPLEMENTING INTENSIVE AND COMPREHENSIVE APHASIA SERVICES WITHIN AN INTERNATIONAL HEALTH CONTEXT

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INTRODUCTION

The Intensive and Comprehensive Aphasia Program (ICAP) is an evidence-based intervention addressing the need for intensive aphasia therapy incorporating multiple domains of the World Health Organisation's International Classification of Functioning (ICF). Implementation of best practice recommendations is a complex and multi-faceted process with many influential factors. As the ICAP is a relatively new international model of service delivery it is important to consider the barriers and facilitators to implementation within an international health context. The aim of the research is therefore to identify current and perceived barriers and facilitators to the implementation of 1) intensive aphasia services 2) comprehensive aphasia services and 3) ICAPs within an international health context.

METHODS

A qualitative enquiry approach used a focus group methodology with six focus groups in each of the participating countries (USA, Canada, UK, New Zealand, Ireland and Australia). A total of 34 participating speech pathologists were experienced within the field of aphasia and eligible for practicing membership with Speech Pathology Australia or one of five professional bodies with a Mutual Recognition Agreement. Recruitment consisted of communications with professional contacts, special interest groups and social media. Purposive sampling ensured maximum variation across workplace, position of employment, organisation and years of professional experience. A thematic analysis was completed with pre-determined codes from the Theoretical Domains Framework (TDF).

RESULTS

Five TDF domains were identified as prominent factors influencing the implementation of all aphasia service types. The domains were prevalent across international participating sites and included *environmental context and resources*, *beliefs about consequences*, *social-professional role and identity*, *skills and knowledge*. Within these domains four prominent themes emerged. These consisted of *innovation*, *culture*, *collaboration* and *advocacy*.

DISCUSSION

The results of this study will inform the development of a theoretically informed intervention to improve health services' adherence to evidence based aphasia guidelines and the potential implementation of ICAPs within international health services.

DO TITLES AND PICTURES IMPROVE READING OF NATURALISTIC TEXTS IN PEOPLE WITH APHASIA?

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INTRODUCTION

Reading text for meaning is impaired in many people with aphasia, which can lead to reduced participation in daily and/or professional activities. Many people with aphasia report a preference for texts accompanied with pictures (e.g., Knollman-Porter et al., 2015). Pictures facilitate text processing and comprehension in unimpaired readers (Glenberg & Langston, 1992) and there is also evidence that presenting pictures with text improves reading accuracy in PWA (Dietz et al., 2009, 2014). In contrast, Dietz et al. (2014) found that provision of titles, in the form of 2/3-word phrases, did not improve comprehension in people with aphasia. However, these previous studies all used highly constrained rather than naturalistic texts. Consequently the aim of this study was to investigate the extent to which titles and pictures influence the speed and accuracy with which people with aphasia read and comprehend everyday texts.

METHODS

Participants were 10 people with aphasia (aged 64-76) who were selected to be varied in their aphasia severity and reading ability. Participants read 30, 110-150 word, news articles selected from an online news website. Five participants first read the articles preceded by either a related picture or no picture and followed by four multiple-choice questions. The questions assessed the understanding of either stated main ideas, implied main ideas, stated details or implied details. After two weeks, they read the articles again but were provided with titles rather than pictures. The other five participants read the articles in the reverse order (first titles and then pictures). Mixed-effects analyses were performed to examine the effect of these contextual organisers on reading times and accuracy.

RESULTS

Both picture and title organisers showed a main effect on reading times. Specifically, participants had significantly shorter reading times when either a picture or a title was provided prior to reading than when no picture or title was provided. On average, participants responded correctly to comprehension questions around 60% of the time. However, neither organiser condition produced a significant effect on comprehension accuracy or accuracy to any particular question type. There was no interaction with order of presentation.

DISCUSSION

This study demonstrates that pictures and titles can provide a meaningful and facilitative context for people with aphasia's text processing resulting in reduced reading speed for short news articles with potential benefits for functional reading. Nevertheless, reading comprehension accuracy was not improved.

PROBE NAMING PERFORMANCE AS A PREDICTOR OF ANOMIA TREATMENT SUCCESS

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INTRODUCTION

There is evidence supporting the benefits of anomia therapy in adults with aphasia, however, it remains difficult to predict who will respond to intervention. This study aimed to investigate the relationship between performance on a probe naming assessment, completed after 3 hours of impairment-based therapy, and anomia therapy outcomes.

METHODS

A parallel-groups, pre/post-test design was employed. Thirty-four adults with chronic, post-stroke aphasia participated in an intensive (n=16, 16h per week, 3 weeks) versus distributed (n=18, 6h per week, 8 weeks) comprehensive aphasia therapy program, Aphasia LIFT. Confrontation naming accuracy for 30 treated items was collected after 3 hours of impairment therapy, immediately post-treatment and at 1 month follow-up. Multiple regression analyses were conducted to evaluate the relationship between probe naming performance, baseline language ability and anomia therapy outcomes.

RESULTS

Multiple regression models revealed that probe naming performance and baseline lexical-semantic processing ability, accounted for 76.5% and 73.5% of the variance in therapy outcomes at post-therapy ($R^2 = .765$, adjusted $R^2 = .740$, $F(3,28) = 30.37$, $p < .001$) and 1 month follow-up ($R^2 = .735$, adjusted $R^2 = .705$, $F(3,27) = 24.94$, $p < .001$), respectively. Probe naming performance emerged as a significant predictor of anomia therapy success at post-therapy ($\beta = .686$, $p < .001$) and at 1 month follow-up ($\beta = .551$, $p < .001$).

DISCUSSION

Performance on a confrontation probe naming assessment, conducted after 3 hours of anomia therapy, significantly predicted anomia therapy outcomes for people with chronic, post-stroke aphasia. These findings have important clinical implications as a brief trial of anomia therapy may help clinicians to determine who is likely to respond to anomia intervention and to plan and deliver therapy services, accordingly.

WHAT DO SPEECH PATHOLOGISTS MEAN BY 'MULTIMODAL THERAPY' FOR APHASIA?

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INTRODUCTION

'Multimodal therapy' is a term frequently found in speech pathology literature but it has no agreed or even informal definition. Phrases such as *multimodal therapy* and *multimodal treatment* are applied to a range of aphasia interventions as if understood mutually by all and yet papers employing the term differ significantly in their methodology, approach and desired outcomes. This inconsistency can be problematic for researchers, policy makers and clinicians accessing the literature and potentially compromises data synthesis and meta-analysis. A literature review was conducted to examine what types of aphasia treatment are labelled multimodal and determine whether any patterns are present.

METHODS

A systematic search was conducted in October 2017 to identify English language literature pertaining to aphasia that included the term multimodal therapy (and variants). Grey literature was searched in order to build a comprehensive picture of current use of the term(s). Sources included literature databases, dissertation databases, textbooks, professional association websites and Google Scholar.

RESULTS

Thirty-three original research papers were identified, as well as 31 sources referring to multimodal research, all of which used a variant of the term 'multimodal therapy'. There were 19 different phrases for multimodal therapy used in the original research papers. Treatments were heterogeneous in terms of aims, underlying theories and methods. The rationale for using more than one modality was unclear, as was the reason each therapy was considered to be multimodal when similar treatments have not used the title. During data extraction, papers were noted to differ across two key features. The first was whether the ultimate aim of intervention was to improve total communication, as in AAC approaches, or to improve one specific modality, as when gesture is used to improve word retrieval. The second was the point in the treatment that the non-speech modalities were employed – for total communication, different modalities were trained simultaneously, separately or consecutively; for improving a specific modality, modalities were used as stimuli, during cueing and output, or across different tasks.

DISCUSSION

Our review demonstrated that the term 'multimodal treatment' and similar iterations represent very different therapies with little consistency. Such a label does not reliably communicate the aim or methods of a given aphasia therapy. We will propose a framework to categorise 'multimodal' treatments which is based both on our results and on current terminology in speech pathology.

MOVING FORWARD – PROVIDING INTENSIVE APHASIA THERAPY

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INTRODUCTION

There are currently five randomised clinical trials in Australia investigating different aspects of aphasia management. For example, there is VERSE (very early rehabilitation after stroke) and COMPARE, identifying outcomes for people post stroke with different aphasia treatments. It is documented in the literature and specifically in the National Stroke Foundation guidelines that people with aphasia post stroke want and should receive intensive therapy as early as possible (Worrall et al 2011). Despite this evidence, specifically targeting stroke patients, the amount of therapy provided continues to vary across Australia and internationally (Acute Stroke Quality Improvement Workshop 2018).

METHODS

A retrospective study was completed. This involved reviewing 20 files of inpatients with aphasia admitted to an inpatient rehabilitation unit. Descriptive data was collected including: cohort demographics, length of stay, number of therapy sessions with physiotherapy, occupational therapy and speech pathology, types of therapy provided in a speech pathology session, FIM outcome measures before and after (speech) therapy and specific speech pathology assessment data pre and post therapy.

RESULTS

This stage of the research is in progress at the time of the submission, and the results will be available at the time of the presentation.

DISCUSSION

This data will identify the number of therapy sessions patients post stroke receive and identify the progress the service is achieving in regards to implementing evidence based therapy in a clinical setting. It will also identify the types of aphasia therapy and possible enablers and barriers to achieving intensive therapy.

LANGUAGE & COGNITION IN EPILEPSY

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Epilepsy is a neurological disorder that is characterized by seizures, and is also known as a seizure disorder (Guerrini, 2010). This causes a massive disruption of electrical communication between neurons in the brain. Seizure associated cognitive linguistic impairment is well documented in western literature. Surges of excessive neuronal firing usually affect a person's behavior, memory, and feelings (Monjauze, Broadbent, Boyd, Neville & Baldeweg, 2011). It is common neurological disorders among children as well as adults with its high incidence and prevalence across clinical population either as primary epilepsy syndrome or secondary seizure disorders. In India, overall prevalence 3.0-11.9 per 1,000 population and incidence 0.2-0.6 per 1,000 population per year (Amudhan et al., 2015).

Ongoing epileptiform loci if sub served in language dominant areas can disrupt cognitive linguistic pathways leading to poor verbal, social & spatial cognition which may lead to poor learning, communication, and failure to function adequately across life skills. Epilepsy is reported to be one of the most common co-occurring medical problems across child language disorders, cognitive disorders, neurodevelopmental disorders, developmental dysarthrias & other motor speech disorders (Crofte, 2014; Caniato, 2007; Selassie et al, 2005; Tuchman & Rapin, 2002). Tromp et al (2003) reported that seizures have a direct effect on transient cognitive aspects, which can directly affect intelligence. Literature has highlighted the contribution of severity of epilepsy syndromes, and frequency of seizures, on cognitive functioning.

Verbal semantics, social cognition communication and amnesic aphasic profile among PWE are less speculated and require special attention in dynamic neurocognitive SIG of SLP. Functional reorganization and behavioural compensation as a matter of neural plasticity in chronic epilepsy is well speculated. PWE present with a quite heterogeneous clinical picture which is highly dependent on several clinical variables & contributing factors such as age of onset, language lateralization and semiology, seizure control, monotherapy vs polytherapy AED, literacy, age of acquisition of language & onset of epilepsy, socioeconomic culture, etc. (Elger, 2004). Individuals with Idiopathic epilepsy or late onset/cryptogenic epilepsy may show near normal or below average coglinguistic functions but not significantly impaired language however persons with chronic early onset epilepsy and poor seizure control reflect poor cognitive outcome, poor functional reorganization & compensation causing long lasting cognitive, language, literacy related disabilities. There are many children, adolescents and adults living with epilepsy or newly diagnosed who are non LD/Non CP or neurodevelopmental or with any overt speech language impairment who may have within normal range of verbal IQ and average scholastic performance but if tapped carefully they may be identified to have poor central auditory processing skills, higher linguistic abilities, poor social communication skills which may affect their social and occupational health.

