Citation: Northcott, S., Comer, A., Devane, N., Behn, N., Roper, A., Bohan, J. & Hilari, K. (2026). How do clinicians and people with aphasia experience telehealth assessment? A synthesis of four data sources from the FATE-A study. Aphasiology, doi: 10.1080/02687038.2026.2663794

Aphasiology

ISSN: 0268-7038 (Print) 1464-5041 (Online) Journal homepage: www.tandfonline.com/journals/paph20

How do clinicians and people with aphasia experience telehealth assessment? A synthesis of four data sources from the FATE-A study

Sarah Northcott, Amanda Comer, Niamh Devane, Nicholas Behn, Abi Roper, Jaycie Bohan & Katerina Hilari

To cite this article: Sarah Northcott, Amanda Comer, Niamh Devane, Nicholas Behn, Abi Roper, Jaycie Bohan & Katerina Hilari (13 May 2026): How do clinicians and people with aphasia experience telehealth assessment? A synthesis of four data sources from the FATE-A study, Aphasiology, DOI: 10.1080/02687038.2026.2663794

To link to this article: https://doi.org/10.1080/02687038.2026.2663794

APHASIOLOGY
https://doi.org/10.1080/02687038.2026.2663794

Routledge
Taylor & Francis Group

How do clinicians and people with aphasia experience telehealth assessment? A synthesis of four data sources from the FATE-A study

Sarah Northcott, Amanda Comer, Niamh Devane, Nicholas Behn, Abi Roper, Jaycie Bohan and Katerina Hilari

Centre for Language and Communication Sciences, School of Health and Medical Sciences, City St George's, University of London, London, UK

ABSTRACT

Background and aim: Telehealth is increasingly used within healthcare, including by Speech and Language Therapists working with people who have aphasia. Aphasia is a communication disability common post stroke that presents challenges for telehealth, (e.g. people with aphasia are more dependent on multimodal communication techniques), which can be difficult to interpret through videoconferencing platforms. Assessments are a core part of the SLT role, and can pose particular challenges for telehealth, (e.g. testing receptive language skills). This study explored how people with aphasia and clinicians experience telehealth in the context of completing assessments, including their priorities for future directions.

Methods and procedures: This study integrated four different research activities from the "Improving access to healthcare: Face-to-face And Telehealth Equivalence of assessments in Aphasia (FATE-A)" study. The four data sources used were: qualitative responses to a survey (n = 124 Speech and Language Therapists), a focus group study (n = 14 Speech and Language Therapists), usability testing sessions (n = 4 Speech and Language Therapists, n = 6 advisers with aphasia) and Patient and Public Involvement and Engagement (PPIE) workshops (n = 7 advisers with aphasia). Findings from the four sources were inductively analysed to develop descriptive themes taking a meta-synthesis approach. Divergence and convergence of themes between sources was explored.

Outcomes and Results: There were three main themes: barriers, facilitators, and current and future preferences. Barriers and facilitators included severity of aphasia and other impairments; presence or absence of helpers; competence with technology (both clinician and person with aphasia); challenges around hardware and video-conferencing platforms; poor versus reliable internet connectivity; factors specific to assessments (e.g. lack of standardized assessment for online use); challenges setting up online assessments; and the emotional impact.

ARTICLE HISTORY
Received 17 July 2025
Accepted 16 April 2026

KEYWORDS
Telehealth assessment; aphasia; meta-synthesis; hybrid service; usability testing

CONTACT Katerina Hilari K.Hilari@citystgeorges.ac.uk Centre for Language and Communication Science, School of Health and Medical Sciences, City St George's, University of London, Northampton Square, London EC1V 0HB, UK

Supplemental data for this article can be accessed online at https://doi.org/10.1080/02687038.2026.2663794

Additional facilitators included preparation and support with set-up, and support with emotional wellbeing. Clinicians wanted more resources to facilitate online assessment, better hardware and platforms. While clinicians and people with aphasia perceived benefits to telehealth, both stakeholder groups wanted a flexible personalized hybrid service. Although there was broad congruence of themes, different data sources contributed uniquely, for example, the challenges of negotiating multiple steps to get online (usability testing), and preferred terminology (PPIE).

Conclusions: It is likely that telehealth will continue to be a component of Speech and Language Therapy services. Both people with aphasia and clinicians considered telehealth a valid model of service delivery, so long as it is tailored to the needs of the individual, and is part of a person-centred model of care.

Background

Telehealth is increasingly seen as a valuable component in service delivery (NHS England; World Health Organisation). The World Health Organisation defines telehealth as "The provision of healthcare services at a distance with communication conducted . . . between remote healthcare users seeking healthcare services and healthcare providers" (World Health Organisation). While the benefits appear promising, such as potential for increased productivity and patient choice (Snoswell et al., 2020) there are also barriers to successful implementation (Thomas et al., 2024). This study focuses on telehealth in the context of assessment for people with post-stroke aphasia, a communication disability, where particular challenges are evident due to the language disability (Menger et al., 2016).

Benefits and challenges to telehealth within health services

From a service provision perspective, there can be productivity gains such as providing specialist follow up in a more efficient way, with potential cost savings from reducing health-system funded travel (Snoswell et al., 2020). Beyond cost savings broader benefits include increased convenience, and more accessible services, for example, for those with physical disability, with limited transport options (Thomas et al., 2024). Within allied health professions, a study of n = 109 patients found that patients rated their telehealth experience highly in terms of usefulness, effectiveness, ease of use and satisfaction and noted time and cost savings (Cottrell et al., 2021).

Despite the promise of telehealth, challenges to successful implementation exist. Barriers reported by clinicians include lack of access to technology and physical infrastructure, including no "telehealth ready" workspaces (Cottrell et al., 2021; Thomas et al., 2024); connectivity or network issues (Binkhamis et al., 2024; Brady et al., 2024; Cottrell et al., 2021; Thomas et al., 2024); clinicians feeling ill-equipped to manage technology issues within sessions, and perceiving that they lack knowledge, support and training (Cottrell et al., 2021; Singh et al., 2022; Thomas et al., 2024); the time required to support client access and adapt clinical tasks so that they work online (Cottrell et al., 2021). Where the introduction of telehealth has been “forced” and rapid, as during COVID-19 pandemic, clinicians reported finding telehealth fatiguing and less satisfying (Thomas et al., 2024).

Providing a telehealth service that achieves the aim of universal health coverage, and genuinely increases equity and inclusivity, rather than further exacerbating inequitable access to health services (World Health Organisation) has challenges. Older adults, people with disabilities, lower levels of education and social deprivation are more likely to be digitally excluded (Menger et al., 2016). People from culturally and linguistically diverse backgrounds have been reported to prefer face-to-face appointments, and describe a variety of barriers to telehealth, such as needing to access video-conferencing appointments on phones relying on mobile data with poor internet connection (Brady et al., 2024). Rapid transitioning to telehealth without careful consultation with end users could have the unintended consequence of amplifying health inequalities (Brady et al., 2024; World Health Organisation).

