

51st Clinical Aphasiology Conference 2022



**Wrightsville Beach, NC, USA
May 17-21, 2022**

Conference Abstracts

Wednesday, May 18, 2022

Opening remarks: 11:00-11:15 AM

William Hula, Conference Chair

Michael Walsh Dickey, Program Chair

Heather Harris Wright, NIDCD RSCA Co-Chair,

Local Arrangements Chair

NIDCD Research Symposium in Clinical Aphasiology (RSCA) Keynote Lecture: 11:15 AM-12:05 PM

“Understanding the link between daily language experience and language use”

Duane Watson, Professor and Frank W. Mayborn Chair in Cognitive Science, Vanderbilt University, Nashville, TN, USA

A speaker's language environment plays an important role in language use. The language environment is critical for language learning and vocabulary growth in children, and in predicting the difficulty of processing words and sentences in adults. In this talk I will present a set of studies that will show that the relationship between language exposure and language use is complex. I will present experimental evidence suggesting that daily internet reading habits are linked to language processing skills. However, I will also present evidence showing that multiple exposures to complex sentences do not necessarily make these sentences easier to understand. Finally, I will discuss some of the ways in which the spoken language environment can play a role in language use, and will present a pilot study that suggests that social factors, such as a shared opinion with a conversational partner, can influence subtle prosodic features of language.

Dr. Watson Discussion and Questions: 12:05-12:35 PM

NIDCD RSCA Poster Blitz: 12:35-12:50 PM

Wednesday, May 18, 2022

Platform Session 1: 3:00-4:30 PM

Phonological processes: Impairments and treatment

Moderator: Heather Dial

3:00-3:30 PM “Acute unilateral left STG lesions are associated with phonological word verification errors”

Melissa Stockbridge¹, Andreia Faria¹, Lisa Bunker¹, Julius Fridriksson², Gregory Hickok³, Argye Hillis¹

1. Johns Hopkins University, Baltimore, MD, USA

2. University of South Carolina, Columbia, SC, USA

3. University of California Irvine, Irvine, CA, USA

Within the dual stream model, the bilateral superior temporal gyrus (STG) is associated with spectrotemporal analysis. However, it is unclear whether bilateral activation is compensatory or present in healthy brains. The aim of this work was to determine whether individuals with unilateral damage to the left STG made phonemic errors in picture-word verification. 112 patients were analyzed, and those with lesions to the L STG had significantly greater numbers of phonological errors (5.4 ± 6.9) than those without (0.8 ± 2.4), even when controlling lesion size to the L MTG and ITG. This suggests evidence for bilateral representation is likely due to compensation.

3:30 - 4:00 PM “Word complexity predicts phoneme accuracy in stroke survivors with speech impairment”

Adam Jacks¹, Katarina Haley¹, Jessica Richardson², Peter Turkeltaub³, Tyson Harmon⁴, Lindsay Greene¹

1. University of North Carolina, Chapel Hill, NC, USA

2. University of South Carolina, Columbia, SC, USA

3. Georgetown University, Washington, DC, USA

4. Brigham Young University, Provo, UT, USA

The purpose of this study is to determine the relationship between word complexity and phoneme production accuracy in stroke survivors. Participants were 196 stroke survivors who were administered a motor speech assessment. Word complexity was computed for target words and phoneme accuracy determined based on transcriptions of words using a custom web app. Results showed a significant effect of target word complexity predicting accuracy of words, with accuracy differing significantly across speech diagnosis. The effect of word complexity differed across diagnosis groups, with participants with apraxia of speech showing the greatest reduction in accuracy with increased complexity.

4:00 - 4:30 PM “Receptive aprosodia training following right hemisphere stroke”

Alexandra Zezinka Dufree¹, Shannon Sheppard², Argye Hillis¹

1. Johns Hopkins University, Baltimore, MD, USA

2. Chapman University, Orange, CA, USA

Affective (emotional) prosody recognition is commonly impaired following right hemisphere stroke. We investigated the effectiveness of an explicit training approach to improve affective prosody recognition. Participants were more likely to be aprosodic acutely and to improve to recognition abilities commensurate with healthy controls by six months post-stroke. Training improved prosody recognition in one-third to three-fourths of participants with aprosodia; however, this change was reliable in only 20-50% of participants. Data collection and analysis remain ongoing in order to best understand when and how to intervene to improve communication and stroke-associated RHD outcomes.

Wednesday, May 18, 2022

Platform Session 2: 5:00-6:30 PM

Wellbeing in aphasia: Measurement and treatment

Moderator: JoAnn Silkes

5:00-5:30 PM "Individual-level predictors of post-traumatic growth and depreciation in aphasia"

Tami Brancamp¹, Robert Cavanaugh², Sarah Wallace², Tyson Harmon³, William Evans², Michael Bief⁴, Trish Hambridge⁵

1. University of Nevada Reno, Reno, NV, USA

2. University of Pittsburgh, Pittsburgh, PA, USA

3. Brigham Young University, Provo, UT, USA

4. California State University Northridge, Northridge, CA, USA

5. Voice of Hope for Aphasia, St. Petersburg, FL, USA

Post-traumatic growth is the positive psychological change experienced as a result of the struggle with a traumatic or highly challenging life circumstance. Understanding the individual factors associated with post-traumatic growth in aphasia may help clinical providers make appropriate referrals, select appropriate interventions, and identify people more likely to experience post-stroke depression. This secondary analysis examined individual demographic- and stroke-related factors associated with both post-traumatic growth and post-traumatic depreciation in individuals with chronic aphasia as part of a larger study.

5:30-6:00 PM "Adapting acceptance and commitment therapy for stroke survivors with aphasia"

Will Evans¹, Alyssa Kelly¹, Eric Meyer¹, Elizabeth Skidmore¹, Rebecca Pompon², Rebecca Flowers¹, Robert Cavanaugh¹

1. University of Pittsburgh, Pittsburgh, PA, USA

2. University of Delaware, Newark, DE, USA

This project seeks to develop and pilot1 "ACT for Aphasia", which combines individualized communication strategy training with Acceptance and Commitment Therapy (ACT). We are employing a successive cohort design with stakeholder engagement to create and iteratively modify a treatment manual, establish its feasibility and acceptability, and characterize preliminary effects sizes. Progress and preliminary outcomes will be described. Overall, this study will help develop an integrated counseling intervention, usable by speech-language pathologists, that has the potential to improve communication participation, psychosocial adjustment, and quality of life for stroke survivors with aphasia.

6:00-6:30 PM "The Benefits of a Yoga Practice for Stroke Survivors with Aphasia: A Feasibility Study"

Lauren Bislick, Aimee Dietz, E. Susan Duncan, Karen Cornelius

1. University of Central Florida, Orlando, FL, USA

2. Georgia State University, Atlanta, GA, USA

3. Louisiana State University, Baton Rouge, LA, USA

4. Yoga with Kare, Winter Park, FL, USA

Recent work suggests that mind-body approaches may increase resilience and improve psychosocial factors in aphasia, thereby improving treatment response. Evidence indicates that resilience is a key factor in predicting treatment success in stroke rehabilitation. The purpose of this feasibility study was to better understand (1) the impact of yoga on resilience, stress, sleep quality, pain, and word fluency in stroke survivors with aphasia, and (2) participant motivation and perceived benefit of participating in a yoga program. Findings suggest that yoga may be a potent adjunct to traditional rehabilitation efforts to support resilience and psychosocial aspects in persons with aphasia.

Poster Session 1: NIDCD RSCA Poster Session (see page 13): 6:30-8:00 PM

Thursday, May 19, 2022

* CAC Invited Keynote Address: 12:30-1:30 PM

“Inclusion in the Language Sciences: It’s Theoretical til its Personal”

*Anne H. Charity Hudley, Professor of Education,
Stanford University, Palo Alto, CA, USA*

Charity Hudley exemplifies how scholars and clinicians in the language sciences can incorporate an understanding of language variation as they provide services to multicultural and multilingual populations. She focuses on her work with African Americans, a population that disproportionately receives language services yet is underrepresented within the language sciences community. She presents practices from speech and hearing scientists with training in sociolinguistics who draw upon an understanding of language variation, particularly from Southern English and African American English (AAE), in their work.

