

Developing consensus-based clinical competencies to guide stroke clinicians in the implementation of psychological care in aphasia rehabilitation

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ABSTRACT

Background. People with aphasia experience depression and anxiety associated with negative outcomes across a range of time post-stroke. Stroke clinicians are well-positioned to facilitate low-intensity psychotherapeutic interventions after aphasia (e.g. mood screening, behavioural activation, problem-solving therapy, relaxation therapy); however, they self-report a lack of knowledge, skills and confidence to do so. The Theoretical Domains Framework (TDF) provides a lens through which to view and target clinician behaviours and training needs in this area of practice. The aim of this study was to develop and gain consensus on items for a rating scale of clinical competencies in facilitating individual-based, low-intensity psychotherapeutic interventions for people with aphasia.

Methods. An e-Delphi methodology using focus groups and survey rounds was used to gain consensus on clinical competencies considered important. **Results.** Eight stroke clinicians (speech pathologists and psychologists), two people with aphasia and three family members participated in one of four focus groups. Four themes were derived from the data: (1) Communication support, (2) Assessment and therapy structure, (3) Interpersonal skills, and (4) Needs of the significant other (family or friend). Themes informed an initial list of 23 self-rated and observer-rated competency items. Following two rounds of e-Delphi surveys, 11 stroke clinicians (six speech pathologists and five psychologists) reached consensus (80–100%) for 19 competencies. **Conclusions.** The Psychological Care in Aphasia Rehabilitation Competency scale offers a preliminary list of items to guide and train clinicians to implement low-intensity psychotherapeutic interventions for people with aphasia.

Keywords: aphasia, clinical competencies, knowledge, language/communication, mood, psychological care, skills, stroke.

Introduction

People with aphasia after stroke experience depression and anxiety and a range of associated negative outcomes that persist over time (Zanella *et al.* 2023; Morris *et al.* 2017). On this basis, it is vital for clinicians to be competent and confident to deliver low-intensity psychotherapeutic interventions, such as mood screening, counselling, behavioural activation, problem solving and relaxation therapy (Thomas *et al.* 2013; Kneebone 2016; Visser *et al.* 2016; Golding *et al.* 2017; Wong *et al.* 2018; Thomas *et al.* 2019; Sekhon *et al.* 2022). There is, however, an evidence–practice gap in the consistent and sustained provision of low-intensity psychological care after stroke and aphasia. Further research into how to address this gap is a priority (Kristo and Mowll 2022).

There are many factors which contribute to the evidence–practice gap in psychological care after stroke and aphasia. The Theoretical Domains Framework (TDF) provides a lens through which to view and understand the influences on health-professional behaviour (Atkins *et al.* 2017). The TDF comprises 14 domains spanning: (1) knowledge; (2) skills;

(3) social/professional role and identity; (4) beliefs about capabilities; (5) optimism; (6) beliefs about consequences; (7) reinforcement; (8) intentions; (9) goals; (10) memory, attention and decision processes; (11) environmental context and resources; (12) social influences; (13) emotion; and (14) behavioural regulation (Cane et al. 2012). Seminal work exploring barriers and facilitators to multi-disciplinary and psychological care for people with aphasia highlights that knowledge and skills domains are key influences in the successful delivery of psychological care after stroke and aphasia (Rose et al. 2014; Sekhon et al. 2015; Carragher et al. 2019; Baker et al. 2020; Sekhon et al. 2022). As such, the development of clinical competencies in ‘knowledge’ and ‘skill’ domains is critical to enhancing the translation of best evidence to practice.

Stroke clinicians require knowledge and skills to identify mood problems; provide psychological support and therapies; and triage to mental health specialists as required (Kneebone 2016; Baker et al. 2020). They also need the knowledge and skills to optimise communication support for people with aphasia (Foster et al. 2016; Carragher et al. 2020). Implementation of stepped psychological care, adapted for people with aphasia after stroke, offers a potential solution to address these requirements (Kneebone 2016). Stepped psychological care is an evidence-based framework to guide stroke clinicians in triaging the person with aphasia to one of four levels of increasing psychological treatment intensity, depending on symptom severity and level of care required (Kneebone 2016) (Fig. 1).

At level 1, mood screening can support the identification of depression and anxiety symptoms. Following mood screening, the person is matched to one of four intervention levels. Those with significant depression/anxiety require further assessment and can be matched to higher-intensity

psychotherapeutic interventions at levels 2, 3 or 4 (e.g. specialist mental health care facilitated by clinical psychologist and/or medical practitioner). Those without significant depression/anxiety remain at level 1 for low-intensity psychotherapeutic interventions to prevent mood difficulties. Stroke clinicians (e.g. nurses, speech pathologists, psychologists, occupational therapists, social workers and medical practitioners) are well-positioned to deliver low-intensity psychotherapeutic interventions after stroke. Guidance to support the implementation of stepped psychological care in stroke and aphasia rehabilitation has been developed as part of clinical service improvement and guidelines (National Health Service Improvement 2011; Stroke Foundation 2023). However targets for competency development to facilitate low-intensity, level-1 psychotherapeutic interventions are needed to guide behaviour change in stroke clinicians.

Clinical competence refers to the judicious use and integration of knowledge, skills, values and attitudes for the delivery of a professional service (Fernandez et al. 2012; Fisher 2016). The development of a competency rating scale aims to influence behaviour change in domains 1 and 2 of the TDF – knowledge and skill acquisition. Competency rating scales, such as observer-rated and self-rated measures, can assist clinicians to develop proficiency in facilitating interventions in a consistent manner, gauge competency development and identify areas for professional growth. Observer-rated measures are commonly used when a highly experienced clinician observes a novice or less experienced clinician (McAllister et al. 2011). Self-rated measures prompt the clinician to reflect on their practice and can be used as a framework to facilitate discussions between them as the learner and their clinical supervisor (e.g. measuring self-efficacy in counselling, see Victorino and Hinkle 2019).

