

Speech & Language Therapy

Update 13



15 July 2021

Welcome to the latest copy of the Speech & Language Update. The aim of this publication is to bring together a range of recently-published research and guidance that will help you make evidence based decisions.

Accessing Articles

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Full strategy



1. The Sensitivity and Specificity of Parental Report of Concern for Identifying Language Disorder in Children With Craniosynostosis.

Author(s): Kilcoyne, Sarah; Rajan, Sindhu Menon; Dalton, Louise; Judge, Andy; Overton, Sarah; Wall, Steven; Johnson, David

Source: The Journal of craniofacial surgery; 2021; vol. 32 (no. 1); p. 36-41

Publication Date: 2021

Publication Type(s): Journal Article

PubMedID: 33038168

Abstract:

ABSTRACT: Many factors that may co-occur with craniosynostosis, such as oral structural anomalies, hearing impairment, visual impairment, cognitive difficulties and psychosocial factors, may predispose this population to communication difficulties. At the Oxford Craniofacial Unit, children's speech, language and communication are regularly monitored in accordance with a systematic developmental screening protocol developed by the Speech and Language Therapists in the 4 United Kingdom (UK) Highly Specialized Craniofacial Centers. In addition to routine assessments, when parents attend routine multidisciplinary clinic appointments, they are asked about their child's communication development, and whether they have any concerns. A retrospective review was undertaken of parental concerns about hearing, speech development, behavior, physical development, concentration, school and friendships as indicated by parents on the Oxford Craniofacial Unit Pre-Clinic Questionnaire. The areas of concern were then correlated with the results of a standardized, guided parent questionnaire about children's language development, (Children's Communication Checklist - 2 (CCC-2)), to determine whether parental concern alone is a reliable way of identifying whether patients require further assessment for Language Disorder associated with Craniosynostosis. Participants were parents of 89 monolingual English-speaking children with craniosynostosis (62 male; 27 female), age range four to 13 years (mean age = 8 years 7 months), receiving active care at the Oxford Craniofacial Unit (June 2017-July 2018). Results of the pre-clinic questionnaire indicated that 6% of parents had concerns about their child's communication development. Results of the CCC-2 indicated that 29/89 (32.6%) of children required further assessment for Language Disorder associated with Craniosynostosis. When language difficulties were identified on the CCC-2, only 14% (n = 4/29) parents indicated concern on the pre clinic questionnaire. Results indicated that parental concern about behavior was the most important factor in identifying language disorder (P = 0.023). Results reinforce that the pre-clinic questionnaire is useful for identifying areas of parental concern. Results also indicate that parental concern alone is not sufficient to identify language disorder, and that further, detailed assessment is warranted. The results are consistent with previously reported links between behavior and language in the general population.

Database: Medline

2. COVID-19 and the teacher's voice: self-perception and contributions of speech therapy to voice and communication during the pandemic.

Author(s): Nemr, Katia; Simões-Zenari, Marcia; Almeida, Vanessa Cássia de; Martins, Glauciene Amaral; Saito, Isabele Tiemi

Source: Clinics (Sao Paulo, Brazil); 2021; vol. 76 ; p. e2641

Publication Date: 2021

Publication Type(s): Journal Article

PubMedID: 33787658

Available at [Clinics \(Sao Paulo, Brazil\)](#) - from Europe PubMed Central - Open Access

Available at [Clinics \(Sao Paulo, Brazil\)](#) - from Unpaywall



Abstract:

OBJECTIVES: We aimed to analyze the vocal self-perception of Brazilian teachers and their communication needs, vocal signs and symptoms, and voice-related lifestyles during the coronavirus disease (COVID-19) pandemic and, based on this information, to develop guidance materials intended for dissemination to these teachers and the general community.

METHODS: An online questionnaire designed for this survey was distributed via the researchers' networks and was available for completion by any teacher, except those who were not working at the time. There were 1,253 teachers from all over Brazil, of both sexes, covering a wide age range, working at different levels of education, and most with more than ten years of experience. Descriptive and inferential analyses of the data were performed.

RESULTS: On comparing the prepandemic period with the current one, participants indicated voice improvements. In contrast, they presented symptoms such as dry throat, effort in addressing remote classes, hoarseness after classes, and difficulties with the use of headphones, among others. They further indicated stress, general fatigue, impact of the pandemic on mental health, and the overlapping of many home tasks with professional tasks. Some smoked, and others hydrated insufficiently.

CONCLUSION: Although teachers generally noticed voice improvements during the pandemic, a proportion of them perceived worsening of voices. Many indicated several factors in which speech-language pathologists could guide them with the aim of improving performance and comfort during remote and hybrid classes, an initiative that will positively impact not only their voice and communication but also their quality of life.

Database: Medline

3. A Virtual, Randomized, Control Trial of a Digital Therapeutic for Speech, Language, and Cognitive Intervention in Post-stroke Persons With Aphasia.

Author(s): Braley, Michelle; Pierce, Jordyn Sims; Saxena, Sadhvi; De Oliveira, Emily; Taraboanta, Laura; Anantha, Veera; Lakhan, Shaheen E; Kiran, Swathi

Source: *Frontiers in neurology*; 2021; vol. 12 ; p. 626780

Publication Date: 2021

Publication Type(s): Journal Article

PubMedID: 33643204

Available at [Frontiers in neurology](#) - from Europe PubMed Central - Open Access

Available at [Frontiers in neurology](#) - from Unpaywall

Abstract: Background: Post-stroke aphasia is a chronic condition that impacts people's daily functioning and communication for many years after a stroke. Even though these individuals require sustained rehabilitation, they face extra burdens to access care due to shortages in qualified clinicians, insurance limitations and geographic access. There is a need to research alternative means to access intervention remotely, such as in the case of this study using a digital therapeutic.

Objective: To assess the feasibility and clinical efficacy of a virtual speech, language, and cognitive digital therapeutic for individuals with post-stroke aphasia relative to standard of care.

Methods: Thirty two participants completed the study (experimental: average age 59.8 years, 7 female, 10 male, average education: 15.8 years, time post-stroke: 53 months, 15 right handed, 2 left handed; control: average age 64.2 years, 7 female, 8 male, average education: 15.3 years, time post-stroke: 36.1 months, 14 right handed, 1 left handed). Patients in the experimental group received 10 weeks of treatment using a digital therapeutic, Constant Therapy-Research (CT-R), for speech, language, and cognitive therapy, which provides evidence-based, targeted therapy with immediate feedback for users that adjusts therapy difficulty based on their performance. Patients in the control group completed standard of care (SOC) speech-language pathology workbook pages.

Results: This study provides Class II evidence that with the starting baseline WAB-AQ score, adjusted by -0.69 for every year of age, and by 0.122 for every month since stroke, participants in the CT-R group had WAB-AQ scores 6.43 higher than the workbook group at the end of treatment. Additionally, secondary outcome measures included the



WAB-Language Quotient, WAB-Cognitive Quotient, Brief Test of Adult Cognition by Telephone (BTACT), and Stroke and Aphasia Quality of Life Scale 39 (SAQOL-39), with significant changes in BTACT verbal fluency subtest and the SAQOL-39 communication and energy scores for both groups.

Conclusions: Overall, this study demonstrates the feasibility of a fully virtual trial for patients with post-stroke aphasia, especially given the ongoing COVID19 pandemic, as well as a safe, tolerable, and efficacious digital therapeutic for language/cognitive rehabilitation. Clinical Trial Registration: www.ClinicalTrials.gov, identifier NCT04488029.

Database: Medline

4. Prevalence of aphasia and dysarthria among inpatient stroke survivors: describing the population, therapy provision and outcomes on discharge.

Author(s): Mitchell ; Gittins, Matthew; Tyson, Sarah; Vail, Andy; Conroy, Paul; Paley, Lizz; Bowen, Audrey

Source: Aphasiology; Jul 2021; vol. 35 (no. 7); p. 950-960

Publication Date: Jul 2021

Publication Type(s): Academic Journal

Available at [Aphasiology](#) - from Unpaywall

Abstract:

Background: Stroke causes communication impairments but we lack the real-world population-level data needed to inform inpatient and community services. **Aims:** To establish prevalence of aphasia and dysarthria within inpatient stroke survivors, describe those affected, the amount of therapy they receive and their outcomes.

Methods & Procedures: Secondary analysis of data from the Sentinel Stroke National Audit Programme, England, Wales and Northern Ireland, including inpatient stroke survivors after 72 hours, with completed National Institute of Health Stroke Scale data (communication items), excluding those already discharged, not conscious or with incomplete data.

Outcomes & Results: 64% of the 88,974 stroke survivors meeting our criteria were communication impaired: 28% had both aphasia and dysarthria, 24% had dysarthria only and 12% had aphasia only. Those in the older age range and with more severe stroke were more likely to have a communication impairment and had a worse outcome than those without communication impairment. On average, those with both communication impairments had a 21 day length of stay and 10 minutes of speech and language therapy for communication and/or dysphagia per day of stay.

Conclusions: Communication impairment is common during the inpatient phase of stroke care yet average therapy provision is below the recommended levels and is likely to include dysphagia assessment and intervention.

Dysarthria is reported as more prevalent than aphasia at this early stage, although this is not necessarily diagnosed by a speech and language therapist. The most common presentation is to have a combination of aphasia and dysarthria for which there is limited clinical guidance.

Database: CINAHL

5. Telerehabilitation for people with aphasia: A systematic review and meta-analysis.

Author(s): Luisa ; Pawel, Kiper; Martina, Garzon; Francesca, Baldan; Sara, Federico; Andrea, Turolla; Michela, Agostini

Source: Journal of Communication Disorders; Jul 2021; vol. 92

Publication Date: Jul 2021

Publication Type(s): Academic Journal

Abstract: To evaluate effectiveness or non-inferiority of telerehabilitation for people with aphasia when compared to conventional face-to-face speech and language therapy. Five electronic databases (PUBMED, EMBASE, WEB OF SCIENCE, SCOPUS and the Cochrane Library) were searched. We extrapolated data from the included studies and



evaluated the methodological quality using the Revised Cochrane risk-of-bias tool for Randomized Trials (RoB 2) and the Risk Of Bias In Non-randomized Studies of Interventions (ROBINS-I). A meta-analysis compared effects of intervention, and it was conducted using the Review Manager 5.3 software. GRADE profile to assess overall quality of evidence was carried out. Out of a total of 1157 records, five studies met the inclusion criteria and were eligible for meta-analysis with a total of 132 participants with post-stroke aphasia. Results revealed that telerehabilitation and face-to-face speech and language treatment are comparable with respect to the gains achieved in auditory comprehension (SMD = -0.02; 95% CI -0.39, 0.35), naming accuracy (SMD = -0.09; 95% CI -0.44, 0.25), Aphasia Quotient (MD = -2.18; 95% CI -16.00, 11.64), generalization (SMD = 0.77; 95% IC -0.95, 2.49) and functional communication skills (SMD = -0.08; 95% IC -0.54, 0.38). Although evidence is still insufficient to guide clinical decision making due to the relatively low quality of the evidence identified, the analysis of the results suggest that telerehabilitation training for aphasia seems to be as effective as the conventional face-to-face treatment.

Database: CINAHL

6. Efficacy of speech language therapy intervention in unilateral vocal fold paralysis – a systematic review and a meta-analysis of visual-perceptual outcome measures.