In order to have more people who can and want to do this work, Charity Hudley presents her model designed to prepare more people to do this essential work. The NSF REU/UCSB-HBCU Scholars in Linguistics Program was a multi-year program funded by the UC-HBCU Initiative and NSF Research Experience for Undergraduates (REU) that brought together faculty, graduate students, and undergraduate students at UCSB, Historically Black Colleges and Universities (HBCUs), and other colleges and universities around the U.S. Through summer research experiences at UC campuses and competitive funding for successful participants, the UC-HBCU Initiative aimed to increase the number of Black graduate students in the language sciences. Research findings from the program benefited students as well as the institutions they attend by providing information about the nature of the language and culture of Black college students, which has direct implications for teaching and mentoring.

Charity Hudley will also draw from her own experiences as a patient after the loss of half of her left lung to lung cancer. She will highlight her experiences as she herself was prepared for the possible speech and hearing challenges she may face due to brain metastasis.

Through this mix of research, practice, and lived experience, Charity Hudley illustrates how African-American cultural expressions of breath and breathing are essential in the ongoing struggle that African-Americans face for life and human rights.

CAC Keynote questions and discussion: 1:30-2:00 PM

Moderator: Michael Walsh Dickey

CAC Invited Keynote Response: 2:30-2:45 PM

*DaveTrina Seles Gadson, Research Faculty in Rehabilitation Medicine, Georgetown University,
Washington, DC, USA*

CAC Invited Keynote Response: 2:45-3:00 PM

*Charles Ellis, Professor & Chair of Speech Language and Hearing Sciences, University of Florida,
Gainesville, FL, USA*

CAC Keynote panel questions and discussion: 3:00-3:30 PM

Anne Charity Hudley, Charles Ellis, DaveTrina Seles Gadson

* Indicates virtual platform presentation

Thursday, May 19, 2022

Platform Session 3: 4:00 - 6:00 PM

Aphasia treatment

Moderator: Maya Henry

4:00-4:30 PM “Baseline semantic and phonological abilities as predictors of anomia treatment outcomes”

Reva Zimmerman¹, Michael Walsh Dickey², JoAnn Silkes³, Diane Kendall⁴

1. West Chester University, West Chester, PA, USA

2. University of Pittsburgh, Pittsburgh, PA, USA

3. San Diego State University, San Diego, CA, USA

4. University of Washington, Seattle, WA, USA

This study asked whether baseline semantic and phonological abilities, as determined by error types on a confrontation naming task, predict immediate and 3-month post-treatment naming performance on treated and untreated items in people who completed either Phonomotor Therapy (PMT) or Semantic Feature Analysis (SFA). Mixed-effect logistic regressions revealed that for the PMT group, baseline semantic and phonological abilities significantly predicted performance on treated items immediately post-treatment; only phonological ability predicted performance across items at follow-up. In the SFA group, neither semantic nor phonological abilities predicted performance on any items, at any time.

4:30-5:00 PM “Cognitive functions supporting learning over time in naming treatment for aphasia” (NIDCD RSCA Fellow platform)

Emily Goldberg¹, Michael Walsh Dickey^{1,2}, William Hula², Robert Cavanaugh¹, Alexander Swiderski¹, Alyssa Autenreith²

1. University of Pittsburgh, Pittsburgh, PA, USA

2. VA Pittsburgh Healthcare System, Pittsburgh, PA, USA

We examined which non-language cognitive functions impact session-by-session learning and retention in aphasia rehabilitation. Patients with chronic aphasia (PWA; n=39) completed 4 weeks of intensive semantic feature analysis. There was a positive change for directly trained and untrained (semantically-related) items after a single session and across treatment. For trained items, pre-treatment verbal-memory and visual-memory both moderated immediate treatment response, while verbal memory alone influenced rate of learning. Treatment of subsequent lists did not negatively impact a previously treated list; however cognitive factors of interest did not moderate treatment-effect retention.

Thursday, May 19, 2022

Platform Session 3: 4:00 - 6:00 PM

Aphasia treatment

Moderator: Maya Henry

5:00-5:30 PM "The active ingredients of semantic-based intervention in Mandarin-English bilinguals with aphasia"

Ran Li, ShiMin Chen, Swathi Kiran, Boston University, Boston, MA, USA

The Rehabilitation Treatment Specification System provides a framework for identifying the active ingredients of naming treatment. This study investigated whether the response to specific treatment steps in modified Semantic Feature Analysis (mSFA) improved over time and predicted naming performance in bilinguals with aphasia (BWA). Results from six Mandarin-English BWA demonstrated significant improvements on all steps. Naming and feature tasks facilitated gains in the treated language; naming, feature tasks, and sentence formulation promoted generalization to the untreated language. Findings suggest that naming and feature tasks are the active ingredients of mSFA in Mandarin-English BWA.

5:30-6:00 PM "The Impact of Treatment on Chronic Aphasia Recovery"

Lisa Johnson, Natalie Busby, Lynsey Keator, Dirk den Ouden, Julius Fridriksson, University of South Carolina, SC, Columbia, SC, USA

Studies have shown the chronic stage of aphasia recovery is dynamic, leading to improvements in more than half of individuals with aphasia. Notably, baseline severity, lesion size, stroke age, and treatment hours have been found to be important predictors of recovery. The extent of the impact a manipulable variable, such as treatment hours, has on recovery is unclear. The present study leveraged longitudinal data from multiple treatment studies to determine projected assessment scores for a subset of individuals. This study provides evidence for both clinicians and individuals living with aphasia on projected performance within the chronic recovery stage.

Poster Session 2 (see page X): 6:30-8:00 PM

Friday, May 20, 2022

Virtual poster session 1 (see page 13): 9:30-11:00 AM

Platform Session 4: 11:30 -1:00 PM

Everyday communication: Narrative, conversation, storytelling

Moderator: Michael Walsh Dickey

11:30-12:00 PM "Linguistic and cognitive domain structure underlying narrative discourse performance in individuals with cerebrovascular disease" (NIDCD RSCA Fellow platform)

Katharine Aveni¹, Derek Beaton², Angela Roberts¹

1. Northwestern University, Evanston, IL, USA

2. St. Michael's Hospital, Toronto, ON, Canada

We tested the hypothesis that spoken discourse comprises multiple independent but interactive cognitive-linguistic processes (e.g., Frederiksen et al., 1990; Sherratt, 2007) using spoken discourse and neuropsychological test data from 154 participants with cerebrovascular disease from the ONDRI study (study participants and procedures published previously in Farhan et al., 2017; McLaughlin et al., 2020; Roberts et al., 2021). A PCA revealed 3 spoken discourse components: 'Overall Discourse Impairment,' 'Linguistic Complexity & Efficiency,' and 'Information Content & Efficiency'. A CCA revealed 2 joint cognitive-linguistic components: 'Global Cognition' and 'Verbal & Visual Memory.'

12:00-12:30 PM "What can people with aphasia communicate when given time in conversation?"

Marion Leaman¹, Brent Archer², Noa P. Kossman¹, Cindy Y. Lin¹

1. University of Kansas Medical Center, Kansas City, KS, USA

2. Bowling Green State University, Bowling Green, OH, USA

People with aphasia often experience lexical retrieval difficulty characterized by pauses. In response, partners may either assist repair or allow the person time to self-repair. This talk focuses on interactions emphasizing self-repair over conversational progressivity. We analyzed communication occurring as a result of self-repairs in unstructured conversation using measures of form, content, use, topic directorship, and gestures. When provided time to self-repair, participants successfully produced meaningful phrase-level language, used gestures, and shared personal information and knowledge, and introduced new topics, promoting self-expression, participation and agency in conversation.