Literature strongly explores the link between contributions of language to cognition, as well as cognition to language (Owen, 2008). Cognitive linguistic deficits in seizure associated brain injury are well documented (Widjaja et al., 2013).

Effects of epilepsy and its treatment on language development and cognition in children as well as adults are well researched in western literature. There is strong need to explore the same in India and provide essential medical, or surgical and further neurorehabilitative intervention to individuals with epilepsy. However lack of identification and intervention can lead to irreversible damage to emotional, social, occupational health leading to poor QOL among individuals with intractable epilepsy. Rehabilitation of epilepsy needs efficient and effective interdisciplinary team approach. SLPs can play a dynamic role in presurgical, intraop evaluation and post op intervention of Epilepsy team.

COMMON AND DISTINCT COMPONENTS OF COMMUNICATION PARTNER TRAINING PROGRAMS IN STROKE, TRAUMATIC BRAIN INJURY AND DEMENTIA

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INTRODUCTION

Communication Partner Training programs (CPT) for healthcare staff who interact with people with the communication disorders associated with stroke, traumatic brain injury (TBI) and dementia are efficacious in improving healthcare communication. However, current programs are lengthy and disorder-specific. They may be difficult to implement in healthcare settings where staff need to communicate with individual patients who have multiple communication disorders, and different patients who have different communication disorders.

The objective of this study was to identify common and distinct components of CPT programs for stroke, TBI and dementia, to determine whether there are common delivery methods and content (i.e. communication strategies) that can be consolidated to improve implementation of CPT in health services.

METHODS

Comparative qualitative enquiry. Four evidence-based CPT programs targeting communication disorders secondary to stroke, TBI and dementia were identified using inclusion criteria (e.g. RCT level evidence) from systematic reviews and literature searches. Information about the delivery of the CPT programs was identified from manuals, study articles and supplementary materials, and was categorised using the Intervention Taxonomy. Information about the content of the CPT programs was compared within categories using constant comparative analysis with open coding.

RESULTS

Delivery characteristics were similar across all four programs. All were delivered face-to-face in either group or individual contexts by a speech pathologist, and all used either information sheets or manuals. However, program duration varied from 1-35 hours.

In regard to the content of the programs, 6/12 categories of information were common across all programs. These were 'strategies for communication', 'background to disorder', 'information about communication', 'information about program', 'negative behaviours to avoid' and 'purpose of program'. Programs differed in the types of skill building techniques that were used, with the most common being videos (3/4 programs), discussions (2/4 programs) and trainer demonstrations (2/4 programs). While specific communication strategies provided to participants targeted similar communicative situations and skills, only 3/96 individual strategies were common to all programs (short simple sentences, one piece of information at a time, give time to respond).

DISCUSSION

There are both common and distinct components in delivery methods and content across CPT programs. The commonalities suggest that it may be possible to consolidate these training programs into one. Further research is needed to critically examine the distinct components of the programs.

The present study has contributed a comprehensive list of program components, which can form a basis for describing and refining CPT programs in the future.

DO STROKE RECOVERY TRIALS MEASURE OUTCOMES RELEVANT TO PEOPLE WITH POST-STROKE APHASIA?

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INTRODUCTION

The aim of this study was to investigate the extent to which the global disability outcome measures used in stroke recovery trials reflect: (1) The range of disability experienced by stroke survivors; and (2) Outcomes which are important to people with post stroke aphasia.

METHODS

Frequently used measures of global disability in stroke trials were identified from two systematic reviews and the Virtual International Stroke Trials Archive (VISTA) rehabilitation database. The International Classification of Functional, Disability and Health (ICF) was used to examine the content of each measure at an item level. The resulting codes were then cross walked to: (1) The ICF Core Set for Stroke; and (2) Previous research examining important outcomes for people with aphasia.

RESULTS

Twelve global disability stroke outcome measures were identified. The Stroke Impact Scale was the most representative of the stroke-related health functions (17.6% of the codes), followed by the Nottingham Extended Activities of Daily Living (12.31%) and Functional Independence Measure (10.77%). In contrast, the Barthel Index (2.31%), EuroQoL-5D (3.08%) and Scandinavian Stroke Scale (5.39%) contained the least number of codes and therefore, were the least representative.

For people with aphasia, the Stroke Impact Scale was the most representative of the aphasia-important outcomes; however, the measure still only contained 17.74% of the codes. The Nottingham Extended Activities of Daily Living was the second most representative, containing 8.07% of codes, while the Frenchay Activities Index, Short Form-36, and Functional Independence Measure sampled 6.45% of the codes. The Barthel Index and the modified Rankin Scale were the least representative of the aphasia-important outcomes (1.61%)

Only the National Institute of Health Stroke Scale, Stroke Impact Scale, Canadian Neurological Scale, Nottingham Extended Activities of Daily Living and Functional Independence Measure included communication items considered important to people with aphasia.

DISCUSSION

This study indicates that many measures of global disability do not reflect the full range of difficulties that are experienced post-stroke. None of the measures sampled more than 20% of the codes from the stroke-related health functions and aphasia-important outcomes.

For representativeness of stroke symptoms, the Stroke Impact Scale, Nottingham Extended Activities of Daily Living or Functional Independence Measure are recommended. However, brevity is often a determining factor, so if the modified Rankin Scale is to be used as the measure for global disability, the measure should consider updating the terminology used to include language, speech and/or communication in the lower levels of its scoring.

PICTURE DESCRIPTION VERSUS PICTURE NAMING: ASSESSING LANGUAGE DEFICITS FOLLOWING DOMINANT HEMISPHERE TUMOUR RESECTION

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INTRODUCTION

'Picture description' is a valuable clinical tool that is often quicker and easier to complete with patients than impairment-based assessment. In both neurodegenerative disease and post-stroke aphasia, picture-description has been shown to be sensitive to language difficulties and an excellent predictor of residual language skills. Prior to dominant-hemisphere tumour resection, rapid assessment of language skills is essential to informing clinicians of the risk of surgically induced aphasia following removal of eloquent tissue. A common test of language skills used by neurosurgical teams remains picture naming; a test that does not adequately capture language performance *per se*. We present data that demonstrates that picture description tasks could be used to inform surgical planning more reliably than picture naming tasks.

METHODS

We assessed 16 right-handed, monolingual English speakers, following surgical resection of a left-sided tumour, using the Comprehensive Aphasia test (CAT). All participants were assessed between 6-12 months post-surgical removal of a primary tumour. The battery included sub-tests of naming and picture description tasks. Transcriptions of the picture description task were analysed using the breakdown of contents recommended in the CAT including: appropriate and inappropriate information carrying words; syntactic variety; grammatical well-formedness and speed of delivery. Scores were then standardized by converting to t-scores.

RESULTS

Using the Comprehensive Aphasia test 8/16 and 9/16 patients demonstrated a language deficit on the spoken and written picture description tasks respectively. In contrast, using the picture naming task, only 1/16 patients presented with a 'language deficit'.

DISCUSSION

The subtle language deficits exhibited in people following tumour resection are not always detected using quick comprehensive screening assessments tools and are certainly not adequately detected using picture naming tasks. However, picture description tasks can quickly and reliably demonstrate the presence of language impairment and can therefore be more accurately used to guide surgical decision-making. Picture description permits language to be explored at a number of different levels. In this case series, the picture description task has been shown to be more reliable than a picture naming task at detecting the presence of language impairment in patients who have undergone dominant-hemisphere tumour resection.

THE EFFECTS OF DIFFERENT EXERCISE INTENSITIES ON WORD LEARNING STRATEGIES IN HEALTHY OLDER ADULTS: A WORD LEARNING STRATEGY INVESTIGATION NESTED IN A RANDOMISED CONTROLLED TRIAL

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INTRODUCTION

Traditional aphasia treatments can improve word retrieval difficulties in people with aphasia, however, therapy outcomes including the extent and duration of improvements can greatly vary between individuals. Novel treatment approaches, such as a single bout of exercise show the potential to enhance the effectiveness of traditional aphasia therapy on word learning. Moreover, effective word learning strategies have been shown to maximise language learning, however older adults often show difficulties formulating strategies to encode and retrieve information. Thus, the aims of this study were (1) to investigate the acute effects of different exercise intensities on the formulation of word learning strategies, (2) to determine how word learning strategies relate to word learning success and (3) to examine whether baseline cognitive characteristics correlate with specific types of word learning strategies used by healthy older adults.

METHODS

Sixty healthy older adults (mean age= 66.6; range= 60-78; gender= 43F/17M) were recruited to participate in a between-group randomised controlled trial. Participants were invited to attend three study visits over a three-week period. At visit one, participants completed a baseline cognitive and fitness assessment. At visit two, participants engaged in either stretching (38 minutes), moderate-intensity cycling (30 minutes at 55-65% Heart Rate (HR) max), or high-intensity cycling (4x4 minutes at 85-95% HRmax interspersed with 3x3 minutes at 50-65% HRmax) followed by an associative word-learning task in which 15 familiar objects paired with legal non-words were randomly presented in five learning blocks. A recall task was completed after each learning block and a recognition task was performed immediately after the fifth recall. At the third visit, recall and recognition tasks were completed followed by a questionnaire on word learning strategies used while learning occurred during visit two.

RESULTS AND DISCUSSION

Preliminary analysis revealed that participants appeared to use visual, lexical, semantic and phonologically based strategies to support their learning. We will further investigate the effects of exercise intensity on the use of word learning strategies, how word learning strategies might impact word learning success and how baseline cognitive functions might be linked to the type of word learning strategy used by healthy older adults. These findings will be presented and discussed in relation to existing literature in the fields of ageing, exercise and language learning. Potential clinical implications for Speech Pathologists working with people with aphasia will also be discussed.

NEUROPHYSIOLOGICAL MARKERS OF LANGUAGE RECOVERY IN SUBACUTE STROKE. AN fMRI STUDY

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INTRODUCTION

Recovery from post-stroke aphasia is highly variable. Currently, there is no effective method available to predict how an individual with aphasia will recover, or to guide the type and timing of language therapy offered. This study addresses the lack of knowledge regarding brain mechanisms which underpin aphasia recovery in order to provide much needed specificity in determining the best predictors of recovery for language symptoms targeted in rehabilitation.

METHODS

Twelve individuals with post-stroke aphasia and 15 healthy age-matched controls performed an event-related functional MRI language task and spoken word comprehension assessment (out of scanner) at 2-6 weeks (subacute) and 6 months (chronic) post stroke. The fMRI task involved lexical decisions on auditory words (abstract, concrete) and pseudowords.

RESULTS

Region of interest (ROI) analyses were conducted to investigate the relationship between brain activity for concrete, abstract, and pseudoword conditions and spoken word comprehension at 6 months. ROIs were selected based on previous meta-analyses of concrete and abstract word processing. At the subacute stage, there was a strong positive correlation between left posterior cingulate activity for pseudowords and improved spoken word comprehension at six months. Negative correlations were also observed between chronic spoken word comprehension and increased subacute left superior frontal gyrus activity for pseudowords. At the chronic time point, activity in left posterior cingulate for both concrete and abstract words was positively correlated with single word comprehension.

DISCUSSION

These findings demonstrate the potential of this paradigm to elicit language-related neural activity in subacute and chronic aphasia that relates to improved spoken word comprehension. The positive involvement of left posterior cingulate at both time points suggests that this region contributes to improved language comprehension abilities although its function appears to change over the course of recovery with respect to activity elicited for pseudowords (subacute) versus real words (chronic). While this region is commonly associated with the default mode network, it is also frequently engaged during retrieval of semantic information and episodic memory operations. Successful engagement of these semantic retrieval processes while performing lexical decisions appears related to subsequent recovery of spoken word comprehension.