Author(s): Alegria ; Vaz Freitas, Susana; Manso, Maria Conceição

Source: Logopedics Phoniatrics Vocology; Jul 2021; vol. 46 (no. 2); p. 86-98

Publication Date: Jul 2021

Publication Type(s): Academic Journal

Abstract: Unilateral vocal folds paralysis is a disorder that affects a patient's quality-of-life by disturbing their phonation, breathing, and swallowing activities. This systematic review aimed to estimate the efficacy of voice treatment on the vocal fold motility in adult patients with unilateral vocal folds paralysis. PubMed, CINAHL, CENTRAL, and Web of Science were searched for retrospective and prospective cohort, case-control, and cross-sectional with comparative studies with adults that were published between 1 January 2008 to 31 December 2018. After applying the inclusion and exclusion criteria a total of 10 studies containing morpho-functional evaluation results were included in the analysis. Pooled data analysis of the motility of the vocal folds before and after voice therapy allowed inferring about the efficacy of voice therapy intervention in patients with unilateral vocal folds paralysis. A random-effect model was used to estimate the effect size. Publication bias was considered. The pooled data analysis of the visual-perceptual measures revealed that vocal fold motility improved in 72% (95% CI: 64.0–80.0) of all patients after the therapeutic interventions. The inconsistency index (I² = 18.35%) of the studies included in this meta-analysis revealed an extremely low heterogeneity. Funnel plot and Cochran's Q test showed no publication bias. The systematic review was limited to only English language articles. This meta-analysis supports the evidence that voice therapy intervention can have a positive effect on the vocal fold motility, that is, they can improve the glottal gap closure, irrespective of the exercises and techniques used.

Database: CINAHL

7. Post-Extubation Dysphagia and Dysphonia amongst Adults with COVID-19 in the Republic of Ireland: a Prospective Multi-Site Observational Cohort Study.

Author(s): Regan, Julie; Walshe, Margaret; Lavan, Sarah; Horan, Eanna; Gillivan Murphy, Patricia; Healy, Anne; Langan, Caoimhe; Malherbe, Karen; Flynn Murphy, Breda; Cremin, Maria; Hilton, Denise; Cavaliere, Jenni; Whyte, Alice

Source: Clinical otolaryngology : official journal of ENT-UK ; official journal of Netherlands Society for Oto-Rhino-Laryngology & Cervico-Facial Surgery; Jul 2021

Publication Date: Jul 2021

Publication Type(s): Journal Article

PubMedID: 34197688



Available at [Clinical otolaryngology : official journal of ENT-UK ; official journal of Netherlands Society for Oto-Rhino-Laryngology & Cervico-Facial Surgery](#) - from Wiley Online Library

Available at [Clinical otolaryngology : official journal of ENT-UK ; official journal of Netherlands Society for Oto-Rhino-Laryngology & Cervico-Facial Surgery](#) - from Unpaywall

Abstract:

OBJECTIVES: This study aims to (i) investigate post-extubation dysphagia and dysphonia amongst adults intubated with SARS-COV-2 (COVID-19) and referred to speech and language therapy (SLT) in acute hospitals across the Republic of Ireland (ROI) between March and June 2020; (ii) identify variables predictive of post-extubation oral intake status and dysphonia and (iii) establish SLT rehabilitation needs and services provided to this cohort.

DESIGN: multi-site prospective observational cohort study

PARTICIPANTS: 100 adults with confirmed COVID-19 who were intubated across eleven acute hospital sites in ROI and who were referred to SLT services between March and June 2020 inclusive.

MAIN OUTCOME MEASURES: Oral intake status, level of diet modification and perceptual voice quality.

RESULTS: Based on initial SLT assessment, 90% required altered oral intake and 59% required tube feeding with 36% not allowed oral intake. Age (OR 1.064; 95% CI 1.018-1.112), proning (OR 3.671; 95% CI 1.128-11.943), and pre-existing respiratory disease (OR 5.863; 95% CI 1.521-11.599) were predictors of oral intake status post-extubation. Two-thirds (66%) presented with dysphonia post-extubation. Intubation injury (OR 10.471; 95% CI 1.060-103.466) and pre-existing respiratory disease (OR 24.196; 95% CI 1.609-363.78) were predictors of post-extubation voice quality. Thirty-seven percent required dysphagia intervention post-extubation whereas 20% needed intervention for voice. Dysphagia and dysphonia persisted in 27% and 37% cases respectively at hospital discharge.

DISCUSSION: Post-extubation dysphagia and dysphonia were prevalent amongst adults with COVID-19 across the ROI. Predictors included iatrogenic factors and underlying respiratory disease. Prompt evaluation and intervention is needed to minimise complications and inform rehabilitation planning.

Database: Medline

8. Swallowing and Voice Outcomes in Patients Hospitalized With COVID-19: An Observational Cohort Study.

Author(s): Archer ; Iezzi, Christina M.; Gilpin, Louisa

Source: Archives of Physical Medicine & Rehabilitation; Jun 2021; vol. 102 (no. 6); p. 1084-1090

Publication Date: Jun 2021

Publication Type(s): Academic Journal

Available at [Archives of physical medicine and rehabilitation](#) - from Unpaywall

Abstract: To evaluate the presentations and outcomes of inpatients with coronavirus disease 2019 (COVID-19) presenting with dysphonia and dysphagia to investigate trends and inform potential pathways for ongoing care. Observational cohort study. An inner-city National Health Service Hospital Trust in London, United Kingdom. All adult inpatients hospitalized with COVID-19 (N=164) who were referred to Speech and Language Therapy (SLT) for voice and/or swallowing assessment for 2 months starting in April 2020. SLT assessment, advice, and therapy for dysphonia and dysphagia. Evidence of delirium, neurologic presentation, intubation, tracheostomy, and proning history were collected, along with type of SLT provided and discharge outcomes. Therapy outcome measures were recorded for swallowing and tracheostomy pre- and post-SLT intervention and Grade Roughness Breathiness Asthenia Strain Scale for voice. Patients (N=164; 104 men) aged 56.8±16.7 years were included. Half (52.4%) had a tracheostomy, 78.7% had been intubated (mean, 15±6.6d), 13.4% had new neurologic impairment, and 69.5% were delirious. Individualized compensatory strategies were trialed in all and direct exercises with 11%. Baseline assessments showed marked impairments in dysphagia and voice, but there was significant improvement in all during the study (P <.0001). On average, patients started some oral intake 2 days after initial SLT assessment (interquartile range [IQR], 0-8) and were eating and drinking normally on discharge, but 29.3% (n=29) of those with dysphagia and 56.1% (n=37) of those with dysphonia remained impaired at hospital discharge. A total of 70.9% tracheostomized patients were decannulated, and the median time to decannulation was 19 days (IQR, 16-27).



Among the 164 patients, 37.3% completed SLT input while inpatients, 23.5% were transferred to another hospital, 17.1% had voice, and 7.8% required community follow-up for dysphagia. Inpatients with COVID-19 present with significant impairments of voice and swallowing, justifying responsive SLT. Prolonged intubations and tracheostomies were the norm, and a minority had new neurologic presentations. Patients typically improved with assessment that enabled treatment with individualized compensatory strategies. Services preparing for COVID-19 should target resources for tracheostomy weaning and to enable responsive management of dysphagia and dysphonia with robust referral pathways.

Database: CINAHL

9. Speech and language therapy assessment of patients on the 2-week wait head and neck cancer referral pathway: evidence and opinion following a pilot study.

Author(s): Occomore-Kent ; Slade, Suzanne

Source: Current Opinion in Otolaryngology & Head & Neck Surgery; Jun 2021; vol. 29 (no. 3); p. 179-186

Publication Date: Jun 2021

Publication Type(s): Academic Journal

PubMedID: NLM33896909

Abstract: Purpose Of Review: Spiralling numbers of patients are being referred on the two-week wait (2WW) head and neck cancer referral pathway. Only a small proportion are found to have cancer. There is a call for change in the management of these referrals, particularly following coronavirus. Allied health professionals (AHPs) are being encouraged by the NHS to extend their clinical practice to address increased demand. Speech and Language Therapists (SLTs) may offer a solution to some of the 2WW pathway's challenges.

Recent Findings: Recent evidence highlights problems with the pathway and reasons for change. Hoarse voice is consistently found to be the most common presenting symptom. Emerging evidence suggests SLTs can extend their scope of practice to manage new hoarse voice referrals. A pilot project is described. Outcomes from this and other ongoing studies explore efficacy and investment required to make this proposal an achievable prospect for the future.

Summary: The management of 2WW referrals on the head and neck cancer pathway needs to change. Preliminary findings suggest SLTs working within the context of the multidisciplinary team can safely extend their role to improve management of these patients. Professional role outline, recognition, guidance, and training framework are needed.

Database: CINAHL

10. Enhancing the learning and supervision framework for training in flexible endoscopic evaluation of swallowing.

Author(s): Robinson

Source: Current Opinion in Otolaryngology & Head & Neck Surgery; Jun 2021; vol. 29 (no. 3); p. 204-212

Publication Date: Jun 2021

Publication Type(s): Academic Journal

PubMedID: NLM33896910

Abstract: Purpose Of Review: This article reviews the literature on the development of competency-based training and assessment in endoscopy, comparing gastrointestinal endoscopy and flexible endoscopic evaluation of swallowing (FEES). The discussion focusses on how a robust and explicit learning framework can be translated to the delivery of training in FEES to optimize trainee outcomes and supervisor skill.

Recent Findings: Specialist Speech and Language Therapists (SLT) carry out FEES to inform the diagnosis and management of swallowing and voice disorders. Taught courses are generally followed by local workplace-based



supervised practice to attain the competencies identified in the relevant professional guidelines. However, the curriculum for the workplace-based FEES training lacks a learning and assessment framework and little direction for the workplace-based supervisor. In gastrointestinal endoscopy training, this previously led to less than optimal outcomes for trainees and patients and so new models of training were developed.

Summary: A new learning framework for FEES underpinned by medical pedagogy has shown early promise in supporting the acquisition of competence. Incorporating a new FEES-specific systematic assessment, the framework provides direction for the supervisor and evidence of trainee progression, which subsequently enhances supervisor confidence to determine trainee competence.

Database: CINAHL

11. Exploring the relationship between conductive hearing loss and cleft speech characteristics in children born with cleft palate.

Author(s): Baker, Sharon; Wren, Yvonne; Zhao, Fei; Cooper, Francesca

Source: International journal of pediatric otorhinolaryngology; Jun 2021; vol. 148 ; p. 110820

Publication Date: Jun 2021

Publication Type(s): Journal Article

PubMedID: 34218052

Abstract:

BACKGROUND: Children with cleft palate are at high risk of both conductive hearing loss and cleft speech characteristics (CSCs) yet there is limited research to understand whether hearing loss impacts speech development in this population by contributing to the development of CSCs.

AIMS: This study used data from a large national cohort study in the UK (The Cleft Collective) to explore the relationship between those with a history of diagnosed hearing loss and presence of CSCs in children with cleft palate (+/- cleft lip) aged between 18 and 24 months.

METHOD: Speech and Language Therapists (SLTs) provided uniformed information from assessment for 123 participants who had been recruited to the Cleft Collective study. History of diagnosed hearing loss, intervention for hearing loss, and presence of CSCs were reported. A consonant inventory for each participant was completed. Statistical analysis of relationships between hearing loss and CSCs and analysis of consonant inventories was undertaken to provide information related to speech acquisition and its relationship with hearing.

RESULTS: There was a statistically significant relationship between history of diagnosed hearing loss and presence of CSCs ($p < 0.05$). Analysis of the consonant inventories highlighted that children with diagnosed hearing loss used fewer oral consonants compared to those with normal hearing ($p < 0.05$)

CONCLUSION: This study provides some evidence that a conductive hearing loss can affect speech in children with cleft palate resulting in CSCs developing. Therefore, children with cleft palate should be closely monitored by audiology from birth to ensure that hearing is optimised for speech and language development. SLT services should also closely monitor the speech development of those children where a hearing loss has been identified, so that early intervention can be provided if appropriate. Continued data collection, with a large sample of children, will provide additional evidence regarding how this hearing loss is best managed. It will also allow increased knowledge of the long term impact of conductive hearing loss on speech development in children with cleft palate.

Database: Medline

12. Speech Outcomes Following Orticochea Pharyngoplasty in Patients With History of Cleft Palate and Noncleft Velopharyngeal Dysfunction.