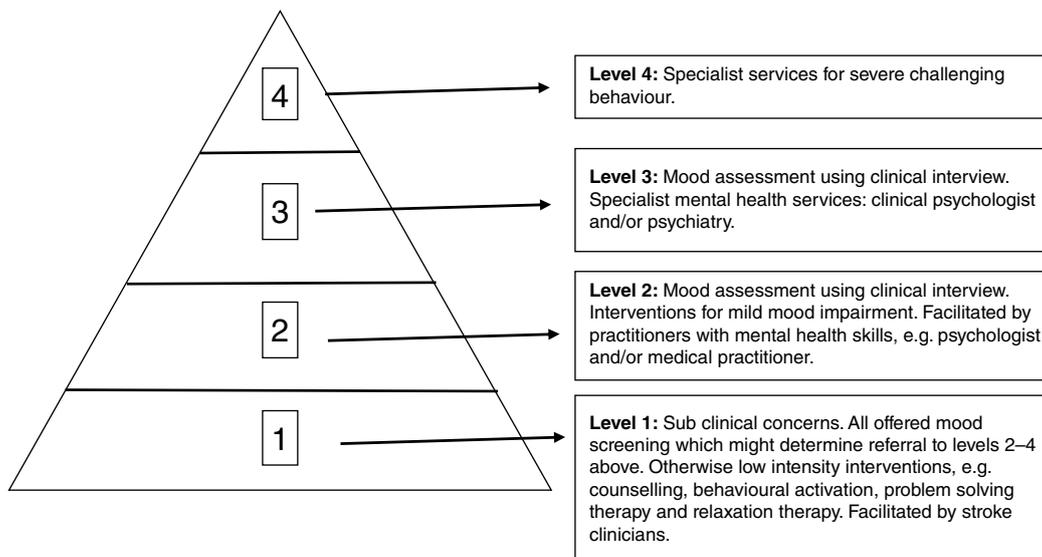


Fig. 1. Stepped psychological care framework after stroke and aphasia (Kneebone 2016).

A clinical tool including both observer and self-rated items may benefit competency development and promote reflective practice in the delivery of psychotherapeutic interventions in post-stroke aphasia (Mann *et al.* 2009; McAllister *et al.* 2011; Caty *et al.* 2015). The initial development of competency items for a clinical tool requires contributions from key stakeholders, such as clinicians who will use the tool and people with aphasia. Consensus-based methodologies are appropriate to gain preliminary directions in competency item development and have been successfully used in areas of compassion-based therapy (Liddell *et al.* 2017), brief psychodynamic investigation therapy (Tadic *et al.* 2013), group-based rehabilitation interventions (Wong *et al.* 2019) and neuropsychological assessment feedback (Wong *et al.* 2024).

The aim of this study was to develop a consensus-based rating scale for clinical competencies in facilitating individual-based, low-intensity psychotherapeutic interventions for people with post-stroke aphasia.

Methods

Study design and ethics

An e-Delphi exercise, comprising online focus groups and two survey rounds, was used to gain consensus on competencies for the delivery of low-intensity, level-1 stepped psychological care to people with aphasia. The research was conducted in alignment with the Recommendations for Conducting and Reporting of DELphi Studies (CREDES) (Jünger *et al.* 2017) and research guidelines (Keeney *et al.* 2011). Ethical approval was granted by La Trobe University (HEC20483) and ratified by The University of Queensland (2021/HE000840).

Participants

An expert panel of stroke clinicians, people with aphasia and family members was established. To be eligible to participate, stroke clinicians were required to have clinical and/or research experience in facilitating or investigating psychological care in post-stroke aphasia and qualifications in their profession (e.g. speech pathology, psychology, nursing, occupational therapy, physiotherapy or social work). Participants were excluded if they had less than 2 years of clinical or research experience, or were a student clinician, allied health assistant or volunteer. People with aphasia were eligible to participate if they reported having a diagnosis of aphasia due to stroke, were living in the community, and had adequate English-language skills, hearing and vision to participate. Communication support strategies were used across each step of the study process (e.g. slow rate of speech, short and simple phrasing, and allowing extra time and/or choices for verbal expression). Family members were eligible to participate if they were an adult

family member or friend of a person with aphasia. All participant groups completed focus groups; survey rounds were completed by stroke clinicians only.

Sampling

Participants were selected using purposive sampling (Patton 2015). Stroke clinicians were selected for type and level of clinical experience (specialist training in aphasia/mental health/psychological care), and discipline background. People with aphasia and family members were sampled for age, sex and geographical location (metropolitan, regional). There is no specified sample size for qualitative focus group studies; however, previous studies show that small numbers of participants (e.g. up to 10) can provide meaningful results about a research aim derived from a clinical question or problem (e.g. Baker *et al.* 2020). Similarly, while there is no recommended sample size for Delphi studies, small numbers of carefully selected experts (e.g. 10–20) have produced clinically acceptable and reliable consensus-based measurement tools (e.g. Wong *et al.* 2019, 2024).

Recruitment

Expressions of interest were sought from potential participants via professional and community groups in Australia and the UK (e.g. Centre of Research Excellence in Aphasia Rehabilitation and Recovery Community of Practice, Organisation for Psychological Research In Stroke, UK), professional Google email groups (e.g. Speech Pathology Email Chat (SPECS) and interdisciplinary email chat BRAINSPaN) and social media (e.g. Twitter, Facebook). Interested participants were provided with a participant information sheet; people with aphasia were provided with information in verbal and accessible written formats. Participant consents were obtained in May to July 2021 via Zoom videoconference and/or email.

Procedures and analysis

Focus groups

Four focus groups were held using Zoom videoconferencing. Separate groups were convened for stroke clinicians and people with lived experience. Participants with aphasia and family members were offered a Zoom trouble-shooting session prior to their group to address any technological barriers to participation and to gauge individual communication preferences (e.g. using a slower rate of speech or presenting written key words). Prior to each focus group, participants received an information package detailing the purpose of the study and defining important concepts (e.g. competency and stepped psychological care). This ensured methodological consistency and a minimum knowledge base across participants. Participant privacy was protected using Zoom security features, including the 'waiting room' and 'meeting

lock' functions. Each focus group was approximately 60–90 min in duration and sessions were recorded to allow for data checking. Each focus group was facilitated by one researcher, with support (field notes, communication support strategies) provided by two others (CB, BR or SW).

During each focus group, the information package on stepped psychological care and definition of competencies was provided (see Supplemental file S1). A question was presented for discussion. Stroke clinicians were asked, 'What knowledge, skills, values and attitudes do clinicians need to achieve competency in facilitating stepped psychological care for people with aphasia?' People with aphasia and family members were asked, 'How can health professionals help? What do you want them to know? What do you want them to do? What do you want them to say?' Participants then took turns to generate and discuss competencies, which were categorised under themes of 'attitudes', 'skills', 'knowledge' and 'values'. Participant responses were recorded online and presented to the group visually using a Miro online whiteboard (www.miro.com). Additional field notes were recorded (e.g. suggestions for concepts/phrasing to be used in the rating scale).