* 12:30-1:00 PM "Preliminary Findings from a Group Storytelling Intervention on Life Participation in Aphasia"

Bijoyaa Mohapatra¹, Ranjini Mohan²

1. Louisiana State University, Baton Rouge, LA, USA

2. Texas State University, San Marcos, TX, USA

This study investigated the efficacy of a seven-week remotely delivered collaborative storytelling program in six persons with aphasia. Participants were tested pre and post intervention on several validated outcome measures that represented the Living with Aphasia Framework for Outcome Measurement domains. Most participants showed significant changes on life participation and aphasia severity domains, and participants with severe expressive aphasia showed better improvements on communicative effectiveness and quality of life. This program demonstrates potential to improve social competency and functional communication by facilitating creative discourse and offering a failure-free context.

* Indicates virtual platform presentation

Friday, May 20, 2022

Platform Session 5: 3:00-4:30 PM

Virtual collaborations for research and treatment

Moderator: Jiyeon Lee

3:00-3:30 PM “Collaborative Commentary for Understanding Aphasia”

Brian MacWhinney, Davida Fromm, John Kowalski, Carnegie Mellon University, Pittsburgh, PA, USA

Collaborative Commentary (CC) offers groups of researchers, clinicians, and students new ways to analyze and understand detailed aspects of communication in aphasia from shared transcripts linked to media files. For instructors, this immediate access to interactions with people with aphasia can greatly enhance their students' learning. Researchers can collectively evaluate behaviors, refine descriptions, evaluate competing theories, and measure coding reliability. Clinicians can identify the most effective strategies for improving communication success in individual and group therapy settings. Preliminary data on the use of CC will be presented, and further implementations will be discussed.

3:30-4:00 PM “If you build it, they will come: Developing CORE Aphasia, an open network collaborative space for the aphasia research community”

Nadine Martin¹, Heidi Grunwald¹, Kevin McCaffery¹, Carole A. Tucker², Nick Steele³, Anthony Bergen¹

1. Temple University, Philadelphia, PA, USA

2. University of Texas Medical Branch, Galveston, TX, USA

3. Source Digital, Conshohocken, PA, USA

We report the development of CORE-Aphasia, a cloud-based open science network for collaboration among scientists who study aphasia. CORE-Aphasia has three components: CORE-TALSA, a data repository for scientists using a test of language and short-term memory; C-TREAT, a virtual workspace where researchers can create cloud-based “collaboratories” for projects involving multiple laboratories; CORE-REED, a publicly accessible digital library with resources related to research on aphasia. We anticipate that CORE-Aphasia will facilitate aggregation of sufficient data among collaborating laboratories to support much needed large-scale studies of aphasia and its rehabilitation.

* 4:00-4:30 PM “Effectiveness and co-produced implementation of the world’s first completely self-guided online communication partner training program to support adults after acquired brain injury” (NIDCD RSCA Fellow platform)

Melissa Miao¹, Emma Power¹, Rachael Rietdijk², Melissa Brunner², Deborah Debono¹, Leanne Togher²

1. University of Technology Sydney, Sydney, NSW, Australia

2. University of Sydney, Sydney, NSW, Australia

The living experience of people with acquired brain injury, communication partners, clinicians and digital health implementation experts (N=35) was combined with digital health implementation theory and evidence to identify priorities and strategies to implement “interact-ABI-lity”; a self-guided online communication partner training program for adults with acquired brain injury. Intervention implementation and effectiveness was measured over 6 months via web analytics, feedback surveys and knowledge tests using a theoretically-based Hybrid Type 2 implementation-effectiveness design. The program reached registrants (N=582) in 21 countries and significantly increased knowledge and confidence.

* Indicates virtual platform presentation

Friday, May 20, 2022

Poster Session 3 (see page X): 4:45 PM-6:15 PM

Roundtable Session, Round 1 (see page X): 7:00-7:45 PM

Roundtable Session, Round 2 (see page X): 7:45-8:30 PM

Virtual poster session 2 (see page X): 7:00-8:30 PM

Saturday, May 21, 2022

Poster Session 4 (see page X): 11:00 AM-12:30 PM

Platform Session 6: 12:45-2:45 PM

Neural bases

Moderator: Michelle Gravier

12:45-1:15 PM "A double dissociation between longitudinal language and executive control deficit recovery in post-stroke aphasia"

Erin Meier¹, Catherine Kelly², Argye Hillis²

1. Northeastern University, Boston, MA, USA

2. Johns Hopkins University, Baltimore, MD, USA

This study aimed to determine the extent to which language and executive control dissociate in a group of acute left hemisphere stroke survivors and in two people with aphasia (PWA) over the first six months post stroke. In acute stroke, language and executive control measures loaded onto separate orthogonal factors via principal component analysis, and each factor predicted acute aphasia severity. The two cases of PWA exhibited deficits in both language and executive control at the acute stage. In contrast, a double dissociation in longitudinal language and executive recovery was observed that may be linked to different degrees of damage to language and attention networks in the two PWA.

* 1:15-1:45 PM "Pre-treatment resting-state functional connectivity in non-language specific brain networks predicts naming therapy outcomes in chronic aphasia"

Maria Varkanitsa, Isaac Falconer, Swathi Kiran, Boston University, Boston, MA, USA

This study sought to investigate the mean functional connectivity in four predefined brain networks (i.e., language, default mode, dorsal attention, and salience networks) in relation to response to language therapy. Thirty patients with chronic post-stroke aphasia were recruited and received naming therapy. Structural and functional brain scans were acquired at the baseline and mean resting state functional connectivity for each network was calculated. Mixed effects models showed that mean functional connectivity in the default mode, dorsal attention, and salience networks is an independent predictor of response to therapy.

* Indicates virtual platform presentation

Saturday, May 21, 2022

Platform Session 6: 12:45-2:45 PM

Neural bases

Moderator: Michelle Gravier

1:45-2:15 PM “Reorganization patterns in post-stroke aphasia investigated with a reliable and valid language mapping paradigm” (NIDCD RSCA Fellow platform)

Sarah Schneck¹, Jillian L. Entrup¹, Caitlin Onuscheck¹, Deborah F. Levy¹, Melodie Yen¹, Dana Eriksson², Maysaa Rahman¹, L. Taylor Davis¹, Michael de Riesthal¹, Howard Kirshner¹, Stephen Wilson¹

1. Vanderbilt University Medical Center, Nashville, TN, USA

2. University of Arizona, Tucson, AZ, USA

Neuroplasticity in post-stroke aphasia is minimally understood, largely due to methodological challenges faced in functional imaging studies. We used a reliable and valid language mapping paradigm to investigate potential reorganization in a cohort of 67 people with post-stroke aphasia. We found that people with aphasia activated a strongly left-lateralized network. Compared to neurotypical controls, activity was reduced in left hemisphere language regions, likely due in part to damage. Activation in left frontal and temporal regions was positively correlated with language performance. Our findings show that people with aphasia continue to process language in spared core language regions.

2:15-2:45 PM “The neural bases of sentence production and comprehension from the perspective of Primary Progressive Aphasia”

Elena Barbieri¹, Sladjana Lukic², Emily Rogalski¹, Sandra Weintraub¹, M-Marsel Mesulam¹, Cynthia Thompson¹

1. Northwestern University, Evanston, IL, USA

2. Adelphi University, Garden City, NY, USA

The study investigates the neural bases of sentence production and comprehension deficits in Primary Progressive Aphasia (PPA) using Voxel-Based Morphometry (VBM), a technique that aims to establish brain-language relationships. Ninety-six individuals with PPA were evaluated with the Northwestern Assessment of Verbs and Sentences (NAVS), a test assessing production and comprehension of simple and complex sentences. VBM analyses revealed associations between atrophy of left frontal areas and both sentence production and sentence comprehension accuracy, whereas posterior temporal regions were exclusively associated with sentence production accuracy.