Author(s): Birch, Alison L; Jordan, Zoe V; Ferguson, Louisa M; Kelly, Clare B; Boorman, John G

Source: The Cleft palate-craniofacial journal : official publication of the American Cleft Palate-Craniofacial Association; Jun 2021 ; p. 10556656211010623



Publication Date: Jun 2021

Publication Type(s): Journal Article

PubMedID: 34085559

Abstract:

OBJECTIVE: To report speech outcomes following Orticochea pharyngoplasty in 43 patients with cleft palate and noncleft velopharyngeal dysfunction.

DESIGN: A retrospective surgical audit of patients undergoing Orticochea pharyngoplasty between 2004 and 2012, with speech as a primary outcome measure.

SETTING: Patients known to a regional UK cleft center.

METHODS: Forty-three patients underwent Orticochea pharyngoplasty by a single surgeon in a UK regional cleft center. Twenty-one patients had undergone a prior procedure for velopharyngeal dysfunction. Pre- and postoperative speech samples were assessed blindly using the Cleft Audit Protocol for Speech-Augmented by a specialist cleft speech and language therapist, external to the team. Speech samples were rated on the following parameters: hypernasality, hyponasality, audible nasal emission, nasal, turbulence, and passive cleft speech characteristics. Statistical differences in pre- and postoperative speech scores were tested using the Wilcoxon matched-pairs signed-ranks test. Inter- and intrareliability scores were calculated using weighted Cohen κ .

RESULTS: Whole group: A statistically significant difference in pre- and postoperative scores for hypernasality ($P < .001$), hyponasality ($P < .05$), nasal emission ($P < .01$), and passive cleft speech characteristics ($P < .01$) were reported. Patients with cleft diagnoses: A statistically significant difference in scores for hypernasality ($P < .001$), nasal emission ($P < .01$), and passive cleft speech characteristics ($P < .01$) were reported for this group of patients. Patients with noncleft diagnoses: The only parameter to demonstrate a statistically significant difference was hypernasality ($P < .01$) in this group.

CONCLUSIONS: Orticochea pharyngoplasty is a successful surgical procedure in treating velopharyngeal dysfunction in both the cleft and noncleft populations.

Database: Medline

13. Adapting therapy for a new world: storytelling therapy in EVA Park.

Author(s): Carragher ; Steel, Gillian; Talbot, Richard; Devane, Niamh; Rose, Miranda L.; Marshall, Jane

Source: Aphasiology; May 2021; vol. 35 (no. 5); p. 704-729

Publication Date: May 2021

Publication Type(s): Academic Journal

Abstract: Storytelling is fundamental to human communication yet is under-represented in aphasia therapy research and clinical practice. Access to care may be one obstacle; in the broader healthcare context, remote modes of treatment delivery can increase individuals' access to care. EVA Park is a highly novel, online platform designed with people with aphasia that has shown capacity to improve aspects of language and communication. This study explored whether it is feasible to deliver a storytelling intervention in EVA Park and whether therapy brought about improvements in the content and organisation of their narratives. Changes in functional communication and technology use were also examined. In a pilot feasibility study, three individuals with aphasia were recruited in the UK and Australia. Over five weeks, participants received 20 hours of therapy in EVA Park, consisting of three weekly sessions with a speech therapist and one weekly session in which the participant told the story to a volunteer who was blinded to the content of their story. A repeated-measures, case series design was used to evaluate therapy. The primary measure assessed the content of narratives elicited by novel video stimuli twice before and twice after therapy. Secondary measures investigated structural features of the video narratives and of personal narratives. Functional communication was assessed with the Communication Activities of Daily Living assessment, and technology use was probed via a Technology Screen. Delivery of storytelling therapy via EVA Park was feasible; technology challenges arose and were resolved using multiple strategies. Following therapy, participants' storytelling improved in content, with a large effect size for the group, and in structure. Generalisation to personal narratives



was not observed. Some improvements were seen in functional communication. Storytelling therapy delivered via an online platform is feasible and may improve the content and organisation of participants' storytelling, with some evidence of generalisation to functional communication.

Database: CINAHL

14. Self-managed, computerised word finding therapy as an add-on to usual care for chronic aphasia post-stroke: An economic evaluation.

Author(s): Latimer ; Bhadhuri, Arjun; Alshreef, Abualbishr; Palmer, Rebecca; Cross, Elizabeth; Dimairo, Munyaradzi; Julious, Steven; Cooper, Cindy; Enderby, Pam; Brady, Marian C; Bowen, Audrey; Bradley, Ellen; Harrison, Madeleine

Source: Clinical Rehabilitation; May 2021; vol. 35 (no. 5); p. 703-717

Publication Date: May 2021

Publication Type(s): Academic Journal

Available at [Clinical rehabilitation](#) - from Unpaywall

Abstract: Objective: To examine the cost-effectiveness of self-managed computerised word finding therapy as an add-on to usual care for people with aphasia post-stroke.

Design: Cost-effectiveness modelling over a life-time period, taking a UK National Health Service (NHS) and personal social service perspective. Setting: Based on the Big CACTUS randomised controlled trial, conducted in 21 UK NHS speech and language therapy departments.

Participants: Big CACTUS included 278 people with long-standing aphasia post-stroke. Interventions: Computerised word finding therapy plus usual care; usual care alone; usual care plus attention control.

Main measures: Incremental cost-effectiveness ratios (ICER) were calculated, comparing the cost per quality adjusted life year (QALY) gained for each intervention. Credible intervals (CrI) for costs and QALYs, and probabilities of cost-effectiveness, were obtained using probabilistic sensitivity analysis. Subgroup and scenario analyses investigated cost-effectiveness in different subsets of the population, and the sensitivity of results to key model inputs.

Results: Adding computerised word finding therapy to usual care had an ICER of £42,686 per QALY gained compared with usual care alone (incremental QALY gain: 0.02 per patient (95% CrI: -0.05 to 0.10); incremental costs: £732.73 per patient (95% CrI: £674.23 to £798.05)). ICERs for subgroups with mild or moderate word finding difficulties were £22,371 and £21,262 per QALY gained respectively.

Conclusion: Computerised word finding therapy represents a low cost add-on to usual care, but QALY gains and estimates of cost-effectiveness are uncertain. Computerised therapy is more likely to be cost-effective for people with mild or moderate, as opposed to severe, word finding difficulties.

Database: CINAHL

15. Does the duration and frequency of dummy (pacifier) use affect the development of speech?

Author(s): Strutt ; Khattab, Ghada; Willoughby, Joe

Source: International Journal of Language & Communication Disorders; May 2021; vol. 56 (no. 3); p. 512-527

Publication Date: May 2021

Publication Type(s): Academic Journal

Available at [International journal of language & communication disorders](#) - from Wiley Online Library

Available at [International journal of language & communication disorders](#) - from Unpaywall

Abstract: Background: The current literature suggests a link between dummy (or pacifier) use and a number of both positive and detrimental consequences. Positive consequences include soothing effect and protection from sudden infant death syndrome (SIDS), while negative ones include increased risk of otitis media and dental malformation. However, there is little research surrounding the impact of dummy use on the development of speech sounds. Aims:



To investigate whether duration (in number of months) and frequency per day of dummy use have an individual or combined effect on the development of a child's speech, and if so, in what way.

Methods & Procedures: A total of 100 British-English children aged 24–61 months and growing up in the UK were recruited through nurseries, playgroups and by word of mouth. Their parents were asked to complete a questionnaire about the duration and frequency of dummy use and factors known to influence the development of speech. Following this, the children's speech was assessed using the phonology section of the Diagnostic Evaluation of Articulation and Phonology (DEAP). Analysis of the DEAP was conducted to determine the percentage of consonants correct, number of age-appropriate, delayed and atypical errors. Dummy use and speech outcome measures were then analysed qualitatively and quantitatively using mean and median group comparisons alongside multivariate generalized least squares and generalized negative binomial modelling approaches to test for significant associations.

Outcomes & Results: The results showed that the majority of speech outcomes are not significantly associated with dummy use, however measured, in bivariate or multivariate analyses. However, there is a significant association between increased atypical errors and greater frequency of daytime dummy use. This association is strengthened by restricted sampling within the younger members of the sample, with this association not observable within children older than 38 months, the median sample age.

Conclusions & Implications: The evidence base for any effects of dummy use on speech is very small. Dummy use may increase the number of atypical speech errors a young child makes. However, only the frequency of daytime use seems relevant, not the duration or night-time use, and these errors may resolve over time. What this paper adds
What is already known on this subject
The use of a dummy with infants in Western countries is comparatively high (between 36-85%). A number of positive and detrimental consequences of dummy use have been documented in the literature; however, research on the effect of dummy use on speech development is significantly lacking. Past studies have included small sample sizes or used single measures of speech outcomes, which may not be specific enough to reveal how speech may be affected. Many speech and language therapists speculate that the use of a dummy could be contributing to many of the conditions they treat, yet this claim remains largely unsubstantiated.

Clinical implications of this study: The study suggests that only prolonged use of a dummy over several hours and during the day may start to show any impact on speech; even then, professionals need to be aware that the evidence base for any speech effects is very small. Clinicians and other professionals who parents consult on dummy use should make sure to provide both the pros and cons of dummy use, in order to enable parents to make an informed decision.

Database: CINAHL

16. Factors influencing US speech and language therapists' use of technology for clinical practice.

Author(s): Albudoor ; Peña, Elizabeth D.

Source: International Journal of Language & Communication Disorders; May 2021; vol. 56 (no. 3); p. 567-582

Publication Date: May 2021

Publication Type(s): Academic Journal

Available at [International journal of language & communication disorders](#) - from Wiley Online Library

Abstract: Background: There is an increasing number of technological resources available to speech and language therapists (SLTs) for use in clinical practice, but the factors that influence SLTs' selection and use of such resources are not well understood. In related fields, technology acceptance models have been employed to explain users' adoption of technology and to inform the advancement of empirically supported technological resources. Aims: To determine the factors that influence SLTs' use of technology for clinical practice by testing a model of their technology acceptance and use.

Methods & Procedures: We surveyed 209 practising SLTs in the United States representative of the speech and language membership of the American Speech–Language–Hearing Association (ASHA). Participants completed a 38-item electronic survey representing four categories: (1) technology use, (2) technology attitudes and factors influencing technology use, (3) employment information and (4) demographics. Items measuring technology



attitudes served as indicators of the research model, which mapped the primary relationships of a technology acceptance model. Survey data were collected before the Covid-19 pandemic.

Outcomes & Results: The research model accounted for 66% of the variance in SLTs' behavioural intention to use technology, which significantly and positively predicted the amount of time they reportedly spent using technology in the workplace. Subjective norms and attitudes towards technology use directly predicted the intention to use technology. Perceived usefulness and ease of use indirectly predicted intention to use technology. Survey respondents reported using technology during 48% (SD = 24%) of their overall weekly work hours on average, with a large majority reporting using technology at least once per week for planning (89% of respondents), assessment (66% of respondents) or intervention (90% of respondents).

Conclusions & Implications: These findings statistically explain the relationships between SLTs' attitudes and their intention to use technology for clinical practice, contributing to our understanding of why SLTs adopt certain technologies. We also detail the nature and frequency of technology use in the clinical practice of SLTs. Future directions for this work include further exploring use categories, employing direct measurements of technology use and exploring the impact of recent changes in SLT service delivery due to the Covid-19 pandemic on SLTs' technology attitudes.

What this paper adds: What is already known on the subject: Existing research about the adoption and use of technological resources by SLTs indicates that they select tools based on convenience, cost and recommendations by others.

What this paper adds to existing knowledge: This study is the first to develop and test a research model of SLTs' technology attitudes. The findings from model testing demonstrate the significant predictors of SLTs' behavioural intention to use technology for clinical purposes. Intent of use is related to how much SLTs use technology in the workplace.

What are the potential or actual clinical implications of this work? The present findings can inform interventions targeting the design and adoption of electronic SLT resources that are empirically supported.