Benefits and challenges to telehealth within Speech and Language therapy services

Within Speech and Language Therapy, the COVID-19 pandemic necessitated services pivoting to online delivery with most UK Speech and Language Therapists (SLTs) within stroke care reporting they intend to continue using telehealth as part of a sustainable hybrid service (Hilari et al., 2024). A review of telehealth within Speech and Language Therapy services reported the main benefits of telehealth as improved access to care: telehealth had the potential to reduce travel time and burden, particularly for those with reduced mobility, made services more accessible to those who live in communities with few specialists, and enabled providers to reach more patients (Regina Molini-Avejonas et al., 2015). There is also preliminary evidence that telehealth may have comparable results to language therapy delivered in person for people with aphasia (Cacciante et al., 2021; Cetinkaya et al., 2024). Further, telehealth has the potential to assist services to deliver the recommended intensity of interventions for people with aphasia (Chadd et al., 2024). Despite the promise of telehealth, aphasia itself is a barrier to digital inclusion, particularly for those who are also older and have lower levels of education (Menger et al., 2020).

Telehealth assessment with people with aphasia

Assessment is a major part of the SLT role, both within clinical work and also research contexts, yet there is less research into delivery of telehealth assessment than telehealth intervention (Teti et al., 2023), even though conducting assessments with people with aphasia via telehealth presents particular challenges. If a client has language, sensory, cognitive and physical impairments, all common post stroke, it can make it hard for clients to complete assessments reliably (Hilari et al., 2024). Clinicians face dilemmas on how to adapt assessments for online administration and support their clients through technology issues: for example, receptive language tests typically ask clients to point to their response with the assumption both client and therapist are in the same physical space. Standard outcome measures used with people with aphasia have typically been developed and tested for face-to-face delivery, raising concerns around psychometric validity and interpretation of scores when assessments are administered via telehealth. Within the Core Outcome Set of measures for aphasia (Wallace et al., 2016), only one of the four measures, assessing language, has been tested for use in telehealth (Dekhtyar et al., 2020). The other three measures, exploring quality of life, emotional wellbeing, and communication, all outcomes considered important by people with aphasia, their families and clinicians (Wallace et al., 2017), have not yet been tested for telehealth equivalence. Calls for the development of best practice guidelines aim to support clinicians in administering telehealth with people with aphasia (Weidner & Lowman, 2020). More generally, there is arguably a need to better support clinicians in determining when and how to offer telehealth as part of high-quality hybrid service delivery; and guidance to support clinicians on adapting their clinical work for telehealth so that they and their clients have positive experiences that extend rather than restrict access to services.

To create guidance and practical resources to support clinicians in administering telehealth assessments we have sought to develop a nuanced understanding of the barriers, enablers and priorities from the perspective of both SLTs and people with aphasia. This study synthesizes the qualitative findings from four different activities, conducted as part of the "Improving access to healthcare: Face-to-face And Telehealth Equivalence of assessments in Aphasia (FATE-A)" study (*website to be added post review)*. These comprised a survey, focus groups, usability testing and Patient and Public Involvement and Engagement (PPIE) workshops. The aims of this study were to explore how SLTs and people with aphasia experience telehealth assessment, including their perceptions of the barriers and enablers, and explore different stakeholder priorities for future telehealth delivery, informing the creation of a toolkit.

Methods

Design

This study involves the interpretive integration of findings from four different sources of qualitative data using a meta-synthesis approach. The data sources were qualitative survey responses, focus groups, a series of usability testing sessions and two PPIE workshops (see Table 1). The Enhancing Transparency in REporting the synthesis of Qualitative research (ENTREQ) checklist informed the reporting process (Tong et al., 2012) although as this is a synthesis of linked studies all completed by the same research team, not all items applied. The analysis was also informed by the Guidance for Reporting Involvement of Patients and the Public (see supplementary file for GRIPP2 long form reporting checklist) (Staniszewska et al., 2017). The synthesis has been completed as part of a larger study exploring telehealth assessment: "Improving access to healthcare: Face-to-face And Telehealth Equivalence of assessments in Aphasia (FATE-A)". The research activity that created the source material for the synthesis took place in preparation for FATE-A. The synthesis itself was completed during FATE-A as a prelude to using behaviour change frameworks to identify intervention functions to include in a telehealth assessment toolkit. The FATE-A study has a lived experience advisory group comprising six advisers with aphasia and three family members/partners, working closely with the clinician-researcher team throughout the project.

Table 1. Original source data for meta-synthesis.

Source		Date of research activity	Stakeholder perspective	Method of analysis	Aim
Source A	Online cross-sectional survey (open-text responses only) (Hilari et al., 2024)	May-July 2021	UK SLTs (n = 124)	Qualitative content analysis	Explore experiences of UK SLTs in using telehealth to conduct assessments for people with aphasia
Source B	Focus Groups (Comer et al., 2025)	Aug-Dec 2022	UK SLTs (n = 14)	Framework analysis	Explore barriers and facilitators that SLTs experience when administering assessments to people with aphasia via telehealth
Source C	Usability testing (see Supplementary Material A)	May-July 2021	UK advisers with aphasia (n = 6); UK SLT advisers (n = 4)	Framework analysis	Explore the usability of telehealth to conduct assessments with people with aphasia
Source D	PPIE workshops (see Supplementary Material B)	June 2021	UK advisers with aphasia (n = 7)	Narrative summary	Explore the key issues of telehealth assessment for people with aphasia and their research priorities

Key: PPIE: Patient and Public Involvement and Engagement; SLT: Speech and Language Therapist.

We sought to explore the same topic (telehealth assessment) from diverging perspectives (clinician, person with aphasia) using diverse methodologies (survey responses, focus groups, real-time usability testing, PPIE workshops), and differing research paradigms (traditional researcher-participant roles, collaborative partnership roles). Our aim was that through approaching the same topic through these different lenses, we would gain an understanding of enablers, barriers and priorities, and would also be able to embed the values and preferences of different stakeholders into the research process. In attempting to integrate qualitative findings from different studies and sources, rather than coming from a positivist paradigm we have adopted an inductive and interpretive approach exploring the diversity of perspectives from the different sources to facilitate a broader, richer understanding of the phenomenon (McCormick et al., 2003). Advantages to exploring multiple studies from the same authors in a qualitative meta-synthesis, as described by Brown et al (Brown et al., 2012), include: the authors have access to the raw data and all the iterative analytic stages, enabling a more detailed understanding of the material. Diversity in the material enables exploration of how these sources converge or diverge. Through involving people with aphasia as experts with lived experience in the PPIE workshops and usability testing, we were also able to foreground their values and preferences within the research process (Grindell et al., 2022).

Description of the original activities

The four activities which serve as the source material for this meta-synthesis comprise a survey study (Hilari et al., 2024), a focus group study (Comer et al., 2025), usability testing sessions (Supplementary Material A) and two PPIE workshops (Supplementary Material B) (see Table 1 for overview).