Analysis

Participant responses were analysed using qualitative content analysis, as per Graneheim and Lundman (2004): (1) competencies were organised into meaning units and assigned frequency counts; (2) meaning units addressing similar concepts were assigned to categories; and (3) categories were grouped into themes (Supplemental file S2).

e-Delphi survey rounds

Surveys were created using Qualtrics online survey software (Qualtrics, <https://www.qualtrics.com/core-xm/survey-software/>). Two survey rounds were conducted, and each survey for each round was piloted by two researchers (DW and ST) for readability and usability. This process aimed to enhance comprehension and ease of navigation prior to participants completing the survey. Piloting resulted in minor changes to the wording of some competency items.

Round 1

A list of competencies was generated from focus group data, literature searching, and the collective expertise of the research team. Each competency item was classified as self-rated or observer-rated. Self-rated items were those that required the clinician to self-reflect on their own knowledge, skills, values and attitudes. Observer-rated competencies were items able to be rated by a person observing the clinician's practice (e.g. clinical supervisor, researcher, peer mentor). Participants were asked to rate each competency on a three-point scale, as either 'not important', 'important, but not essential' or 'essential'. Consensus was defined *a priori* as a rating of 'essential' by $\geq 80\%$ of participants. Participants

could also provide open-ended comments relating to the wording/clarity/appropriateness of each item and suggest additional competency items. A proposed rating scale was presented for both self-rated and observer-rater items. Participants were asked to provide comments regarding the appropriateness and wording of each scale.

Analysis

Descriptive statistics (counts and frequencies) were used to determine whether the threshold for consensus had been reached for each competency. Open-ended comments were analysed using qualitative content analysis. Items that did not reach the threshold for consensus and for which actionable amendments had not been suggested, were discarded. Items that reached 100% consensus, and which did not have suggested amendments, were included. Items reaching the 80% threshold for consensus, items with suggested amendments, and new items were advanced to Round 2 for further rating. The self-rated and observer-rated scales were revised in response to feedback and advanced to Round 2 for further review.

Round 2

Competency items were again rated on a three-point scale, as either 'not important', 'important, but not essential' or 'essential'. The same threshold for consensus was applied. Participants were invited to provide further comments on the competency items and on the revised scoring systems.

Analysis

Descriptive statistics (counts and frequencies) were used to determine whether the threshold for consensus had been reached for each competency item. Open-ended comments were analysed using qualitative content analysis (Graneheim and Lundman 2004).

Results

Focus groups

A total of 13 participants participated across four focus groups. Participants included eight stroke clinicians (seven speech pathologists and one psychologist), two people with aphasia (mild to moderate severity as rated by CB using the Aphasia Severity Rating scale) (Simmons-Mackie *et al.* 2018) and three family members. Participant characteristics are presented in Table 1.

Analysis of focus group discussion produced four themes reflecting competency needs across the 'knowledge' and 'skills' domains of the TDF (Cane *et al.* 2012).

Theme 1: communication support

The use of communication support strategies was deemed essential by most participants. A speech pathologist stated: 'You can't work with someone with aphasia if you can't

Table 1. (a) Summary of participant characteristics (Focus groups 1 and 2 [allied health stroke clinicians] and e-delphi participation). (b) Summary of participant characteristics (Focus group 3 [people with aphasia]). (c) Summary of participant characteristics (Focus group 4 [family members of people with aphasia]).

(a)							
Participant number and study involvement	Professional discipline/background	Total number of years of clinical practice/research working with stroke survivors with aphasia	Previous training in psychological or mental health care	Previous training in aphasia and/or communication support or communication partner training			
P1 (Focus group 2 + e-delphi)	Speech pathologist	20+ years	Short courses in counselling	Bachelors degree			
P2 (e-delphi only)	Clinical psychologist	11–15 years	Doctorate	Nil			
P3 (Focus group 2 + e-delphi)	Speech pathologist	11–15 years	Mental health first aid	Doctorate			
P4 (Focus group 2 + e-delphi)	Speech pathologist/counsellor	20+ years	Graduate diploma in counselling	Bachelors degree			
P5 (Focus group 1 + e-delphi)	Speech pathologist	16–19 years	Diploma	Doctorate			
P6 (Focus group 2 + e-delphi)	Speech pathologist	6–10 years	Nil	Doctorate			
P7 (e-delphi only)	Clinical psychologist	20+ years	Masters of Clinical Psychology	Nil			
P8 (e-delphi only)	Clinical neuropsychologist	6–10 years	Doctorate	Nil			
P9 (e-delphi only)	Clinical neuropsychologist/clinical psychologist	11–15 years	Doctorate in Clinical Psychology	Informal communication support training			
P10 (Focus group 1 + e-delphi)	Clinical neuropsychology	20+ years	Masters of Clinical Neuropsychology	Nil			
P11 (Focus group 1 + e-delphi)	Speech Pathologist	20+ years	Mental health first aid	Doctorate			
P12 (Focus group 1 only)	Speech pathologist	20+ years	Mental health first aid	Doctorate			
(b)							
Participant number	Age	Gender	Employment status	Highest level of completed education	Time post-onset of aphasia	Aphasia Severity Rating (ASR)	Currently receiving speech therapy?
P13	Not disclosed	Male	Not working due to aphasia	Trade school	10 years	Mild–moderate (score 2), severe initially	No
P14	43	Female	Working	Graduate diploma	Not disclosed	Mild–moderate (score 2)	No
(c)							
Participant number	Age	Relationship	Gender	Employment status	Highest level of education		
P15	60	Wife	Female	Part time work	Diploma		
P16	68	Mother	Female	Not working	Bachelor degree		
P17	65	Mother	Female	Working	Graduate Diploma		

establish effective communication' [P1]. Participants with aphasia and their family members provided specific examples of communication support strategies for message in (understanding) and message out (talking) (e.g. 'use yes/no questions' [P14], 'stay on one topic at a time' [P13]).

Some speech pathologists highlighted the concept of masked competence of the person with aphasia. They reported that strategies to reveal competence were essential to psychological care (e.g. validating the person with statements such as 'I know you know what you want to say.').

Theme 2: assessment and therapy structure

Participants with aphasia reported that maintaining structure within sessions was important. The importance of structure was conveyed in P14's statement: 'It's important to recap or go over previous sessions at the start'. Stroke clinicians reported that taking a person-centred approach to goal setting and information provision were essential to use in practice. Similar views were shared by participants with aphasia: '[I need to know] what is expected in the therapy session' [P13].

Theme 3: interpersonal skills

All participants reported or agreed upon the need for strong interpersonal skills to facilitate rapport building and the therapeutic alliance. Stroke clinicians expressed the importance of acknowledging and validating the emotional experiences of people with aphasia and their family members. One participant with aphasia reflected on negative experiences of feeling 'talked down to' by clinicians in the hospital setting: 'I felt like I was back at school' [P13]. To avoid such experiences, people with aphasia and family members agreed upon the importance of clinicians allowing time for communication, sharing stories and using humour to build relationships.