MOOD AND MOTIVATION IN SUB-ACUTE APHASIA: AN INVESTIGATION ON RECOVERY AND PROGNOSTICATION

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INTRODUCTION

Aphasia affects up to 40% of stroke survivors, but there is no reliable method for predicting recovery even among individuals with similar clinical profiles. The first six months after stroke are critical due to a number of processes that occur during this sub-acute interval, including spontaneous improvement; clinical management decisions; adjustment to disability; and, conversations about prognosis. Currently, there is no evidence-based approach to aphasia prognostication (i.e. predicting language function recovery and communicating this forecast with people living with aphasia), and this is a significant challenge for speech pathologists. A patient's mood and their level of motivation are routinely used to inform clinical decisions, but the role of these psycho-emotional factors in recovery and their relationship with other aspects of rehabilitation is unquantified and not well understood. The present research investigates the role of mood and motivation in language function recovery in sub-acute aphasia. This includes an in-depth exploration of the relationship between mood, motivation, and prognostication from the perspective of key stakeholders.

METHODS

This research is conducted using both quantitative and qualitative methodology. The first study follows a longitudinal, repeated-measures design, testing people with aphasia (n=30) at three time points (1 month, 3 months, and 6 months post-stroke) using a comprehensive language battery and a series of mood and motivation measures. Statistical analyses will be performed on these data to examine whether there is an association between mood, motivation, and language measures, and if mood and motivation predict language improvement. The second study involves a series of semi-structured interviews with three key stakeholder groups in sub-acute aphasia: people with aphasia (PWA), significant others of PWA, and speech pathologists. The interview topics seek to explore stakeholder perspectives on the role of mood and motivation in sub-acute aphasia recovery, and how these psycho-emotional factors relate to prognostication. An innovative automated content analysis technique will be used to identify emergent themes and relationships among the qualitative data.

RESULTS

The current abstract pertains to a plan of research for a doctoral study. No results are available.

DISCUSSION

This research is expected to contribute towards a greater understanding of factors related to aphasia recovery in the sub-acute interval after stroke, and a family-centred, evidence-based approach for aphasia prognostication.

COUNSELLING TRAINING FOR SPEECH PATHOLOGISTS WORKING WITH PEOPLE IMPACTED BY POST-STROKE APHASIA: A SYSTEMATIC REVIEW

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INTRODUCTION

The Stroke Foundation has identified psychological care after stroke as a priority for improvement. People with post-stroke aphasia experience psychological issues more often and more severely than stroke survivors without aphasia. Speech pathologists frequently provide counselling to people with post-stroke aphasia. However, they report low knowledge, skills, and confidence in this activity. This study aimed to identify the content, amount, teaching methods, and outcomes of counselling training provided to speech pathologists working in post-stroke aphasia.

METHODS

A systematic review was conducted in eleven electronic databases until June 2017 utilising search terms and synonyms including speech pathology, stroke, psychological wellbeing, counselling, and training. The literature was appraised using the Search and Appraisal (SALSA) framework and synthesised as a systematic review.

RESULTS

Four studies provided information on pre-qualification post-stroke aphasia counselling training, and three studies described speech pathologist counselling training within the stroke team. Counselling training for speech pathology students working in post-stroke aphasia is generic, limited and variable. Moderate correlations were reported between counselling training and levels of comfort and preparedness to counsel. There is little information as to how student speech pathologists acquire counselling competency during their training program to enable them to support the psychological needs of the client impacted by post-stroke aphasia, and no studies of Australian universities.

Some speech pathologists underwent limited training in low-level psychological care where the Stepped Psychological Care model is utilised. Duration of counselling training ranged from 3 hours to 2 days. A range of teaching techniques and counselling approaches were described. Self-report checklists and themes from qualitative data were the primary measures of counselling training outcomes. Training in counselling to provide low-level psychological care was beneficial to speech pathologists, although effect sizes were not reported. Appropriate counselling training for speech pathologists may enable practitioners to better support psychological wellbeing in people impacted by post-stroke aphasia.

DISCUSSION

Additional information on pre-qualification counselling training for speech pathologists working in post-stroke aphasia is required. Development and evaluation of counselling training specific for speech pathologists working in post-stroke aphasia is also warranted.

ARE CURRENTLY AVAILABLE E-MENTAL HEALTH PROGRAMS FOR DEPRESSION APPLICABLE AND ACCESSIBLE TO PEOPLE WITH POST-STROKE APHASIA? A SCOPING REVIEW AND TRIAL

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INTRODUCTION

Approximately 60% of people with aphasia suffer from depression one year post-stroke. Negative emotional outcomes after stroke increase a persons' risk of disability, lower quality of life and mortality. Online, self-administered mental health (e-mental health) programs for depression have shown to be an effective, convenient and cost-effective form of mental health treatment for people within the general population. However, it is unknown whether such services are applicable and communicatively accessible to people with aphasia.

METHODS

A scoping review was conducted to identify currently available e-mental health programs for depression. These programs were then evaluated in terms of their (1) general features- via a general evaluation tool, (2) communicative accessibility for people with aphasia- via an aphasia-specific communicative accessibility evaluation tool and (3) empirical evidence for the general population, stroke survivors and people with aphasia. The evidence-based program which met the most evaluation criteria was then trialled by participants with aphasia.

RESULTS

Eight programs met the inclusion criteria and were included in the scoping review. Half of these programs had published randomised controlled trials demonstrating their efficacy within the general population. No studies were identified which explored these programs' use by stroke survivors with or without aphasia. The evidence-based program which scored the highest on both evaluation tools was trialled by a group of people with aphasia. In this trial, participants with aphasia were unable to independently use the e-mental health program and/or gave it low usability scores on a satisfaction survey.

DISCUSSION

Even the most highly rated e-mental health program was unsuitable for people with aphasia. Thus, e-mental health programs require considerable modification if they are likely to be useful to people with aphasia. Accessibility issues faced by the participants in the trial are explored and suggestions for further research investigating the accessibility of e-mental health programs for people with aphasia are made.

THE LISTENIN PROJECT: DELIVERING HIGH DOSE AUDITORY COMPREHENSION THERAPY IS BOTH ACHIEVABLE AND EFFECTIVE.

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INTRODUCTION

The evidence for the effectiveness of impairment-based auditory comprehension therapy remains equivocal. Studies presenting a null result often provide an insufficient dose to allow for a reliable critique of the intervention's effectiveness. Subjective feedback from people with aphasia (PWA) suggests that some major barriers to achieving a sufficient dose include both access to speech pathology, and the mundane nature of the tasks. In collaboration with PWA, we utilized gamification strategies to develop a therapy application that would motivate engagement for 100 hours of impairment-based therapy. Using this application, we hypothesized that an improvement in comprehension skills would be observed following a high dose of impairment-based therapy.

METHODS

An application using gamification techniques was developed to improve auditory comprehension deficits in PWA. A crossover clinical trial was conducted to assess the efficacy of this application. 36 people with comprehension deficits following a unilateral left hemisphere stroke participated in five testing sessions, a 12-week block of 'ListenIn' therapy and a block of 'standard care'. During the 'ListenIn' block, participants were asked to complete 100 hours of 'ListenIn' therapy. Therapy was monitored remotely and the team investigated any 'under dosing' as it occurred.

RESULTS

The group completed a mean therapy time of 86 hours. A significant difference between performance on outcome measures before and after therapy was observed following 'ListenIn' therapy versus 'standard care', with a large effect size ($M=11.1$, $SD=16$), $t(34) = 4.1$, $p < 0.005$ $d=1.2$. There was a significant difference between treated versus untreated items during the 'ListenIn' phase ($M=11.5$, $SD=8/6$), $t(34) = 7.9$, $p < 0.005$. Additionally, a latent improvement on untrained items was observed.

DISCUSSION

We have demonstrated that it is both feasible and effective for participants to complete a large dose of home-based auditory comprehension therapy. Our evidence, from a large group of participants, demonstrates that auditory comprehension skills can be improved in chronic post-stroke aphasia. Importantly, this study highlights the value of involving people with aphasia in the design and development of both research and clinical resources.

THE STATE OF APHASIA: SERVICE GAPS AND NEEDS

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The objective of this presentation will be to highlight research on the state of aphasia rehabilitation. A comprehensive review was completed by Aphasia Access, a non-profit professional organization with a mission to improve services for people with aphasia. The report describes relevant and current research on prevalence and risk factors for aphasia, social, financial and life quality consequences of aphasia, and available services and service gaps. Sources for the broad based review included articles identified in online databases, reference lists of identified articles, surveys of rehabilitation professionals and websites of relevant organizations. Highlights from this report will be described and suggestions for addressing service or knowledge gaps will be offered in the following areas: frequency of aphasia; risk factors for aphasia, impact of aphasia, communication access and service delivery.

Thursday 29th
November

WHERE DO WE FOCUS OUR IMPLEMENTATION EFFORTS? A WORKSHOP IN PRIORITISING THE EVIDENCE-PRACTICE GAPS IN APHASIA MANAGEMENT.

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BACKGROUND

Despite the availability of Clinical Practice Guideline recommendations for post-stroke aphasia management, evidence-practice gaps persist. When clinicians implement guidelines, client outcomes are increased. However, in an environment of competing demands for finite health resources, implementation targets need to be prioritised and selected, often from a large set of evidence-based recommendations. Methods for identifying implementation priorities have received little attention in the literature to date with little consensus on the best prioritisation approach. Nevertheless, there are a number of criteria that clinicians could use to prioritise implementation targets, which may lead to increased implementation success and increased outcomes for clients and their families.

AIMS

This workshop aims to provide clinicians with a step-by-step process for identifying implementation priorities relevant to their workplace and clients. It will also explore the following questions specifically:

1. Why is it important to prioritise evidence-practice gaps?
2. What factors should be considered when prioritising implementation topics?
3. What are clinicians' priorities for implementation efforts in aphasia management?

IMPLICATIONS FOR CLINICAL PRACTICE

This session will be an interactive clinical planning opportunity focusing on evidence-based factors that may be important in the prioritisation of implementation topics, including: the identification of evidence-practice gaps, the level of evidence supporting implementation, and clinician and client preferences. The priorities that clinicians identify can be targeted in future implementation efforts in aphasia and more broadly.

**DOES INTENSIVE EARLY APHASIA THERAPY IMPROVE OUTCOMES?
RESULTS OF THE VERSE TRIAL**

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BACKGROUND

VERSE is a PROBE trial, to determine whether two types of intensive aphasia therapy within 14 days of acute stroke, provided for 20 sessions (minimum 15 hours), deliver greater therapeutic and cost-effectiveness than usual care with particular attention paid to monitoring of trial fidelity.

METHODS

Eligible participants with acute post-stroke aphasia were stratified by aphasia severity and randomised to receive usual care, usual care-plus (usual ward-based therapy provided daily) or VERSE therapy (a prescribed aphasia therapy provided daily) starting within the first 15 days following stroke (N=246). UC therapy is usual ward-based aphasia therapy; UC-Plus is usual ward-based therapy provided for 20 x 45-60 minute sessions (15-20 hours) within the first 50 days following stroke; VERSE therapy is a prescribed aphasia therapy provided at the same intensity as UC-Plus therapy. The primary outcome was the Aphasia Quotient of the Western Aphasia Battery at 12 weeks post stroke. Secondary outcomes included discourse analysis, Stroke and Aphasia Quality of Life (SAQoL-39), the Aphasia Depression Rating Scale, and resource use (for full cost evaluation) at 26 weeks post stroke. Therapy fidelity was measured according to the TIDiER statement with treatment adherence and treatment differentiation monitored throughout the trial. Clinicians in the UC-Plus and VERSE treatment arms were required to video record four therapy sessions (sessions 5, 10, 15 and 20). These sessions were reviewed by the independent therapy fidelity monitor and feedback was provided to therapists as part of the ongoing adherence to the treatment protocol. Data analysis will be completed in September 2018.