The first activity was a UK national online survey of n = 124 SLTs (Hilari et al., 2024). Although most participants were based in England (86%) there were also participants from Wales (5%), Scotland (7%) and Northern Ireland (2%). The majority worked in community/out-patient services (58%), followed by early supported discharge (13%), acute stroke hospital (10%), inpatient rehabilitation (8%), other (research, mixed) (7%), and charity sector (4%). The study had ethical approval (see below) and participants consented to participate to the anonymous survey by clicking the link to the survey after considering information provided. The survey was active from May to July 2021 and explored SLTs' experiences of telehealth assessments with people with aphasia during the COVID-19 pandemic, and their plans for telehealth post pandemic. The survey included yes/no, multiple choice, Likert Scale and open-ended text responses. Only the open-ended qualitative responses have been included in this synthesis. These responses were analysed with qualitative content analysis using methods described in Palmer et al (Palmer et al., 2017).

The second activity was a focus group study of SLTs with experience of using telehealth assessments with people with aphasia (n = 14 SLTs). The study had ethical approval as indicated below. All individuals who participated in this study gave informed voluntary consent. All focus groups were conducted online between August and December 2022 (Comer et al., 2025). Focus groups enabled in-depth discussion of the survey findings. The groups explored barriers and facilitators to administering telehealth assessments as well as participants' perspectives on what makes a positive assessment experience. Most participants worked in community services (50%), early supported discharge (14%), or outpatients (14%), and the majority had over 5 years' experience (79%). Focus groups were recorded, transcribed verbatim, and analysed using Framework Analysis (Spencer et al., 2014).

The third activity was a series of usability testing sessions, working with two expert adviser groups: six advisers with aphasia and four SLT advisers who were all experienced clinicians. They were involved in the project as research collaborators/partners, and they tested the technologies used in the research and provided their feedback as advisers. Advisers with aphasia were known to the research team through a third sector partner organisation (Aphasia Reconnect) and previous research, and were people who had experience of using Zoom and had expressed an interest in becoming involved with/advise on research activities. The research team purposively invited people with aphasia from diverse backgrounds, for example, in terms of ethnicity, gender, age, living situations and aphasia severity. Usability testing involves evaluating a product or service with intended users, and is typically done by the user carrying out an activity with the product/service while a researcher observes, listens, takes notes and then elicits the user's views, thereby identifying potential problems and solutions. Previous research has described usability testing with people with aphasia, including inviting people with aphasia to "think aloud" and share reflections in real time during the activity (Shiggins et al., 2025; Szklanny et al., 2022). The advisers with aphasia were invited to come to the university clinic, bringing their own device; turn on the device; join a Zoom call; complete one online assessment; and discuss their experiences. They were supported to reflect aloud during the activity. After the activity, the "Someone-Who-Isn't-Me" (SWIM) technique was employed: each person was invited to think of another person with aphasia, who is different to them, and how they might answer the same questions (Wilson et al., 2015). The researcher (ND) observed how much help was required, what supported them, barriers, and emotional responses. The online assessment was completed with experienced SLTs from the research team (KH, NB, SN; >20 years' experience), while the researcher (ND; >15 years' experience including usability testing) sat beside the adviser with aphasia. The second component of this activity involved walking through the online assessment process with the SLT advisers external to the research team, who also gave real-time reflections to the researcher (ND). Usability testing took place May to July 2021. Data were analysed using Framework Analysis (Spencer et al., 2014), led by ND, second analyst AC. For more detailed description of methods, see Supplementary Material A.

The fourth and final activity to inform the synthesis was PPIE workshops. There were two online workshops with seven people with aphasia (n = 3 in the first workshop; n = 4 in the second workshop); workshops lasted approximately 100 minutes. The workshops were co-facilitated by NB and SN. The workshops explored people's views of telehealth assessment and what they considered were priorities for the research going forwards. SN took anonymised notes and discussed the members' reflections and opinions with NB following the workshops. An informal narrative summary of the key themes was created by SN. Workshops took place in June 2021. For a more detailed description of PPIE workshops, see Supplementary Material B.

The expert advisers in the usability study and PPIE workshop members were paid in accordance with NIHR INVOLVE guidelines in recognition of their time and expertise.

Ethical approval

The survey study and focus group study received ethical approval from City St George's, University of London, Language and Communication Science Proportionate Review Committee (ETH2021-1508 and ETH2122-1499). PPIE workshop members and SLT/aphasia advisers were considered expert consultants whose role in the research was patient and public engagement. Researchers carefully explained about the study, their role in the study, and the intended purpose of the research, to enable them to make an informed decision about whether they wanted to work as advisers. However, in line with UK Health Research Authority guidance (www.hra.nhs.uk), they were not considered research participants. The parent FATE-A study has ethical approval from NHS HRA (HCRW ref: 24/WM/0030).

Data analysis

Data from the four sources (Table 1) were inductively analysed. A three-stage synthesis approach was used as described by Thomas and Harden (Thomas & Harden, 2008). This involved line by line coding of the data sources, organising codes to develop descriptive themes, with the potential to develop higher order themes through this process. Particular attention was paid to exploring the convergence and divergence of themes between the different data sources. Two authors were involved in the data analysis (AC and SN). One author (AC) coded data line by line, with descriptive themes inductively derived. A senior qualitative researcher (SN) reviewed and discussed the emerging themes with AC. SN and AC further refined themes in preparation for the manuscript, and telehealth assessment resources toolkit development for the broader FATE-A project. Data was managed using NVIVO 14 software.

Results

The four sources are referred to throughout the synthesis: survey with SLTs (source A) (Hilari et al., 2024) focus groups with SLTs (source B) (Comer et al., 2025); usability testing with advisers with aphasia and SLTs (source C) (Supplementary Material A); PPIE with people with aphasia (source D) (Supplementary Material B). A tripartite framework was developed consisting of barriers (eight sub-themes), facilitators (ten sub-themes), and current and future preferences (seven sub-themes).

Barriers

Aphasia severity and other impairments

Aphasia severity and other impairments were described as a barrier to telehealth assessment by both SLTs and people with aphasia (sources A-D). Those with severe aphasia were more dependent on multimodal communication techniques, which were more difficult to view and interpret through videoconferencing platforms (sources B, C). This presented challenges for interpreting assessment responses and building rapport and could make telehealth assessment a frustrating experience (sources B, C). Other physical impairments, often stroke-related, also impacted telehealth assessment such as visual or hearing impairments, cognitive impairments, limb weakness, tremors (sources A-C), as well as difficulties with fatigue, concentration, attention control, and problem solving (sources B, C).

Absence of and challenges with helpers

The absence of family, carers, friends or volunteers was highlighted as a challenge (sources A, B). For those in institutional care, breakdowns in coordinating appointments with carers or family were reported (source B). Other difficulties included helpers providing additional cueing during assessment with concerns this potentially impacted the reliability of the assessment, and managing conflict when the person with aphasia did not want support from a helper (source B).

Lack of competence

People with aphasia were described as having variable competence and confidence using technology (sources A, C), particularly those who were older; for some, the telehealth assessment was their first time using videoconferencing (source B). Skills, knowledge and confidence for using technology and videoconferencing also varied amongst SLTs (sources B, C); similarly, if helpers had low competence this could impact on the support they could provide (source B).

