RESEARCH REPORT

A survey of speech pathologists' opinions about the prospective acceptability of an online implementation platform for aphasia services

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Abstract

Background: Online knowledge translation (KT) approaches are becoming increasingly prevalent within healthcare due to their accessibility and facilitation of international support networks. Online platforms enable timely and far-reaching dissemination of current evidence and best-practice recommendations. Although there is potential to improve the uptake of rehabilitation guidelines, it is essential to consider the acceptability of online approaches to healthcare professionals to ensure their successful integration within everyday clinical settings.

Aims: To establish the prospective acceptability of a theoretically informed online intervention for speech pathologists, *Aphasia Nexus: Connecting Evidence to Practice*, that aims to facilitate the implementation of aphasia best practice.

Methods & Procedures: A mixed-methods multinational electronic survey based on the Theoretical Framework of Acceptability (TFA) completed by aphasia researchers and clinicians.

Outcomes & Results: A total of 43 participants completed the survey with 91% ($n = 39$) indicating that they would use *Aphasia Nexus*. Understanding the intervention and how it works (*intervention coherence* as per the TFA) was the key factor influencing the likelihood of integration within everyday clinical practice. Participants identified potential areas where the intervention could influence service change and also recommended further design and content changes to improve the intervention.

Conclusions & Implications: *Aphasia Nexus* is an acceptable platform for further feasibility testing in the form of a pilot trial within an Australian-based health service. The study progresses the theory of TFA as it was a valuable framework facilitating the identification of prominent factors influencing accept-

ability. The study also informs further intervention refinements in preparation for the next stage of research.

WHAT THIS PAPER ADDS

What is already known on the subject
Online strategies have the potential to enhance KT and promote the uptake of rehabilitation guidelines. An online intervention, however, can only be effective if implemented well. For this reason, it is essential to establish the acceptability of online interventions to the intended recipients and therefore increase the likelihood of successful implementation.

What this paper adds to existing knowledge
This study used a theoretically based framework to establish the acceptability of an online implementation intervention, *Aphasia Nexus*, to multinational aphasia clinicians and researchers. It demonstrated the value in identifying the prominent factors influencing acceptability to inform further intervention refinements and warrant continuing research.

What are the potential or actual clinical implications of this work?
Speech pathologists should use online platforms to drive the implementation of best practice on an international scale. It is important for clinicians to have an in-depth understanding of online interventions and how they work to enhance their successful uptake into routine clinical practice. *Aphasia Nexus* is an acceptable online platform for implementing best practice in aphasia.

INTRODUCTION

Online implementation interventions

Online strategies may advance the translation of evidence into clinical practice due to their potential to reach a large number of clinicians in a timely manner (Levac et al., 2015; Mairs et al., 2013). Online knowledge translation (KT) techniques can include virtual communities of practice, knowledge management strategies including the collection, organization and dissemination of information, discussion forums and virtual conferencing (Mairs et al., 2013). Research suggests that health professionals prefer online learning to other learning approaches due to the ability to access resources from any location at any time (Maloney et al., 2013), and conduct flexible self-paced learning (Gardner et al., 2015). It has generally been accepted as equally effective, if not more effective, than traditional learning styles (McNulty et al., 2009) with a continuing movement towards online professional

networks and support services during the COVID-19 pandemic (La Trobe University, 2020; Patterson et al., 2020; Schwamm et al., 2020).

Research indicates that online KT approaches can promote the uptake of rehabilitation guidelines and that health professionals consider online strategies such as the distribution of current guidelines and the establishment of professional networks to be useful. Within a study assessing the uptake and acceptability of rehabilitation guidelines using an online KT approach, physical therapists responded positively to the use of online strategies reporting that they were usable and useful with some also reporting associated changes in clinical practice (Chepeha et al., 2020). The online KT resource included printable guidelines, educational presentations and video demonstrations. Currently, literature within the field of online KT research predominantly reflects the discipline of physiotherapy. The positive outcomes reported within these studies emphasizes a need for this approach to be further adopted within research con-

ducted by other rehabilitation disciplines including speech pathology.

The appeal of online strategies to support changes in clinical practice has led to the establishment of best-practice recommendations for the development, implementation and evaluation of KT resources in rehabilitation (Levac et al., 2015). A four-step process is proposed including the following:

- Development of an evidence base and content.
- Translation of content to an online format.
- Evaluation of impact.
- Dissemination of knowledge.