DISCUSSION

VERSE is the largest clinical trial completed in early aphasia intervention and one of the first to report comprehensive treatment fidelity results that comply with the TIDiER statement for complex clinical trials. The VERSE trial found that early intensive aphasia therapy after acute stroke did not result in greater improvement in communication recovery than lower intensity usual care at 12 weeks post stroke. A full cost evaluation evidence for this trial will further contribute to the evidence base to provide a comprehensive overview of early aphasia recovery after stroke.

IS IT MAINTENANCE TIME? WHAT FACTORS ARE IMPORTANT TO LONG-TERM PRESERVATION OF INTENSIVE PROGRAM GAINS FOR PEOPLE WITH CHRONIC APHASIA

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INTRODUCTION

Treatment intensity has been suggested as one of the key factors in achieving an immediate benefit for people with chronic aphasia. However, an analysis of the effectiveness of intensive treatment programs in the 2016 Cochrane systematic review mainly included data from acute stage participants, immediately following therapy completion. This might not provide a reliable indication of the stability of change over time, and specifically for people in the chronic phase. Maintenance of therapy gains is a critical aspect of effective aphasia treatment however to date maintenance is yet to become a central theme in aphasia research and clinical practice.

METHOD

We conducted a systematic review of the long-term retention of outcomes from intensive behavioural treatment programs (5+ hours/week) for people with chronic post-stroke aphasia (≥ 6 months). Following a systematic database search and study selection, studies were rated for level of evidence and quality, and results synthesised.

RESULTS

While 95 studies met the review criteria, only 42 programs included any maintenance data, which was below 12 weeks in most papers. The majority of programs that included follow-up evaluation at 12 weeks reported a decline (9/12 studies) in outcome measures compared to immediate post-intervention, while studies with an evaluation point at 24 weeks found good preservation of the results (4/5 studies). Studies which found good maintenance at 24 weeks post-intervention delivered additional therapy during the entire follow-up period.

DISCUSSION

The notion that, without any further intervention, short-term intensive therapy programs can promote gains that are of a long-lasting nature, might not apply to some people with chronic aphasia. It may be that intensive aphasia programs are a necessary first "booster" step towards a meaningful and lasting change in real life communication. In order to improve maintenance of aphasia therapy gains, there is a need to explore the factors that impact maintenance of treatment achievements. At present, the majority of aphasia rehabilitation is behavioural in nature and as such, behavioural change theories might also apply to the maintenance of aphasia therapy gains. A recent systematic review addressed the maintenance of behaviour change of 100 theories and identified five themes explaining how initial changes are maintained over time. These themes have strong application to the long-term maintenance of intensive aphasia therapy gains for people with chronic aphasia. Long-term preservation of therapy gains is the ultimate goal of aphasia therapy. It is vital that maintenance becomes a focus in research and practice.

ASSISTIVE TECHNOLOGY TO SUPPORT FUNCTIONAL WRITING IN APHASIA: RESULTS OF A QUASI-RANDOMISED WAITLIST CONTROL STUDY

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INTRODUCTION

Writing disorders are common in aphasia. However, a recent systematic review revealed few group studies of writing interventions, and no randomised trials (Thiel et al, 2015). While studies demonstrated gains in single word spelling (e.g. Raymer et al, 2003), few improved written discourse or functional writing (e.g. Panton & Marshall, 2008; Thiel, Sage and Conroy, 2014 & 2016). Recent studies suggest that assistive technologies (AT) may compensate for aphasic writing impairments (e.g. Cauté & Woolf, 2016; Thiel, Sage and Conroy (2017). This study investigated whether training in AT would improve functional writing in PWA, and whether gains were compensatory or arose from remediation of writing impairments (Marshall et al, 2018).

METHODS

Design: Participants were randomly allocated to immediate or delayed therapy. Measures were administered at baseline (T1). The immediate group received six weeks intervention while the delayed group received no intervention. Measures were repeated (T2) at which point the delayed group remained untreated. The delayed group then received intervention while the immediate group received no intervention, followed by reassessment (T3). The delayed group were retested following another six-week break (T4).

Sample: 21 participants with aphasia after stroke, including 12 men and 9 women (age mean = 56 years SD 8.01), minimum 4 months post onset (mean = 57.21 months SD 37.99), fluent English speakers pre-stroke, medically stable, and able to give informed consent.

Intervention: Participants received 12 hours of individual therapy, twice weekly for six weeks. They were trained to use either Dragon Naturally Speaking™ or WriteOnline™ software, and supported to use the software in personal goal-directed writing tasks such as writing emails or short stories.

Measures: The primary measure was a functional email-writing task adapted from Cauté & Woolf (2016), administered in handwriting and technology-assisted conditions. Emails were scored for Lexical Quotient (LQ), Grammatical Quotient (GQ) and Social Validity (SV).

RESULTS

Results showed a clear treatment effect. At T2 the treated group improved whereas the untreated group did not. The delayed group also improved once therapy occurred. For the whole group there was a significant improvement from pre- to post-therapy on all scores in the technology assisted condition. This was maintained at follow up.

DISCUSSION

This study shows that PWA were able to employ mainstream AT to improve functional writing. The dysgraphia was not remediated and became evident when unassisted handwriting was assessed. Improvements occurred only when writing was assisted by technology, pointing to a compensatory effect.

COMMUNICATION OUTCOMES FOLLOWING SEVERE TRAUMATIC BRAIN INJURY: FACTORS TO CONSIDER AND THERAPY IMPLICATIONS

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INTRODUCTION

This study examines communication recovery following severe traumatic brain injury (TBI) by addressing the research questions: (1) What factors predict communication recovery at two years post-injury? and (2) What associations exist between pre-injury demographic factors, injury severity, post-injury communication impairments and 2-year outcomes?

METHODS

57 participants, aged 16- 67 years, with severe TBI attended communication and neuropsychological assessments at three, six, nine, 12 and 24 months post injury. Predictor measures included pre-injury (gender, age, pre-morbid education), injury (PTA, GCS) and post-injury (diagnosis of aphasia, dysarthria, conversation discourse, cognitive communication (CCD) and neuropsychological) data. At 2 years, perceived communication was measured using the LCQ. Psychosocial participation was measured using the SPRS-2; and conversational participation was evaluated with the Adapted Kagan Rating Scales.

RESULTS

Multiple regression analyses indicated that pre-injury and injury measures predicted communication partners' perceptions of psychosocial outcomes ($p < .05$) with pre-morbid education the only independent predictor of recovery (accounting for 17% variance). Perceived communication skills outcomes were significantly correlated with information speed/memory and executive functioning (EF) skills at six months post injury ($\rho = -.507$; $\rho = -.384$ $p < .01$). Other-reported psychosocial outcomes were associated with: pre-injury education ($\rho = .378$, $p < .05$); PTA ($\rho = -.432$); 3 month EF ($\rho = .396$, $p < .05$); 3 and 6-month processing speed/ memory ($\rho = .570$, $\rho = .546$, $p < .01$); 3 and 6-month aphasia ($\rho = .435$; $\rho = .497$ $p < .05$, $p < .01$ respectively); 6-month dysarthria scores ($\rho = .334$, $p < .05$) and CCD ($\rho = .706$, $p < .01$). Conversation outcomes were strongly correlated with 3-month processing speed/memory ($\rho = .538$, $p < .05$) and 6-month aphasia ($\rho = .663$, $p < .01$), dysarthria ($\rho = .556$, $p < .01$) and CCD ($\rho = .707$, $p < .01$).

DISCUSSION

Premorbid education and subacute communication and neuropsychological status are key factors in determining communication recovery. 6 months post injury was a critical time point for predicting recovery which has implications for current service delivery models.

“TALKING VERSE”: AN EXPLORATION OF TALK TIME AND COMMUNICATIVE INTENT IN VERY EARLY APHASIA REHABILITATION

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INTRODUCTION

Aphasia intervention provides positive results when compared to no therapy. Limited research is available which explores the manipulation of treatment variables including intensity, dose and length of therapy. Further investigation of these variables may lead to a greater understanding of what makes aphasia therapy effective. Principles of neuroplasticity state that intensive, error free practice of a skill will lead to improvements of accuracy and strength in that skill. This can be applied to the use of language, indicating the practice of verbal language can have positive effects on language recovery. If improvement in verbal output is the goal of therapy, we propose that the measurement of talk time in aphasia therapy will provide an indication of therapy dosage. There is no research quantifying talk time in aphasia rehabilitation. Using data collected in the Very Early Rehabilitation in SpEech (VERSE) trial, the proposed research explores the amount of time therapists and people with aphasia (PWA) spend talking in therapy sessions, and compares talk time between two intensive arms of the VERSE trial (usual care and VERSE therapy). A secondary aim of the study will explore the communicative intent of PWA and therapists within these sessions.

METHODS

This observational case matched study will utilise video recordings of therapy sessions collected as part of treatment fidelity processes within the VERSE trial. Six participants, randomly assigned to either VERSE ($n=3$) or usual care ($n=3$), will be selected for the study. These participants will be matched based on age, gender and verbal fluency scores in the Western Aphasia Battery.

Talk time of PWA and therapists will be coded using the Multimodal Analysis Video software. A systemic functional linguistics analysis (SFL) will explore communicative intent.

RESULTS

Data collection will commence in June 2018, with final results completed in early September 2018. These results will provide the first quantifiable insight of talk time in aphasia therapy sessions, allowing comparison between both usual care and VERSE therapy, as well as between PWA and therapists. Frequency and length of interactions will be provided by the SFL analysis.

DISCUSSION

This research will provide a method for the calculation of talk time during aphasia rehabilitation sessions. It will also provide a quantifiable insight into VERSE and usual care therapy sessions, which will supplement the much larger research into treatment fidelity in the VERSE trial.

EXPERIENCES OF IMPLEMENTING APHASIA-FRIENDLY MENUS IN THE HOSPITAL SETTING

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INTRODUCTION

A significant challenge people with aphasia (PWA) face when receiving health care is being able to access information within their environment, including menus in hospital. Communication supports may positively influence involvement in choosing from the menu and reduce frustration. There is currently little research evaluating supported hospital menus for PWA and understanding barriers and facilitators to their implementation.

This study aimed to explore staff experiences and perceptions regarding enablers and barriers to the implementation of an aphasia-friendly menu (AFM) tool. This was part of a larger study which evaluated the impact of an AFM on PWA's perceptions and behaviours related to meal ordering compared to usual hospital menus.

METHODS

Thirty PWA who were inpatients (average age 69.38 years), 14 caregivers and five SPTAs were recruited to this mixed methods study. A random alternating treatment design was used where PWA alternated ordering their meals using the AFM on an iPad with Speech Pathology Therapy Assistant (SPTA) assistance and the usual care menu. Caregivers completed a questionnaire to obtain their perceptions of the menus. PWA reported their preferred menu type and perceptions of ease and participation. SPTA experiences and perceptions were explored through a daily log and focus group discussing further enablers and barriers to implementation, which was analysed using qualitative content analysis.