Factors specific to assessments

SLTs highlighted the lack of standardised assessments for online use as a barrier (sources A, B), and were concerned about the legality of modifying assessments (source B). Receptive language assessments required more adjustment to facilitate patient responses (sources B, C). When patients pointed to responses or used their mouse to click on the screen, it was difficult for SLTs to view and record (sources B, C). Using a number system was described by SLTs, however people with aphasia reported using numbers as a barrier to access (sources C, D). Telehealth made it more difficult for people with aphasia to use multimodal communication strategies to respond to questions, and more difficult for SLTs to facilitate their understanding (sources B, C). An additional barrier identified by people with aphasia was the online SLT reading the questions too quickly (source D).

Set-up for online assessment

SLTs and people with aphasia described the process of logging into videoconferencing platforms as difficult, effortful and time consuming (sources B-D). For people with aphasia, remembering, copying and typing passcodes was a barrier to access; if passcodes were long and included numbers, this increased the difficulties, with multiple attempts required due to errors when typing (source D). Both people with aphasia and SLTs described the many steps for logging in as demanding: establishing the internet connection, creating a videoconferencing account, downloading applications, finding and understanding invitation emails with the meeting hyperlink, remembering login details, typing passwords and personal details, and understanding and accepting the pop-up windows for audio and video permissions (sources B, C). Additional barriers were locked online rooms for security which affected a person's ability to get back into the session if their connection dropped out (sources A-C).

Challenges associated with hardware and poor internet connectivity

A major barrier was lack of access to suitable devices for people with aphasia (source A- C), along with lack of internet and financial barriers (source B). The laptop trackpad impacted on physical access, and tablets affected the assessment view requiring items to be magnified (source C). Mobile smartphones were identified as least favourable for telehealth assessment, with poor visibility of the assessment text and layout described by both stakeholder groups (sources C, D). People with aphasia also reported that using a telephone for assessment is challenging and can cause anxiety, which affected their spoken output (source D). Cameras within devices were difficult to move which made it hard to see multimodal communication strategies (source B).

Internet connectivity difficulties, both for people with aphasia and also SLTs' workplaces, were frequently reported by SLTs, with poor signal strength and an unstable internet connection impacting on the assessment and conversation dynamics (sources A-C). Service level barriers included delays in providing necessary technology resources, limited flexibility in videoconferencing platform access (including lack of individual login accounts and security restrictions related to information governance), limited room and computer availability (source B). A general lack of resources for telehealth was described (source A).

Videoconferencing platforms

Barriers using videoconferencing platforms were identified by both SLTs and people with aphasia (sources A-D). Challenges with platforms included differences in the platform between devices (such as Zoom being hard to use on an iPad but preferable on a laptop) (source C), and different logging in processes between platforms (e.g., Gmail account is required for Google Meet) (source C). Skype was identified by people with aphasia as more difficult than Zoom (source D). Platform functions varied and could be limited. Barriers included difficulties using annotate, absence of or difficulty with screen sharing, and not being able to control the device at the patient's end to support them (sources A, B).

Therapeutic management and emotional impact

SLTs described the impact of telehealth delivery on the therapeutic relationship, and managing emotions. They described patients' feelings of anxiety and frustration, along with unwillingness to engage on occasion (sources B, C). Similarly, SLTs described their own anxiety prior to assessment, exhaustion of multiple online sessions, worry for their patients coping during the COVID-19 pandemic, and feeling detached from their patients. They had low confidence in their ability to build a therapeutic relationship and needed to work harder to build rapport (source B, C). Online delivery also made it more difficult to identify cues about how the person with aphasia was coping with the assessment and when to offer encouragement (sources B, C).

Facilitators

Less severe aphasia and using strategies to manage impairments

Having less severe aphasia was described as a facilitator (source A), as the person with aphasia was able to provide more verbal responses during assessment as well as feedback to SLTs on difficulties (source C). Headphones were reported to support attention, hearing and auditory comprehension during online assessment (source C). Strategies for managing cognitive impairments included providing step-by-step guides for online assessment to refer back to, shorter sessions, and establishing routines for assessment sessions (source B).

Access to helpers

Helpers, including family members (sources A-D), carers, SLTs and rehabilitation assistants (sources A-C), were identified as a strong facilitator to telehealth assessment by all stakeholders. Helpers supported through reducing the physical, visual and cognitive burdens of setting up devices (sources B, C), having access to the invitation email, advising who was in the room, preparing the environment, practicing logging in with the person with aphasia and problem-solving technology difficulties (sources B, C).

Useful prompts provided by helpers included checking the person with aphasia's understanding, repeating instructions, verbally and visually prompting the person with aphasia to return to task and reminders to use their multimodal communication strategies. Helpers gave feedback about the person with aphasia's responses and communication that was not viewable by the online SLT (sources B, C).

Facilitative assessment factors and communication support

There were variable opinions as to whether formal or informal assessment was easier to facilitate online (source B). Assessments testing verbal output (e.g., picture naming) were easier (sources B, C). For assessments where non-verbal pointing responses were required, adjustments such as using numbers or letters or the use of closed questions to eliminate options was described (source C). Negotiating with the person with aphasia how they would respond was reported, with SLTs tailoring their assessment sessions to the individual (source C). Online delivery facilitated scoring and recording, with outcome measures gathered by taking screenshots, video or audio recording assessments and using the chat function history (sources A, B), and was potentially less distracting (source B).

Both SLTs and people with aphasia described how the visual presentation of assessments facilitated online administration (sources B-D). Adjustment of assessments were frequently required, with rating scales reported to be easy to adapt (source B). Preferences for assessment presentation included using a simple layout that is easy to read (source D), assessment content which is simple to screen share (i.e., on a document) (sources B, C), presenting one item at a time which is visible without scrolling (sources C, D) and clear steps when instructions were written (source D). Presentation of written text that facilitated online assessments included spacing between lines, large font, use of pictures or icons to support comprehension and seeing all the text required for the assessment item on the screen without scrolling (source D).

Facilitation strategies described as useful were additional time for assessing (source D), screen breaks, established routines for sessions, assessing across several sessions (source C), time taken to explain the assessment, simple instructions (source D), setting expectations for the session (sources A, C, D), and sending materials in advance (sources B, C). During the assessment, both stakeholder groups highlighted facilitation techniques such as reading questions slowly, additional explanations of items to facilitate understanding, avoiding rushing between items, visual options, and flexibly pacing the session according to the needs of the person with aphasia (source A, C D). Other enabling strategies included using the mouse pointer to show items being discussed, repetition of instructions, checking back responses given were as intended, using the chat and whiteboard function to write key words to support auditory comprehension, and prompting people with aphasia to use their existing communication strategies (source C). Attention paid to additional cues such as use of intonation and facial expressions were helpful in interpreting responses, which prompted SLTs to check back (source C). People with aphasia described using writing to support spoken output (pen and paper) (source D).

Preparation

Careful preparation was a facilitator (sources A-C). It helped when SLTs protected time to familiarise themselves with the adapted assessments and videoconferencing platform (sources A, C), and to adapt assessments for online administration (source B).