Research highlights the importance of adopting a team approach to the design process (i.e., the inclusion of key stakeholders and academics) in order to develop both meaningful and accessible online implementation resources (Lohan et al., 2015). An evaluation of selected KT strategies, including acceptability, is therefore necessary as the effectiveness of an intervention is highly dependent upon its successful integration within routine clinical practice (Proctor et al., 2010).

As a result of COVID-19, primary healthcare services have had to re-evaluate their methods of service delivery and facilitation of continuous professional learning. Many health departments, including speech pathology, have made innovative changes with the implementation or rapid growth of telehealth (Patterson et al., 2020; Schwamm et al., 2020). Professional support networks and research units have also provided platforms for informal online knowledge exchange and access to recorded expert seminars and podcasts (Aphasia Access, 2019; La Trobe University, 2020). The advancements in online health services and support have facilitated an attempt to continue best practice during uncertain times. These changes may, however, benefit many fields of healthcare if they continue to be sustainable well past the pandemic.

Determining intervention feasibility through acceptability testing

Although best-practice recommendations are often based on highly controlled efficacy studies, clinicians have called for more research that can be applied to real-world settings (Bowen et al., 2009). Feasibility studies, including the assessment of acceptability, are therefore essential to the successful translation of evidence to everyday clinical practice. The process of developing and implementing optimal healthcare services needs to consider not only the population level but also the individual experience, and social context (Shaw et al., 2014). It is necessary for

researchers to assess this process as a clinical treatment or therapy approach will only be successful if implemented well (Proctor et al., 2010). The development of *Aphasia Nexus*, an implementation intervention to support changes in clinical practice and therefore improvements in aphasia services, has considered these contextual differences and has attempted to accommodate varying levels of service change tailored to an individual aphasia service (Trebilcock et al., 2021). The difference between a clinical intervention and implementation intervention can often be difficult to decipher (Eldh et al., 2017). In this instance, the clinical intervention is the Intensive and Comprehensive Aphasia Program (ICAP), and the implementation intervention is the *Aphasia Nexus* website. The website has been designed to support speech pathologists to incorporate this evidence-based program within their aphasia service.

Feasibility studies establish the relevance and sustainability of interventions and therefore address the acceptability of an intervention to its intended recipients (Bowen et al., 2009). When attempting to define the relationship between feasibility and acceptability, however, many variations are evident within healthcare literature. A number of studies distinctly separate and assess each of the terms independently with *feasibility* referring to study-related outcomes (i.e., completion rates) and *acceptability* referring to the participants' perceptions of the intervention (i.e., satisfaction and usefulness) (Greve et al., 2018; McClure et al., 2011). Other studies classify acceptability as a category within the overarching field of feasibility (Grimshaw et al., 2013; Van Dijk et al., 2018). This current research has been conducted in line with the latter definition where an acceptability assessment will inform the feasibility of the intervention and will therefore indicate whether further research and development of the intervention is appropriate.

Acceptability may be considered in terms of (1) prospective, an assessment conducted before participating in the intervention, (2) concurrent, during participation, and (3) retrospective, following participation (Sekhon et al., 2017). Studies have acknowledged the importance of conducting this step before testing the effectiveness of an intervention as acceptable interventions are more likely to be implemented (Fox et al., 2018; Sekhon et al., 2017). Sekhon et al. (2017) developed a Theoretical Framework of Acceptability (TFA) designed to assess the prospective, concurrent and retrospective acceptability of healthcare interventions (Figure 1). It was developed as a result of a lack of literature both defining and guiding the assessment of acceptability. The TFA consists of seven component constructs including affective attitude, burden, ethicality, intervention coherence, opportunity costs, perceived effectiveness and self-efficacy (see Figure 1 for definitions and
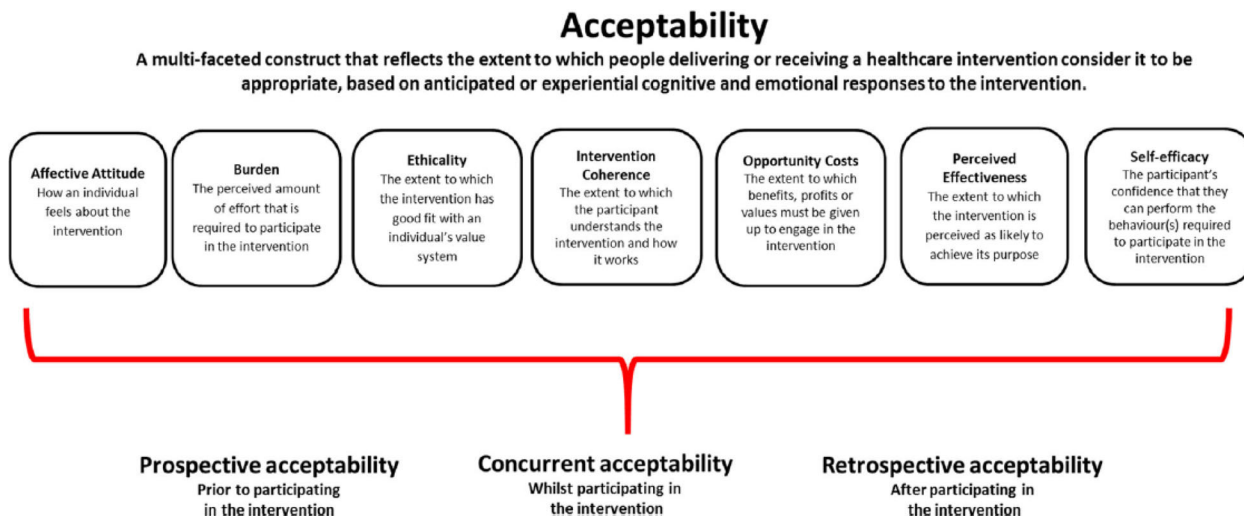
FIGURE 1 Theoretical framework of acceptability—v2
Source: Sekhon et al. (2017)
[Colour figure can be viewed at wileyonlinelibrary.com]