Theme 4: significant others' (friend or family member) considerations

All participants expressed the need to support, involve and communicate with the significant others of people with aphasia. They reported that acknowledgement of mental health difficulties that significant others may face is needed: 'recognise that it's a long and hard journey for family members – we need someone to openly talk to and trust' [P16]. The majority of participants reflected on the need for information provision regarding access to psychological supports for carers/family members. Some stroke clinician participants reported the need for clinicians to adopt a family-centred approach to aphasia rehabilitation services.

e-Delphi survey rounds

Round 1

Eleven stroke clinicians (six speech pathologists and five psychologists) participated in round one. Twenty-three competencies were presented for rating. Nineteen of 23 competency items were rated 'essential' by $\geq 80\%$ of the participants (see Supplemental file S3). Four competencies did not reach $\geq 80\%$ consensus and no actionable amendments were suggested, therefore these items were eliminated. They were: 'The clinician involves family members in goal setting and therapy as appropriate (e.g. support in therapy tasks; observation/monitoring of mood changes)', 'The session is structured and maintains a focus on treatment goals', 'The person's goals and how therapy can help to

achieve those goals are revised at the start of the session', and 'I can change the physical space depending on the person's goals and type of therapy (e.g. background noise; opportunities for socialisation; privacy)'. Of the 19 items that surpassed the 80% threshold, three (C.5, C.6, C.8) were retained as they achieved 100% consensus and no changes were suggested; 15 (C.1, C.3, C.4, C.7–11, C.16, C.19, C.20) required revision based on participant comments; the remaining item, 'I can identify mood difficulties appropriately' (C. 2), was replaced with three specific suggested competencies about mood screening: 'I can screen for depression in the person with aphasia', 'I can screen for suicidal ideas and refer on appropriately' and 'I can screen for anxiety in the person with aphasia'. Two competencies were suggested relating to empathy (C.15) and non-judgement (C.17) and they were combined as one competency. Similarly, two competencies regarding (1) the explanation of the high prevalence of mood difficulties for significant others and (2) providing information, resources and supports for significant others were merged into one competency. Seven new competencies deemed 'essential' by participants were added to the self-rated section of the rating scale. One new suggested competency was deemed as encompassed within communication support competency items by the research team: 'the clinician can explain psychological therapies in a format suitable for the person with aphasia'.

The self-rated and observer scoring scales were both revised following feedback regarding clarity of rating descriptors and scoring (Supplemental files S4 and S5). The revisions for the self-rated scoring scale aimed to establish clearer differentiation between scores and substituted 'completely confident' for 'very confident' as a score of 5. The observer rating scale descriptors were substituted (e.g. 'observed – not done well' was replaced with 'observed – requires further development') to provide a more supportive tone to the descriptors of observation. Participants also suggested the addition of free-text boxes below the self-rated and observer-rated scoring scales for any qualitative comments or reflections.

Round 2

A total of 23 competencies (16 carried forward from round 1; 7 new) were presented for rating in round 2 (Supplemental files S6–8). Nineteen of these 23 items were rated as 'essential' by $\geq 80\%$ of participants (see Supplemental files S6–8 for further details). Four competencies (C.7, C.10, C.21, C.23, denoted with an asterisk in Supplemental file S6) that did not reach 80% consensus were removed from the final version of the competency rating scale. Further minor adjustments to the wording of three items (C.2, C.4, C.14) were made for the purpose of enhancing clarity and specificity of the content of the items. The changes were appropriate in a clinical context and did

not warrant further consultation via consensus (e.g. add 'and refer on appropriately' following 'I can screen for depression' (C.2)). Slight adjustments were made to the observer rating scales (i.e. addition of the word 'proficiency'). The nature of the suggestions in round 2 did not warrant another round of rating; however, an explanatory guide was developed to guide use of the provisional version of the competency rating scale which includes 19 items (Supplemental file S9). Table 2 shows the ratings for each item on the final version of the competency scale.

Discussion

This study reports the preliminary list of items in development of a clinical competency rating scale that can be used as a self-reflection and observer-rated tool for facilitating low-intensity, level-1 psychotherapeutic interventions for people with post-stroke aphasia. In accordance with the 'knowledge' and 'skills' domains of the TDF, this provisional competency rating scale has the potential to guide clinicians' behaviour in practice and assist in the evaluation of training programs ('Psychological Care in Aphasia Rehabilitation Competency Scale', Supplemental file S9). It may also assist to identify and target the behaviours required to implement psychotherapeutic interventions in stroke and aphasia rehabilitation.

The development of knowledge, skills and confidence through training can address the barriers that clinicians face in supporting the psychological wellbeing of people with aphasia (Baker *et al.* 2010; Sekhon *et al.* 2015; Carragher *et al.* 2019; Baker *et al.* 2020). A combined self-rated and observer-rated competency checklist aligns with concepts of assessment for learning and promotes collaboration between the clinician and observer (McAllister *et al.* 2011; Miles *et al.* 2016; Oyinloye and Imenda 2019). Winkelbauer (2020) also suggests that mutually engaging both the observer and the person being observed enhances the authenticity of competency-based assessments in the healthcare context.

Interestingly, this study highlights a contrast in perspectives of people with aphasia and stroke clinicians regarding 'therapy structure' versus flexibility in psychological care. Participants with aphasia highlighted the importance of providing structure to therapy sessions, whereas clinicians placed a larger emphasis on flexibility and adaptability in sessions. Competencies detailing a focus on maintaining structure within the round 1 survey did not reach consensus and were removed from the rating scale. This finding may reflect differences in understanding of therapy session 'structure'. The clinicians may have perceived this as a rigid and manualised approach rather than the concept of having a therapy plan, adhering to the plan, tailoring level of difficulty/complexity of tasks, summarising the session and, if appropriate, setting in between session tasks. A value

for structure by people with aphasia may reflect the need for consistency, clarity and routine due to the frequency of changes between settings and new speech pathologists (e.g. acute, inpatient, outpatient, rehabilitation, community setting). Previous research reflects the need for both structure and flexibility in stroke recovery for people with aphasia in the first 12 months (Grohn *et al.* 2014). Participants, in this current study, may have therefore seen a structured therapy approach with defined goals as conducive to progress.