Database: CINAHL

17. The Challenge of Virtual Voice Therapy During the COVID-19 Pandemic.

Author(s): Cantarella ; Barillari, Maria Rosaria; Lechien, Jerome R.; Pignataro, Lorenzo

Source: Journal of Voice; May 2021; vol. 35 (no. 3); p. 336-337

Publication Date: May 2021

Publication Type(s): Academic Journal

Available at [Journal of voice : official journal of the Voice Foundation](#) - from Unpaywall

Database: CINAHL

18. Speech and language therapy treatment on hypokinetic dysarthria in Parkinson disease: Systematic review and meta-analysis.

Author(s): Muñoz-Viguera ; Prados-Román, Esther; Valenza, Marie Carmen; Granados-Santiago, Maria; Cabrera-Martos, Irene; Rodríguez-Torres, Janet; Torres-Sánchez, Irene

Source: Clinical Rehabilitation; May 2021; vol. 35 (no. 5); p. 639-655

Publication Date: May 2021

Publication Type(s): Academic Journal

Abstract:

Objective: To assess the effect of speech and language therapy (SLT) on Hypokinetic dysarthria (HD) in Parkinson's disease.

Design: Systematic review and meta-analysis of randomized controlled trials.



Methods: We performed a literature search of randomized controlled trials using PubMed, Web of Science, Science Direct and Cochrane database (last search October 2020). Quality assessment and risk of bias were assessed using the Downs and Black scale and the Cochrane tool. The data were pooled and a meta-analysis was completed for sound pressure levels, perceptual intelligibility and inflection of voice fundamental frequency.

Results: We selected 15 high to moderate quality studies, which included 619 patients with Parkinson's disease. After pooling the data, 7 studies, which compared different speech language therapies to no treatment, control groups and 3 of their variables, (sound pressure level, semitone standard deviation and perceptual intelligibility) were included in the analysis. Results showed significant differences in favor of SLT for sound pressure level sustained phonation tasks (standard mean difference = 1.79; 95% confidence interval = 0.86, 2.72; $p \leq 0.0001$). Significant results were also observed for sound pressure level and semitone standard deviation in reading tasks (standard mean difference = 1.32; 95% confidence interval = 1.03, 1.61; $p \leq 0.0001$). Additionally, sound pressure levels in monologue tasks showed similar results when SLT was compared to other treatments (standard mean difference = 0.87; 95% confidence interval = 0.46, 1.28; $p \leq 0.0001$).

Conclusion: This meta-analysis suggests a beneficial effect of SLT for reducing Hypokinetic Dysarthria in Parkinson's disease, improving perceptual intelligibility, sound pressure level and semitone standard deviation.

Database: CINAHL

19. Speech pathology telepractice intervention during the COVID-19 pandemic for Spanish-speaking children with cleft palate: A systematic review.

Author(s): Palomares-Aguilera, Mirta; Inostroza-Allende, Felipe; Solar, Loreley Riquelme

Source: International journal of pediatric otorhinolaryngology; May 2021; vol. 144 ; p. 110700

Publication Date: May 2021

Publication Type(s): Journal Article Review Systematic Review

PubMedID: 33862334

Available at [International journal of pediatric otorhinolaryngology](#) - from Unpaywall

Abstract:

BACKGROUND: Due to the lockdown and quarantines caused by the COVID-19 pandemic, the need to study and use telepractice for providing speech pathology interventions for children with cleft palate has arisen.

OBJECTIVE: To carry out a systematic review of the use of telepractice during the COVID-19 pandemic for providing speech pathology interventions for Spanish-speaking children with cleft palate.

METHODS: In July and August 2020, the authors searched the electronic databases Medline, LILACS, SciELO, and the Cochrane Library using the following keywords in English (MeSH): Cleft palate combined with Early intervention, Speech therapy, Rehabilitation of speech and language disorders, Speech production measurement, Speech articulation tests and Telemedicine. Original articles were selected and analyzed, complemented by an analysis of flowcharts and recommendations by the GES Clinical Guide of Cleft Lip and Palate of Chile's Government and the authors' expert opinions.

RESULTS: A total of 2680 articles were retrieved, of which 23 were critically analyzed and used to adapt the early stimulation, evaluation, and treatment of children with CP to speech therapy telepractice at the Gantz Foundation, a Hospital in Santiago de Chile.

LIMITATIONS: Only three researchers carried out a quick review, which limited the depth of individual analysis of the studies included. Also, the suggestions and material presented should be evaluated in future investigations.

CONCLUSION: This systematic review provides useful guidelines for providing speech pathology interventions through telepractice for children with cleft palate. Audiovisual materials seem to be extremely useful for families receiving the interventions. The use of interactive videos for Spanish-speaking children and educational videos for parents is manifest.

Database: Medline



20. Transmission of droplet-conveyed infectious agents such as SARS-CoV-2 by speech and vocal exercises during speech therapy: preliminary experiment concerning airflow velocity.

Author(s): Giovanni, Antoine; Radulesco, Thomas; Bouchet, Gilles; Mattei, Alexia; Révis, Joana; Bogdanski, Estelle; Michel, Justin

Source: European archives of oto-rhino-laryngology : official journal of the European Federation of Oto-Rhino-Laryngological Societies (EUFOS) : affiliated with the German Society for Oto-Rhino-Laryngology - Head and Neck Surgery; May 2021; vol. 278 (no. 5); p. 1687-1692

Publication Date: May 2021

Publication Type(s): Journal Article

PubMedID: 32676677

Available at [European archives of oto-rhino-laryngology : official journal of the European Federation of Oto-Rhino-Laryngological Societies \(EUFOS\) : affiliated with the German Society for Oto-Rhino-Laryngology - Head and Neck Surgery](#) - from Unpaywall

Abstract:

PURPOSE: Infectious agents, such as SARS-CoV-2, can be carried by droplets expelled during breathing. The spatial dissemination of droplets varies according to their initial velocity. After a short literature review, our goal was to determine the velocity of the exhaled air during vocal exercises.

METHODS: A propylene glycol cloud produced by 2 e-cigarettes' users allowed visualization of the exhaled air emitted during vocal exercises. Airflow velocities were measured during the first 200 ms of a long exhalation, a sustained vowel /a/ and varied vocal exercises. For the long exhalation and the sustained vowel /a/, the decrease of airflow velocity was measured until 3 s. Results were compared with a Computational Fluid Dynamics (CFD) study using boundary conditions consistent with our experimental study.

RESULTS: Regarding the production of vowels, higher velocities were found in loud and whispered voices than in normal voice. Voiced consonants like /z/ or /v/ generated higher velocities than vowels. Some voiceless consonants, e.g., /t/ generated high velocities, but long exhalation had the highest velocities. Semi-occluded vocal tract exercises generated faster airflow velocities than loud speech, with a decreased velocity during voicing. The initial velocity quickly decreased as was shown during a long exhalation or a sustained vowel /a/. Velocities were consistent with the CFD data.

CONCLUSION: Initial velocity of the exhaled air is a key factor influencing droplets trajectory. Our study revealed that vocal exercises produce a slower airflow than long exhalation. Speech therapy should, therefore, not be associated with an increased risk of contamination when implementing standard recommendations.

Database: Medline

21. A Pilot Study Comparing Teletherapy with the Conventional Face-to-Face Therapy for Speech-Language Disorders.

Author(s): Chaudhary, Tanvi; Kanodia, Anupam; Verma, Hitesh; Singh, Chirom Amit; Mishra, Ashwani Kumar; Sikka, Kapil

Source: Indian journal of otolaryngology and head and neck surgery : official publication of the Association of Otolaryngologists of India; May 2021 ; p. 1-5

Publication Date: May 2021

Publication Type(s): Journal Article

PubMedID: 34075335

Available at [Indian journal of otolaryngology and head and neck surgery : official publication of the Association of Otolaryngologists of India](#) - from Unpaywall



Abstract:

Abstract: Speech-language therapists along with affected individuals face various challenges for accomplishing the rehabilitation services. In the current COVID19 pandemic scenario, telerehabilitation has emerged as a substitute to the traditional face-to-face therapy, and is the only option possible in some cases. To subjectively assess the feasibility & acceptability of telerehabilitation provided by speech-language pathologist to patients of speech and language disorders. This qualitative study includes 20 patients suffering from disorders of fluency, voice, swallowing and neurogenic disorders. The participants included were undergoing face-to-face therapy at our institute. After the completion of face-to-face session series, telerehabilitation services were provided through a video calling app. The outcomes of teletherapy were assessed subjectively using a structured questionnaire on 11 parameters using a Likert scale. Of the included 20 patients, after completion of teletherapy, four patients chose the physical interaction as the preferred mode of therapy while 16 chose teletherapy as the preferred mode. Except three clients who rated their overall satisfaction as '3', others rated as '4' or '5'. The therapists were satisfied with the outcomes in 17 cases, and were pleased with the overall progress of all the clients (rated 4 or 5). Telerehabilitation is a reliable method to deliver speech and language services at community level, on long-term basis, as is proven by the high satisfaction scores among the clients as well as the service providers. Clinical Trial Registration The trial has been registered in Clinical Trials Registry of India (CTRI) vide number CTRI/2018/04/ 012,922 (<http://ctri.nic.in/Clinicaltrials/login.php>) on 02/04/2018.

Database: Medline

22. Pediatric Hearing Loss Management in the COVID-19 Era: Possible Consequences and Resources for the Next Future.

Author(s): Brotto, Davide; Sorrentino, Flavia; Favaretto, Niccolò; Bovo, Roberto; Trevisi, Patrizia; Martini, Alessandro

Source: Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery; May 2021 ; p. 1945998211012677

Publication Date: May 2021

Publication Type(s): Journal Article

PubMedID: 33940979

Available at [Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery](#) - from Unpaywall

Abstract: Pediatric hearing loss early diagnosis and treatment have been limited by the current restrictions due to the coronavirus disease 2019 pandemic. The difficulty in accessing the multiple facilities required for the rehabilitative process is influencing the timing of each step of the process. Auditory hearing screening programs, etiological characterization, surgical timing, and speech therapies have all been limited in the past year. The current conditions have forced us to adopt different strategies to overcome the necessary social distancing prescriptions. Although their efficacy should be proved over time, some of these resources will be probably useful even in a nonpandemic future.

Database: Medline

23. An Exploratory Study of Speech and Language Therapy Intervention for Children Born With Cleft Palate ± Lip.

Author(s): Williams ; Harding, Sam; Wren, Yvonne

Source: Cleft Palate-Craniofacial Journal; Apr 2021; vol. 58 (no. 4); p. 455-469

Publication Date: Apr 2021

Publication Type(s): Academic Journal

Available at [The Cleft palate-craniofacial journal : official publication of the American Cleft Palate-Craniofacial Association](#) - from Unpaywall

Abstract:

Introduction: Children born with a cleft palate ± lip are at risk of developing speech and language difficulties, which may require intervention from a speech and language therapist (SLT). To date, there is no strong evidence to support one approach to intervention over another, neither is it clear which approaches or methods of provision are commonly used.

Objectives: To describe the range of speech and language therapy interventions being used with children born with cleft palate in the United Kingdom up to 5 years of age. To explore the different ways, interventions are being delivered.

Design: A prospective study to conduct 9 semi-structured focus groups. Iterative content analysis was completed.

Setting: Regional Cleft Lip and Palate Centers in the United Kingdom.

Participants: Sixty-two speech and language therapy professionals from specialist cleft teams and community services.

Results: Four main codes were identified: "intervention approaches," "service delivery models," "decision-making and rationale," and "patient-centered care." Participants frequently discussed how they adopt an eclectic style when delivering intervention, the importance of an individualized approach for each child and service delivery constraints, such as a lack of resources.

Conclusion: Insight into the multitude of intervention approaches used by SLTs, aspects which influence their decision-making and the variability of service delivery models were gained. Uncertainty regarding which intervention approaches and methods for delivery are most effective provides rationale for future research, to improve the effectiveness of speech and language intervention for children with cleft palate ± lip.