RESULTS

Themes gathered from the SPTA daily log and SPTA focus group included: barriers and facilitators for using the AFM, benefits and suggestions for future implementation. Barriers included: patient and staff availability, patient engagement and menu errors. Facilitators included: use of photographs and staff assistance. Benefits included: promotion of independence and ease of use. Suggestions for future implementation focused on altering menu design and additional staff training. Caregivers provided positive feedback regarding the PWA's independence with using the menus and the level of assistance the PWA requires. Significant increases in involvement and ease of ordering were found compared to usual menus and more PWA preferred the AFM ($P < 0.001$).

DISCUSSION

Perceptions of benefits to using the AFM in comparison to usual care menus was identified. It was suggested that the use of an AFM may increase ease and involvement in meal selection for PWA and may lead to increased independence and feelings of empowerment. Patient selection and the practicalities of implementing this tool should be considered in local contexts, keeping in mind resource development, maintenance and staffing requirements.

CONVERSATION TOPICS FOLLOWING SEVERE TRAUMATIC BRAIN INJURY: A STUDY AT 2 YEARS POST-INJURY

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INTRODUCTION

To investigate the patterns and nature of conversation topics in conversations between individuals with severe traumatic brain injury (TBI) and familiar communication partners at 2 years post-injury.

METHODS

Qualitative descriptive approach was adopted to investigate the patterns and nature of conversation topics discussed during chronic recovery. Twenty-six participants with severe TBI engaged in a ten-minute casual conversation on topics of their choice with a familiar communication partner at two years post-injury. Topic analysis revealed patterns of conversational and topic introduction. Qualitative content analysis explored and described the nature and meaning of the conversation topics.

RESULTS

Participants with TBI introduced fewer topics, but had equal numbers of conversational turns as their communication partners. Individual variations in patterns of topic introduction were noted. Four main conversational themes were identified during chronic recovery: (1) Taking ownership of daily life post-injury (2) Continuing changes with rehabilitation (3) Residual impairments/concerns at 2 years, and (4) Redefining identity after TBI.

DISCUSSION

Qualitative analysis provides detailed insight into conversation topics of people with severe TBI. Patterns of conversational and topic introduction reflected that participants were able to independently introduce and maintain topics in conversations. Identified conversational themes may inform clinical practices in the assessment and treatment of TBI during chronic recovery.

A STEPPED PROGRAMME OF GROUP SUPPORT AND INTERVENTION FOR COUPLES LIVING WITH PRIMARY PROGRESSIVE APHASIA

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INTRODUCTION

Primary Progressive Aphasia (PPA) can affect speaking, reading writing and comprehension, as well as social behaviour, and progressively impacts the effectiveness of conversation. High carer burden is associated with the presence of aphasia in the cared for person. Although in the UK, diagnosis of PPA is improving, management advice and support for people with PPA and their relatives is scarce.

Speech and Language Therapists at Dyscover, a third sector aphasia support organisation in the UK, have devised an innovative stepped programme of support to groups of couples living with the condition. The service is the subject of evaluation in collaboration with H. Brady MSc student at UCL.

METHODS

Telephone and face to face interviews were conducted with participants to explore the priorities for people with PPA and their relatives at each stage – early post diagnosis, mid stage and late stage.

An early stage workshop, and 6 week course were delivered to groups of couples living with PPA. Follow up support sessions after the course were also offered.

We evaluated the outcomes of this stepped programme of practical support and intervention using data such as participant medical information, pre- and post-course conversation samples, participant satisfaction questionnaires, and participant reports of conversation strategy use.

RESULTS

Evidence collected to date indicates that people living with PPA have different needs at different stages of the condition. We will gather more data to test this hypothesis.

The majority of participants in the early stage workshop, and couples' courses report a greater understanding of PPA, an awareness and use of communication strategies, and more frequent conversations with fewer unsuccessful exchanges.

The lead SLTs will reflect and report on the successes and challenges of running this programme.

DISCUSSION

People with PPA have communication needs distinct from those experienced in other types of dementia. These needs change over time. SLTs have the expertise to enable pwPPA and their partners to have more successful conversations.

This intervention could help preserve decision making and participation for longer periods, and contribute to positive relationships and wellbeing. The programme is inexpensive and could be conducted by specialist SLTs over a wider area, benefitting more people with PPA.

APHASIA AND REPERFUSION THERAPIES IN HYPER-ACUTE SETTINGS: A SCOPING REVIEW

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INTRODUCTION

The introduction of reperfusion therapies has the potential to change the presentation of patients' symptoms following acute ischaemic stroke (AIS). Reperfusion therapies are medical treatments given within 4-6 hours of an AIS to restore blood flow. Reperfusion therapy can involve surgical removal of a blood clot, medications that dissolve clots or a combination of both techniques. The purpose of this scoping review is to summarise the current literature on aphasia and reperfusion therapy from a speech pathology perspective.

METHODS

A systematic literature search was performed on studies published up until October 2016 on Web of science, Medline, CINAHL, Cochrane database of systematic reviews and EMBASE. Relevant studies that reported on aphasia and reperfusion therapy were assessed for quality and the relationship between the two. The studies were graded using a critical review form and the quality of the articles was summarised.

RESULTS

This scoping review explored the relationship between aphasia and the reperfusion therapies, within the 27 studies identified, two core concepts emerged. The first concept was that aphasia could potentially predict the need for reperfusion therapy. The second concept was that aphasia was one of the last symptoms to resolve post reperfusion therapy. Despite speech-language pathologists filling a central role in management of aphasia, only seven of these studies mentioned involvement of speech-language pathologists, with minimal information about the precise nature of the involvement of speech-language pathology services.

DISCUSSION

Aphasia and reperfusion therapies is an important area to research as aphasia not only causes functional disability but impairs quality of life. This study highlights the potential need for speech-language pathology involvement within the emergency setting, as aphasia alone appears to be an indicator of the need for reperfusion therapy. There may be a role for a quick and comprehensive aphasia assessment designed by speech-language pathologists, to use along with the NIHSS. The changing needs of this patient population in the rehabilitation setting also requires further research. Despite the success of reperfusion therapies, the studies reviewed in this scoping review indicate that this patient population may need to prioritise assessment and treatment by a speech-language pathologist, as aphasia appears to be a persisting symptom. Based on this scoping review, reperfusion therapy appears to be impacting on the presentation of aphasia. A prospective study into reperfusion therapy and aphasia is required to inform speech-language pathologists on this patient population.

IMPROVING BETTER CLINICAL COMMUNICATION WITH PEOPLE WITH APHASIA THROUGH USER-CENTERED DESIGN

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INTRODUCTION

The communication between HCPs and people with aphasia (PWA) is often challenged due to aphasia. To overcome communicative barriers in health care supportive techniques and provision of conversation partner training to HCPs are increasingly seen.

This study seeks to develop a package of methods and tools to HCPs with the purpose of improving the experience and outcome of rehabilitation for PWA. This presentation focus on the first two phases of the project: 1) how does communication between HCPs and their clients with aphasia currently takes place?; and 2) what would HCPs and service users (PWA and significant others) want to be in the package of methods and tools?

METHODS

The study takes place in a collaboration between two regional hospitals, two municipalities, researchers and local health care innovation agencies. Action research with user-centered design is the main method used. To answer the first research question a mixed-method ethnographic inspired study took place with observation in in- and outpatient services, individual interviews with HCPs and service users, and a survey for HCPs. The second question has been explored through three user-centered design workshops for HCPs and service users.

RESULTS

A great variation in the HCPs' use of communicative support is seen which challenge them in involving PWA in a satisfactory and ethical way. The service users experience frustration and insecurity related to the great variety in or lack of communicative support.

A number of ideas for tools and methods have been suggested, amongst them: 1) a clinical guideline of how to communicate with PWA; 2) a bedside symbol indicating that supported conversation must take place here; 3) a training package for HCPs; and 4) a list what significant others should know about aphasia from early stages that all HCPs can provide.

DISCUSSION

The result generated in this study is similar to earlier studies and the suggested methods and tools are not unfamiliar to many speech pathologists. However, what makes this different is they are generated in an iterative process by the HCPs and service users in a specific context. Hopefully that will make it easier to develop tools and methods that are easier to implement since they build on actual needs of the people involved. Next stage of the project will be to develop and test actual prototypes including a teaching program and evaluate it with HCPs and service users.

SEMANTIC THERAPY – ‘THE WHAT AND HOW’

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INTRODUCTION

Up to 38% of people post stroke have aphasia (Allen et al 2014). Early intensive therapy is recommended (Brady et al 2009). Some people with aphasia will have difficulties with all four language domains: understanding, speaking, reading and writing. Difficulties with semantics will have a significant impact on a person's ability to understand and communicate. People with moderate to severe aphasia will present with impairments in accessing their semantic system. There is a growing body of research identifying interventions that have positive outcomes for people with aphasia. However, the evidence base for specific therapies such as semantic therapy remains limited.

METHOD

This is a single case study. A 73-year-old patient was assessed and re-assessed post therapy with the WAB-R bedside screener and subtests of the PALPA. The patient presented with severe aphasia affecting all four language domains. Semantic therapy was administered daily. Examples of the types of tasks the patient completed included: auditory word picture matching, written word picture matching, and categorization.

RESULTS

The semantic therapy administered has shown a demonstrable change in the patient's formal test scores.

DISCUSSION

A person's ability to name objects and engage in conversation is often a target for speech pathologists when working with a patient with aphasia. This presentation aims to highlight the importance of semantics to both auditory comprehension and the ability to communicate and add to the evidence base for semantic therapy.

A CHART AUDIT OF INDIGENOUS AUSTRALIAN STROKE AND TRAUMATIC BRAIN INJURY ADMISSIONS AT A REGIONAL QUEENSLAND HOSPITAL: IMPLICATIONS FOR APHASIA MANAGEMENT

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INTRODUCTION

Aphasia is common following acquired neurological injury. Australia's Indigenous populations have poorer health status compared to other Australian populations, especially for stroke and traumatic brain injury (TBI). Australia's Indigenous populations vary greatly in terms of geography, culture and language which can present significant challenges for speech pathologists, due to potential cultural and language differences. To develop culturally responsive healthcare for Indigenous Australians, it is important to explore regional differences that may affect healthcare delivery. To date, no research has been undertaken in Queensland to investigate speech pathology management of Aboriginal and Torres Strait Islander adults with acquired communication disorders. The aim of this study was to examine the clinical profiles of adult Indigenous Australians admitted with acute stroke and TBI, and subsequent speech pathology services, at a Queensland hospital.

METHODS

A two year retrospective chart review was conducted of the medical records of Aboriginal and Torres Strait Islander adults, admitted with acute stroke and TBI, to a hospital in regional Queensland. Demographic data (e.g. age, gender, culture, home location); clinical data (e.g. date of admission, length of stay, medical diagnoses); and documented speech pathology interactions (e.g. assessment and intervention); were extracted into an electronic spreadsheet.

RESULTS

One hundred and thirty-eight Indigenous Australian adults (79 men, 59 women; M age 50 years, age range: 20-90 years) were admitted due to acute stroke or TBI during the two year period. Patients were from 25 locations across Queensland, including several Aboriginal or Torres Strait Islander communities. Almost all patients were from outer regional, remote or very remote localities; however, language background was recorded as 'English only' for all patients. Preliminary results indicated that informal approaches were primarily used to determine whether a patient had aphasia. Treatment appeared to focus largely on functional approaches, such as conversation and functional reading. Speech pathologists rarely reported adapting assessment or therapy to accommodate cultural and language difference. Indigenous Liaison Officers were infrequently involved in the delivery of speech pathology services.

DISCUSSION

Given the vast cultural and geographic diversity of these patients, English may not be the primary language spoken, despite all patients having their language recorded as 'English Only'. The diversity of this caseload may present several challenges for speech pathologists, in relation to aphasia assessment and intervention. Aphasia management should accommodate the diverse backgrounds of Indigenous Australian patients to provide effective and culturally appropriate care.