descriptions). The framework provides researchers with a greater understanding of acceptability and the purpose of acceptability research assessments at different stages of research.

Within healthcare, the components of the TFA have been used during the analysis of qualitative interviews and questionnaires with both the deliverers and recipients of the intervention (Archer et al., 2020; Murphy & Gardner, 2019a, 2019b; Torres et al., 2020). Archer et al. (2020) adopted the TFA to guide an evaluation of clinicians' acceptability of a tool for predicting the risk of breast and ovarian cancer (CanRisk). The multinational study included 75 clinicians from the UK, France and Germany. The themes emerging from semi-structured interviews or equivalent questionnaires were mapped against the seven components of the TFA. The findings facilitated further refinement of the tool and highlighted the complexities of developing a tool suitable for clinicians from multiple clinical settings.

Aphasia Nexus: connecting evidence to practice

Aphasia Nexus is an online KT platform that has been developed for use by speech pathologists to guide the implementation of multinational aphasia best-practice recommendations (Simmons-Mackie et al., 2017), specifically, improvements in the intensity and comprehensiveness of aphasia services. *Aphasia Nexus* has been developed using a multiphase process with the involvement of end-users (aphasia clinicians) and guided by relevant frameworks of intervention development (Tre-

bilcock et al., 2021). The design process was conducted over three videoconference focus groups and adopted the principles of integrated knowledge translation (IKT) (Graham et al., 2014) with the inclusion of multinational aphasia researchers and clinicians (end-users). The stages of development were guided by the Behaviour Change Wheel (Michie et al., 2014) with *Stage 1: Understanding the behaviour* completed in a previous study. Trebilcock et al. (2019) identified the key factors influencing successful implementation as per the Theoretical Domains Framework (TDF) (Michie et al., 2005). These results informed the focus group discussions and feedback relating to *Stage 2: Identify intervention options* and *Stage 3: Identify content and implementation options* (Michie et al., 2014) to achieve the final design of *Aphasia Nexus: Connecting Evidence to Practice*.

The website consists of three target areas including resources (what do you need to know?), action (what can I do?), and support (who can help?). The following intervention functions, as per the Behaviour Change Wheel (Michie et al., 2014), were included on the *Aphasia Nexus* website to support changes in clinical practice (Figure 2):

- *Education*, e.g., practical checklists to consider when preparing for an ICAP and links to best-practice recommendations.
- *Persuasion*, e.g., motivational success stories and promotional videos/brochures.
- *Modelling*, e.g., links to training resources and contact details for services offering implementation support/site visits.
- *Enablement*, e.g., interactive decision tree to support the identification of realistic service goals and a discus-

FIGURE 2   *Aphasia Nexus* home page [Colour figure can be viewed at wileyonlinelibrary.com]

sion forum to facilitate the establishment of professional networks.

This current study seeks to strengthen the feasibility of *Aphasia Nexus* as an online implementation platform by conducting a prospective acceptability assessment. It has therefore sought answers to the following research questions:

- What is the prospective acceptability of the website *Aphasia Nexus* by speech pathologists?