Flexibility in rehabilitation aligns with a social model of care, which considers the interaction between a person's personal, environmental, physical and societal factors (Elman 2016; World Health Organization 2001). To ensure some degree of structure, however, clear person-centred goals need to be set and inclusion of the person with aphasia in creating meaningful goals is needed (Worrall *et al.* 2011b; Worrall 2019). In this current study, goal setting and flexibility is addressed in both competency 6: 'I can adapt therapy sessions based on personal factors of the person with aphasia' and competency 14: 'The clinician takes a person-centred approach to goal setting, encouraging the person to participate in identifying goals for intervention'.

Several notable findings were also derived from the e-Delphi survey process. The competencies within the sub-category 'significant others' (friend or family member) considerations' were all deemed important but only one out of four were retained in the final rating scale following round 2. This was a surprising finding given the emphasis on the importance of addressing the needs of significant others highlighted across focus groups and in previous research evidence (Grawburg *et al.* 2013; Sekhon *et al.* 2019). This study concurs that including significant others' psychological care is an important focus in stroke rehabilitation but the majority of relevant competency items did not gain adequate consensus. This could be due to a number of implementation barriers for clinicians such as time, caseload pressures and the fact that family members aren't the primary patient or client receiving the stroke service. It could also be due to the lack of routine family-focused care. Regardless of the barriers, stroke clinicians can access clinical resources to support families, for example they can identify and measure life impacts for family members (Grawburg *et al.* 2019). It is also necessary for stroke clinicians to inform and advise family members of psychological care supports (e.g. review by general practitioner and/or psychologist, community or peer supports). Hence, competency 22 detailed advising significant others to consult their general practitioner to discuss their own mental health.

Interestingly, the expert panel of clinicians reported differences in terminology and concepts likely due to their differing professional backgrounds (i.e. speech pathologists and psychologists). For example, terms such as communication competence and person-centred care required clarification across e-Delphi rounds. This may have led to

Table 2. Ratings of each item on the final version of the competency scale.

#	Competency	% of participants who rated		
		Essential	Important, but not essential	Not important
Self-rated items				
1.	I can address the psychological needs of people with aphasia within my scope of practice within stepped psychological care.	100%		
2.	I can screen for depression in the person with aphasia and refer appropriately.	100%		
3.	I can screen for suicidal ideas and refer on appropriately.	100%		
4.	I can screen for anxiety in the person with aphasia and refer on appropriately.	100%		
5.	I can address the person's needs related to their social, cultural and language background.	100%		
6.	I can adapt therapy sessions based on the personal factors of the person with aphasia (e.g. fatigue, frustration).	100%		
7.	I can help significant others to use personalised communication support strategies to support the person with aphasia's understanding (receptive language skills, a person's understanding of language). For example, using short and simple sentences; pictures, photos, objects, gestures, written key words; repeating information.	82%	18%	
8.	I can help significant others to use personalised communication support strategies to support the person with aphasia's talking (expressive language skills, the ability to use language). For example, using yes/no questions, providing extra time for the person to reply, providing opportunities for written, pictorial and/or technology-supported resources such as an iPad, audio recordings.	82%	18%	
9.	I can make appropriate referrals to and work with specialists to support the person with aphasia as needed.	100%		
Observer-rated items				
Communication support				
10.	The clinician acknowledges the communication competence of the person with aphasia. For example, the clinician takes responsibility for the communication breakdown.	82%	18%	
11.	The clinician uses personalised communication support strategies to support the person's talking (expressive language skills, the ability to use language). For example, using yes/no questions, providing extra time for the person to reply, providing opportunities for written, pictorial and/or technology-supported resources (e.g. iPad, audio recordings).	91%	9%	

(Continued on next page)

Table 2. (Continued)

#	Competency	% of participants who rated		
		Essential	Important, but not essential	Not important
12.	The clinician uses personalised communication support strategies to support the person's understanding (receptive language skills, a person's understanding of language). For example, using short and simple sentences; pictures, photos, objects, gestures, written key words; repeating information.	100%		
Assessment and therapy structure				
13.	The clinician provides personally tailored psychoeducation (e.g. the prevalence of mood difficulties, how psychological intervention can help, the provision of information regarding psychological supports and resources).	91%	9%	
14.	The clinician takes a person-centred approach to goal setting, encouraging the person to participate in identifying goals for intervention.	100%		
Interpersonal skills				
15.	The clinician pays attention to and facilitates the development of trust and the therapeutic relationship in various ways that are appropriate to the person (e.g. sharing stories, conversation, news, humour).	91%	9%	
16.	The clinician shows empathy and attention towards the person's needs and is non-judgmental of the emotions expressed by the person.	100%		
17.	The clinician uses active listening skills tailored to the person's needs throughout the session.	100%		
18.	Non-verbal communication is used by the clinician to build the therapeutic relationship (e.g. facial expression, gesture, tone of voice and eye contact).	100%		
Significant others' (friend or family member) considerations				
19.	The clinician shows empathy for significant other's emotional difficulties.	82%	18%	

competency 10 almost not reaching consensus: ‘The clinician acknowledges the communication competence of people with aphasia’. It could be posited that communication competence may be one strategy to facilitate person-centred care for people with aphasia. Bright *et al.* (2018) describe how relationship-centred practice is established through client responsiveness. For people with a communication disability, supported communication, including acknowledgment of competence, demonstrates this responsiveness (Worrall 2011a; Brown *et al.* 2012), thus fostering therapeutic alliance. Hence, the competency rating scale includes both concepts (C.10–12, 14). The competency rating scale developed in this study offers a unique combination of competencies that are required to adapt psychotherapeutic interventions for people with aphasia.

In contrast, competencies relevant to psychotherapeutic interventions (e.g. cognitive behavioural therapy; compassion-focused therapy) for a neurotypical clinical population tend to primarily focus on skill development in the specific therapy approach, and general therapeutic alliance competencies such as creating trust and collaboration (Roth and Pilling 2008; Liddell *et al.* 2017). Such competency frameworks provide detail about the different types and levels of skill but assume adequate communication between therapist and client in largely ‘talk-based’ processes. This study has developed a competency rating scale that explicitly states items to guide clinician behaviour in using communication supports in post-stroke aphasia. This finding is also influenced by the representation of speech pathology participants with expertise in aphasia and communication support and access. The sample of people with aphasia lacked variability in aphasia severity. People with severe aphasia should be included in future research to explore their specific communication and psychological needs. The competency items (Supplemental file S9) reflect a person-centred care approach, where care can be adapted for a person with any type or severity of aphasia, social or cultural background. For example, items include consideration of: ‘person needs’ (item 5) ‘personalised communication support’ (items 7, 8, 11 and 12); and ‘personally tailored psychoeducation’ (item 13).