Carrying out an in-person pre-assessment session was widely agreed as a facilitator (sources A-C). This provided opportunities to reduce the demands on the online assessment sessions by increasing the person with aphasia's familiarity with the setup and log in process for the videoconferencing platform selected, and establish the level of support required (sources A-C). SLTs used these in-person sessions to: build rapport; practice logging into videoconferencing platform; save login details; create shortcuts to the videoconferencing platform; provide physical materials; and advise on the environmental set up (e.g., quiet space) (source C).

Setting expectations for the assessment was highlighted as important, both at the pre-assessment session and before commencing testing. Providing a clear introduction of the assessment, the anticipated length of time, notifying the service user of the halfway point during testing, advising how they will view the assessment and how many questions or tasks to expect were all identified as useful (source C).

SLTs described actions they found helpful to prepare themselves immediately prior to online sessions. These included minimising distractions on the screen (e.g., minimising windows) (source B), opening the online assessment and resource windows ready to use, and having a backup communication option (i.e., service user's telephone number) easily accessible in the event of technology issues such as disrupted internet connection (source C).

Set-up

Factors which supported people with aphasia to set-up their device and log into videoconferencing platforms included sending an easy-to-identify (i.e., bold or a different colour font) one-click hyperlink for the online meeting with the password embedded (sources B-D), enabling audio and video when setting up the online meeting, and providing step-by-step guides (source C). Helpful routines included sending appointment reminders the day before, having appointments at the same time and consistency in arranging appointments, either by email, phone, letter or by video call (sources B-D).

Access to resources

Creating step-by-step aphasia-friendly guides for instructions of the assessment process and troubleshooting anticipated difficulties (e.g., logging in with instructions specific to the platform being used) were reported as useful (sources A-C). SLTs developed their knowledge and skillset for telehealth assessment through support from expert clinicians, colleagues and students, (e.g., problem-solving and sharing practical tips with peers) (source B). Service level facilitators included having facilities to store assessments in one online place and being able to access private quiet spaces for sessions (source B).

Videoconferencing platforms

Both stakeholder groups wanted an easy-to-use, straightforward platform. Zoom was generally preferred (sources A-D), however some had no preference between MSTeams and Zoom (source D). Generally, people with aphasia found using videoconferencing platforms preferable to telephone calls, as both parties can see each other (source D). Functions that facilitated online assessment included screen sharing, chat box, annotate (sources A-C), screen mirroring (source B), screen control (source C), text subtitles, whiteboards or drawing space (source A), annotate, screen recording (sources A, B). Applications, such as Boom Cards and PowerPoint, were described as useful ways to present information via screen sharing (source A). When the leave call button was highlighted by a colour (e.g., red), this supported some people with aphasia to end the video call without assistance (source C).

Good internet connectivity and hardware

Having a stable, strong internet connection was considered important for telehealth assessment, and enabled standardised administration (source A, B). Both stakeholder groups emphasised access to devices as the key enabler (sources A-C). Mobile phones were reported (source C), however laptops and iPads were most often described (sources B, C). An additional device to facilitate use of communication strategies (such as an iPad to view handwritten output) (sources B, C), and access to headphones and a mouse (for devices with a trackpad) were also considered enablers (source C).

Competence

Knowledge of and experience using technology and videoconferencing platforms were facilitators for both stakeholder groups (sources B, C). Some examples of independent problem solving by people with aphasia included managing videoconferencing pop-up windows and adjusting to meet their needs (e.g., increasing the volume) (source C). SLTs described seeking knowledge about their patients' competence and confidence to inform their therapeutic approach (source B). Demonstrations from SLTs and repeated practice could enable people with aphasia to become familiar with videoconferencing functions: this not only enabled access to telehealth assessment, but increased a person's confidence, competence and ultimately independence (e.g., with screen sharing or logging in) (sources B, C). Both stakeholder groups reported a sense of achievement at learning new skills associated with telehealth (source C).

Therapeutic management and emotional wellbeing

The therapeutic relationship was identified as an important aspect of assessment (sources B, C). Facilitative factors described by SLTs included meeting the person with aphasia face-to-face for the first session, seeing the same SLT for all sessions, using humour where appropriate. They also described offering encouragement, reassurance, and positive feedback during telehealth assessments (sources B, C). To build the therapeutic relationship, SLTs showed an interest in the service user and got to know them as a person, were open and friendly offering a little of themselves, showed patience and respect, and prioritised spending time putting the person with aphasia at their ease (sources B, C). Involving family members, and not wearing a mask were also described as helpful (source B). Strategies specific for session management included offering shorter sessions, pacing the session to avoid rushing, taking screen breaks, routines for sessions, and anticipating what the service user may find difficult and plan ahead for this (sources B, C).

SLTs noted that monitoring the person with aphasia's emotional response to the assessment online required increased attentional demands compared to face-to-face sessions (sources B, C). SLTs identified strategies for their own emotional wellbeing when providing telehealth. These included taking regular breaks, eye rest, and finding ways to disconnect from the day. It was also noted that online assessments could be enjoyable (source C).

Current and future preferences

Terminology

Aphasia advisers preferred the term "online" rather than "telehealth". They disliked the term "tests", as it had connotations with school, and came with a sense of "pass" or "fail". "Assessment" was a more acceptable term, as it was associated with exploring strengths as well as weaknesses. The term "outcome measure" was associated with moving forwards. Overall, advisers with aphasia preferred assessment or outcome measure as these terms suggested the process was linked to something meaningful, for example, exploring goals or the future, and would include their perspective (source D).

Assessments

SLTs wanted a range of standardised assessments for people with aphasia which are ready to be used online without adjustment (sources A-C) with protocols and resources for assessment administration to support this (source A). There was a preference for interactive online assessments which SLTs and service users can access and use at the same time, rather than static documents (sources A, B). They also wanted simplified administration, including noise and visual cues to highlight a person's responses (i.e., on a shared screen), to improve the assessment experience and response recognition (source C).

Resources

Resources for SLTs to facilitate online assessments were suggested. Clear instructions, guidance with top tips for how to use videoconferencing platforms, telehealth assessments, and support people with aphasia develop their online skills were desired, in written and video form (sources A, B). SLTs wanted formal training for online assessment administration, a space to share information and resources and to learn from other clinicians' expertise (source B). Service level considerations identified by SLTs were investment by NHS Trusts in resources and systems to facilitate telehealth, additional time for online assessment and individualised pre-assessment set-up sessions (source B).

Hardware & platform

SLTs wanted more technology available to people with aphasia and SLTs (source B), with no platform costs to people with aphasia (source A). Desirable platform functions included an interactive platform which both service users and SLTs could access at the same time, with people with aphasia using one click or touch response with the clinician able to view this (sources A-C). The capability to turn on the service user's annotate function, use screen sharing and mirroring, and a platform set up that is aphasia friendly and supports administration of online assessments were also described (source A).

Perspectives on telehealth

People with aphasia reported face-to-face sessions are easier, however described online sessions as a reasonable substitute (source D). Offering people with aphasia flexibility with the platform used and time of day for online sessions was highlighted by SLTs as important (sources B, C). SLTs reported increased access to SLT services by providing sessions online, however this access was described as inequitable and for a subset of SLTs, communication needs were felt to be deprioritised alongside concerns that safeguarding risks may go under reported (source B).