Database: CINAHL

24. A Literature Review: Evidence Base in Speech-Language Pathology for the Management of Pediatric Oral Phase Dysphagia.

Author(s): Muldoon ; Meyer, Laura; Cortese, Jenna; Zaleski, Rebecca

Source: Perspectives of the ASHA Special Interest Groups; Apr 2021; vol. 6 (no. 2); p. 444-453

Publication Date: Apr 2021

Publication Type(s): Academic Journal

Abstract:

Purpose: A review was conducted of published literature regarding management of feeding difficulties at the oral phase of feeding in children with autism spectrum disorder and/or developmental disability. The articles selected were open access or free for speech-language pathologist (SLP) members of their professional bodies. The specific research question was: What research and evidence-based practice articles have been published in the SLP literature to assist SLPs in the implementation of evidence-based practice for children with challenges during the oral phase dysphagia?

Method: Initial inclusion criteria were articles published in English, published in SLP journals, discussed management of behavioral feeding difficulties and oral phase dysphagia, and were published between 2008 and 2018. Exclusion criteria for this review included articles that addressed dysphagia for participants who were medically fragile, used pharmacological intervention, or studies that included adults. A comprehensive search was conducted of ASHAWire, the Speech-Language and Audiology Canada website, the Royal College of Speech and Language Therapy of the United Kingdom and the website Speech Pathology Australia. Articles were analyzed using Preferred Reporting Items for Systematic Review and using a modified feasibility, appropriateness, meaningfulness, effectiveness framework for qualitative case studies. Interrater reliability was calculated using intraclass correlation coefficient across four raters.

Results: All but one of the articles included for this review were qualitative articles containing descriptions of strategies or case studies (e.g., food chaining), were not peer reviewed, but did constitute evidence-based practice as outlined by American Speech-Language-Hearing Association (i.e., were either Level III or Level IV evidence-based strategies or intervention models).



Conclusion: The review highlighted the need for additional research in SLP designed to answer questions about the management of functional skills in feeding and eating for the population of children with autism spectrum disorder and developmental disability, patients who are increasingly on caseloads of SLPs.

Database: CINAHL

25. Primary progressive apraxia of speech: from recognition to diagnosis and care.

Author(s): Duffy ; Utianski, Rene L.; Josephs, Keith A.

Source: Aphasiology; Apr 2021; vol. 35 (no. 4); p. 560-591

Publication Date: Apr 2021

Publication Type(s): Academic Journal

Available at [Aphasiology](#) - from Unpaywall

Abstract: Apraxia of speech (AOS) can be caused by neurodegenerative disease and sometimes is its presenting sign (i.e., primary progressive apraxia of speech, PPAOS). During the last several decades, our understanding of PPAOS has evolved from clinical recognition to a fuller understanding of its core and associated clinical features, its distinction from but relationship with primary progressive aphasia, its temporal course and eventual progression to include other neurological deficits, and its neuroimaging correlates and underlying pathology. This paper provides a comprehensive summary of the literature that has built the current knowledge base about PPAOS and progressive AOS as it co-occurs with progressive aphasia. It reviews the history of its emergence as a recognized syndrome; its relationship with the agrammatic/nonfluent variant of primary progressive aphasia; its salient perceptual features and subtypes; the acoustic and structural/physiological imaging measures that index its presence, severity, and distinction from aphasia; and principles and available data regarding its management and care. A broad summary of what is known about AOS as a manifestation of neurodegenerative disease. Primary progressive apraxia of speech is a recognizable syndrome that can be distinguished from other neurodegenerative conditions that affect speech and language. Abbreviations AAC = augmentative and alternative communication; AES = Articulatory Error Score; ALS = amyotrophic lateral sclerosis; AOS = apraxia of speech; AOS+PAA = AOS plus the agrammatic/nonfluent variant of PPA; ASRS = Apraxia of Speech Rating Scale; CBD = corticobasal degeneration; CBS = corticobasal syndrome; DAOS = dominant AOS – aphasia present but AOS more severe; MSD = motor speech disorders; nfPPA = nonfluent variant of PPA, with or without AOS; NVOA = nonverbal oral apraxia; PAOS = progressive AOS, with or without aphasia; PAA = agrammatic variant of PPA, without AOS; PPA = primary progressive aphasia, with or without AOS; PPAOS = primary progressive AOS - no aphasia; PSP = progressive supranuclear palsy; SMA = supplementary motor area.

Database: CINAHL

26. Systematic review of outcome domains and instruments used in designs of clinical trials for interventions that seek to restore bilateral and binaural hearing in adults with unilateral severe to profound sensorineural hearing loss ('single-sided deafness').

Author(s): Katiri ; Hall, Deborah A.; Killan, Catherine F.; Smith, Sandra; Prayuenyong, Pattarawadee; Kitterick, Pádraig T.

Source: Trials; Mar 2021; vol. 22 (no. 1); p. 1-20

Publication Date: Mar 2021

Publication Type(s): Academic Journal

PubMedID: NLM33743802

Available at [Trials](#) - from BioMed Central

Available at [Trials](#) - from Europe PubMed Central - Open Access

Available at [Trials](#) - from EBSCO (MEDLINE Complete)

Available at [Trials](#) - from Unpaywall



Abstract:

Background: This systematic review aimed to identify, compare and contrast outcome domains and outcome instruments reported in studies investigating interventions that seek to restore bilateral (two-sided) and/or binaural (both ears) hearing in adults with single-sided deafness (SSD). Findings can inform the development of evidence-based guidance to facilitate design decisions for confirmatory trials.

Methods: Records were identified by searching MEDLINE, EMBASE, PubMed, CINAHL, ClinicalTrials.gov, ISRCTN, CENTRAL, WHO ICTRP and the NIHR UK clinical trials gateway. The search included records published from 1946 to March 2020. Included studies were those as follows: (a) recruiting adults aged 18 years or older diagnosed with SSD of average threshold severity worse than 70 dB HL in the worse-hearing ear and normal (or near-normal) hearing in the better-hearing ear, (b) evaluating interventions to restore bilateral and/or binaural hearing and (c) enrolling those adults in a controlled trial, before-and-after study or cross-over study. Studies that fell just short of the participant eligibility criteria were included in a separate sensitivity analysis.

Results: Ninety-six studies were included (72 full inclusion, 24 sensitivity analysis). For fully included studies, 37 exclusively evaluated interventions to re-establish bilateral hearing and 29 exclusively evaluated interventions to restore binaural hearing. Overall, 520 outcome domains were identified (350 primary and 170 secondary). Speech-related outcome domains were the most common (74% of studies), followed by spatial-related domains (60% of studies). A total of 344 unique outcome instruments were reported. Speech-related outcome domains were measured by 73 different instruments and spatial-related domains by 43 different instruments. There was considerable variability in duration of follow-up, ranging from acute (baseline) testing to 10 years after the intervention. The sensitivity analysis identified no additional outcome domains.

Conclusions: This review identified large variability in the reporting of outcome domains and instruments in studies evaluating the therapeutic benefits and harms of SSD interventions. Reports frequently omitted information on what domains the study intended to assess, and on what instruments were used to measure which domains.

Trial Registration: The systematic review protocol is registered on PROSPERO (International Prospective Register of Systematic Reviews): Registration Number CRD42018084274 . Registered on 13 March 2018, last revised on 7th of May 2019.

Database: CINAHL

27. Educational outcomes associated with persistent speech disorder.

Author(s): Wren ; Pagnamenta, Emma; Peters, Tim J.; Emond, Alan; Northstone, Kate; Miller, Laura L.; Roulstone, Sue

Source: International Journal of Language & Communication Disorders; Mar 2021; vol. 56 (no. 2); p. 299-312

Publication Date: Mar 2021

Publication Type(s): Academic Journal

Available at [International Journal of Language & Communication Disorders](#) - from Wiley Online Library

Available at [International Journal of Language & Communication Disorders](#) - from Unpaywall

Abstract:

Background: Children with persistent speech disorder (PSD) are at higher risk of difficulties with literacy, with some evidence suggesting an association with poorer educational attainment. However, studies to date have either used small clinical samples, which exclude children who have not been referred to clinical services, or relied on parent-teacher report of children's speech development. There is a need for an inclusive study to investigate the impact of PSD on educational outcomes using a population-based sample and robust measures of speech development. **Aim:** Using a large prospective UK population-based study—the Avon Longitudinal Study of Parents and Children (ALSPAC)—this study investigated: (1) how children identified with PSD at age 8 years perform on educational attainment tests at ages 10–11 and 13–14 years in comparison with children without PSD; and (2) whether children identified with PSD at age 8 years are more likely to receive a label of special educational needs (SEN) in secondary school.



Methods & Procedures: We examined the data for 263 children with PSD and 6399 controls who had speech assessed at age 8 years in a research clinic. Educational attainment was measured using data from English school standard attainment tests. Data on SEN categorization were obtained between 11 and 13 years of age. Children with PSD and controls were compared using regression analyses adjusted for biological sex, maternal age, verbal, performance and full-scale IQ.

Outcomes & Results: Children with PSD at age 8 years were more likely to achieve lower attainment scores at ages 10–11 years in English and mathematics and across all three subjects of English, mathematics and science at ages 13–14 years after controlling for biological sex and maternal education; score below target levels for English at both time points after controlling for verbal IQ, and at ages 13–14 years after controlling for performance IQ; and receive a label of SEN (typically for the category of cognition and learning needs or communication and interaction needs) in secondary school.

Conclusions & Implications: PSD identified at age 8 years is associated with poor educational attainment at ages 10–11 and 13–14 years in the core subjects of English, mathematics and science. Children with PSD at age 8 years are more likely to be identified with SEN at ages 11–13 years, particularly cognition and learning needs, and communication and interaction needs. We need to be aware of the potential for the long-term impact of PSD on educational attainment in providing appropriate and effective support throughout school.

What this paper adds:

What is already known on the subject: Speech-sound disorder is associated with reading and spelling difficulties, with some evidence to suggest that PSD is associated with a higher risk of literacy difficulties. Limited evidence also suggests that speech-sound disorder may be associated with poorer educational attainment. However, studies to date have used small clinical samples or parent–teacher report of speech development and there is a need to determine whether the association is observed in larger and more inclusive population-based samples.

What this paper adds to existing knowledge: This prospective, longitudinal study of a large community-based sample of English children has shown that PSD is associated with poorer educational attainment at the end of primary school and at ages 13–14 years. Children with PSD are also more likely to be identified as having SEN in secondary school, especially communication and interaction needs but also including cognition and learning needs.

What are the potential or actual clinical implications of this work? Understanding the long-term implications of PSD on educational attainment highlights the importance of ongoing monitoring and support to enable children to reach their potential throughout primary and secondary school. The identification of children with a history of PSD during transition to secondary school will enable effective support to be put in place. The intervention for children with PSD should involve close collaboration between speech and language therapists and education professionals.

Database: CINAHL

28. Attitudes Toward the Use of Voice-Assisted Technologies Among People With Parkinson Disease: Findings From a Web-Based Survey.

Author(s): Duffy, Orla; Synnott, Jonathan; McNaney, Roisin; Brito Zambrano, Paola; Kernohan, W George

Source: JMIR rehabilitation and assistive technologies; Mar 2021; vol. 8 (no. 1); p. e23006

Publication Date: Mar 2021

Publication Type(s): Journal Article

PubMedID: 33704072

Available at [JMIR rehabilitation and assistive technologies](#) - from Europe PubMed Central - Open Access

Available at [JMIR rehabilitation and assistive technologies](#) - from ProQuest (Health Research Premium) - NHS Version

Available at [JMIR rehabilitation and assistive technologies](#) - from Unpaywall

Abstract:

BACKGROUND: Speech problems are common in people living with Parkinson disease (PD), limiting communication and ultimately affecting their quality of life. Voice-assisted technology in health and care settings has shown some



potential in small-scale studies to address such problems, with a retrospective analysis of user reviews reporting anecdotal communication effects and promising usability features when using this technology for people with a range of disabilities. However, there is a need for research to establish users' perspectives on the potential contribution of voice-assisted technology for people with PD.