Saturday, May 21, 2022

Platform Session 7: 3:15-4:45 PM

Translation and service delivery

Moderator: Will Evans

3:15-3:45 PM "A novel item response theory-based method for selecting treatment stimuli and probe items in studies of naming treatment for aphasia" (NIDCD RSCA Fellow platform)

Alex Swiderski¹, Michael Walsh Dickey,^{1,2} Alyssa Autenreith², Mary Sears², William Hula²

1. University of Pittsburgh, Pittsburgh, PA, USA

2. VA Pittsburgh Healthcare System, Pittsburgh, PA, USA

Accurate measurement of intervention-related outcomes requires selecting appropriately challenging treatment and probe items. However, traditional methods of selecting items from a large pool of stimuli based on repeated incorrect naming attempts is not only laborious but susceptible to regression to the mean. In this study, we demonstrate that an item response theory model of picture naming and a naming-difficulty prediction model can be used to select probe stimuli that are resilient to statistical regression, based on a single brief assessment. Predicted and observed scores agreed well, and observed scores were stable across two assessments.

3:45-4:15 PM "The Temple Assessment of Language and Short-term Memory in Aphasia (TALSA): Translation of an Aphasia Research Test Battery to a Clinical Assessment Tool"

Wendy Greenspan¹, Carole A. Tucker², Kevin McCaffery¹, David F. Tucker¹, Heidi Grunwald¹, Nadine Martin¹

1. Temple University, Philadelphia, PA, USA

2. University of Texas Medical Branch, Galveston, TX, USA

Aphasia assessment tools appropriate for research purposes often must be adapted to address the needs and constraints of a clinical setting. We discuss a model that successfully translated a research-based test of cognitive-linguistic components of language in aphasia to a practical clinical version. Importantly, this translational process involved input from clinicians at all stages of development. We present results from a 15-month clinician feedback survey indicating overall high satisfaction with test administration procedures but lower satisfaction with the test results to inform treatment plans. We describe collaborative development of a treatment guide to address this need.

* 4:15-4:45 PM "What are the unmet needs and stroke service delivery preferences of Young Stroke Survivors and their carers? Including voices of individuals with reported communication and cognitive impairment"

Emma Power¹, Dana Wong², David Lawson³, Barb Wolfenden⁴, Toni Withiel⁵, Natasha Lannin⁶, Vincent Thijs⁴, Julie Bernhardt⁴, Karen Borschmann⁷

1. University of Technology Sydney, Sydney, NSW, Australia

2. La Trobe University, Melbourne, VIC, Australia

3. University of Melbourne, Melbourne, VIC, Australia

4. Florey Institute of Neuroscience and Mental Health, Melbourne, VIC, Australia

5. Melbourne Health, Melbourne, VIC, Australia

6. Alfred Health, Melbourne, VIC, Australia

7. St. Vincent's Hospital, Melbourne, VIC, Australia

Young stroke survivors (YSS) have complex unmet needs in services designed for older stroke survivors. However, in previous YSS research, opinions of people with significant communication/cognitive impairments have been excluded. Our 3-phase mixed-methods research program developed (i) a communicatively accessible, screening tool for identifying YSS unmet rehab needs, (ii) a map of surveyed national stroke-related services identifying existing supports and gaps for identified unmet needs above, and (iii) a co-designed, YSS health service model via communicatively accessible focus groups, tailored to YSS-specific rehabilitation recovery needs.

* Indicates virtual platform presentation

Poster Session 1: NIDCD Research Symposium in Clinical Aphasiology

Wednesday, May 18, 2022, 6:30-8:00PM

1. A Simulation Study of Computer-Adaptive Testing for Measuring Treatment-Related Change in Confrontation Naming

Pauline Bayotas¹, William Hula², & Gerasimos Fergadiotis³

¹University of Pittsburgh, Pittsburgh, PA, USA, ²VA Pittsburgh Healthcare System, Pittsburgh, PA, USA, ³Portland State University, Portland, OR, USA

This simulation study investigated the sensitivity of a computer adaptive version of the Philadelphia Naming Test (PNT-CAT) to treatment-related change in two different treatment conditions: item-general and item-specific. For each condition, we simulated responses using a one-parameter logistic item response theory model and computed pre to post-treatment change scores for the PNT-CAT and the full PNT. For the item-general condition, both tests performed similarly well. However, the PNT-CAT overestimated the effects of item-specific treatment relative to the full test. These results provide useful information about the conditions in which CAT can be validly used to measure treatment outcome.

2. Biomarkers that predict speech fluency and repetition scores in chronic post-stroke aphasia
Samaneh Nemati¹, Chris Rorden¹, ¹Alexandra Basilakos¹, Roger Newman-Norlund¹, ²Leonardo Bonilha, ¹Julius Fridriksson

¹University of South Carolina, Columbia, SC, USA, ²Emory University, Atlanta, GA, USA

Impairment in various features of speech production is a complicated phenomenon yet a widely occurring symptom among individuals with post-stroke aphasia. To date, aphasia researchers have primarily used either a single-case or small group designs to investigate associations between brain damage and language deficits. In this paper, we use a novel approach to explore disruptions of structural connectivity (SC) in the brain associated with poor speech fluency and speech repetition in a relatively large sample of persons with left hemisphere post-stroke while regressing out potentially confounding effects of lesion location and resting-state functional connectivity (rFC).

3. Caregiver-led treatment using a free online interactive naming therapy website for patients with aphasia

Hannah Khorassani¹, Maryvi Morales¹, Chaleece Sandberg², & Teresa Gray¹

¹San Francisco State University, San Francisco, CA, USA, ²The Pennsylvania State University, State College, PA, USA

The purpose of this study is to investigate the efficacy of a freely available, culturally appropriate web-based naming intervention (<http://bilingualnamingtherapy.psu.edu/>) developed by Sandberg, Gray, and Kiran (2020) when led by clinicians and trained caregivers. We hypothesize that 1) clinician-led treatment using the Website will improve object naming, and 2) caregiver-led treatment using the Website will improve object naming. The SFA-based treatment was divided into two five-week sessions of clinician-led and caregiver-led therapy. Findings support our hypotheses, contributing to identifying viable solutions to minimize inequitable disparities that exist in aphasia rehabilitation.

4. Efficacy of Aphasia Telehealth Group Conversation Intervention on Language and Social Measures

Madeline Dunne¹, Elizabeth Hoover¹, Gayle DeDe²

¹Boston University, Boston, MA, USA, ²Temple University, Philadelphia, PA, USA

Conversation treatment for people with aphasia can lead to significant changes on measures of language impairment and quality of life. The COVID-19 pandemic resulted in greater use of telehealth treatment delivery; however, there is little evidence on the efficacy of a telehealth conversation group. This pilot study investigated the benefits of conversation treatment delivered via telehealth. Participants showed significant improvement pre-post treatment for repetition and picture description. Compared to in-person group and no-treatment groups, results suggest superior benefits for in-person conversation group treatment compared to telehealth; both are superior to a no-treatment paradigm.

5. Factors Predicting Recovery of Alexia, Agraphia, and Repetition in Acute Ischemic Stroke
Isidora Diaz-Carr, Lisa Bunker, Argye Hillis

Johns Hopkins University, Baltimore, MD, USA

A better understanding of factors influencing recovery of language after stroke is needed to improve prognosis. This study examines demographic and acute stroke variables, including lesion volume and hypoperfusion, which predict improvement on reading, spelling, and repetition. Acute and follow-up data from 30 participants with left-hemisphere ischemic stroke were examined using multivariable linear regression models. Acute hypoperfusion in specific vascular regions was identified as an independent predictor for repetition and spelling improvements.

6. Psycholinguistic Determinants of Naming in Logopenic Variant of Primary Progressive Aphasia
Fatima Jebahi, Katlyn Nickels, Aneta Kielar

The University of Arizona, Tucson, AZ, USA

With an aim to investigate the psycholinguistic variables that affect naming in patients with the logopenic variant of primary progressive aphasia (lvPPA), we administered the Boston Naming Test and examined the influence of its items' psycholinguistic properties on naming accuracy in 8 participants with lvPPA. Age of acquisition (AoA) and familiarity significantly affected naming accuracy. Further, we used principal component analysis and found that the component of Lexical Usage (loaded on AoA, familiarity, frequency, valence) predicted naming accuracy. These findings emphasize the inherent vulnerability to naming deterioration that words present due to their psycholinguistic properties.