The clinician requires knowledge and skills to actively support the client’s communication in psychotherapeutic intervention sessions. For example, to ensure counselling is accessible, the clinician needs to support the person with aphasia to understand and talk using appropriate strategies (e.g. using key words, offering choices or using gestures to get the ‘message in’ and/or ‘message out’). Examples of studies that have adapted psychotherapeutic therapies for aphasia using communication supports and study-specific training and competency development for therapists are emerging in the research evidence. For example, these studies have developed training programs and competency development for therapists to implement: motivational interviewing for people with a range of communication problems in a stroke trial (Patel *et al.* 2018); and a brief

solution-focused therapy for people with mild to severe aphasia (Northcott *et al.* 2021).

The preliminary list of items in the ‘Psychological Care in Aphasia Rehabilitation Competency scale’ (Supplemental file S9) has the potential to guide training in the foundations of psychological care in post-stroke aphasia. The self-rated items and observer-rated items promote reflective practice and highlight important aspects of care (e.g. mood screening, communication support) and clinician behaviours (e.g. interpersonal skills). In practice, clinicians may be guided in a supportive approach to achieve competence by a trusted and experienced supervisor (McAllister *et al.* 2011). Specific clinical simulations, role play or training opportunities may be explored for clinicians not deemed competent in particular items. Clinicians can improve knowledge and skills through training as evidenced in counselling education (Sekhon *et al.* 2022) and communication partner training (Simmons-Mackie *et al.* 2016). Online and in person training and resources are available to clinicians via various professional organisations (e.g. the Aphasia Institute, Canada: <https://www.aphasia.ca/health-care-providers/education-training/training-programs-workshops/>; and Better Conversations, UK: <https://www.ucl.ac.uk/short-courses/search-courses/better-conversations-aphasia-e-learning-resource>).

In this study, one new and essential competency was proposed by a clinician in round 2 of the e-Delphi survey process but it was not adopted due to a number of reasons. The suggested item was: ‘identifies concerns about the mental capacity of the person with aphasia to make specific decisions and provides or arranges for a capacity assessment as appropriate’. While evaluating a person with aphasia’s decision-making capacity is important, numerous complexities and issues regarding such assessments have been well-documented (Helm-Estabrooks 2002; Aldous *et al.* 2014). The assessment and impact of reduced mental capacity in the context of psychological care requires further research and possibly further consensus agreement.

Strengths, limitations and future research directions

Strengths of the study were: inclusion of people with aphasia and family members in focus groups to provide their perspectives on clinician competencies; and a sample of speech pathologists and psychologists with extensive and combined experience in aphasia rehabilitation and mental healthcare. A limitation was the lack of representation of people with severe aphasia and of people from other health disciplines (e.g. occupational therapy, social work, nursing). This sample bias may have influenced the scope of the competency items generated and agreed upon. For example, speech pathologists highlighted that knowledge and skills in communication supports are an important aspect of developing therapeutic rapport with people with aphasia. Previous research confirms that speech pathologists perceive that verbal and non-verbal communication support is

a factor underpinning therapeutic alliance (Lawton *et al.* 2018). It will be important to better understand the broader knowledge and skill needs of stroke clinicians across disciplines in the area of psychological care. Due to limitations, the competency items are provisional and a preliminary step in the research process. The rating scale is designed to be used by stroke clinicians of varied disciplines. Future research may include further consensus and pilot use with various stroke clinicians who deliver level-1 psychological care to people with aphasia. This will help evaluate the usability of the rating scale in clinical settings (Walzak *et al.* 2015).

The provisional competency rating tool, 'Psychological Care in Aphasia Rehabilitation Competency scale' to facilitate low-intensity psychological care after aphasia, which can be found in Supplemental file S9, can be used as a descriptive tool to support implementation of psychotherapeutic interventions in post-stroke aphasia rehabilitation. Further research is required to determine scoring and criteria levels for competence and confidence. Future studies should also test the rating scale's validity and interrater reliability (Gisev *et al.* 2013), and the relationship between therapist competence and therapy outcomes for people with aphasia.

Conclusion

A 19-item competency rating scale comprising self and observer-rated scales was developed as a preliminary list through consensus with key stakeholders, with representation from speech pathologists and psychologists. The resulting tool can be used to supplement clinician training in facilitating low-intensity psychological interventions for people with aphasia within the stepped psychological care framework.

Supplementary material

Supplementary material is available [online](#).