Benefits of telehealth service delivery

For people with aphasia, accessing healthcare in their own home was described as more comfortable and relaxing (sources B, D), and less fatiguing than travelling to appointments (sources B, C). SLTs suggested additional benefits of telehealth for people with aphasia were reduced travel time and cost savings and the opportunity for people with aphasia to develop new skills (sources B, C). SLTs described the primary benefit of telehealth as the ability to continue to deliver SLT services during COVID-19 lockdowns and work with clinically vulnerable service users (source B). Service level benefits described by SLTs included increased intensity of SLT sessions (source C), flexible working options (i.e., working from home), short session lengths which enabled more appointments during the day and could reduce waiting lists, increased productivity and increased time to deliver person-centred care (secondary to reduced travel time) (source B). Other benefits of telehealth included having a centralised online location for assessments, no forward planning when accessing service users' homes and continuing to offer student placements during COVID-19. It could also facilitate family members accessing more SLT appointments, including during assessments (source B).

Benefits of face-to-face and hybrid service delivery

SLTs described using telehealth less now than during COVID-19 and suggested some people with aphasia did not perceive telehealth as equal to face-to-face service delivery (source B). It was suggested some service users would benefit more from face-to-face sessions, possibly due to living alone or if there are significant communication barriers (sources A, C). Observing the nuances of conversations, such as facial expressions and body language, was highlighted by people with aphasia as a benefit of in-person sessions (source D). The benefits of offering a combination of face-to-face and online delivery, providing choice to service users, was seen as potentially the best of both worlds (source B).

Discussion

This study synthesised qualitative material from four sources to explore SLTs' and people with aphasias' experiences of telehealth assessment. Barriers to telehealth assessment included the severity of aphasia and other impairments, lack of confidence and competence with technology, lack of access to devices and poor internet connection. Facilitative factors included careful preparation and set up, access to resources, devices, helpers and physical spaces that supported telehealth, videoconferencing platforms that were straightforward to use for people with aphasia, and prioritising the therapeutic relationship. There was broad agreement between the different sources on both the main barriers and enablers, and that there were potential benefits to telehealth assessment (e.g., less travel, less fatiguing). Both people with aphasia and SLTs also described benefits to in person interactions, and considered that a flexible hybrid model of service delivery, tailored to the individual patient, is likely to offer the best of both worlds.

Some argue that implementing telehealth should happen gradually, where staff feel supported by local champions and receive guidance (Thomas et al., 2024). Few SLTs were using telehealth prior to the COVID-19 pandemic and were forced to implement telehealth rapidly, often without receiving training and while working with inadequate infrastructure (Binkhamis et al., 2024; Singh et al., 2022). The impact caused by this rapid transition was reflected in the synthesis: SLTs described their own anxiety prior to telehealth assessment sessions, exhaustion at multiple online sessions and feeling detached from patients during the pandemic. Other research has also found clinicians associate telehealth with lower job satisfaction and increased fatigue, and feel frustration at being expected to trouble-shoot technology issues (Thomas et al., 2024). The synthesis found that an important factor in ameliorating negative clinician experiences is having service-level infrastructure that supports telehealth. Other research has also found that clinicians value having access to technical support, administrative support dedicated to telehealth, as well as suitable devices and clinic space (Cottrell et al., 2021). Successful implementation is also more likely when end users, both people with aphasia and clinicians, are involved in the design of the telehealth solution (Chadd et al., 2024; Vuong et al., 2025). Vuong et al. (Vuong et al., 2025) describe how they involved people with aphasia, SLTs and support people in identifying needs and requirements and iteratively testing a telehealth protocol prior to successful delivery of an intensive and complex aphasia therapy programme (TeleCHAT).

Evidence suggests more guidance is needed on when it is effective to use telehealth (Hilari et al., 2024; Weidner & Lowman, 2020). This synthesis, along with previous research, found severe aphasia to be a barrier (Menger et al., 2016). People with severe aphasia are more likely to rely on "total communication" to express themselves and understand others (e.g., use of written key words, pointing to objects, gesture), and this can be harder to interpret and support online. It can also be harder for them to verbalise their responses during psychosocial outcome measures. The challenge is compounded when a person also has a cognitive, sensory or physical impairment, lacks confidence in technology or is from a group vulnerable to digital exclusion such as being older (Menger et al., 2016). Yet this synthesis revealed a range of strategies SLTs used to support people to access telehealth from careful set up, including initial home visits, to using videoconferencing platforms that promoted ease of access (e.g., "one-click" access to meetings). The synthesis found that enabling someone to access telehealth could enable them to develop new skills and confidence with other online interactions. Digital inclusion, and access to online social activity, may be a reasonable goal or outcome from therapeutic interventions in itself, particularly as people with aphasia are at risk of social isolation (Northcott et al., 2016). Other research has explored ways to support people at risk of digital exclusion to access telehealth. For example, Brady *et al* (Brady et al., 2024), used multicultural health officers to support patients from culturally and linguistically diverse backgrounds to become familiar with telehealth technology through trialling a connection prior to meeting with their healthcare professional, written and video instructions in the language of their choice, and use of platforms with which they were familiar such as zoom or WhatsApp. With this level of support 90% felt they could establish rapport with their healthcare professional, and 76% would consider telehealth for future appointments. The synthesis similarly highlighted that some platforms were more familiar and functional for people with aphasia than others (e.g., Zoom), and SLTs expressed frustration with institutional restrictions. It may be that there is a trade-off between institutional policies that prioritise additional data security and delivering a more accessible service which widens rather than restricts access.

The benefits of telehealth described in other research were also reflected in the current synthesis: reduced travel time (for both clinician and patient), reduced fatigue, the comfort and convenience of accessing health services from one's own home (Regina Molini-Avejonas et al., 2015). Productivity gains were less emphasised in the synthesis, as it could take time for SLTs to prepare, set up and adapt their clinical work for online delivery; time inefficiency of telehealth is also described by other studies (Cottrell et al., 2021; Thomas et al., 2024). It may be that as clinicians become more familiar with telehealth, this preparation time reduces. SLTs in the current synthesis also noted that telehealth enabled them to offer more flexible services such as more frequent but shorter sessions. In addition, telehealth opened up the possibility of more flexible working patterns for clinicians, (e.g., working part of the week remotely). Given the current shortage and high turn-over of staff within UK SLT services, with vacancy rates of up to 25% in adult services (Royal College of Speech and Language Therapists), working remotely via telehealth may be an incentive to retain experienced staff.