7. The inferior frontal gyrus and its role in the resting state connectivity of individuals with aphasia

Victoria Diedrichs¹, David Osher¹, Julius Fridriksson², Dirk-Bart den Ouden², Chris Rorden², Roger Newman-Norlund², & Stacy Harnish¹

¹The Ohio State University, Columbus, OH, USA, ²University of South Carolina, Columbia, SC, USA

Recent evidence suggests the left inferior frontal gyrus (LIFG), often injured in people with aphasia, may demonstrate a spectrum of functionality, such that the anterior portion (aLIFG) is associated with semantics and the posterior portion (pLIFG) is linked with phonology. It is also unclear how the brain may respond differently to aLIFG vs pLIFG lesions. The present study

explores the relationship between aLIFG vs pLIFG lesion load, resting state functional magnetic resonance imaging connectivity, and performance on tasks of semantic and phonological processing to better understand the impact of LIFG injury on recovery from aphasia. Implications for future studies are discussed.

8. The outcomes of remote administration with the Combined Aphasia and Apraxia of Speech Treatment (CAAST)

Lydia Kallhoff, Pang Moua, Daniel Salomon, Julie Wambaugh

The University of Utah, Salt Lake City, UT, USA

The purpose of the current investigation was to examine treatment and generalization outcomes of CAAST when administered remotely. Two men with chronic aphasia and AOS served as participants. Multiple baseline designs across behaviors and participants were used. The primary outcome measure was the correct information units (CIUs), elicited through 3 sets of 8 line-drawing pictures. The secondary outcome measure was the percentage of consonants correct (PCC) in sentence probes. CAAST was administered 3 times a week for a total of 20 sessions through online videoconferencing platforms. Results indicated positive acquisition and generalization effects with CAAST being administered virtually.

9. The Relationships Between Perceived Communication Effectiveness, Perceived Participation and Performance-Based Language Skills in People with Aphasia

Courtney Jewell¹, Stacey Harnish¹, Alyssa M. Lanzl², & Matthew L. Cohen²

The Ohio State University, Columbus, OH, USA, ²University of Delaware, Newark, DE, USA

A patient's perspective of their communication ability is often important for goal setting and assessing outcomes. This study examines the relationships between perceived communication effectiveness, participation, and language impairment. 29 PWA completed a measure of performance-based language skills and self-report measures of communication effectiveness, participation, and mood. Bivariate correlations showed that communication effectiveness scores (Aphasia Communication Outcome Measure) did not correlate with these measures despite adequate statistical power. This suggests that communicative effectiveness cannot be reliably predicted by performance-based language skills or participation.

10. Treatment outcomes and generalization effects following semantic-feature based naming therapy for bilingual aphasia

Michael Scimeca¹, Claudia Peñaloza², Swathi Kiran¹

¹Boston University, Boston, MA, USA, ²University of Barcelona, Barcelona, Spain

Semantic-feature based treatments (SFT) are effective word-retrieval therapies for bilinguals with aphasia (BWA), resulting in a variety of outcomes and generalization effects. This study explored patterns of improvement in a treated language and transfer to an untreated language following semantic-feature based naming therapy in a large cohort of Spanish English BWA. Results demonstrated higher naming accuracy for trained items in the treated language and their translations in the untreated language. Post-treatment change on clinical assessments was also observed in both languages. These findings suggest generalizability to the larger BWA population, especially in the context of SFT.

11. Using implementation frameworks to examine current practices and barriers in aphasia service delivery

Carla Tierney-Hendricks, Megan Schliep, & Sofia Vallila-Rohter

MGH Institute of Health Professions, Boston, MA, USA

Best practices in aphasiology recognize a multi-faceted approach to aphasia care. Guided by implementation science frameworks, this study examined the extent to which A-FROM domains are addressed across the care continuum and barriers to aligning outcome measurement and treatment practices. Survey data from 90 SLPs revealed that impairment-level skills are assessed with equal consistency across clinical settings; however, functional communication, participation and quality of life domains are prioritized in community-based settings. Psychological well-being is evaluated less frequently. Factors related to environmental context and resources are cited as barriers to evidence-based practices.

Poster Session 2

Thursday, May 19, 2022, 6:30-8:00 PM

1. Semantic Aspects of Verb Production in Various Discourse Tasks in People with Nonfluent Aphasia

Hyejin Park¹, Jessica Obermeyer², & Myriam Kornisch¹

¹University of Mississippi, Oxford, MS, USA, ²University of North Carolina at Greensboro, Greensboro, NC, USA

This study investigated how various discourse tasks influence the semantic weight of verb production in people with nonfluent aphasia compared to people without aphasia. We showed that both groups produced more heavy verbs in Window and more be-copular verbs in Event than other tasks. Further, compared to people without aphasia, people with nonfluent aphasia produced more be-copular verbs if the task provided a picture. We discuss cognitive-linguistic factors of each discourse task, how they may interfere with the language skills of people with nonfluent aphasia, and the importance of understanding methodological issues related to discourse analysis targeting verb production abilities.

2. Eye Tracking Behaviors and Processing Time Patterns of People with Aphasia and Neurotypical Healthy Adults When Reading Short Narratives With and Without Text-to-Speech Support
Andrew Bevelhimer¹, Kelly Knollman-Porter¹, Jessica Brown², Karen Hux³, & Sarah E. Wallace⁴

¹Miami University, Oxford, OH, USA, ²Olentangy Schools, Lewis Center, OH, USA, ³Quality Living Inc., Carnegie, PA, USA, ⁴University of Pittsburgh, Pittsburgh, PA, USA

We examined eye tracking fixations and regressions and total processing time of nine people with aphasia (PWA) and nine neurotypical healthy adults (NHA) when reading short narratives in written only and combined written and text-to-speech (TTS) conditions. PWA exhibited significantly more fixations in the written only than combined TTS condition, whereas NHA showed the opposite behavior. Comparable significant differences and behavior patterns occurred between PWA and NHA for within word, within sentence, and re-read regressions. PWA took significantly longer to process content in the written only than TTS condition, whereas NHA exhibited the opposite pattern.

3. Comparison of Test Items Across Three Commonly Used Aphasia Assessments
Nichol Castro¹, Sameer Ashaie², & William Hula³

¹University at Buffalo, Buffalo, NY, USA, ²Northwestern University, Evanston, IL, USA, ³VA Pittsburgh Healthcare System, Pittsburgh, PA, USA

We reviewed three commonly administered aphasia assessments – the Western Aphasia Battery, the Boston Diagnostic Aphasia Evaluation, and the Comprehensive Aphasia Test – motivated by theoretical, psychometric, and cultural concerns. While all three assessments test similar linguistic and cognitive domains, we found marked differences in the test items of each domain across assessments. Using a Jaccard Index, we found that the CAT had weak test item overlap with the BDAE and WAB, while the BDAE and WAB had moderate test item overlap. We discuss the implications of relatively low consistency in test items across assessments, and consider the opportunity to modernize aphasia assessment.

4. Test-retest reliability of resting-state functional connectivity in chronic aphasia
Jeffrey Johnson¹, Michael Walsh Dickey², Alyssa Autenreith¹, Mary Sears¹, Michelle Gravier³, & William Hula¹

¹VA Pittsburgh Healthcare System, Pittsburgh, PA, USA, ²University of Pittsburgh, Pittsburgh, PA, USA, ³California State University, East Bay, Hayward, CA, USA

Resting-state functional connectivity (RSFC) is an increasingly popular method for studying aphasia recovery. However, its test-retest reliability in chronic aphasia has not been established, posing a threat to the validity of longitudinal connectivity studies. Here, intraclass correlation coefficients were used to assess reliability of repeated resting-state fMRI scans in people with chronic aphasia. Reliability was fair to good across participants in a whole-brain network and a language sub-network, and may be affected by head motion and aphasia severity. The results suggest that scan-to-scan variability should be accounted for in pre-/post-treatment studies that use RSFC to index change.