- What further changes to *Aphasia Nexus* are required before conducting further feasibility testing?

METHOD

Design

A multinational mixed methods survey informed by the TFA (Sekhon et al., 2017) was conducted, with the aim of evaluating the prospective acceptability of *Aphasia Nexus*, an online implementation intervention for speech pathologists. Ethical clearance was obtained through The University of Queensland Health and Behavioural Sciences, Low and Negligible Risks Ethics Sub-Committee (approval number 2019001685).

Recruitment

Inclusion criteria consisted of speech pathology accreditation from one of the six participating countries from the first study (Australia, New Zealand, Canada, the United States, the UK and Ireland), current employment as an aphasia researcher or clinician, and aged 18 years or over. The inclusion of multiple countries reflected a similar objective to study 1 which was to develop an implementation intervention with broad relevance and applicability. Purposive sampling of respondents for this survey study (Tong et al., 2007) included the variables years of aphasia experience, self-reported level of computer skill and public and/or private sector employment. Recruitment advertisements included a hyperlink to provide an expression of interest and were distributed via professional networks, social media and special interest groups. The open survey consisted of an inclusion/exclusion screen, a request for an email address and consent to be contacted by the research team. Four individuals from Australian health services were unable to take part in the study due to its potential impact on their ability to participate in a larger scale implementation trial.

Survey development and procedure

Survey construction and reporting were conducted in accordance with the Checklist for Reporting Results of Internet E-Surveys (CHERRIES) (Eysenbach & Schonlau, 2004) (for the CHERRIES checklist, see the additional supporting information). After viewing the *Aphasia Nexus* website, the survey sought respondents' level of agreement with each component of acceptability, for example, 'I am confident in my ability to use it' (*self-efficacy*) in addition

to seeking real-world feedback such as, 'Will you return to the website' and 'Would you recommend it to your colleagues?'. Specific questions relating to website content identified areas that were most informative could assist with service change and required further improvements.

The survey was piloted with a group of researchers before distribution. Five researchers iteratively provided feedback that informed further improvements. Changes to the survey predominantly related to the clarity and formatting of questions. During this time, a reflective journal was kept by the lead researcher documenting the feedback process. Within the field of health clinicians often interpret the term 'intervention' to mean a 'clinical intervention' rather than a 'behaviour change intervention'. To avoid misinterpretation the name of the website replaced the term 'intervention' within survey questions.

Study procedures

A hyperlink to the open electronic survey was sent to participants via the email address provided with their expression of interest. Informed consent was collected when eligible participants commenced the survey. Participants were required to read an information sheet advising the purpose of the project, voluntary participation, data storage requirements and contact details of the chief researcher. Participants were not offered an incentive to complete the survey. To infer informed consent, participants were required to provide a 'yes' response to the question: Do you consent to take part in the research project? Participants were advised that the survey would take approximately 30 min to complete using Qualtrics software, version May 2020 (Qualtrics, 2005); however, the time taken to review the website was at the discretion of the participant. Once a login had been created by a participant, they were able to access the website freely. Participants were initially provided with a 2-week period to complete the surveys. Responses were collected from 24 July to 1 September 2020 with IP addresses monitored by the Qualtrics software.

Instructions were provided for how both to access the website and to complete the prospective acceptability survey. There were, however, no instructions provided to participants relating to their exploration of the website as their ability to navigate the website may have influenced the acceptability of the website. The survey collected unidentifiable data for 22 questions presented across three screens: consent, demographics and acceptability. Acceptability was assessed by providing responses to a combination of Likert scales, multiple-choice and open-ended questions (for the Acceptability survey, see the additional supporting information). Selection of at least

one response was enforced by the software before continuing and where appropriate a 'none of the above' or 'unsure' option was provided. Adaptive questioning was incorporated when a response required further explanation, or a response was required by a specific type of participant (e.g., aphasia clinician or aphasia researcher). Once a response had been submitted participants were unable to change their response.