THE EFFECT OF NOUN AND VERB RETRIEVAL TREATMENT ON SENTENCE PRODUCTION IN LOGOPENIC VARIANT PRIMARY PROGRESSIVE APHASIA: A SINGLE CASE STUDY

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INTRODUCTION

Lexical retrieval treatment is a preferred intervention for word finding difficulties associated with Primary Progressive Aphasia. A body of evidence has now demonstrated that this treatment can improve naming of trained items and that gains can be maintained with ongoing practice. Evidence of generalisation of treatment gains to untreated items and connected speech tasks, such as sentence production, however, is sparse. This multiple-baseline cross over study investigates the effects of reading and repetition in the presence of a picture (RRIPP) treatment of nouns and verbs on sentence production with a single subject with logopenic variant PPA (lvPPA).

METHODS

An individual (SC) with a confirmed diagnosis of lvPPA, participated in treatment; RRIPP targeting common nouns and verbs. Nouns and verbs were derived from 66 action pictures and divided into three matched sets, each, of nouns and verbs. After a baseline period, SC engaged in two weeks of intensive errorless practice of set 1 nouns and set 2 verbs, at home, on her computer. The second phase of treatment targeted set 2 nouns and set 1 verbs. In the final treatment phase, set 3 verbs were treated. Assessments were conducted prior to treatment (3 test points), and after each treatment phase. At each testing point, as well as treated and untreated verb and noun naming, production of a verb plus object noun sentence in response to action pictures, was assessed. Results were statistically evaluated using WEighted STatistics (WEST) to examine the trend across the treatment period (WEST-Trend) and compare the rate of change across treated and untreated periods (WEST-ROC).

RESULTS

Phase 1 resulted in the predicted improvement in naming of treated nouns and verbs and production of sentences containing treated verbs (but not those containing treated nouns). SC was unwell during Phase 2 and performed poorly at post-test. Phase 3 also showed improvement of verbs with treatment, and a trend to better performance on sentences producing these verbs.

DISCUSSION

This study adds to evidence that people with lvPPA can benefit from lexical retrieval treatment using RRIPP. Treatment of the verb was associated with improved production of the verb, as well as improved production of the object noun sentence. Perhaps inability to access a required verb, mid-sentence, impairs production of the rest of the sentence, contributing to the unfinished utterances that are typical in lvPPA. Treatment of verbs may assist people with lvPPA access object nouns as well as target verbs and thus assist with the production of a complete sentence.

TRANSLATION AND ADAPTATION OF KEY ENGLISH APHASIA BATTERIES: A SYSTEMATIC REVIEW

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INTRODUCTION

Aphasia assessment is important for diagnosis, counseling, intervention planning and monitoring progress. Currently, there is a lack of standardised aphasia batteries for languages spoken in many majority world countries. To address the need for aphasia assessment tools in languages other than English, key English aphasia batteries are often translated and/or adapted. However, it is unknown if there is a common systematic process that maintains the integrity of the original test but also achieves the cultural and linguistic needs of the target population. Therefore, a literature review was conducted to investigate rationales for translating and/or adapting aphasia batteries and the processes used.

METHODS

This study employed a systematic quantitative literature review (Pickering and Byrne, 2014). Five electronic databases were searched using combinations of key search terms (e.g. test, aphasia, translation). The inclusionary criteria were: studies that reported the whole or part of translation and/or adaptation process; and were published in an English peer-reviewed journal and available in full-text. Data were extracted regarding: (1) rationale for translating and/or adapting, (2) rationale for selection of the BDAE, WAB, or CAT to translate and/or adapt, and (3) key components of the translation and adaptation processes as identified in internationally recognized guidelines.

RESULTS

Fourteen papers met the inclusion criteria for the review. Findings indicated two primary reasons for translating and adapting assessments: no available tests, or an existing test had various limitations. Four rationales for selecting an original aphasia battery were identified: universal acceptability, scientific rigour, comprehensive diagnostic ability, and theoretical approach. A variety of terms such as 'adaptation', 'translation', 'modification', 'cross-cultural translation', 'faithful translation' and 'cross-cultural equivalence' were used by the authors of the papers. Common factors considered during the translation and/or adaption process included: linguistics, psycholinguistics, culture, environment, scoring system, alignment with the original test. There was variation between the papers in the steps and methods used, number and characteristics of translators and back-translators, number of translated and backwards translated versions, reviews by an expert committee, and reviews by a small number of target population.

DISCUSSION

This review highlights the diverse processes and terminology employed by researchers to date. It also identifies the need for a more systematic and consistent process of test translation and adaptation in aphasia.

CONSTRAINT OR MULTI-MODAL APHASIA THERAPY: PROGRESS ON A RANDOMISED CONTROLLED TRIAL COMPARING CONSTRAINT-INDUCED AND MULTI-MODAL APHASIA THERAPY TO USUAL CARE IN PEOPLE WITH CHRONIC APHASIA (COMPARE)

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INTRODUCTION

Chronic post-stroke aphasia impacts 30% of stroke survivors. Constraint induced aphasia therapy is based on principles of neuroplasticity and shows medium to large treatment effect sizes in participants across a range of aphasia severities. Multimodal aphasia treatments have also shown moderate to large treatment effects and may offer an additional benefit in enhancing skills in multimodal communication should speech fail. Recent systematic reviews have not confirmed the superiority of constraint induced aphasia therapies over unconstrained therapy delivered at the same intensity and dose. However, low participant numbers and poor quality of reporting have limited trial outcomes. The aim of this trial is to determine whether two contrasting, intensive treatments, Constraint Induced Aphasia Therapy (CIAT) and Multi-Modal Aphasia Therapy (M-MAT), are superior and cost-effective compared with usual care (UC). Predictors of variable patient response will be investigated.

METHODS

3-arm prospective, single-blinded, randomised controlled trial. Primary end point immediately post treatment and follow up at 3 months post-treatment. Participants (n=216) will be randomised to CIAT, M-MAT or UC. CIAT and M-MAT both focus on intensive speech practice (30 hours over 2 weeks) using interactive game formats in groups of 3 participants. While M-MAT involves gesture, reading, writing, and drawing cues, CIAT focuses on speech and reading. UC is usual health service-based aphasia therapy. The primary outcome is the Aphasia Quotient of the Western Aphasia Battery. Secondary outcomes include measures of functional communication, connected speech, multi-modal communication, resource use, and quality of life. Participant cognitive and linguistic predictors of treatment response will be identified. The UC participants undertake a less intense schedule (30 hours over 5 weeks) in a nested sub-study exploring the impact of treatment intensity on outcomes. An economic evaluation will also be undertaken.

RESULTS

Ethics approval, trial registration, and database are established. Recruitment in five Australian states is open. We have formally screened 117 participants and randomised 60 to date. Interventions are underway and treatment fidelity ratings are high.

DISCUSSION

This trial will determine if there is a significant therapeutic effect of, and variable response to treatment types and intensity in chronic aphasia. Essential economic evaluation information to support translation in future service delivery will be described.

THE EXPERIENCE OF SEXUALITY OF STROKE SURVIVORS WITH AND WITHOUT COMMUNICATION IMPAIRMENTS: VOICES FROM THE SILENCE.

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INTRODUCTION

Sexuality and intimacy play an important role in quality of life for many stroke survivors and their partners. Clinical guidelines recommend stroke survivors and partners receive information/counseling about sexuality, however audits reveal less than 20% receive information. Few reviews on sexuality contain the voice of consumers with little known about perspectives of people with communication impairments. As the success of implementation of future interventions is dependent on understanding consumer perspectives, our aim was to examine how stroke survivors including people with communication impairments, and their partners have reported their experience of sexuality.

METHODS

Design: Systematic, qualitative metasynthesis. Search Strategy: A comprehensive search including research literature published pre-July 2017 on multiple databases with aphasia and communication impairment included as specific search terms. Data extraction was conducted using a study-specific form and each study rated for methodological quality (CASP Qualitative Research Checklist). Analysis: Raw data were entered verbatim into NVivo software for qualitative data analysis. Using thematic synthesis we developed an analytical framework to understand how sexuality is experienced by stroke survivors and partners. Rigour: Two authors completed coding. Discrepancies were resolved with a third author. Study design and reporting was guided by the ENTREQ statement.

RESULTS

Eligible papers: 126 unique papers were identified. 32 were judged by two authors to meet inclusion criteria for synthesis. Descriptives: 600 stroke survivors and 217 partners were included (age range: 20-105 years, 21-90 years respectively). Study sample sizes ranged from 1-125 participants. Six of 32 articles included people with communication impairments with only one focused on sexuality. Themes: Two major themes were identified: 1. Sexuality is silenced and 2. Sexuality is still important: muted and sometimes changed, but not forgotten. While 'Silence' was a common theme for most stroke survivors (at an individual, rehabilitation and societal level), the communication impairment meant there was 'silence within the silence'. Some people with aphasia were open to discussing sexuality and believed improved communication skills would improve sexual intimacy. Overall, stroke altered identity beyond sexual function to affect broader gender roles, desirability and self-confidence.

DISCUSSION - Limited evidence exists of how stroke survivors and their partners experience sexuality after stroke with even less focus on people with communication impairment. Further research is needed to explore how stroke survivors renegotiate sexual intimacy. However, speech pathologists may have an important role play in supporting communication and intimacy/sexuality in people with post-stroke communication impairments to reduce the silence that pervades this topic.

CHANGING CLINICIANS' QOL PRACTICES IN APHASIA REHABILITATION: POST-IMPLEMENTATION FINDINGS

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INTRODUCTION

Speech pathologists have positive beliefs about quality of life (QOL) but infrequently use formal QOL assessments in information gathering/ initial assessment, or outcome measurement. Education and training as well as resources (QOL assessments) are implicated. This paper reports post-implementation findings, wherein practicing clinicians engaged in a brief educational intervention and had 6-8 weeks thereafter to implement their learning. Clinicians' understanding of QOL, use of QOL assessments, and barriers and facilitators to assessment use were studied.

METHODS

37 clinicians (mean 6yrs experience) volunteered following advertising through organized clinical networks. Clinicians engaged in a brief face-to-face educational intervention (5.5hrs), based on the Knowledge to Action framework and Theoretical Domains Framework; and had access to online resources (research papers and assessments where possible). Content was determined by the first author and included research evidence, detailed discussion and review of QOL assessments, case studies, and group discussion. Clinicians participated in pre-, post-, and follow-up (post-implementation) bespoke surveys. Data at post- and follow-up were analysed using Friedman's tests and Bonferroni correction was applied (findings are presented in prose); content analysis was used for text data.

RESULTS

Following implementation, clinicians maintained their strong emphasis on QOL being individualistic, subjective, and multifactorial, but appreciated patients' health (physical and emotional) and perceived the value of QOL more. 78% clinicians had used one QOL assessment (some up to four), and decision-making reflected integration of client factors (cognition, visual, mood, motivation), timing and purpose of assessment, and clinical efficiency (moving beyond previously reported 'language impairment' and 'psychometrics'). They maintained their intervention gains regarding their knowledge, skills, resources, and beliefs about consequences and capabilities, but were slightly less positive regarding some aspects of resources, optimism, and intentions. Clinicians continued to perceive new knowledge and new resources as facilitators, but reflected greater priority and emphasis on importance of addressing QOL, and more confidence. The environmental context remained a persistent barrier, although changed in nature with the data illuminating more nuanced challenges relating to time (to implement rather than time for QOL per se) and the multidisciplinary context.