OBJECTIVE: This study aims to explore the attitudes toward the use of voice-assisted technology for people with PD. **METHODS:** A survey was approved for dissemination by a national charity, Parkinson's UK, to be completed on the web by people living with the condition. The survey elicited respondent demographics, PD features, voice difficulties, digital skill capability, smart technology use, voice-assisted technology ownership and use, confidentiality, and privacy concerns. Data were analyzed using descriptive statistics and summative content analysis of free-text responses.

RESULTS: Of 290 participants, 79.0% (n=229) indicated that they or others had noticed changes in their speech or voice because of the symptoms of their condition. Digital skills and awareness were reported on 11 digital skills such as the ability to find a website you have visited before. Most participants (n=209, 72.1%) reported being able to perform at least 10 of these 11 tasks. Similarly, of 70.7% (n=205) participants who owned a voice-assisted device, most of them (166/205, 80.9%) used it regularly, with 31.3% (52/166) reporting that they used the technology specifically to address the needs associated with their PD. Of these 166 users, 54.8% (n=91) sometimes, rarely, or never had to repeat themselves when using the technology. When asked about speech changes since they started using it, 25% (27/108) of participants noticed having to repeat themselves less and 14.8% (16/108) perceived their speech to be clearer. Of the 290 respondents, 90.7% (n=263) were not concerned, or only slightly concerned, about privacy and confidentiality.

CONCLUSIONS: Having been added to the homes of Western society, domestic voice assist devices are now available to assist those with communication problems. People with PD reported a high digital capability, albeit those who responded to a web-based survey. Most people have embraced voice-assisted technology, find it helpful and usable, and some have found benefit to their speech. Speech and language therapists may have a virtual ally that is already in the patient's home to support future therapy provision.

Database: Medline

29. Virtual voice clinics in the COVID-19 era: have they been helpful?

Author(s): Watters, Carolina; Miller, Benjamin; Kelly, Mairead; Burnay, Victoria; Karagama, Yakubu; Chevretton, Elfy

Source: European archives of oto-rhino-laryngology : official journal of the European Federation of Oto-Rhino-Laryngological Societies (EUFOS) : affiliated with the German Society for Oto-Rhino-Laryngology - Head and Neck Surgery; Mar 2021

Publication Date: Mar 2021

Publication Type(s): Journal Article

PubMedID: 33760954

Available at [European archives of oto-rhino-laryngology : official journal of the European Federation of Oto-Rhino-Laryngological Societies \(EUFOS\) : affiliated with the German Society for Oto-Rhino-Laryngology - Head and Neck Surgery](#) - from Unpaywall

Abstract:

PURPOSE: In response to the coronavirus pandemic, a tertiary combined Laryngology-Speech Therapy voice clinic was converted to a wholly virtual clinic, with consultations carried out via telephone or video. The aim of our mixed method study was to assess (a) how effective are virtual clinics vs face-to-face clinics in progressing patients' care and (b) what is patient satisfaction with virtual consultation methods.

METHODS: Analysis of clinic data from patient databases for both virtual and face-to-face clinics was carried out. A patient satisfaction survey was carried out by 75 of the patients who had attended virtual clinics.

RESULTS: There was statistically a significant difference (p value < 0.01) in the proportion of patients prescribed medical therapy, referred for Speech and Language Therapy (SALT) or listed for surgery in the virtual clinic by comparison to the face-to-face clinic. 75 patients completed the questionnaire. 98% of patients were satisfied



overall with the virtual method of consultation. 84% believed they would still benefit from face-to-face review. 83% would like the option of a virtual type of clinic in the future.

CONCLUSION: Our data clearly demonstrates that face-to-face clinics are superior to virtual clinics, with almost no patients progressed to surgery in virtual consultations. Despite this, virtual methods are still valuable, and many patients have meaningful progression of care. In current circumstances, patients have very high satisfaction with virtual consultations and certain groups have been identified as particularly benefiting. Going forward, an ideal clinic may be a hybrid of face-to-face and virtual appointments as clinically indicated.

Database: Medline

30. Tablet-Based Telerehabilitation Versus Conventional Face-to-Face Rehabilitation After Cochlear Implantation: Prospective Intervention Pilot Study.

Author(s): Völter, Christiane; Stöckmann, Carolin; Schirmer, Christiane; Dazert, Stefan

Source: JMIR rehabilitation and assistive technologies; Mar 2021; vol. 8 (no. 1); p. e20405

Publication Date: Mar 2021

Publication Type(s): Journal Article

PubMedID: 33709934

Available at [JMIR rehabilitation and assistive technologies](#) - from Europe PubMed Central - Open Access

Available at [JMIR rehabilitation and assistive technologies](#) - from ProQuest (Health Research Premium) - NHS Version

Available at [JMIR rehabilitation and assistive technologies](#) - from Unpaywall

Abstract:

BACKGROUND: Technologies allowing home-based rehabilitation may be a key means of saving financial resources while also facilitating people's access to treatment. After cochlear implantation, auditory training is necessary for the brain to adapt to new auditory signals transmitted by the cochlear implant (CI). To date, auditory training is conducted in a face-to-face setting at a specialized center. However, because of the COVID-19 pandemic's impact on health care, the need for new therapeutic settings has intensified.

OBJECTIVE: The aims of this study are to assess the feasibility of a novel teletherapeutic auditory rehabilitation platform in adult CI recipients and compare the clinical outcomes and economic benefits of this platform with those derived from conventional face-to-face rehabilitation settings in a clinic.

METHODS: In total, 20 experienced adult CI users with a mean age of 59.4 (SD 16.3) years participated in the study. They completed 3 weeks of standard (face-to-face) therapy, followed by 3 weeks of computer-based auditory training (CBAT) at home. Participants were assessed at three intervals: before face-to-face therapy, after face-to-face therapy, and after CBAT. The primary outcomes were speech understanding in quiet and noisy conditions. The secondary outcomes were the usability of the CBAT system, the participants' subjective rating of their own listening abilities, and the time required for completing face-to-face and CBAT sessions for CI users and therapists.

RESULTS: Greater benefits were observed after CBAT than after standard therapy in nearly all speech outcome measures. Significant improvements were found in sentence comprehension in noise ($P=.004$), speech tracking ($P=.004$) and phoneme differentiation (vowels: $P=.001$; consonants: $P=.02$) after CBAT. Only speech tracking improved significantly after conventional therapy ($P=.007$). The program's usability was judged to be high: only 2 of 20 participants could not imagine using the program without support. The different features of the training platform were rated as high. Cost analysis showed a cost difference in favor of CBAT: therapists spent 120 minutes per week face-to-face and 30 minutes per week on computer-based sessions. For CI users, attending standard therapy required an average of approximately 78 (SD 58.6) minutes of travel time per appointment.

CONCLUSIONS: The proposed teletherapeutic approach for hearing rehabilitation enables good clinical outcomes while saving time for CI users and clinicians. The promising speech understanding results might be due to the high satisfaction of users with the CBAT program. Teletherapy might offer a cost-effective solution to address the lack of human resources in health care as well as the global challenge of current or future pandemics.



Database: Medline

31. Is speech and language therapy effective at improving the communication of adults with intellectual disabilities?: A systematic review.

Author(s): Wood ; Standen, Penny

Source: International Journal of Language & Communication Disorders; Mar 2021; vol. 56 (no. 2); p. 435-450

Publication Date: Mar 2021

Publication Type(s): Academic Journal

Available at [International Journal of Language & Communication Disorders](#) - from Wiley Online Library

Available at [International Journal of Language & Communication Disorders](#) - from Unpaywall

Abstract:

Background: A significant proportion of adults with intellectual disabilities (ID) experience speech, language and communication difficulties which are associated with poor physical and mental health outcomes. Speech and language therapy (SLT) interventions are an important way to address these communication difficulties, yet there is limited available evidence to provide information about the effectiveness of the different approaches used for this heterogeneous group.

Aims: To review the evidence available for the effectiveness of SLT interventions aimed at improving communication for adults with ID.

Methods & Procedures: A systematic search across relevant databases was performed. Information on methodological details of each relevant study, along with descriptions of the SLT interventions employed, were extracted and the Crowe Critical Appraisal Tool (CCAT) was used to assess quality. Findings were discussed in a narrative synthesis grouped by target communication skill.

Outcomes & Results: A total of 10 relevant studies met the inclusion criteria. These were predominantly interventions aimed directly at adults with ID to improve speech, increase augmentative and alternative communication (AAC) use and develop interaction skills, with one study addressing work with carers. The included studies were all rated as low quality. There is weak preliminary evidence that SLT input can improve the communication skills of adults with ID.

Conclusions & Implications: There is insufficient evidence to draw strong conclusions about the effectiveness of SLT in this population. Further high-level evidence across speech, language and communication domains is urgently needed.

What this paper adds:

What is already known on the subject: There is limited evidence for community health interventions used with adults with ID. Previous reviews of SLT interventions found a lack of evidence base for this population. Some areas of SLT practice such as AAC have demonstrated potential benefits and other areas including speech work, social communication skills and training for communication partners have some evidence base for children with ID but there is currently insufficient evidence for adults with ID.

What this paper adds to existing knowledge: The study systematically reviews the current evidence base available when considering the effectiveness of SLT intervention for adults with ID. It provides weak evidence to suggest SLT intervention can improve communication in this population and highlights the need for clinically relevant, robustly designed studies to be undertaken in this field.

What are the potential or actual clinical implications of this work? The lack of high-quality studies with sufficient power to draw conclusions about effectiveness means SLTs are not able to base their intervention choices on firm evidence. There is an urgent need to conduct robust research into the effectiveness of SLT interventions for adults with ID.

Database: CINAHL



32. The technology of tongue and hard palate contact detection: a review.

Author(s): Mat Zin ; Md Rasib, S. Z.; Suhaimi, Fatanah M.; Mariatti, M.

Source: BioMedical Engineering OnLine; Feb 2021; vol. 20 (no. 1); p. 1-19

Publication Date: Feb 2021

Publication Type(s): Academic Journal

PubMedID: NLM33549118

Available at [Biomedical engineering online](#) - from BioMed Central

Available at [Biomedical engineering online](#) - from Europe PubMed Central - Open Access

Available at [Biomedical engineering online](#) - from ProQuest (Health Research Premium) - NHS Version

Available at [Biomedical engineering online](#) - from EBSCO (MEDLINE Complete)

Available at [Biomedical engineering online](#) - from Unpaywall

Abstract: The tongue and hard palate play an essential role in the production of sound during continuous speech. Appropriate tongue and hard palate contacts will ensure proper sound production. Electropalatography, also known as EPG, is a device that can be used to identify the location of the tongue and hard palate contact. It can also be used by a speech therapist to help patients who have a speech disorder. Among the group with the disease are cleft palate, Down syndrome, glossectomy, and autism patients. Besides identifying the contact location, EPG is a useful medical device that has been continuously developed based on the patient's needs and treatment advancement. This article reviews the technology of electropalatography since the early introduction of the device. It also discusses the development process and the drawbacks of the previous EPG systems, resulting in the EPG's upgraded system and technology. This review suggests additional features that can be useful for the future development of the EPG. The latest technology can be incorporated into the EPG system to provide a more convenient method. There are some elements to be considered in the development of EPG's new technology that were discussed in this study. The elements are essential to provide more convenience for the patient during speech therapy. New technology can accelerate the growth of medical devices, particularly on the development of speech therapy equipment that should be based on the latest technological advancements available. Thus, the advanced EPG system suggested in this article may expand the usage of the EPG and serve as a tool to provide speech therapy treatment services and not limited to monitoring only.