Strengths and limitations

The focus groups and PPIE workshops were held online: arguably, this meant we were listening to the experiences and views of people who had some familiarity and competence using videoconferencing. The SLTs who elected to complete an online survey on telehealth, or the individuals who we employed in usability testing, may have been those more interested in this area. As such, we may have underrepresented the views of people with aphasia and SLTs who are less competent and positive about using videoconferencing. The decision to engage with people with aphasia through PPIE at an early stage in the research process shaped the subsequent FATE-A study. If we had also conducted in-depth interviews with people with aphasia we would have gained richer accounts of individual lived experience; further, purposive sampling may have yielded more diverse perspectives (e.g., purposively sampling people who have a strong preference for face-to-face therapy and from groups known to be at risk of digital exclusion). Further, we gained little insight into how telehealth assessment is experienced when working with interpreters. The research team included SLTs with a range of experience using technology, including two members with experience in human computer interaction design (ND, AR). Nonetheless, we may have gained further insight had we invited more stakeholders into the process, such as health service managers.

A strength of the study was that through synthesising research activity that involved a diversity of methods a richer understanding of the topic was achieved. While there was broad congruence between the different sources, the usability testing gave fine-grained detail (e.g., the challenge of negotiating multiple steps to get online), while the perspective of people with aphasia amplified some of the concerns of the SLTs (e.g., the anxiety of completing assessments on a phone which could affect their speech and so assessment results), as well as providing distinct themes, for example, around terminology. Taking a partnership approach when working with different stakeholders arguably also lent the research legitimacy and relevance (Grindell et al., 2022).

Future directions

SLTs requested more resources to support them with telehealth assessment so that it is a positive experience. They also requested reassurance around the validity of telehealth assessment, and guidance around how to interpret scores when assessments are administered online. The FATE-A study addresses both these concerns: the present synthesis will be used as the basis for behavioural change analysis and the creation of an online toolkit; the FATE-A study is also investigating the equivalence of Core Outcome Set and other aphasia assessments when delivered face-to-face or via telehealth and considering the psychometric validity. While most of the SLTs included in the focus groups had moved away from telehealth post pandemic, the vast majority of SLTs in the survey indicated that telehealth will continue to form at least part of the service they offer (Hilari et al., 2024). How much this is the case may depend on institutional support and also belief that it is wanted by clients, and that it is equivalent.

Conclusions

This research suggests SLTs and people with aphasia consider telehealth a valid model of service delivery, while recognising that it will not be suitable for all patients and in all situations, and that some individuals will simply prefer face-to-face interactions with their healthcare providers. As such telehealth cannot be a one-size-fits-all inflexible model. Other research also suggests patient choice should be a core component of hybrid services (Cottrell et al., 2021; Regina Molini-Avejonas et al., 2015). Further, to ensure telehealth does not inadvertently increase inequality in access to health services, careful consideration needs to be given to how to support people in accessing telehealth, recognising that those who face the most barriers (e.g., severe disability) may also be the same people who stand to gain most from telehealth. Hybrid services, where both SLTs and people with aphasia feel supported to have positive telehealth experiences, and where the service can be tailored to the preferences and needs of the individual, appear to offer a hopeful approach for providing a sustainable, person-centred model of care.

Abbreviations

FATE-A	Face-to-face And Telehealth Equivalence of assessments in Aphasia
PPIE	Patient and Public Involvement and Engagement
SLT	Speech and Language Therapist

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

The parent FATE-A study is funded by the Barts Charity (G-002512). Aspects of the research reported here were funded by a City St George's, University of London Participatory Research Fund award and by an NIHR Public Involvement Fund (PIF) award.

ORCID

Sarah Northcott http://orcid.org/0000-0001-8229-5452
Amanda Comer http://orcid.org/0009-0003-7319-781X
Niamh Devane http://orcid.org/0000-0001-8448-1478
Nicholas Behn http://orcid.org/0000-0001-9356-9957
Abi Roper http://orcid.org/0000-0001-6950-6294
Jaycie Bohan http://orcid.org/0000-0002-1434-1119
Katerina Hilari http://orcid.org/0000-0003-2091-4849

Ethics approval and consent to participate

The parent FATE-A study was granted ethical approval from NHS HRA (HCRW ref: 24/WM/0030). The survey and focus groups studies received ethical approval by City St George's, University of London (ETH2021-1508 and ETH2122-1499). Consent to participate was provided for the survey and focus groups studies reported in this meta-synthesis. The other sources of data (usability testing, PPIE workshops) did not require ethics approval. Those involved contributed to the research as advisers.

Consent for publication

All authors reviewed and revised the manuscript and approved its final version for publication in Aphasiology.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author, [KH]. The data are not publicly available due to restrictions i.e., their containing information that could compromise the privacy of research participants.

References

Binkhamis, G., Perugia, E., & Alyahya, R. S. W. (2024). Telehealth awareness, perception, practice, and influence of the COVID-19 pandemic: A questionnaire to speech-language pathologists and audiologists. *Telemedicine and E-Health*, *30*(1), 223–233. https://doi.org/10.1089/tmj.2023.0208

Brady, B., Saberi, G., Santalucia, Y., Gorgees, P., Nguyen, T. T., & Le, H., et al. (2024). 'Without support CALD patients will be left behind': A mixed-methods exploration of culturally and linguistically diverse (CALD) client perspectives of telehealth and those of their healthcare providers. *Journal of Telemedicine and Telecare*, *30*(9), 1493–1506. https://doi.org/10.1177/1357633X231154943

Brown, K., Worrall, L. E., 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. https://doi.org/10.3109/17549507.2011.632026

Cacciante, L., Kiper, P., Garzon, M., Baldan, F., Federico, S., & Turolla, A., et al. (2021). Telerehabilitation for people with aphasia: A systematic review and meta-analysis. *Journal of Communication Disorders*, *92*, 106111. https://doi.org/10.1016/j.jcomdis.2021.106111

Cetinkaya, B., Twomey, K., Bullard, B., El Kouaissi, S., & Conroy, P. (2024). Telerehabilitation of aphasia: A systematic review of the literature. *Aphasiology*, *38*(7), 1271–1302. https://doi.org/10.1080/02687038.2023.2274621

Chadd, K., Harding, S., Mortley, J., & Enderby, P. (2024). Improving efficiency through innovation in the 'real-world': Feasibility of a co-designed telehealth solution for individuals with aphasia. *Advances in Communication and Swallowing*, *27*(1), 17–27. https://doi.org/10.3233/ACS-220018

Comer, A., Northcott, S., Behn, N., Roper, A., Devane, N., & Hilari, K. (2025). Experiences and perspectives of UK speech and language therapists on telehealth assessment with people living with post-stroke aphasia. *International Journal of Language & Communication Disorders*, *60*(2), e70018. https://doi.org/10.1111/1460-6984.70018

Cottrell, M., Burns, C. L., Jones, A., Rahmann, A., Young, A., & Sam, S., et al. (2021). Sustaining allied health telehealth services beyond the rapid response to COVID-19: Learning from patient and staff experiences at a large quaternary hospital. *Journal of Telemedicine and Telecare*, *27*(10), 615–624. https://doi.org/10.1177/1357633X211041517

Dekhtyar, M., Braun, E. J., Billot, A., Foo, L., & Kiran, S. (2020). Videoconference administration of the Western Aphasia Battery-Revised: Feasibility and validity. *American Journal of Speech-Language Pathology*, *29*(2), 673–687. https://doi.org/10.1044/2019_AJSLP-19-00023