DISCUSSION

The intervention was effective at producing knowledgeable and resourced clinicians who subsequently made informed decisions about QOL assessments, commenced using them, and considered it their role. Implementation specifically enhanced clinicians' motivation, but elements of opportunity (working context, resources, social influences) remained challenging. The intervention would benefit from extension to consider audit and feedback, developing communities of practice, and educational outreach visits to workplaces.

'STEPPING UP' TO MANAGE LOW MOOD AND DEPRESSION AFTER POST-STROKE APHASIA: SOLUTIONS TO THE EVIDENCE-PRACTICE GAP

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INTRODUCTION

People with aphasia after stroke commonly experience a range of psychological and mental health conditions. The majority (60%) fulfil depression symptom criteria at 12 months post-stroke, with the prevalence of major depression increasing over time (11% to 33% within the first year). There is a high need for psychological care, yet there is a treatment gap. Communication and psychological disabilities after aphasia can be impacted through: reduced access to psychological interventions (high-level comprehension and speech often required); mental health stigma; and reduced psychological help-seeking behavior. An evidence-based framework of stepped psychological care after aphasia may be a solution to manage low mood and depression. An understanding of the evidence-practice gap through a review of the scientific evidence and perspectives of stroke health professionals and people with aphasia is essential to improving current psychological care. The aim of this research is to describe the evidence-practice gap of translating stepped psychological care to aphasia rehabilitation.

METHODS

The findings of our three studies were integrated to describe the evidence-practice gap. These included: 1) a systematic review of rehabilitation interventions to prevent and treat depression after post-stroke aphasia; and two qualitative studies 2) five focus groups with 39 stroke health professionals; and 3) interviews with 10 people with aphasia.

RESULTS

Key findings highlighted a significant evidence-practice gap in managing mood changes and depression after post-stroke aphasia. Evidence-based interventions were found and described within a stepped psychological care framework. However, stroke health professionals are challenged in this area and report barriers (e.g., lack of knowledge and skills in: psychological and mental health conditions; aphasia; and communication support). Managing mood problems is often ad hoc and not always a priority. However, every participant with aphasia conveyed mood problems of varying degrees and time points after aphasia onset. People with aphasia have clear preferences within stepped psychological care: positivity, communication support, and tailored interventions to manage low mood and depression.

DISCUSSION

The findings offer a guide to all stakeholders in translating stepped psychological care to aphasia rehabilitation. Clinical implications include training and information provision in: psychological and mental health; aphasia and communication support. Strong organisational and clinical leadership through allocation of resources can influence the implementation of evidence to practice. Consideration of communication needs and maintaining positivity will assist in improving psychological care for people with aphasia. Future directions include investigations of effective preventive measures and treatments for depression after aphasia.

WHAT DO FAMILY MEMBERS SAY ABOUT APHASIA INFORMATION?

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INTRODUCTION

Family members play a vital role in accessing health information for people with aphasia and have rated information about aphasia as their most important informational need post-stroke. The need for information to be provided to family members proactively and flexibly, particularly in the early period post-stroke has been recognised. However, little is known about aphasia information provision to family members in Australia. This study aimed to explore family members' experiences and preferences for receiving post-stroke aphasia information throughout the early phases in the continuum of care.

METHODS

Sixty-five family members participated. The majority were female (74%, n=48) and were spouses/partners (82%, n = 53). Time post-onset for their significant others' aphasia ranged from less than 12 months to 16 years (M=3.8 years; SD=3.5 years). Family members completed an online survey containing questions posed in relation to the following five phases of care within the 'Timing it right' framework for addressing the support needs of family caregivers post-stroke: (1) first days (event/diagnosis); (2) starting to recover (stabilization); (3) preparing to leave hospital (preparation); (4) just returned home (implementation); and (5) settled at home (adaptation). The quantitative data were analysed using frequency counts and percentage calculations. Responses to open-ended questions were analysed using qualitative content analysis.

RESULTS

Satisfaction with aphasia information received was low. Less than one-third of family members were completely satisfied with the aphasia information received in the first days (12.3%), starting to recover phase (23.0%), and when preparing to leave hospital (31.6%). Satisfaction was slightly higher when just returned home (37.8%) and when settled at home (40.8%). In each of the five phases, approximately one-fifth of family members reported they were not offered aphasia information. Family members gained knowledge of whom they could ask for information about aphasia as they journeyed throughout the phases of care, however approximately one-quarter did not know who to ask when preparing to leave hospital (29.8%) or when their significant other had returned home (24.1%). Family members also reported receiving information that made a difference, such as *"it will take time and patience"* and several commented on the need for hope, *"I think it is very important to offer information and hope at all stages."*

DISCUSSION

This study obtained family members' perspectives regarding current and optimal aphasia education in Australia. Findings provide insight into how SLPs can better support the information needs of family members living with aphasia.

CORTICAL ACTIVITY PREDICTS IMPROVEMENT IN ANOMIA THERAPY FOLLOWING POST-STROKE APHASIA: A DYNAMIC CAUSAL MODEL STUDY

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INTRODUCTION

Predicting aphasia recovery is difficult due to high variability in treatment responses. This study reveals fundamental brain mechanisms present in cortical networks responsible for improvement in naming following a semantic and phonological treatment therapy window which enables potential prediction of recovery in chronic stages of aphasia.

METHODS

A pre/post-test design was employed. Eight adults with chronic (>6 months), post-stroke aphasia participated in a semantic and phonological therapy (8h per week, 4 weeks). Electroencephalography (EEG) was measured during semantic and phonological judgment tasks performed before and after treatment. Fifteen age-matched healthy controls were also recruited. This EEG data was then analysed using a dynamic causal modelling approach to assess semantic and phonological processing in people with aphasia and how this modelling approach is related to therapy outcomes.

RESULTS

Dynamic causal models (DCM) of aphasia participants indicated that impaired pathways in the left hemisphere and a dominance of right hemisphere in language activated areas are predictive of language improvement associated with semantic and phonological processing. Multiple regression models of DCM coupling strengths between brain regions revealed that EEG prior to therapy indicates likelihood of semantic improvement post therapy. Such regions include improved connection strengths in the left hemisphere: inferior parietal lobule (LIPL) and the inferior frontal gyrus, LIFG ($R^2 = 0.63$, $p < .018$) and between LIPL and LIPL ($R^2 = 0.77$, $p < .004$). A significant reduction in over-activated areas of the right hemisphere following naming therapy was indicative of phonological improvement (connections between right posterior superior temporal gyrus and anterior middle temporal gyrus, $R^2 = 0.53$, $p < .04$) and semantic improvement (connections between RIFG and superior temporal gyrus $R^2 = 0.6$, $p < .023$).

DISCUSSION

Prior to participating in naming therapy, dynamic causal modelling of EEG data was able to significantly predict likelihood of improvement in anomia for people with chronic, post-stroke aphasia. Findings of this study establish the importance of EEG monitoring as a predictive measure for identifying differences in semantic and phonological tasks associate with anomia treatment response. Employing this analytic approach may help clinicians to identify potential individual rehabilitation planning strategies by improving prediction of language recovery and treatment response, and advance more targeted, stratified language rehabilitation.

SPEECH PATHOLOGISTS AND PROFESSIONAL INTERPRETERS MANAGING CULTURALLY AND LINGUISTICALLY DIVERSE ADULTS WITH ACQUIRED COMMUNICATION DISORDERS: A SYSTEMATIC REVIEW

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INTRODUCTION

Australia has a culturally and linguistically diverse (CALD), ageing population. Speech pathologists (SPs) will increasingly need to work with CALD adults with aphasia. To overcome language barriers and provide equitable services to CALD patients with aphasia, SPs often work with professional interpreters to assess and treat language disorders. According to many health policies and codes of ethics, SPs have legal and ethical obligations to provide appropriate speech pathology services to CALD patients by working with professional interpreters; however, challenges may arise when these professions work together. This systematic review aimed to identify findings regarding challenges and strategies reported about interprofessional practice between SPs and professional interpreters, when managing CALD adults with aphasia, as well as identifying areas for future research.

METHODS

The systematic quantitative literature review methodology (Pickering & Byrne, 2014) and the PRISMA checklist were used to guide the systematic review process. Systematic searches were conducted in five electronic online scholarly databases, including CINAHL, PubMed, Scopus, ScienceDirect and Web of Science, using combinations of key search terms. Studies were included if they: 1) were an original research study reported in English; 2) informed our understanding of SPs and interpreters working together to manage CALD patients; 3) focused on the management of acquired communication disorders including aphasia; and 4) focused on working with CALD adults. Data was extracted into a database, including data regarding study and participant characteristics, service delivery, and challenges and strategies raised.

RESULTS

A total of 10 studies were included in the systematic review. Half of the studies were conducted in Australia. Study designs were either surveys or single case designs (e.g., case reports or qualitative case studies). Common challenges reported by SPs included: being unsure about the accuracy of interpretations, lack of clarity regarding the roles of both SPs and interpreters, and difficulties accessing professional interpreters. A mismatch between speech pathology needs and the interpreter code of ethics was reported as a common potential challenge. The main strategies reportedly used and recommended by the literature included pre-session briefings, training for both SPs and interpreters, and working from written materials.

DISCUSSION

While some challenges for SPs and interpreters working together were identified in the literature, strategies to improve interprofessional practice were also reported. This review has highlighted the need for further research in this area to facilitate interprofessional practice of SPs and professional interpreters, and to determine the effectiveness and feasibility of the strategies.

SPEECH-LANGUAGE PATHOLOGY SERVICES FOR ADULTS WITH APHASIA IN MALAYSIA

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INTRODUCTION

Stroke is the second leading cause of death in Malaysia, with incidence rates increasing annually. Stroke-related aphasia similarly has a high incidence in Malaysia. Literature from other low- and middle-income countries with similar culturally and linguistically diverse (CALD) contexts have reported barriers in aphasia rehabilitation, such as a shortage of health professionals and the scarcity of locally relevant resources. It is likely that similar issues exist in Malaysia; however, to date, aphasia management in Malaysia has been largely unexplored. There is a pressing need to develop aphasia rehabilitation services in Malaysia to support the growing demand for speech language pathology (SLP) services for this population.

As a first step in exploring aphasia management in Malaysia, this study aimed to obtain speech-language pathologists' perspectives regarding: 1) current management practices for people with post-stroke aphasia in Malaysia across the continuum of care; 2) barriers and facilitators to providing SLP services to people with post-stroke aphasia in Malaysia; and 3) clinical and research priorities for future aphasia management in Malaysia.

METHODS

All SLPs working with adult clients in Malaysia were eligible to participate. Convenience and snowball sampling were used to recruit participants via professional networks including The Malaysian Association of Speech-Language and Hearing. SLPs completed an online survey. Questions were based on previous survey research that explored SLP management in other low- and middle-income countries. Quantitative data were analysed using frequency counts and percentage calculations. Responses to open-ended questions were analysed using qualitative content analysis.

RESULTS

This paper describes aphasia management in Malaysia with respect to: 1) SLP caseload; 2) referral; 3) screening; 4) assessment; 5) intra and inter-professional practice; 6) intervention; 7) goal setting and outcome measurement; 8) discharge and follow-up; 9) and adherence to evidence-based practice. Findings related to aphasia management practices in languages other than English will be highlighted. This paper also reports SLP perspectives regarding what currently works well, what makes it difficult, and priority research areas related to SLP services for adults with aphasia. Perspectives from SLPs working in different settings and phases throughout the continuum of care will be discussed.

DISCUSSION

Study findings provide an overview of current aphasia management in Malaysia, along the continuum of care and are relevant to all SLPs providing multilingual aphasia services. Results have implications for the future development of aphasia rehabilitation in Malaysia and may inform aphasia services in other countries with emerging SLP services and those with CALD caseloads.