Database: CINAHL

33. Challenges facing users of hearing aids during the COVID-19 pandemic.

Author(s): Alqudah, Safa; Zaitoun, Maha; Alqudah, Ola; Alqudah, Sara; Alqudah, Zainab

Source: International journal of audiology; Feb 2021 ; p. 1-7

Publication Date: Feb 2021

Publication Type(s): Journal Article

PubMedID: 33590784

Available at [International journal of audiology](#) - from Unpaywall

Abstract:

OBJECTIVES: To explore the difficulties and obstacles of hearing-technology users during the coronavirus disease 2019 (COVID-19) pandemic.

DESIGN: Descriptive, cross-sectional study.

STUDY SAMPLE: Individuals with permanent hearing loss (n = 278) answered a questionnaire designed to identify potential obstacles caused by using hearing aids during the COVID-19 pandemic, along with the reasons and deleterious effects associated with the devices. Each category reflected challenges in communicating, learning, and working during the pandemic. Different response categories were compared using descriptive and inferential statistics.



RESULTS: The duration of daily device usage before the imposed lockdown was significantly higher than that during ($Z = -2.01$, $p < 0.05$), potentially attributable to the pandemic-induced difficulties faced by hearing-technology users. Such challenges include the shortage of batteries for hearing devices, limited access to repair or programming services of said devices and accessories, termination of speech therapy sessions, and obstacles to employment and education.

CONCLUSIONS: Among audiologists, efficiency and professionalism are required to educate the public and private health sectors regarding the prevalent challenges and their harmful impact on hearing-technology users during the COVID-19 pandemic. To overcome these issues, awareness of telepractice and its importance in providing audiological services to hard of hearing individuals should be raised.

Database: Medline

34. Patients With Voice Prosthesis Rehabilitation During the COVID-19 Pandemic: Analyzing the Effectiveness of Remote Triage and Management.

Author(s): Longobardi, Ylenia; Galli, Jacopo; D'Alatri, Lucia; Savoia, Vezio; Mari, Giorgia; Rigante, Mario; Passali, Giulio Cesare; Bussu, Francesco; Parrilla, Claudio

Source: Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery; Feb 2021; vol. 164 (no. 2); p. 277-284

Publication Date: Feb 2021

Publication Type(s): Journal Article

PubMedID: 32746738

Available at [Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery](#) - from Unpaywall

Abstract:

OBJECTIVE: To describe a remote approach used with patients with voice prosthesis after laryngectomy during the COVID-19 pandemic and the resulting clinical outcomes in terms of voice prosthesis complications management, oncological monitoring, and psychophysical well-being.

STUDY DESIGN: Prospective cohort study.

SETTING: Otolaryngology Clinic of the University Polyclinic A. Gemelli, IRCCS Foundation.

SUBJECTS AND METHODS: All patients with voice prosthesis who underwent laryngectomy followed by our institute were offered enrollment. Patients who agreed to participate were interviewed to inquire about the nature of the need and to plan a video call with the appropriate clinician. Before and 1 week after the clinician's call, patients were tested with the Hospital Anxiety and Depression Scale. Degrees of satisfaction were investigated with a visual analog scale. A comparison between those who accepted and refused telematic support was carried out to identify factors that influence patient interest in teleservice.

RESULTS: Video call service allowed us to reach 37 (50.68%) of 73 patients. In 23 (62.16%) of 37 cases, the video call was sufficient to manage the problem. In the remaining 14 cases (37.83%), an outpatient visit was necessary. Participants who refused telematic support had a significantly shorter time interval from the last ear, nose, and throat visit than patients who accepted (57.95 vs 96.14 days, $P = .03$). Video-called patients showed significantly decreased levels of anxiety and depression (mean Hospital Anxiety and Depression Scale total score pre- vs post-video call: 13.97 vs. 10.23, $P < .0001$) and reported high levels of satisfaction about the service.

CONCLUSION: Remote approach may be a viable support in the management of patients with voice prosthesis rehabilitation.

Database: Medline

35. The City Gesture Checklist: The development of a novel gesture assessment.



Author(s): Cauter ; Dipper, Lucy; Roper, Abi

Source: International Journal of Language & Communication Disorders; Jan 2021; vol. 56 (no. 1); p. 20-35

Publication Date: Jan 2021

Publication Type(s): Academic Journal

Available at [International journal of language & communication disorders](#) - from Wiley Online Library

Available at [International journal of language & communication disorders](#) - from Unpaywall

Abstract: Background: People with aphasia rely on gesture more than healthy controls to get their message across, but use a limited range of gesture types. Gesture therapy is thus a potential avenue of intervention for people with aphasia. However, currently no gesture assessment evaluates how they use gesture. Such a tool could inform therapy targets and measure outcomes. In gesture research, many different coding categories are used to describe gesture forms and functions. These coding methods are prohibitively time-consuming to use in clinical practice. There is therefore a need for a 'quick and dirty' method of assessing gesture use.

Aims: To investigate current practice among UK-based clinicians (speech and language therapists) in relation to gesture assessment and therapy, to synthesize gesture-coding frameworks used in aphasia research, to develop a gesture checklist based on the synthesized coding frameworks suitable for use in clinical practice, and to investigate the interrater reliability (IRR) of the checklist among experienced and unfamiliar users.

Methods & Procedures: The research team synthesized seven gesture-coding frameworks and trialed three resulting prototype checklists at a co-design workshop with 20 clinicians. Attending clinicians were also consulted about their current clinical gesture practice using a questionnaire. A final City Gesture Checklist (CGC) was developed based upon outcomes and feedback from the workshop. The IRR of the CGC was evaluated between the research team and 11 further clinicians within a second workshop. Both groups used the CGC to count gestures in video clips of people with aphasia talking to a conversation partner.

Main Contribution: A total of 18 workshop attendees completed the current practice questionnaire. Of these, 10 reported assessing gesture informally and five also used formal assessment. Gesture-coding synthesis highlighted six main categories of gesture form. Clinicians at the co-design workshop provided feedback on prototype checklists regarding the relevance and usability of the gesture categories, layout, use of images and instructions. A final version of the CGC was created incorporating their recommendations. The IRR for the CGC was moderate between both the researchers and clinicians.

Conclusions & Implications: The CGC can be used to assess the types of gesture that people with aphasia produce. The IRR was moderate amongst both experienced users and new users who had received no training. Future research directions include investigating how to improve IRR, evaluating intra-rater reliability and sensitivity to change, and exploring use of the CGC in clinical practice.

What this paper adds:

What is already known on the subject: People with aphasia rely on gesture more than healthy speakers, yet use a more limited range of gesture types. Gesture therapy is used by clinicians with the aim of helping people with aphasia to compensate for their language impairment and/or to facilitate speech.

What this paper adds to existing knowledge: This study explores current gesture assessment practice among UK-based clinicians and synthesizes the coding categories used in the literature about gesture research in aphasia. It describes the development of a novel outcome measure, the CGC, and preliminary testing of its IRR.

What are the potential or actual clinical implications of this work? This 'quick and dirty' tool enables clinicians to analyse and record the types of gesture produced by people with aphasia without the need for gesture coding. Preliminary findings suggest that clinicians can use it with a fair degree of reliability by following the checklist's written instructions.

Database: CINAHL

36. Voice banking for people living with motor neurone disease: Views and expectations.

Author(s): Cave ; Bloch, Steven



Source: International Journal of Language & Communication Disorders; Jan 2021; vol. 56 (no. 1); p. 116-129

Publication Date: Jan 2021

Publication Type(s): Academic Journal

Available at [International journal of language & communication disorders](#) - from Wiley Online Library

Abstract:

Background: More than 80% of people living with MND (plwMND) develop difficulties with their speech, affecting communication, self-identity and quality of life. Most plwMND eventually use an augmentative and alternative communication device (AAC) to communicate. Some AAC devices provide a synthesized voice for speech, however these voices are often viewed as impersonal and a factor in AAC acceptance. Voice banking creates an approximation of the person's own voice that can be used in AAC and is argued to go some way to preserve a person's identity when natural voice is lost, but there has been little supporting research. **Aims:** To understand what plwMND consider when deciding whether or not to bank their voice, what their expectations are, and the expectations of significant communication partners.

Methods: Semi-structured interviews were undertaken with plwMND who had either decided to bank their voice or had decided not to. Thematic analysis was used to provide a qualitative analysis of the data.

Procedures: Participants were an opportunistic sample of plwMND within England recruited via an open advert distributed by the MND Association (MNDAs).

Outcomes and Results: Twelve plwMND were interviewed with nine significant others. Nine participants had decided to bank their voice and three decided not to. The data suggest 'preserving identity' is the overarching motivation in decision making for voice banking. Participants who decided to voice bank considered it would help to maintain their identity and preserve their social and work networks. Participants deciding not to bank their voice highlighted it could not replace their natural voice or preserve their identity. However, few in either group showed an awareness of how a voice bank is used in AAC, and how communication using AAC is significantly different to natural speech.

Conclusions and Implications: This research is the first study of its kind to examine the considerations for decision making around voice banking for plwMND. Preserving identity is central to decision making when considering whether or not to voice bank. However, the reality of using AAC and voice banking for communication is poorly understood. Professionals have a role to provide plwMND with more information about voice banking in the wider context of using AAC for communication. It may be that the process of voice banking itself is seen as a positive act for plwMND, independent of how it is used later. Further research with associated professionals and stakeholders is indicated.

What this paper adds:

What is already known on this subject: Voice banking creates an approximation of the person's own voice that can be used in AAC, and is argued to go some way to preserve a person's identity when natural voice is lost. There is significant and growing interest in voice banking from the MND community, but there has been little supporting research.

What this study adds: This research is the first study of its kind to examine decision making surrounding voice banking. It shows how preserving identity is critically important in how people deal with a diagnosis of MND. For those choosing to voice bank, it is seen as an effective way of preserving their identity, a way of 'fighting back' and giving a positive psychological benefit. Those deciding against voice banking do not believe it could maintain their identity and cannot bring back the natural voice they once had.

Clinical implications of this study: The reality of using AAC and voice banking for communication may be poorly understood. It would be helpful for professionals to provide information about voice banking as part of a wider discussion about the range of options for communication as the condition progresses. It is important that this includes the opportunity to listen to a voice bank to support understanding of how it is used in a communication device, and how different it sounds to natural speech.

Database: CINAHL



37. COVID-19 and Speech-Language Pathology Clinical Practice of Voice and Upper Airway Disorders.

Author(s): Doll ; Braden, Maia N.; Thibeault, Susan L.

Source: American Journal of Speech-Language Pathology; Jan 2021; vol. 30 (no. 1); p. 63-74

Publication Date: Jan 2021

Publication Type(s): Academic Journal

Available at [American Journal of Speech-Language Pathology](#) - from ProQuest (Health Research Premium) - NHS Version

Available at [American Journal of Speech-Language Pathology](#) - from ProQuest (MEDLINE with Full Text) - NHS Version

Available at [American Journal of Speech-Language Pathology](#) - from Unpaywall

Abstract:

Purpose: Evaluation and management of voice and upper airway disorders in adults and children, by speech-language pathologists worldwide, have been significantly altered by the COVID-19 pandemic. Secondary to the pathogenic nature of the virus in the respiratory tract and upper airway, it is essential that speech-language pathologists who specialize in these disorders are knowledgeable of current practices to provide evidence-based care while minimizing viral transmission. Understanding how and when SARS-CoV-2 spreads is critical to the development of effective infection prevention within clinical practices.

Method: We established an evidence-based clinical practice guide for clinicians working with voice and upper airway through a comprehensive evaluation of peer-reviewed journals, non-peer-reviewed manuscripts on preprint servers, national health guidelines, and published and online consensus statements and emerging data. Emphasis was placed on risk mitigation for viral transmission via safe clinical practices, including evaluative procedures, therapy including telehealth, personal protective equipment, room, staffing, and distancing considerations.

Results/Conclusions: While knowledge relevant to viral transmission of SARS-CoV-2 is rapidly evolving, there is a paucity of literature specific to the evaluation and treatment of voice and upper airway disorders. Within these confines and given the potentially significant high risk of infection secondary to the nature of COVID-19, we summarize current considerations and recommend best practices that maximize risk mitigation whereby ensuring patient and provider safety.