Grindell, C., Coates, E., Croot, L., & O'Cathain, A. (2022). The use of co-production, co-design and co-creation to mobilise knowledge in the management of health conditions: A systematic review. *BMC Health Services Research*, *22*(1), 877. https://doi.org/10.1186/s12913-022-08079-y

Hilari, K., Roper, A., Northcott, S., & Behn, N. (2024). Telehealth practice in aphasia: A survey of UK speech and language therapists, with a focus on assessment. *International Journal of Language & Communication Disorders*, *59*(4), 1296–1307. https://doi.org/10.1111/1460-6984.12996

McCormick, J., Rodney, P., & Varcoe, C. (2003). Reinterpretations across studies: An approach to meta-analysis. *Qualitative Health Research*, *13*(7), 933–944. https://doi.org/10.1177/1049732303253480

Menger, F., Morris, J., & Salis, C. (2016). Aphasia in an internet age: Wider perspectives on digital inclusion. *Aphasiology*, *30*(2–3), 112–132. https://doi.org/10.1080/02687038.2015.1109050

Menger, F., Morris, J., & Salis, C. (2020). The impact of aphasia on internet and technology use. *Disability and Rehabilitation*, *42*(21), 2986–2996. https://doi.org/10.1080/09638288.2019.1580320

NHS England. The NHS long term plan 2019 https://www.longtermplan.nhs.uk/wp-content/uploads/2019/08/nhs-long-term-plan-version-1.2.pdf

Northcott, S., Marshall, J., & Hilari, K. (2016). What factors predict who will have a strong social network following a stroke? *Journal of Speech, Language, & Hearing Research*, *59*(4), 772–783. https://doi.org/10.1044/2016_JSLHR-L-15-0201

Palmer, R., Hughes, H., & Chater, T. (2017). What do people with aphasia want to be able to say? A content analysis of words identified as personally relevant by people with aphasia. *PLOS ONE*, *12*(3), e0174065. https://doi.org/10.1371/journal.pone.0174065

Regina Molini-Avejonas, D., Rondon-Melo, S., De La Higuera Amato, C. A., & Samelli, A. G. (2015). A systematic review of the use of telehealth in speech, language and hearing sciences. *Journal of Telemedicine and Telecare*, *21*(7), 367–376. https://doi.org/10.1177/1357633X15583215

Royal College of Speech and Language Therapists. Fail to plan, plan to fail: Speech and language therapy workforce planning in England. Retrieved March 9, 2024, from https://www.rcslt.org/wp-content/uploads/2023/04/Workforce-planning-in-England.pdf2023

Shiggins, C., Coe, D., Gilbert, L., Research Collaboration, A., & Mares, K. (2025). Development of an "aphasia-accessible participant in research experience survey" through co-production. *Aphasiology*, *39*(12), 1659–1692. https://doi.org/10.1080/02687038.2021.1996532

Singh, S. J., Kamarudin, K., & Sharma, S. (2022). The implementation of telepractice by Malaysian speech-language pathologists during the COVID-19 pandemic. *Communication Sciences & Disorders*, *27*(1), 239–250. https://doi.org/10.12963/csd.21848

Snoswell, C. L., Taylor, M. L., Comans, T. A., Smith, A. C., Gray, L. C., & Caffery, L. J. (2020). Determining if telehealth can reduce health system costs: Scoping review. *Journal of Medical Internet Research*, *22*(10), e17298. https://doi.org/10.2196/17298

Spencer, L., Ritchie, J., O'Connor, W., Morrell, G., & Ormston, R. (2014). Analysis in practice. In J. Ritchie, J. Lewis, C. McNaughton Nicholls, & R. Ormston (Eds.), *Qualitative research practice: A guide for social science students and researcher* (2nd ed., pp. 295–346). Sage.

Staniszewska, S., Brett, J., Simera, I., Seers, K., Mockford, C., & Goodlad, S., et al. (2017). GRIPP2 reporting checklists: Tools to improve reporting of patient and public involvement in research. *BMJ*, *358*, j3453. https://doi.org/10.1136/bmj.j3453

Szklanny, K., Wichrowski, M., & Wieczorkowska, A. (2022). Prototyping mobile storytelling applications for people with aphasia. *Sensors*, *22*(1), 14. https://doi.org/10.3390/s22010014

Teti, S., Murray, L. L., Orange, J. B., Page, A. D., & Kankam, K. S. (2023). Telehealth assessments and interventions for individuals with poststroke aphasia: A scoping review. *American Journal of Speech-Language Pathology*, *32*(3), 1360–1375. https://doi.org/10.1044/2023_AJSLP-22-00324

Thomas, E. E., Taylor, M. L., Ward, E. C., Hwang, R., Cook, R., & Ross, J.-A., et al. (2024). Beyond forced telehealth adoption: A framework to sustain telehealth among allied health services. *Journal of Telemedicine and Telecare*, *30*(3), 559–569. https://doi.org/10.1177/1357633X221074499

Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology*, *8*(1), 45. https://doi.org/10.1186/1471-2288-8-45

Tong, A., Flemming, K., McInnes, E., Oliver, S., & Craig, J. (2012). Enhancing transparency in reporting the synthesis of qualitative research: ENTREQ. *BMC Medical Research Methodology*, *12*(1), 181. https://doi.org/10.1186/1471-2288-12-181

Vuong, G., Burns, C. L., Dignam, J., Copland, D. A., Wedley, H., & Hill, A. J. (2025). Configuration of a telerehabilitation system to deliver a comprehensive aphasia therapy program via telerehabilitation (TeleCHAT): A human-centred design approach. *Aphasiology*, *39*(1), 93–124. https://doi.org/10.1080/02687038.2024.2314328

Wallace, S. J., Worrall, L., Rose, T., & Le Dorze, G. (2016). Core outcomes in aphasia treatment research: An e-Delphi consensus study of international aphasia researchers. *American Journal of Speech-Language Pathology*, *25*(4S), S729–S42. https://doi.org/10.1044/2016_AJSLP-15-0150

Wallace, S. J., Worrall, L., Rose, T., Le Dorze, G., Cruice, M., Isaksen, J., Kong, A. P. H., Simmons-Mackie, N., Scarinci, N., & Gauvreau, C. A. (2017). Which outcomes are most important to people with aphasia and their families? An international nominal group technique study framed within the ICF. *Disabil Rehabil*, *39*(14), 1364–1379. https://doi.org/10.1080/09638288.2016.1194899

Weidner, K., & Lowman, J. (2020). Telepractice for adult speech-language pathology services: A systematic review. *Perspectives of the ASHA Special Interest Groups*, *5*(1), 326–338. https://doi.org/10.1044/2019_PERSP-19-00146

Wilson, S., Roper, A., Marshall, J., Galliers, J., Devane, N., & Booth, T., et al. (2015). Codesign for people with aphasia through tangible design languages. *Codesign*, *11*(1), 21–34. https://doi.org/10.1080/15710882.2014.997744

World Health Organisation. Implementing telemedicine services during COVID-19: Guiding principles and considerations for a stepwise approach 2020 https://www.who.int/publications/i/item/WPR-DSE-2020-032