Data analysis

Survey data were initially screened for discontinued surveys where participants provided personal demographics and background information, yet no details relating to the website. These surveys were excluded from analysis, and response rates calculated using the Eysenbach and Schonlau (2004) formula. Survey data were exported to an Excel spreadsheet and word document without corresponding forum user identifiers. The collected data were stored on a centralized research database with anonymous data accessible via password-protected computers. Unidentifiable qualitative data were analysed using qualitative content analysis (Graneheim & Lundman, 2004). Open-ended responses relating to the perceived use of the website were uploaded to Qualtrics and coded (Graneheim & Lundman, 2004) according to the seven components of the TFA: affective attitude, burden, ethicality, intervention coherence, opportunity costs, perceived effectiveness and self-efficacy (Sekhon et al., 2017). Initial coding was completed by the lead researcher (MT) followed by peer debriefing with members of the research team (BR and KS) to confirm the accurate allocation of codes. Quantitative data were also analysed using descriptive statistics (minimum, maximum, mean, standard deviation and variance).

RESULTS

A total of 43 consenting participants from six countries completed a survey to determine the prospective acceptability of *Aphasia Nexus* (Table 1). A total of 99 individuals indicated interest across a period of approximately 2 months with 95 eligible to participate. Participants' highest levels of education included bachelor's ($n = 8$), master's ($n = 25$) and doctoral degrees ($n = 10$). Self-reported levels of computer skills and knowledge spanned across fundamental ($n = 14$), basic ($n = 12$), intermediate ($n = 15$) and advanced levels ($n = 2$).

Although participants were initially required to submit responses within a 2-week period, low submission rates required an extension of 1 week. Following this period participants were prompted to review their surveys due to the

TABLE 1 Participant sampling

Country (number of participants)	Aphasia experience		Organization		Primary role		Computer skills	
	< 10 years	≥ 10 years	Public sector	Private sector	Researcher	Clinician	Fundamental to basic	Intermediate to advanced
Australia (4)	1	3	3	1	1	3	2	2
Ireland (10)	4	6	9	1	2	8	0	10
USA (9)	1	8	7	2	4	5	1	8
New Zealand (2)	1	1	2	0	0	2	0	2
Canada (7)	3	4	7	0	2	5	1	6
UK (11)	7	4	10	1	0	11	1	10
Totals (43)	17	26	38	5	9	34	5	38
%	40%	60%	88%	11%	21%	79%	12%	88%

TABLE 2 Level of participant agreement with statements relating to the website

Question	Minimum	Maximum	Mean	SD	Variance	Participants (n)
It is appropriate and relevant for speech pathologists	4.00	5.00	4.72	0.45	0.20	43
It is easy to use	2.00	5.00	4.21	0.76	0.58	43
It reflects my personal and professional values	3.00	5.00	4.49	0.66	0.44	43
I understand it and how it works	3.00	5.00	4.14	0.67	0.55	43
I am confident in my ability to use it	2.00	5.00	4.02	0.88	0.77	43
I believe it could influence positive changes in clinical practice	3.00	5.00	4.28	0.62	0.39	43
There would be minimal costs associated with its use	2.00	5.00	4.02	0.90	0.81	43
It would fit well within our service	2.00	5.00	4.19	0.76	0.57	43
It would be sustainable	3.00	5.00	4.00	0.75	0.56	43

Note: Strongly disagree (1), disagree (2), neither agree nor disagree, (3) agree (4) and strongly agree (5).

high rates of discontinued surveys. A completion rate of 51% was calculated, however, a view rate and participation rate were unable to be calculated due to user anonymity being maintained when visiting the Qualtrics website.

Overall, 91% ($n = 39$) of participants indicated they would use *Aphasia Nexus* and 95% ($n = 41$) would recommend it to a colleague. When selecting the three areas of the website they found most informative, ICAP resources (20%) and educational resources (19%) were most highly regarded. When questioned about the components of the TFA (Sekhon et al., 2017), a minimum of 74% ($n = 32$) of participants were in agreement with each statement, such as 'it is appropriate and relevant for speech pathologists' and 'it reflects my personal and professional values' (Table 2).

Likelihood of integration in everyday clinical practice

The majority of participants were 'likely' or 'extremely likely' to return to the website (93%, $n = 40$). Within the survey, participants provided the main reasons for why they would or would not use *Aphasia Nexus*. These responses were coded according to the components of the TFA. Although the analysis included predetermined codes, the process allowed for the creation of new codes if required. Each response was broken into separate meaning units and could therefore be associated with multiple codes (Table 3).

The code of *intervention coherence* ($n = 59$) was applied across all meaning units which therefore indicated it was a prominent factor influencing the acceptability of the *Aphasia Nexus* intervention. *Intervention coherence* relates to the participants' understanding of the aims of the intervention

and how it attempts to achieve these aims. Participants predominantly viewed the website as a central and convenient platform to support clinical problem solving, advocacy, professional networking, and maintaining best practice. However, participants also indicated that they would be more likely to use the website if they had a greater understanding of how the website worked, it included additional therapy resources, and they had fewer service constraints.