References

- Aldous K, Tolmie R, Worrall L, Ferguson A (2014) Speech-language pathologists' contribution to the assessment of decision-making capacity in aphasia: a survey of common practices. *International Journal of Speech Language Pathology* 16(3), 231–241. doi:10.3109/17549507.2013.871751
- Atkins L, Francis J, Islam R, O'Connor D, Patey A, Ivers N, Foy R, Duncan EM, Colquhoun H, Grimshaw JM, Lawton R, Michie S (2017) A guide to using the Theoretical Domains Framework of behaviour change to investigate implementation problems. *Implementation Science* 12(1), 77. doi:10.1186/s13012-017-0605-9
- Baker C, Rose ML, Ryan B, Worrall L (2020) Barriers and facilitators to implementing stepped psychological care for people with aphasia: perspectives of stroke health professionals. *Topics in Stroke Rehabilitation* 28(8), 581–593. doi:10.1080/10749357.2020.1849952
- Baker R, Camosso-Steinovic J, Gillies C, Shaw EJ, Cheater F, Flottorp S, *et al.* (2010) Tailored interventions to overcome identified barriers to change: effects on professional practice and health care outcomes. *Cochrane Database of Systematic Reviews* doi:10.1080/10749357.2020.1849952
- Bright FAS, Kayes NM, McPherson KM, Worrall LE (2018) Engaging people experiencing communication disability in stroke rehabilitation: a qualitative study. *International Journal of Language and Communication Disorders* 53(5), 981–994. doi:10.1111/1460-6984.12409
- Brown K, Worrall LE, Davidson B, Howe T (2012) Living successfully with aphasia: a qualitative meta-analysis of the perspectives of individuals with aphasia, family members, and speech-language pathologists. *International Journal of Speech Language Pathology* 14(2), 141–155. doi:10.3109/17549507.2011.632026
- Cane J, O'Connor D, Michie S (2012) Validation of the theoretical domains framework for use in behaviour change and implementation research. *Implementation Science* 7, 37. doi:10.1186/1748-5908-7-37
- Carragher M, Steel G, O'Halloran R, Torabi T, Johnson H, Taylor NF, Rose M (2020) Aphasia disrupts usual care: the stroke team's perceptions of delivering healthcare to patients with aphasia. *Disability and Rehabilitation* 43(21), 3003–3014. doi:10.1080/09638288.2020.1722264
- Carragher M, Ryan B, Worrall L, Thomas S, Rose M, Simmons-Mackie N, Khan A, Hoffmann TC, Power E, Togher L, Kneebone I (2019) Fidelity protocol for the Action Success Knowledge (ASK) trial: a psychosocial intervention administered by speech and language therapists to prevent depression in people with post-stroke aphasia. *BMJ Open* 9(5), e023560. doi:10.1136/bmjopen-2018-023560
- Caty ME, Kinsella EA, Doyle PC (2015) Reflective practice in speech-language pathology: a scoping review. *International Journal of Speech and Language Pathology* 17(4), 411–420. doi:10.3109/17549507.2014.979870
- Elman RJ (2016) Aphasia Centers and the life participation approach to aphasia: a paradigm shift. *Topics in Language Disorders* 36(2), 154–167. doi:10.1097/TLD.0000000000000087
- Fernandez N, Dory V, Ste-Marie LG, Chaput M, Charlin B, Boucher A (2012) Varying conceptions of competence: an analysis of how health sciences educators define competence. *Medical Education* 46(4), 357–365. doi:10.1111/j.1365-2923.2011.04183.x
- Fisher C, Cusack G, Cox K, Feigenbaum K, Wallen GR (2016) Developing competency to sustain evidence-based practice. *The Journal of Nursing Administration* 46(11), 581–585. doi:10.1097/NNA.0000000000000408
- Foster A, O'Halloran R, Rose M, Worrall L (2016) "Communication is taking a back seat": speech pathologists' perceptions of aphasia management in acute hospital settings. *Aphasiology* 30(5), 585–608. doi:10.1080/02687038.2014.985185
- Gisev N, Bell JS, Chen TF (2013) Interrater agreement and interrater reliability: key concepts, approaches, and applications. *Research in Social and Administrative Pharmacy* 9(3), 330–338. doi:10.1016/j.sapharm.2012.04.004
- Golding K, Fife-Schaw C, Kneebone I (2017) Twelve month follow-up on a randomised controlled trial of relaxation training for post-stroke anxiety. *Clinical Rehabilitation* 31(9), 1164–1167. doi:10.1177/0269215516682820
- Graneheim UH, Lundman B (2004) Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today* 24(2), 105–112. doi:10.1016/j.nedt.2003.10.001
- Grawburg M, Howe T, Worrall L, Scarinci N (2019) Family-Centered Care in Aphasia. Assessment of Third-Party Disability in Family Members With the Family Aphasia Measure of Life Impact. *Topics in Language Disorders* 39(1), 29–54. doi:10.1097/TLD.0000000000000176
- Grawburg M, Howe T, Worrall L, Scarinci N (2013) Third-party disability in family members of people with aphasia: a systematic review. *Disability and Rehabilitation* 35(16), 1324–1341. doi:10.3109/09638288.2012.735341
- Grohn B, Worrall L, Simmons-Mackie N, Hudson K (2014) Living successfully with aphasia during the first year post-stroke: a longitudinal qualitative study. *Aphasiology* 28(12), 1405–1425. doi:10.1080/02687038.2014.935118
- Helm-Estabrooks N (2002) Cognition and aphasia: a discussion and a study. *Journal of Communication Disorders* 35(2), 171–186. doi:10.1016/s0021-9924(02)00063-1
- Jünger S, Payne SA, Brine J, Radbruch L, Brearley SG (2017) Guidance on Conducting and REporting DELphi Studies (CREDES) in palliative care: recommendations based on a methodological systematic review. *Palliative Medicine* 31(8), 684–706. doi:10.1177/0269216317690685