TRACKING SPEECH PRODUCTION CHANGES AND UNDERLYING BRAIN ATROPHY OVER TIME IN NON-SEMANTIC VARIANTS OF PRIMARY PROGRESSIVE APHASIA

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INTRODUCTION

Primary progressive aphasia (PPA) has three variants, each associated with different patterns of cortical atrophy and underlying pathology. The logopenic (lvPPA) and nonfluent (nfvPPA) variants have been challenging to differentiate in the early stage due to perceptual similarity of symptoms. Our group recently identified key acoustic measures that can differentiate these types. Here, we analyse these markers over time to determine whether they show different trajectories of change and associated brain imaging changes, which could increase their diagnostic power and provide sensitive measures of intervention.

METHODS

Thirty-eight lvPPA, 37 nfvPPA, 37 Alzheimer's disease and 34 controls underwent annual clinical and MRI assessments (1 – 4 years; median = 2). Two acoustic measures were extracted from participants' repetition of 3-syllable words varying in stress pattern: word duration, which measure speed or articulation, and pairwise variability index (PVI), measuring relative vowel duration in words with strong-weak (SW; e.g. Dinosaur) or weak-strong (WS; e.g. baNana) stress.

RESULTS

At baseline, groups were differentiated by PVI for WS words (nfvPPA < Controls) and word duration for both SW and WS words, with nfvPPA cases have longer word duration than other groups. Longitudinal analysis of PPA groups showed that a significant interaction for these same three variables. On PVI for WS words, both groups deteriorated but nfvPPA more so. In addition, longitudinal changes on the median PVI for SW and WS words in nfvPPA were associated with divergent regions of cortical thinning over time (SW → right inferior frontal and posterior cingulate; WS → left premotor area, bilateral lingual gyrus). In summary, nfvPPA cases showed more impaired expression of stress pattern on WS words and words increased in duration associated with phenotype-specific trajectories of cortical changes.

DISCUSSION

Both lvPPA and nfvPPA are noted for disrupted fluency of their speech and slowed speech rate. However, the results here argue that these disruptions in nfvPPA are due to a movement disorder while in lvPPA they are associated with impaired access to the linguistic representation of words but relatively intact control of movement. The findings support trialing different treatment approaches for these two variants.

SPEECH AND LANGUAGE OUTCOMES AND SURVIVORSHIP FOLLOWING SURGERY FOR PAEDIATRIC POSTERIOR FOSSA TUMOURS

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INTRODUCTION

The posterior fossa (PF), including the cerebellum and brain stem, is the most common location for childhood brain. Aside from its role in motor function, the cerebellum plays an important role in cognition including executive functioning, spatial cognition, personality, speech and language. Impairments in these processes, especially language, are linked with poorer academic achievement and QoL in PF tumour survivors. However, speech and language assessments are not routinely conducted pre-surgically in children with PF tumours. This pilot study investigated the rate of postsurgical cognitive deficits during the chronic recovery period in a retrospective cohort of children with PF tumour resections. This was done to establish the need for more specialized investigation into the risk factors associated with surgically induced cognitive deficits.

METHODS

Using retrospective behavioural data, the current pilot study investigated the prevalence of cognitive deficits in 37 children (aged 5 to 14 years) with primary PF tumours. All children had completed the Woodcock Johnson III – (Australian adaption) tests of Cognitive Abilities. Scores were standardized and then grouped into categories using the published performance boundaries for the Australian population.

RESULTS

Overall this population presented with a range of cognitive deficits. Most prevalent was a below average score on reading fluency (52/12 % scored below average/very low), calculation (57/18 % scored below average/very low), math fluency (68/20 % scored below average and very low) and passage comprehension (38/14 % scored below average/very low). Only on the auditory working memory subtest did the group not demonstrate any 'very low' performance, with just 10% scoring below average. On all subtests involving literacy and numeracy skills over a quarter of the group demonstrated a below average performance.

CONCLUSION

This data demonstrates a pattern of below average cognitive functioning in skills required for academic success, specifically language and numeracy skills, in over half of the group studied. In order to ascertain the extent to which these are surgically induced impairments, both pre- and post- surgical detailed assessments of these functions are indicated. This data has highlighted the need for targeted investigation of risk prediction and prevention for speech and language deficits after posterior fossa treatment.

INTERVENTIONS FOR AUDITORY COMPREHENSION DEFICITS RESULTING FROM APHASIA: A SYSTEMATIC QUANTITATIVE LITERATURE REVIEW

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INTRODUCTION

Auditory comprehension deficits can be debilitating for people with aphasia and can significantly impair their interactions with others. Despite many people with aphasia presenting with auditory comprehension deficits, most aphasia treatment studies have focused on treating naming impairments. This systematic review aimed to identify interventions for the treatment of auditory comprehension deficits secondary to aphasia. More specifically, it aimed to describe: the characteristics of those who received intervention; and the characteristics of the interventions provided (e.g., service delivery, content and outcomes).

METHODS

A systematic quantitative literature review was conducted (Pickering and Byrne, 2013), which conformed to PRISMA guidelines (Moher et al., 2010). Searches were conducted across six databases, using combinations of key search terms related to the study aims. Inclusionary criteria for studies were: (1) included participants with aphasia, (2) included interventions targeting auditory comprehension, (3) written in English and (4) full-text was accessible. Studies were excluded if interventions were not language interventions (e.g. pharmacological treatments). Additional articles were identified through checking reference lists of included studies.

RESULTS

The majority of studies included in this review were small cohort and single-case studies. Participants varied widely across studies in terms of age, gender and aphasia presentation. Interventions were delivered in clinics, rehabilitation hospitals, and within the home environment. Interventions were delivered by speech pathologists, jointly with speech pathologists (e.g. spouse, university student, author), or by unspecified persons or professions. Service delivery modes included face-to-face sessions, via computer programs, or were not specified. Levels of language targeted included phonological, lexical, syntax and a mix thereof. Most interventions primarily targeted impaired processes using auditory stimuli; however, some interventions reported the use of written and visual stimuli to support the impaired auditory comprehension processes. Findings generally indicated improvement in auditory comprehension following intervention; however, outcome measures were focused at the impairment level, as opposed to functional and quality of life measures.

DISCUSSION

Initial findings suggest that auditory comprehension treatments can be successful in remediating auditory comprehension deficits, at multiple levels of language. However, comparison between studies was difficult, due to a lack of consistency in participant characteristics and intervention reporting, small sample sizes, and a large variety of aphasia presentations. This review provides some preliminary guidance for clinicians treating auditory comprehension deficits in people with aphasia and highlights the need for more research in this area.

SENTENCE REPETITION–WORKING MEMORY TREATMENT FOR PEOPLE WITH APHASIA

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INTRODUCTION

People with aphasia experience a number of difficulties processing language across all modalities including listening, reading, speaking, and writing. Many people with aphasia also demonstrate impairments to other domains of cognition, such as memory, that are further consequences of initiating health conditions such as stroke. Memory has been linked to language functions such as reading and understanding spoken sentences. The presence of concomitant memory impairments in people with aphasia has led researchers to consider whether improvements in memory abilities alleviate some of the language processing difficulties that may otherwise be contributed to the presence of aphasia alone. This study aims to investigate whether a Sentence Repetition-based Working Memory (SR-WM) treatment can lead to improvements in language comprehension and language production in people with post-stroke aphasia.

METHODS

Two people with aphasia participated in this study within a single case research design. Participants took part in a comprehensive assessment of language and working memory before completing eight sessions of treatment over a four-week period. Treatment involved an adapted version of SR-WM treatment originally reported with Korean speakers. SR-WM treatment involved participants repeating, formulating, and reading aloud grammatically acceptable yet semantically empty sentences of various lengths (e.g. *The Black catches the Pink, The Green brings the Pink to the Black*).

RESULTS

The study is to be completed by June 2018. Outcome measures include measures of spoken sentence repetition, spoken picture description, auditory and written sentence comprehension, and auditory and visual working memory. It is hypothesised that participants will demonstrate an improvement in sentence comprehension and production abilities following SR-WM treatment.

DISCUSSION

The results will be discussed in relation to theoretical models of working memory and language processing as well as subsequent clinical applications of integrating aspects of cognitive rehabilitation methods into approaches for targeting improvements to language and communication function in people with aphasia.

COMMUNICATIVE EFFECTIVENESS ABILITIES AMONG PERSONS WITH APHASIA- A PRELIMINARY STUDY IN INDIAN CONTEXT

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INTRODUCTION

Communicative effectiveness among persons with aphasia (PWA) is less investigated & measured. The present study aimed to develop an interview tool to study effectiveness of communication abilities among PWA. Stroke aphasia, bilingualism, and caregivers' and patients' perspectives were thoughtfully considered while constructing the tool. In addition, the tool provides information regarding change in performance in the communication abilities post acute and chronic stroke aphasia over time.

METHODS

32 Marathi speaking persons with aphasia (20 males & 12 females, mean age 64.5 yrs, mean education 9 yrs) irrespective of literacy, gender participated in the study. Further PWA were grouped into Recovering group (Acute stroke n=18) & Stable group (Chronic stroke n=14). Supporting partners of PWA rated the communication abilities on an interview tool titled Assessment Tool of Communicative Effectiveness (ATOCE) twice on initial and repeat testing after 6 weeks along with Marathi version of Bedside Western Aphasia Battery – Revised (WAB-R) to PWA. Ratings & WAB-R helped measure change in performance of communicative effectiveness of PWA over 6 weeks.

RESULTS & DISCUSSION

Assessment Tool of Communicative Effectiveness (ATOCE) showed high validity and internal reliability ($\alpha < 0.99$) for both recovering and stable groups. The interrater reliability was high for recovering group ($\alpha < 0.99$) and low for stable group ($\alpha < 0.42$). This revealed that the communication effectiveness judged by the spouse and the children varied to a greater extent. A significant difference was observed for communication effectiveness between initial and repeat testing among Recovering group in all sub domains of ATOCE ($p < .01$) as compared to stable group PWA. The majority of non fluent aphasic patients revealed a common recovery pattern of aphasia subtype evolution. Most of PWA irrespective of bilingual environment & language exposure revealed significant second language attrition more on expressive language. 78% of biliterates revealed complete loss of reading, writing, and calculation in L2 whereas 40% PWA from the recovering group revealed equal loss of language functions across modalities. The Recovering group showed statistically significant change in performance ($p < 0.001$) across domains of the ATOCE as well as in totality, whereas no significance was evident for the Stable group ($p > 0.05$). There emerged high correlation ($r = .98, p = 0.001$) between WAB-R & ATOCE score for both recovering and stable groups on initial & repeat testing.

This preliminary research from an Indian aphasia perspective helped us understand impairment at various skills of PWA across language modalities along with preserved vs regressed need based communication skills. ATOCE is an easy to administer outcome measurement tool.

PREDICTING RECOVERY FROM APHASIA AFTER STROKE

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Losing the ability to speak (aphasia) is a devastating consequence of stroke. Patients vary in how well they recover from the same symptoms and how well they respond to therapy. They want to know if and when they will recover and how they can speed up the recovery process. Typically, however, patients and their carers are given little definitive information, or worse, they are given information that turns out to be wrong. In my talk, I will discuss why post-stroke prognoses have been difficult and how computing power (hardware, software and data storage) allows us to use multiple sources of information to generate personalised predictions. Using data collected from hundreds of different patients, I show that it is currently possible to make very confident prognoses for at least half the patients we see with speech production difficulties. Moreover, the data have strong implications for selecting the most appropriate therapy and testing the value of new therapies.

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