5. Is written discourse clinically useful in diagnosis and treatment for acquired neurogenic communication disorders?: A review
Hana Kim¹, Jessica Obermeyer², Robert Wiley², & Argye Hillis¹

¹Johns Hopkins University School of Medicine, Baltimore, MD, USA, ²University of North Carolina at Greensboro, Greensboro, NC, USA

The purpose of this review was to describe potential clinical utility of discourse-level writing assessment in individuals with aphasia, mild cognitive impairment, and Alzheimer's disease, primary progressive aphasia. The database search initially identified 2120 studies, and after full text screening, 43 studies met the final inclusion criteria. Evidence shows differential linguistic profiles in written discourse by clinical populations. Although inconsistencies of measures and tasks used across studies limit generalization and clinical implications, this study sheds light on the challenges and clinical value in diagnosis and treatment.

6. Modification and validation of a measure of resilience for aphasia
Rebecca Hunting Pompon, Helen Mach, & Brittany Stroker

University of Delaware, Newark, DE, USA

Resilience, or positive adaptation to substantial adversity, is inversely associated with chronic stress and depression and may be an important contributor to aphasia rehabilitation. To examine the influence of resilience on life participation and treatment response in individuals with aphasia (IWA), we must first appropriately measure this construct. In this study, we systematically modified a resilience scale developed for individuals with chronic conditions so that it may be accessible for IWA. Validation of this modified scale is underway. In this presentation, we will describe the modification process and scale, and the validation analysis results for this new measure.

7. Leveraging the rehabilitation treatment specification system to synthesize evidence on errorless learning, errorful learning, and retrieval practice for naming in aphasia
Kristen Nunn¹, Erica Middleton², & Sofia Vallila-Rohter¹

¹MGH Institute of Health Professions, Boston, MA, USA, ²Moss Rehabilitation Research Institute, Philadelphia, PA, USA

This poster aims to (1) apply the rehabilitation treatment specification system (RTSS) to existing comparative effectiveness research on errorless learning, errorful learning, and retrieval practice

and (2) identify ingredients that may promote success at the individual level. We identified 14 comparative effectiveness studies. Proposed targets, ingredients, and mechanisms of action could be extracted from all studies. Interventions with or without specific active ingredients were compared to identify potential implications for individual clients considering cognitive and language impairment profiles. Limitations and gaps within the existing literature are discussed.

8. A Comparison of Sound Production Treatment and Metrical Pacing Technique for Apraxia of Speech

Charlotte Purcell¹, Julie Wambaugh², & Ewin Maas³

¹Rocky Mountain University of Health Professions, Provo, UT, USA, ²University of Utah, Salt Lake City, UT, USA, ³Temple University, Philadelphia, PA, USA

The purpose of this investigation was to compare the effects of two different specific treatment protocols for acquired apraxia of speech (AOS): Sound Production Treatment (SPT) and metrical pacing technique (MPT). Four individuals with moderately severe chronic AOS and aphasia received both treatments in the context of multiple baseline ABACA/ACABA designs. Treatment outcomes were compared with respect to whole word correctness (WWC) in acquisition and generalization multisyllabic word targets, and participant-reported communicative participation. Preliminary findings revealed differences in responsiveness to the treatment within and across participants.

9. Comprehension, Processing Time, and Modality Preferences when People with Aphasia and Neurotypical Healthy Adults Read Books: A Pilot Study using Text-to-speech Technology

Kelly Knollman-Porter¹, Karen Hux², Sarah E. Wallace³, McKenzie Pruitt¹, Jessica Brown⁴

¹Miami University, Oxford, OH, USA, ²Quality Living, Inc., Carnegie, PA, USA, ³University of Pittsburgh, Pittsburgh, PA, USA, ⁴Olentangy Schools, Lewis Center, OH, USA

We examined comprehension accuracy, processing time, and modality preferences of people with aphasia (PWA) and neurotypical healthy adults (NHA) when reading book sections alternately presented in written only and combined written and text-to-speech (TTS) conditions. Ten adults with chronic aphasia and ten NHA participated. PWA took significantly longer to process the text in the written only versus TTS condition, whereas NHA showed the opposite behavior. A significant comprehension difference occurred between participant groups but not between conditions or the group-condition interaction. Most PWA preferred the combined condition, whereas most NHA preferred the written only condition.

10. Performance Discrepancies on Adult Language Assessments: Barriers to examining the racial and ethnic Diversity of Validation Samples

Victoria Tilton-Bolowsky, Kristen Nunn, & Lauryn Zipse

MGH Institute of Health Professions, Boston, MA, USA

We aimed to compare the racial and ethnic demographics of stroke survivors with aphasia in the U.S. with the validation samples of the most frequently used U.S.-based language assessments for aphasia: the BDAE, BNT, QAB, and WAB-R, some of which have been found to be culturally-linguistically biased. We calculated the population's demographic composition using data from the Get with the Guidelines-Stroke Registry. We searched test manuals and scientific databases for the validation samples' racial and ethnic demographic data. Data were not reported for all tests, preventing the planned analyses. We highlight a critical issue with implications on aphasia assessment and research.

11. A combined speech-language and counseling treatment framework for primary progressive aphasia: Acceptability, feasibility, and preliminary results
Kristin Schaffer¹, Maya Henry¹, William Evans², Lisa Wauters¹, Christina Dutcher¹, Christina Philburn³, Megan Young¹

¹The University of Texas at Austin, Austin, TX, USA, ²University of Pittsburgh, Pittsburgh, PA, USA, ³Austin Mindfulness Center, Austin, TX, USA

Individuals with primary progressive aphasia often experience negative emotional health states in the context of living with a chronic and progressive disorder. Thus, translational research is needed to investigate treatment paradigms that integrate counseling principles alongside speech-language treatment. In this study, we examine the acceptability, feasibility, and preliminary utility of a novel intervention that includes counseling as an adjuvant to speech-language intervention. Pilot findings indicate that this novel treatment approach is acceptable, feasible, and results in improved linguistic and psychosocial functioning for individuals with different PPA phenotypes.

12. Accuracy of Clinical Implementation of Main Concept Analysis
Sarah Grace Dalton¹, Kristen Apple¹, & Jessica Richardson²

¹Marquette University, Milwaukee, WI, USA, ²University of New Mexico, Albuquerque, NM, USA

Although connected language sampling may be a better marker of communicative ability than naming for individuals with aphasia, it is infrequently utilized in the clinical setting due to numerous barriers. We investigated the accuracy of scoring main concept analysis for healthy controls and individuals with aphasia completed by practicing clinicians. Results demonstrated that although clinicians were generally satisfied with main concept analysis, accuracy was relatively low, particularly for individuals with aphasia. These results highlight the need for robust training materials to be developed for existing discourse measures to improve clinical utilization of discourse analysis in aphasia.

13. Sustainability of Intensive Comprehensive Aphasia Programs: A Qualitative Study
Victoria (Tori) Scharp¹, Catherine Off², & Katie Jo Roberts¹

¹Idaho State University, Pocatello, ID, USA, ²University of Montana, Missoula, MT, USA

Intensive Comprehensive Aphasia Programs (ICAPs) draw on principles of neuroplasticity and align with WHO-ICF recommendations. ICAPs combine high doses of individual and group therapy with a medley of other supports (i.e. care partner counseling, technology training) to a cohort of individuals with aphasia. Accumulation of ICAP efficacy data continues; however, specific challenges to program implementation and sustainability have not been characterized. Open coding content analysis was applied to interviews of international aphasiologists who are active in the ICAP community to derive themes of sustained ICAPs. Dominant themes of consistent funding, patient characteristics and cohort makeup,

14. Scoring the Quick Aphasia Battery: Training, definitions, fidelity
Katarina Haley¹, Adam Jacks¹, Marcia Rodriguez¹, & Lorelei Johnson²

¹The University of North Carolina at Chapel Hill, Chapel Hill, NC, USA, ²Atrium Health, Charlotte, NC, USA

We discuss published criteria for scoring the Quick Aphasia Battery (Wilson et al., 2018) and strategies our team used to improve assessment fidelity and reliability. Upon independently scoring video-recordings from 14 people with chronic aphasia, we verified that our training

resulted in strong observer agreement, while subtest ratings that seemed less subjective and consequently were not trained, were rated with lower agreement. We conclude that it is essential to address assessment fidelity with both informal and formal measures and to make time for assessment training and calibration even with standardized tools and ratings that appear to be comprehensively and objectively defined.