- Keeney S, Hasson F, McKenna S (2011). 'The Delphi technique in nursing and health research.' (Wiley-Blackwell)
- Kneebone II (2016) Stepped psychological care after stroke. *Disability and Rehabilitation* 38(18), 1836–1843. doi:10.3109/09638288.2015.1107764
- Kristo I, Mowll J (2022) Voicing the perspectives of stroke survivors with aphasia: a rapid evidence review of post-stroke mental health, screening practices and lived experiences. *Health & Social Care in the Community* 30(4), e898–e908. doi:10.1111/hsc.13694
- Lawton M, Sage K, Haddock G, Conroy P, Serrant L (2018) Speech and language therapists' perspectives of therapeutic alliance construction and maintenance in aphasia rehabilitation post-stroke. *International Journal of Language & Communication Disorders* 53(3), 550–563. doi:10.1111/1460-6984.12368
- Liddell AE, Allan S, Goss K (2017) Therapist competencies necessary for the delivery of compassion-focused therapy: a Delphi study. *Psychology and Psychotherapy* 90(2), 156–176. doi:10.1111/papt.12105
- Mann K, Gordon J, MacLeod A (2009) Reflection and reflective practice in health professions education: a systematic review. *Advances in Health Sciences Education, Theory and Practice* 14(4), 595–621. doi:10.1007/s10459-007-9090-2
- McAllister S, Lincoln M, Ferguson A, McAllister L (2011) A systematic program of research regarding the assessment of speech-language pathology competencies. *International Journal of Speech Language Pathology* 13(6), 469–479. doi:10.3109/17549507.2011.580782
- Miles A, Friary P, Jackson B, Sekula J, Braakhuis A (2016) Simulation-based dysphagia training: teaching interprofessional clinical reasoning in a hospital environment. *Dysphagia* 31(3), 407–415. doi:10.1007/s00455-016-9691-0
- Morris R, Eccles A, Ryan B, Kneebone II (2017) Prevalence of anxiety in people with aphasia after stroke. *Aphasiology* 31(12), 1410–1415. doi:10.1080/02687038.2017.1304633
- National Health Service Improvement (2011) Psychological Care after stroke. Improving stroke services for people with cognitive and mood disorders. Available at [Stroke \(nice.org.uk\)](http://Stroke.nice.org.uk) [retrieved 17 July 2023]
- Northcott S, Thomas S, James K, Simpson A, Hirani S, Barnard R, Hilari K (2021) Solution Focused Brief Therapy in Post-Stroke Aphasia (SOFIA): feasibility and acceptability results of a feasibility randomised wait-list controlled trial. *BMJ Open* 11(8), e050308. doi:10.1136/bmjopen-2021-050308
- Oyinloye OM, Imenda SN (2019) The impact of assessment for learning on learner performance in life science. *Eurasia Journal of Mathematics, Science and Technology Education* 15(11), em1775. doi:10.29333/ejmste/108689
- Patel K, Watkins CL, Sutton CJ, Holland E-J, Benedetto V, Auton MF, Barer D, Chatterjee K, Lightbody CE (2018) Motivational interviewing for low mood and adjustment early after stroke: a feasibility randomised trial. *Pilot and Feasibility Studies* 4(1), 152. doi:10.1186/s40814-018-0343-z
- Patton MQ (2015) 'Qualitative research & evaluation methods: Integrating theory and practice', 4th edn. (SAGE Publications)
- Rose M, Ferguson A, Power E, Togher L, Worrall L (2014) Aphasia rehabilitation in Australia: current practice, challenges and future directions. *International Journal of Speech Language Pathology* 16(2), 169–180. doi:10.3109/17549507.2013.794474
- Roth AD, Pilling S (2008) Using an evidence-based methodology to identify the competences required to deliver effective cognitive and behavioural therapy for depression and anxiety disorders. *Behavioural and Cognitive Psychotherapy* 36, 129–147. doi:10.1017/S1352465808004141
- Sekhon JK, Douglas J, Rose ML (2015) Current Australian speech language pathology in addressing psychological well-being in people with aphasia after stroke. *International Journal of Speech Language Pathology* 17(3), 252–262. doi:10.3109/17549507.2015.1024170
- Sekhon JK, Oates J, Kneebone I, Rose M (2019) Counselling training for speech-language therapists working with people affected by post-stroke aphasia: a systematic review. *International Journal of Language & Communication Disorders* 54(3), 321–346. doi:10.1111/1460-6984.12455
- Sekhon JK, Oates J, Kneebone I, Rose ML (2022) A phase II randomised controlled trial evaluating the feasibility and preliminary efficacy of an education program on speech-language pathologist' self-efficacy, and self-rated competency for counselling to support psychological wellbeing in people with post-stroke aphasia. *Topics in Stroke Rehabilitation* 30, 842–864. doi:10.1080/10749357.2022.2145736
- Simmons-Mackie N, Raymer A, Cherney LR (2016) Communication partner training in aphasia: an updated systematic review. *Archives of Physical Medicine and Rehabilitation* 97(12), 2202–2221.E8. doi:10.1016/j.apmr.2016.03.023
- Simmons-Mackie N, Kagan A, Shumway E (2018) 'Aphasia Severity Rating.' (Aphasia Institute: Toronto, ON) Available at <https://www.aphasia.ca/health-care-providers/resources-and-tools/rating-scales/#ASR>
- Stroke Foundation (2023) Living stroke guidelines. Available at <https://strokefoundation.org.au/what-we-do/for-health-professionals/living-stroke-guidelines> [retrieved 17 July 2023]
- Tadic M, Drapeau M, Solai S, De Roten Y, Despland JN (2013) Development of a competence scale for brief psychodynamic investigation: a pilot study. *Schweizer Archiv Für Neurologie Und Psychiatrie* 154(1), 28–36. doi:10.4414/sanp.2003.01333
- Thomas SA, Walker MF, Macniven JA, Haworth H, Lincoln NB (2013) Communication and Low Mood (CALM): a randomized controlled trial of behavioural therapy for stroke patients with aphasia. *Clinical Rehabilitation* 27(5), 398–408. doi:10.1177/0269215512462227
- Thomas SA, Drummond AE, Lincoln NB, Palmer RL, das Nair R, Latimer NR, Hackney GL, Mandfield L, Walters SJ, Hutton RD, Cooper CL, Chater TF, England TJ, Callaghan P, Coates E, Sutherland KE, Eshtan SJ, Topcu G (2019) Behavioural activation therapy for post-stroke depression: the BEADS feasibility RCT. *Health Technology Assessment (Winchester, England)* 23(47), 1–176. doi:10.3310/hta23470
- Victorino KR, Hinkle MS (2019) The development of a self-efficacy measurement tool for counseling in speech-language pathology. *American Journal of Speech-Language Pathology* 28(1), 108–120. doi:10.1044/2018_AJSLP-18-0012
- Visser MM, Heijenbrok-Kal MH, van't Spijker A, Lannoo E, Busschbach JJ, Ribbers GM (2016) Problem-solving therapy during outpatient stroke rehabilitation improves coping and health-related quality of life: randomized controlled trial. *Stroke* 47(1), 135–142. doi:10.1161/STROKEAHA.115.010961
- Walzak A, Bacchus M, Schaefer JP, Zarnke K, Glow J, Brass C, McLaughlin K, Ma IW (2015) Diagnosing technical competence in six bedside procedures: comparing checklists and a global rating scale in the assessment of resident performance. *Academic Medicine* 90(8), 1100–1108. doi:10.1097/ACM.0000000000000704
- Winkelbauer S (2020) An authentic, practice-based assessment as a catalyst for continuous professional development. *Pharmacy* 8(1), 15. doi:10.3390/pharmacy8010015
- Wong D, Hsieh M, McKay A, Haines K, O'Donnell M, Ponsford J (2018) 'Cognitive Behaviour Therapy for anxiety and depression – Adapted for Brain Injury (CBT-ABI): A treatment manual.' (Australasian Society for the Study of Brain Impairment (ASSBI))
- Wong D, Grace N, Baker K, McMahon G (2019) Measuring clinical competencies in facilitating group-based rehabilitation interventions: development of a new competency checklist. *Clinical Rehabilitation* 33(6), 1079–1087. doi:10.1177/0269215519831048
- Wong D, Pinto R, Price S, Watson L, McKay A (2024) What does competently delivered neuropsychological assessment feedback look like? Development and validation of a competency evaluation tool. *The Clinical Neuropsychologist* 38, 116–134. doi:10.1080/13854046.2023.2200205
- World Health Organization (2001) 'International Classification of Functioning, Disability and Health, ICF.' (World Health Organization)
- Worrall L (2019) The seven habits of highly effective aphasia therapists: The perspective of people living with aphasia. *International Journal of Speech Language Pathology* 21(5), 438–447. doi:10.1080/17549507.2019.1660804
- Worrall L, Davidson B, Hersh D, Ferguson A, Howe T, Sherratt S (2011a) The evidence for relationship-centred practice in aphasia rehabilitation. *Journal of Interactional Research in Communication Disorders* 1(2), 277–300. doi:10.1558/jircd.v1i2.277
- Worrall L, Sherratt S, Rogers P, Howe T, Hersh D, Ferguson A, Davidson B (2011b) What people with aphasia want: their goals according to the ICF. *Aphasiology* 25(3), 309–322. doi:10.1080/02687038.2010.508530
- Zanella C, Laures-Gore J, Dotson VM, Belagaje SR (2023) Incidence of post-stroke depression symptoms and potential risk factors in adults with aphasia in a comprehensive stroke center. *Topics in Stroke Rehabilitation* 30(5), 448–458. doi:10.1080/10749357.2022.2070363

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