As the remaining components of feasibility overlap with *intervention coherence*, the meaning units, therefore, reiterate the above concepts. When referencing the code of *burden* ($n = 7$) participants' comments related broadly to both the ease and challenge of use. *Affective attitude* ($n = 18$) often included emotive statements relating to their feelings, for example, 'the website itself has fantastic, motivating information', and *self-efficacy* ($n = 11$) related to the identification of how they would or would not use the website. Within the component of *ethicality* ($n = 4$) participants regarded the aims of the website with high importance. The *perceived effectiveness* ($n = 9$) of the website was, however, influenced by both positive and negative factors such as the provision of specific resources. That is, respondents either appreciated the resources that were listed or requested more resources for the site to be effective. The code of *opportunity costs* was not applied to any of the meaning units.

Potential to influence service change

In addition to the identification of factors influencing acceptability, the survey further explored participant views in relation to the potential for *Aphasia Nexus* to facilitate service improvement. A question relating to the areas *Aphasia Nexus* could help to improve was conditionally

TABLE 3   Content analysis of the reasons for why participants would or would not use *Aphasia Nexus*

MEANING UNITS	CODES AS PER THE TFA (Sekhon et al., 2017)		
Everything all in one place	**Burden** (the perceived amount of effort that is required to participate in the intervention)		**Intervention Coherence** (the extent to which the participant understands the intervention, and how the intervention works)
Ease of use			
Central location for relevant, evidence-based resources			
One central location for lots of ICAP resources; very convenient			
Seems helpful with evidence gathered in one place			
But I found the website difficult to navigate			
Easy to find and reliable resources- great to have this all in one place			
I also did not like the use of lots of phrases in capital letters in the leaflets		**Affective Attitude** (How an individual feels about the intervention)	
It will be great to advocate for services and/or care needs within my acute care setting			
It gives a nice patient-centred approach to service delivery that I can show the evidence base for			
…but the website itself has fantastic, motivating information			
I would like to use it and it has very clear information and very pragmatic in its approach			
The quick links give a good overview of what can be accessed			
Great breadth and scope of resources			
I also like the way TACTICS* provides a way to measure service changes			
Good to review our service against guidelines			

(Continues)

T A B L E 3 (Continued)

MEANING UNITS	CODES AS PER THE TFA (Sekhon et al., 2017)		
Good, centralised location for resources for grad students looking for information about aphasia Tx and best practices			
Brilliant resources for professional and clinical development and to improve clinical practice with people with aphasia			
It looks like a great resource to recommend for colleagues if they feel stuck or to support problem solving around aphasia services			
It appears to be (a) good central resource for information about guidelines, best practices, and professional development opportunities in aphasia rehabilitation			
Also, the connection to other comprehensive programs is useful			
I am most interested in clinical resources to support patients to achieve their goals			
I feel like I don't know enough about aphasia and this website appears to have some really good information for myself, clients, and client's support network			
There are some useful resources which is fantastic			
Would need to spend more time trying to find out what's offered fully		**Self-efficacy** (the participant's confidence that they can perform the behaviour(s) required to participate in the intervention)	
There are a number of infrastructure/service constraints that I would need to overcome			
I would use it because it consolidates some key resources			
Browsing the website has already prompted me to reflect on my practice/our service provision			
I would use TACTICS to keep in check that I am including and keeping up to date with all of the necessary components for intensive, comprehensive aphasia therapy			
Also, to build my professional network with other ICAP professionals and to share resources			

(Continues)

TABLE 3   (Continued)

MEANING UNITS	CODES AS PER THE TFA (Sekhon et al., 2017)		
I would use it for some of the links it provides to other resources, as well as some of the success stories- to show my patients and caregivers examples of others with stroke who are successfully transitioning back to their lives			
I would use (it) to add to my toolbox around management of aphasia			
I would use it to inform discussions with managers about increasing intensity of aphasia service provision		**Perceived effectiveness** (the extent to which the intervention is perceived as likely to achieve its purpose)	
Difficult to implement in an acute care setting due to very limited time for staff to become oriented and to restructure service implementation			
I would use it more if there were actually instructions, documents, steps, and resources (stimuli, etc) available to develop and implement an ICAP			
A newly qualified team member is about to join my team and will be working on a stroke rehabilitation ward, I think that this would be a really useful resource for them e.g., the decision tree			
Having a consistent, updated website with ongoing information, resources, and education for ICAPs is essential for sustainability			
Most of my patients are French-speaking			
In some areas, it seems to be missing key resources			
A detailed breakdown of the types of therapies that are used in the ICAP plus corresponding links to those resources and/or stimuli would also be very helpful in implementing the program at my workplace			
…but this may be a little limited and would like to know how often it will be updated			
Our service is keen to explore ICAP more, so this resource should be really useful			**Ethicality** (the extent to which the intervention has good fit with an individual's value system)
Its aim is to support aphasia services and aphasia would be a large percentage of my current caseload			