Database: CINAHL

38. Utility of ultrasound in the assessment of swallowing and laryngeal function: A rapid review and critical appraisal of the literature.

Author(s): Allen ; Clunie, Gemma M.; Slinger, Claire; Haines, Jemma; Mossey-Gaston, Corinne; Zaga, Chariss J.; Scott, Becky; Wallace, Sarah; Govender, Roganie

Source: International Journal of Language & Communication Disorders; Jan 2021; vol. 56 (no. 1); p. 174-204

Publication Date: Jan 2021

Publication Type(s): Academic Journal

Available at [International Journal of Language & Communication Disorders](#) - from Wiley Online Library

Available at [International Journal of Language & Communication Disorders](#) - from Unpaywall

Abstract:

Background: Ultrasound (US) is not widely used as part of the speech and language therapy (SLT) clinical toolkit. The COVID-19 pandemic has intensified interest in US as an alternative to SLT instrumental tools such as the videofluoroscopic swallowing study (VFSS), fiberoptic endoscopic evaluation of swallowing (FEES) and endoscopic evaluation of the larynx (EEL) as a non-invasive, non-aerosol-generating procedure that can be delivered at the bedside to assess swallowing and/or laryngeal function. To establish the appropriacy of routine US use, and in response to a national professional body request for a position statement, a group of expert SLTs conducted a rapid review of the literature.



Aim: To explore critically the clinical utility of US as an assessment tool for swallowing and laryngeal function in adults.

Methods & Procedures: A rapid review of four databases was completed to identify articles using US to assess swallowing and/or laryngeal function in adults compared with reference tests (VFSS/FEES/EEL/validated outcome measure). Screening was completed according to predefined inclusion/exclusion criteria and 10% of abstracts were rescreened to assess reliability. Data were extracted from full texts using a predeveloped form. The QUADAS-2 tool was used for quality ratings. Information from included studies was summarized using narrative synthesis and visual illustration.

Outcomes & Results: Ten papers used US to assess swallowing, and 13 to assess laryngeal function. All were peer-reviewed primary studies across a range of clinical populations and with a wide geographical spread. Four papers had an overall low risk of bias, but the remaining 19 had at least one domain where risk of bias was judged as high or unclear. Applicability concerns were identified in all papers. The papers that used US to assess swallowing varied widely in terms of the anatomical structures assessed and methodology employed. The papers assessing laryngeal function were more homogenous in their methodology. Sensitivity and specificity data were provided for 12 of the laryngeal function papers with ranges of 64.3–100% and 48.5–100%, respectively.

Conclusions & Implications: There is burgeoning evidence to support the use of US as an adjunct to SLT clinical assessment of swallowing and laryngeal function. However, the current literature does not support its use as a tool in isolation. Further research is required to establish reliability in US assessment as well as clear SLT-driven protocols and training.

What this paper adds:

What is already known on the subject: US has demonstrated potential as an assessment tool for objective parameters of swallowing. Its use for laryngeal assessment (gross vocal fold movement) is also widely recognized within the literature. This review appraised the literature related to US as an alternative or adjunctive tool for the assessment of swallowing and laryngeal function.

What this paper adds to existing knowledge: This paper identifies that the current evidence base for US as a swallowing or laryngeal assessment tool is heterogenous and of variable quality. No study combined the assessment of swallowing and laryngeal function, and only two studies assessed more than one parameter of swallowing, limiting the clinical application of the results.

What are the potential or actual clinical implications of this work? This review shows that US is a non-invasive accessible tool that can offer a detailed focal assessment of swallowing and laryngeal function, such as hyoid displacement and vocal fold mobility. With the development of protocols, training packages and competency standards, US has the potential to be used as an adjunct to SLT assessment of swallowing and laryngeal function. There is not currently enough evidence to support the use of US as a stand-alone tool for SLT assessment of swallowing or laryngeal function.

Database: CINAHL

39. 'We are in this together' voices of speech-language pathologists working in South African healthcare contexts during level 4 and level 5 lockdown of COVID-19.

Author(s): Adams ; Seedat, Jaishika; Coutts, Kim; Kater, Kelly-Ann

Source: South African Journal of Communication Disorders; Jan 2021; vol. 68 (no. 1); p. 1-12

Publication Date: Jan 2021

Publication Type(s): Academic Journal

Available at [South African Journal of Communication Disorders](#) - from EBSCO (MEDLINE Complete)

Available at [South African Journal of Communication Disorders](#) - from ProQuest (Health Research Premium) - NHS Version

Available at [South African Journal of Communication Disorders](#) - from Unpaywall



Abstract: Background: SARS-CoV-2 (COVID-19) has had a significant impact on every South African but more specifically healthcare professionals, including speech-language pathologists (SLPs). In response to the COVID-19 pandemic, South Africa implemented a nationwide lockdown as confirmed cases continued to rise. Understanding the impact of COVID-19 on SLPs has a three-fold purpose: to re-evaluate service provision, service delivery platforms and to identify the need for support to SLPs during a time of crisis. It is also crucial in guiding how policies and interventions need to be modified.

Objectives: The study aimed to better understand how the workspace of SLPs in hospitals was impacted by COVID-19, how they experienced this process and the implications for them as healthcare professionals in both the private and public sector throughout South Africa.

Methodology: An exploratory cross-sectional study design was used to meet the aims of the study. Thirty-nine SLPs from different provinces in South Africa, working in government and private hospitals during COVID-19, responded to the online survey. Results were analysed using descriptive statistics and thematic content analysis.

Results: SLPs' roles, responsibilities and service delivery were impacted by COVID-19. It was necessary for typical outpatient therapy services to be modified; there were changes to the role of the SLP in the hospital and inpatient services were curtailed.

Conclusion: This study provides insightful information to SLPs employed in hospitals to know that they are experiencing similar challenges. It also confirms the resilience of healthcare professionals, including SLPs, when faced with novel and unprecedented situations.

Database: CINAHL

40. Speech and Anxiety Management With Persistent Stuttering: Current Status and Essential Research.

Author(s): Lowe ; Menzies, Ross; Onslow, Mark; Packman, Ann; O'Brian, Sue

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Abstract:

Purpose: The purpose of this review article is to provide an overview of the current evidence base for the behavioral management of stuttering and associated social anxiety.

Method: We overview recent research about stuttering and social anxiety in the context of contemporary cognitive models of social anxiety disorder. That emerging evidence for self-focused attention and safety behavior use with those who stutter is considered in relation to current treatment approaches for stuttering: speech restructuring and social anxiety management.

Results: The emerging information about social anxiety and stuttering suggests a conflict between the two clinical approaches. For those clients who wish to control their stuttering and where speech restructuring is deemed the most suitable approach, it is possible that speech restructuring may (a) induce or increase self-focused attention, (b) promote the use of safety behaviors, and (c) become a safety behavior itself. This conflict needs to be explored further within clinical and research contexts.

Conclusions: The issues raised in this review article are complex. It appears that evidence-based speech treatment procedures are in conflict with current best practice treatment procedures that deal with social anxiety. In this review article, we propose directions for future research to inform the development of improved treatments for those who stutter and recommendations for interim clinical management of stuttering.





#	Database	Search term	Results
1	CINAHL	exp "REHABILITATION, SPEECH AND LANGUAGE"/	9262
2	CINAHL	(speech AND therap*).ti,ab	6266
3	CINAHL	((speech OR speak* OR language*) AND therap*).ti,ab	14458
4	CINAHL	(1 OR 2 OR 3)	21854
5	CINAHL	exp APHASIA/	6346
6	CINAHL	(aphasia).ti,ab	6175
7	CINAHL	exp STROKE/	73128
8	CINAHL	(cerebrovascular AND accident).ti,ab	1855
9	CINAHL	exp "VOICE DISORDERS"/	4355
10	CINAHL	(voice OR vocal).ti,ab	31721
11	CINAHL	exp PHONATION/	3456
12	CINAHL	exp PALATE/	2998
13	CINAHL	(palate).ti,ab	6210
14	CINAHL	("speech sound disorder").ti,ab	144
15	CINAHL	(articulat*).ti,ab	12340
16	CINAHL	(stutter*).ti,ab	2455
17	CINAHL	exp "FLUENCY DISORDERS"/	3123
18	CINAHL	(hear*).ti,ab	251432
19	CINAHL	exp "HEARING DISORDERS"/	39742
20	CINAHL	(5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR	394255



17 OR 18 OR 19)

21	CINAHL	(4 AND 20) [DT 2020-2021]	641
23	CINAHL	(COVID-19 OR COVID OR COVID19 OR 29941 COVID2019 OR coronavirus OR "Corona Virus" OR 2019-nCoV OR SARS-CoV).ti,ab	
24	CINAHL	(4 AND 20 AND 23) [DT 2020-2021]	19
25	CINAHL	(UK OR Great Britain OR England OR Wales OR "United Kingdom" OR Ireland OR Scotland OR NHS).ti,ab [DT 2020-2021]	14536
26	CINAHL	(UK OR Great Britain OR England OR Wales OR "United Kingdom" OR Ireland OR Scotland OR NHS).ti,ab	175479
27	CINAHL	(4 AND 20 AND 26) [DT 2020-2021]	32
28	CINAHL	(review OR RCT).ti,ab	569823
29	CINAHL	(4 AND 20 AND 28) [DT 2020-2021]	119
30	CINAHL	(JAMA OR Lancet OR NEJM OR BMJ).ti,ab	17773
31	CINAHL	(JAMA OR Lancet OR NEJM OR BMJ).jn	47124
32	CINAHL	(4 AND 20 AND 31) [DT 2020-2021]	1
33	CINAHL	(Journal of Speech, Language, AND Hearing Research).jn [DT 2020-2021]	0
34	Medline	("speech and language therap*" AND COVID*).ti,ab	13
35	EMBASE	("speech and language therap*" AND COVID*).ti,ab	27
36	CINAHL	("speech and language therap*" AND COVID*).ti,ab	1
37	CINAHL	(4 AND 20) [DT 2021-2021]	223



38	CINAHL	(4 AND 20 AND 26) [DT 2021-2021]	14
39	CINAHL	(4 AND 20 AND 23) [DT 2021-2021]	13
40	CINAHL	(4 AND 20 AND 28) [DT 2021-2021]	33
41	CINAHL	(4 AND 20 AND 31) [DT 2021-2021]	0
42	Medline	exp "REHABILITATION, SPEECH AND LANGUAGE"/	0
43	Medline	(speech AND therap*).ti,ab	10707
44	Medline	((speech OR speak* OR language*) AND therap*).ti,ab	28448
45	Medline	exp "REHABILITATION OF SPEECH AND LANGUAGE DISORDERS"/	10987
46	Medline	(43 OR 44 OR 45)	36474
47	Medline	exp APHASIA/	12290
48	Medline	(aphasia).ti,ab	13593
49	Medline	exp STROKE/	146187
50	Medline	(cerebrovascular AND accident).ti,ab	4631
51	Medline	exp "VOICE DISORDERS"/	10209
52	Medline	(voice OR vocal).ti,ab	55849
53	Medline	exp PHONATION/	5645
54	Medline	exp PALATE/	17251
55	Medline	(palate).ti,ab	34992
56	Medline	("speech sound disorder").ti,ab	185
57	Medline	(articulat*).ti,ab	31469
58	Medline	(stutter*).ti,ab	4715
60	Medline	(hear*).ti,ab	991619



61	Medline	exp "HEARING DISORDERS"/	90055
62	Medline	exp "LANGUAGE DISORDERS"/	50142
63	Medline	exp "SPEECH DISORDERS"/	31218
64	Medline	(48 OR 50 OR 52 OR 55 OR 56 OR 57 OR 58 OR 60)	1125396
65	Medline	(47 OR 49 OR 51 OR 53 OR 54 OR 61 OR 62 OR 63)	0
66	Medline	(62 OR 63)	50142
67	Medline	(64 OR 66)	1158297
68	Medline	(46 AND 67)	13015