15. Barriers to informational support access and provision for care partners of people with aphasia after stroke

Jenni Shaffer, Katarina Haley, & Adam Jacks

University of North Carolina at Chapel Hill, Chapel Hill, NC, USA

Background: Care partners' need for timely informational support remains persistently unmet. Using implementation science frameworks such as the Knowledge to Action (KTA) framework can help to investigate the gap between evidence and practice

Aim: Identify potential barriers to informational support provision for care partners of people with aphasia after stroke

Methods: Secondary analysis of qualitative interview data from SLPs and care partners

Results: We identified four potential barriers

Conclusions: We expand what is known about the persisting gaps between evidence and practice. We offer recommendations for addressing these gaps and build the rationale for a tailored intervention

Poster Session 3

Friday, May 20, 2022, 5:15-6:45 PM

1. Connectometric Correlates of Picture Naming in Primary Progressive Aphasia: Preliminary Analysis

Donna Tippett¹, Zafer Keser², Rajani Sebastian¹, Andreia Faria¹, Rhonda Friedman³, Aaron Meyer³, Argye Hillis¹

¹Johns Hopkins University, Baltimore, MD, USA, ²Mayo Clinic, Rochester, MN, USA, ³Georgetown University, Washington, DC, USA

Subjects with primary progressive aphasia (PPA) (n = 24, mean age = 69.71 years \pm 7.10; 17 female) underwent the Boston Naming Test and diffusion tensor imaging. Connectometry analysis showed that higher microstructural integrity of left hemispheric language pathways, and corpus callosum connecting bilateral temporal lobes and right intra-cerebellar pathways predicted better picture naming in PPA. Negative correlates were right homologues of the language network, left intra-cerebellar fibers, and corpus callosum connecting posterior frontal and parietal lobes. Our results offer preliminary support for targeting the intact right cerebellum as an adjunct in naming therapy in PPA.

2. Measuring Post-traumatic Growth in People with Aphasia

Tami Brancamp¹, Robert Cavanaugh², Sarah E. Wallace², Tyson Harmon³, William Evans², Michael Biel⁴, & Trish Hambridge⁵

¹University of Nevada, Reno, NV, USA, ²University of Pittsburgh, Pittsburgh, PA, USA, ³Brigham Young University, Provo, UT, USA, ⁴California State University, Northridge, Los Angeles, CA, USA, ⁵Voices of Hope for Aphasia, St. Petersburg, FL, USA

Research on post-traumatic growth often excludes people with aphasia. We administered the newly developed Post-Traumatic Growth Inventory-Aphasia (PTG-Aphasia) and five well-being measures to determine construct validity and test-retest validity. Sixty-five of the target 100 participants completed the study so far. Clinical implications and future research will be discussed.

3. A case of "pure sentence deafness"

Marianne Casilio¹, Jillian L. Entrup¹, Anna Kasdan², Sarah Schneck¹, Deborah F. Levy¹, Kelly J. Crouch¹, & Stephen M. Wilson¹

¹Vanderbilt University Medical Center, Nashville, TN, USA, ²Vanderbilt University, Nashville, TN, USA

We report a case of a patient with bilateral temporal lobe lesions whose presentation evolved from aphasia to an atypical form of pure word deafness, where auditory linguistic processing was impaired at the sentence level. Using behavioral testing and functional MRI, we confirmed the presence of an auditory modality-specific deficit in sentence comprehension with near-unimpaired behavioral performance and robust brain activations for auditory word processing and other language domains. We argue that these findings both support the view of pure word deafness as a stage in aphasia recovery and represent an evolution of the pure word deafness stage into a milder form.

4. Analyses of Phonological and Semantic Strategies in Phonemic Fluency for Alzheimer 's Disease
Jee Eun Sung¹, Jimin Park¹, Yae Rin Yoo¹, Yoonseob Lim, Seou Sujin Choi¹, & Eunha Jo¹

¹Ewha Womans University, Seoul, South Korea, ²Korea Institute of Science and Technology, Seoul, South Korea

This study investigated how phonological and semantic strategies affected performance on the phonemic fluency task in probable Alzheimer's Disease(AD). We extracted 50 probable AD participants from the DementiaBank. We analyzed the mean cluster size and number of switches as phonemic strategy and word persistent length as a semantic analysis. Results indicated that correct number of responses was highly and positively correlated with number of switches, whereas a negative tendency between correct responses and word persistent length. Results suggested that people who efficiently adopted phonological strategies elicited better performance compared to who relied on semantic strategy.

5. Conversation Analysis of Texting Exchanges between Individuals with Aphasia and their Texting Partners
Jaime Lee¹, Jamie Azios², & Leora Cherney³

James Madison University, Harrisonburg, VA, USA, ²Lamar University, Beaumont, TX, USA, ³Shirley Ryan AbilityLab, Chicago, IL, USA

While reciprocal texting cultivates social connectedness in neurotypical adults, little is known about text exchanges between persons with aphasia (PWA) and their partners. This poster presents patterns of behavior between PWA and their partners that contribute to or detract from successful communication via texting. Conversation Analysis was used to evaluate authentic texting data from eight PWA and their partners. Preliminary results suggesting patterns related to communication facilitation and breakdowns via texting and the strategic use of texting features (e.g., emojis, multimedia) by PWA will be shared.

6. The influence of aging and lexical accessibility on passive sentence production
Joshua Weirick & Jiyeon Lee

Purdue University, West Lafayette, IN, USA

Prior research has shown that language production patterns change across the lifespan; however, less is known about the incremental production processes that presumably underly these changes. This study investigated the influence of age on the extent to which lexical accessibility facilitates production of English active and passive sentences. Using an eye-tracking-while-speaking paradigm, 20 young adults (YAs) and 20 healthy older adults (HOAs) completed a picture description task after hearing a theme or agent lexical prime. Eye data indicate that priming leads to faster subject encoding for YAs compared to HOAs, consistent with accounts positing slowed lexical encoding with age.

7. White Matter Correlates of Taxonomic and Thematic Errors During Naming in Chronic Aphasia
Deena Schwen Blackett¹, Jesse Varkey¹, Janina Wilmskoetter¹, Rebecca Roth¹, Keeghan Andrews¹, Julius Fridriksson², Lorelei Philip Johnson², Sigfus Kristinsson², Chris Rorden², Natalie Busby², & Leonardo Bonilha³

¹Medical University of South Carolina, Charleston, SC, USA, ²University of South Carolina, Columbia, SC, USA, ³Emory University, Atlanta, GA, USA

Studies have revealed a potential neuroanatomical dissociation between taxonomic and thematic errors during naming in people with aphasia, however, prior reports leave out

investigations of white matter. The current study aimed to determine whether the integrity of certain white matter connections post-stroke is associated with the production of taxonomic and thematic errors. Taxonomic and thematic error rates of seventy-six people with aphasia were measured. Connectome-based lesion-symptom mapping revealed three white matter connections that were significantly associated with thematic errors. No white matter connections were significantly associated with taxonomic error rates.

8. Objective and subjective clustering methods for verb fluency responses from individuals with dementia and cognitively healthy older adults
Eun Jin Paek & Madison Fisher

The University of Tennessee Health Science Center, Memphis, TN, USA

Verb fluency tasks are useful to determine cognitive-linguistic skills in people with dementia. Cluster and switch analyses provide valuable insights to the cognitive status and strategies in this population, but the extant clustering methods require subjective judgements and may cause a significant rater bias. Thus, we aimed to compare people with dementia and cognitively healthy older adults in their clusters and switches using objective clustering methods. Inter-rater and intra-rater reliability were also examined using intraclass correlation coefficients between subjective analyses of authors and between subjective and objective analyses. Our findings and implications will be discussed.