(Continues)

TABLE 3   (Continued)

MEANING UNITS	CODES AS PER THE TFA (Sekhon et al., 2017)
For me, it's important to know new approaches	
My service (inpatient stroke rehab) has trialled one inpatient ICAP (adapted to suit inpatient setting) and would like to do more, so we welcome any support available	
Provides clear guidance and resources to complete ICAP	
It brings information together	
It summarises best practice	
Contributes to maintaining best practice and considering international advice to ensure that we are providing the best service possible	
For the breadth of information	
To implement an ICAP within my service	
Lots of information and very useful	
I am in the process of redesigning our services so it will be a useful resource, bringing lots of things together	
It pulls together a lot of links/resources that are currently scattered throughout the interwebs	
Overview of EBP	
Structured way to evaluate our aphasia service and identify areas for improvement	
The fact that the content is based on the best evidence base available	
It provides concrete resources to help improve aphasia treatment and intervention models	
As it stands now, the website has given me a broad/general idea of what the ICAP is but I still don't know how exactly it works, practically speaking	

Note: ᵃNote the intervention name change.

TABLE 4 Potential areas of service improvement identified by participants

Areas of service improvement	Participants (n)
Therapy approaches	27
Aphasia groups	23
Technology	17
Rehabilitation team	16
None of the above	1

displayed to participants who responded with 'clinician' as their primary role in the field of aphasia ($n = 34$). Participants identified therapy approaches and aphasia groups as the two main areas of their service that *Aphasia Nexus* could help them to improve (Table 4). One participant also provided an open-ended response indicating that there was potential for *Aphasia Nexus* to improve the development of support networks across all aphasia communities. Overall, 71% of participants who responded to this question indicated that their potential areas of service improvement were realistic areas to initiate change (e.g., therapy approaches, aphasia groups, technology and the rehabilitation team) and the remaining 29% were unsure.

Recommendations to improve the intervention

Within open-ended responses, participants proposed two main areas of change for *Aphasia Nexus*: design and content of the website. The design aspects are predominantly related to improving website navigation to make it more user-friendly. Participants indicated that the website seemed 'a little 'clunky' (P1), 'found it a bit complicated' (P4) and 'not really sure where I was supposed to start' (P2). Recommendations were provided such as 'headings could be more directly related to the toolbar structure' (P3), 'modify the navigation bars' (P5) and 'reduce the number of clicks to each section' (P6). Participants also raised queries regarding access to specific hyperlinks and requested that they open in new windows (not to be redirected from the website). Formatting changes such as font size, the amount of information per page and modifications to the mobile phone display were also suggested by participants.

Recommended changes in the content included the addition of a greater number of clinical resources such as therapy materials and an ICAP implementation guide. One participant indicated that it would be beneficial to have 'more direct steps and concrete hands-on resources which could help me start up an ICAP at my place of work' (P7). Further country-specific resources and evidence, cultural acknowledgements, and references to current ICAP services were also requested, however, it was also noted

that 'as it is used more, more supporting documentation will be added from different countries' (P8). To ensure clinicians are continually aware of website updates the potential for 'a newsletter or email notification about new discussion posts/forums and/or website updates' (P9) was proposed. Additional content and guidance for use of the discussion forum were also requested. Six participants indicated that no changes were required or that further review of the website was needed in order to provide a response.

DISCUSSION

Assessment of acceptability

The TFA has provided a valuable framework in guiding a prospective assessment of acceptability by highlighting the potential factors contributing to the acceptability of an intervention. *Aphasia Nexus*, an online platform supporting speech pathologists' implementation of aphasia best practice, has primarily been viewed as an acceptable intervention to the intended recipients. Although it included a small sample size, the outcomes were valuable in establishing the feasibility of the online intervention. The study draws attention to the importance of *intervention coherence*, an understanding of the purpose of the intervention and how it works, and its significant impact on acceptability.

Although other studies have also applied the TFA to assess acceptability, there have been variations in the identification of prominent influential factors. For example, an evaluation of the CanRisk tool by Archer et al. (2020) identified the acceptability component of *burden* as a primary concern for clinicians. With respect to *intervention coherence*, both studies however acknowledged the impact of knowledge and trust associated with understanding how the intervention works. When using online interventions, even though it may be a feasible option to facilitate implementation, the potential need for trustworthiness markers or an element of face to face interaction to ask questions may also be required (Lepage et al., 2016). In an attempt to incorporate these elements within *Aphasia Nexus*, a discussion board and list of professional contacts have also been included.

Healthcare interventions increasingly incorporate the use of various technologies which has resulted in the need to consider its potential impact on acceptability. Participants of the *Aphasia Nexus* study raised technology-related concerns including website navigation and programming errors highlighting a connection with the acceptability components of *self-efficacy*, and *burden*. As the need for online healthcare interventions increases, there is a need

to upskill both the developers and the end-users of the intervention. In addition, it is necessary to consider the potential challenges associated with the use of technology. For example, Sureshkumar et al. (2016) recognized the influence of technology-related factors when conducting a pilot trial assessing the feasibility and acceptability of a smartphone enabled intervention to manage disability following stroke. The study recruited 30 stroke survivors and their carers from a single hospital in Chennai, India. Participants acknowledged the ease of use and portability of the smartphone, however also raised concerns relating to remote internet connectivity.

Modifications to improve *Aphasia Nexus*

Acceptability studies within healthcare commonly inform further refinements of clinical guidelines and interventions (Archer et al., 2020; Hafsteinsdóttir et al., 2013; Sureshkumar et al., 2016). As a direct result of participant feedback, associated changes were made to the online intervention, *Aphasia Nexus*. In an attempt to improve the design of the website and ease of navigation, the dropdown menus were changed to more closely reflect the corresponding pages and the number of pathways to reach each component of the intervention was reduced. A video providing an overview of the website content and its aims was also added to the home page. Hyperlinks were modified to open in new windows and those with errors were restored. As the website continues to be updated, additional suggestions such as regular email notifications and enhanced mobile phone display will also be actioned. Although specific instructions were not provided to participants in relation to their exploration of the website this was purposefully imposed to facilitate acceptability ratings that reflected 'real world' access and use.

Modifications to the content of the website predominantly related to the addition of specific therapy resources and ICAP implementation resources. Although hyperlinks to various therapy resources had been included, these were made more prominent and therefore easier to access via the website. A new link to an aphasia resource repository was also made accessible via the website. An ICAP implementation guide containing the practical steps to prepare for an ICAP was uploaded to the website in addition to further links to current ICAP services. The discussion forum was made more user-friendly with the inclusion of instructions for use and previously initiated discussion topics. As *Aphasia Nexus* is currently in the early stages of development and use, it is expected that the resource will continue to expand and change. The intervention will continue to be updated in line with current evidence and the changing needs of practising speech pathologists.

The prominent limitation of the study was the proportion of incomplete surveys. A completion rate of 51% was indicative of 43 completed surveys from a total of 85 commenced surveys. All participants who discontinued the survey did so after providing personal demographics and background information. At this point, a page break had been inserted, therefore requiring participants to select the next page in order to progress with the survey. The point of discontinuation was consistent for all participants and it is, therefore, difficult to determine whether the cause of attrition was associated with time or their perceived completion. It is important to also consider the potential impact of technology errors including undeliverable emails, restricted website access, and difficulties re-accessing the survey following submission. Ensuring completion rates are monitored throughout the submission period may improve the process of data collection within future studies.

CONCLUSIONS

Fundamentally *Aphasia Nexus* has been considered an acceptable online platform with 93% of participating speech pathologists likely or extremely likely to return to the website. This result has confirmed that the website is acceptable, a significant consideration for successful integration in clinical practice, and that the research can therefore be progressed to the next stage. The TFA was found to be a valuable framework in identifying the prominent factors influencing the level of acceptability. *Intervention coherence* was the most prominent factor influencing acceptability and therefore highlights the importance of understanding the intervention and how it works. The study has informed refinements to both the content and design of the website and supports further feasibility testing in the form of a pilot trial within an Australian health service.

CONFLICT OF INTEREST
The authors report no conflict of interest.

DATA AVAILABILITY STATEMENT
The data that support the findings of this study are available from the corresponding author upon request. The data are not publicly available due to privacy or ethical restrictions.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.