9. Development and Refinement of the The Temple Assessment of Language and Short-term Memory in Aphasia (TALSA) Clinical Assessment Tool
Wendy Greenspan¹, Carole A. Tucker², Kevin McCaffery¹, David F. Tucker¹, Heidi Grunwald¹, & Nadine Martin¹

¹Temple University, Philadelphia, PA, USA, ²University of Texas Medical Branch-Galveston, Galveston, TX, USA

Aphasia assessment tools appropriate for research purposes often must be adapted to address the needs and constraints of a clinical setting. We discuss a model that successfully translated a research-based test of cognitive-linguistic components of language in aphasia to a practical clinical version. Importantly, this translational process involved input from clinicians at all stages of development. We present results from a 15-month clinician feedback survey that indicate overall high satisfaction with test administration procedures but lower satisfaction with the test results to inform treatment plans. We describe the collaborative development of a treatment guide to address this need.

10. The Remote Administration of Sound Production Treatment for Acquired Apraxia of Speech
Shannon Mauszycki, Lydia Kallhoff, & Brooke Rose

University of Utah, Salt Lake City, UT, USA

This investigation examined the effects of Sound Production Treatment (SPT) administered via telehealth. SPT is an established articulatory-kinematic approach for individuals with acquired apraxia of speech. A multiple baseline design across behaviors and participants was used with 2 participants with chronic apraxia of speech and aphasia. Accuracy of target speech sounds in treated and untreated phrases in probe sessions served as the dependent variable. Preliminary data indicates that SPT via telehealth resulted in increased articulatory accuracy for treated and untreated items.

11. Current clinical practice of speech-language pathologists in the treatment and evaluation of post-stroke alexia

Rachael Harrington, Aimee Dietz, Jacqueline Laures-Gore, & Stephanie Gilbert

Georgia State University, Atlanta, GA, USA

Reading is requisite for health decision-making and quality of life, but many are robbed of this skill after stroke. As such, we distributed a survey investigating clinical practice and alexia; 337 SLPs participated and 206 met inclusion criteria. 78% reported they treat alexia but only 17% were very or extremely confident in alexia treatment. The most implemented treatments were strategy- (80%) and cognitive-based (68%) treatment; the least implemented were phonological treatments (32%), book clubs (17%), or oral reading techniques (25-43%). These results suggest that current practice is inconsistent with available evidence and that more support and education for alexia treatment is needed.

12. Transcranial alternating current stimulation as an adjuvant for nonfluent aphasia therapy: A proof-of-concept study

Lynsey Keator, Lisa Johnson, & Julius Fridriksson

University of South Carolina, Columbia, SC, USA

Identifying effective and efficient rehabilitation tools is crucial to improve language for persons living with chronic aphasia. In a preliminary and proof-of-concept study, high definition transcranial alternating current stimulation is applied as an adjuvant to a behavioral speech entrainment paradigm for nonfluent aphasia. Methods rely on the basic idea that non-fluent speech production in aphasia is caused by the functional disconnection of anterior and posterior speech areas. By applying an alternating current at a frequency that matches neural synchrony of these same areas in healthy controls, it will be possible enhance speech output in persons with aphasia.

13. Recovery from aphasia in the first year after stroke

Stephen M. Wilson, Jillian L. Entrup, Sarah Schneck, Caitlin Onuscheck, Deborah F. Levy, Maysaa Rahman, Emma Willey, Marianne Casilio, Melodie Yen, Alexandra Brito, Wayneho Kam, L. Taylor Davis, Michael de Riesthal, Howard Kirshner

Vanderbilt University Medical Center, Nashville, TN, USA

The aim of this study was to comprehensively describe patterns of recovery from aphasia in the first year after stroke. Individuals with acute stroke were recruited at the bedside, and their speech/language function was evaluated acutely and at 1 month, 3 months, and 12 months. Patients were divided into 13 groups based on lesion location and extent. We describe the range of initial presentations and subsequent trajectories observed in each group, across multiple speech/language domains. Our findings will enable clinicians to estimate the likely course of recovery for individual patients, as well as the uncertainty of these predictions, based on acutely observable neurological factors.

14. Application of the Rehabilitation Treatment Specification System to Conversation Treatment for Aphasia

Gayle DeDe¹ & Elizabeth Hoover²

¹Temple University, Philadelphia, PA, USA, ²Boston University, Boston, MA, USA

The Rehabilitation Treatment Specification System (RTSS) provides a framework to explicate the critical ingredients, mechanisms of actions, and outcomes of treatment. This poster will briefly

describe the RTSS and then apply it to one implementation of conversation treatment. The presentation will include consideration of how treatment ingredients map onto treatment targets and discussion about what ingredients are included. Our goal is to advance testable hypotheses about active ingredients of conversation treatment.

15. Primary progressive aphasia and lexical discourse diversity

Katarina Haley¹, Adam Jacks¹, Jessica Richardson²

¹The University of North Carolina at Chapel Hill, Chapel Hill, NC, USA, ²University of New Mexico, Albuquerque, NM, USA

We examined to what extent automated lexical diversity analyses help diagnose primary progressive aphasia in brief discourse samples. Participants were either neurotypical or had a clinical diagnosis of nonfluent/agrammatic or logopenic primary progressive aphasia. They were audio-recorded retelling the Cinderella story. The discourse samples were transcribed orthographically and analyzed with two automated procedures (the moving average type token ratio, MATTR, and the word information measure, WIM). Results demonstrated diagnostic utility for identification as well as variant classification. We discuss strategies for enhancing diagnostic sensitivity and specificity.

Poster Session 4

Saturday, May 21, 2022, 11:00 AM-12:30 PM

16. Handwritten and typed discourse in people with aphasia: Reference data for a sequential picture description and comparison of performance across modality.

Jessica Obermeyer¹, LisaEdmonds², & Jodi Morgan³

¹University of North Carolina at Greensboro, Greensboro, NC, USA, ²Teachers College, Columbia University, New York, NY, USA, ³Brooks Rehabilitation Aphasia Center, Jacksonville, FL, USA
Typing is increasingly important for functional communication yet there is a lack of reference data with which to compare the performance of people with aphasia and limited information on how writing modality can impact discourse output. The current project provides a reference sample for handwritten and typed discourse using the Nicholas and Brookshire argument picture in eight people with aphasia. At the group level there was no difference in performance based on modality, but for three participants modality effects were present. These data and findings are relevant to clinicians and researchers interested in evaluating and treating handwritten and typed discourse.

17. Phonologically plausible and implausible errors in alexia and agraphia in acute ischemic stroke

Lisa Bunker, IsidoraDiaz-Carr, & Argye Hillis

Johns Hopkins University, Baltimore, MD, USA

Repetition, reading and spelling error profiles have been used to inform neurolinguistics/cognitive models of language, but often using data from individuals in subacute or chronic stages of recovery after some reorganization and learning has occurred. This study examines proportions of phonologically plausible and implausible errors on reading and spelling tasks and lesion data for a large cohort of participants (n = 92) following left-hemisphere acute ischemic stroke. Overall, phonologically plausible errors were relatively infrequent following acute stroke. Results could have important implications for neurocomputational models of written language processing.

18. Preliminary feasibility and fidelity of ECoLoGiC Treatment, a new conversation-based aphasia intervention

Marion Leaman¹ & Lisa Edmonds²

University of Kansas Medical Center, Kansas City, KS, USA, ²Teachers College, Columbia University, New York, NY, USA

This preliminary Phase 1 study investigated the feasibility of a new conversation-level intervention, ECoLoGiC-Tx (Expanding Communication and Language Generated in Conversation). P1 had moderate Broca's aphasia; P2 had severe Broca's aphasia and severe cognitive deficits. Protocol fidelity was 97%, suggesting ECoLoGiC-Tx's capacity to maintain structure critical for reproducibility, while addressing diverse goals in conversation. Trends suggested a diminishing need for cueing with simultaneous increasing goal performance. A small effect size was demonstrated for 1/2 goals. Findings suggest that people with significant language/cognitive deficits can participate in conversation intervention.

19. Sentence production in a discourse context in latent aphasia: A real-time study

Christos Salis¹ & Gayle DeDe²

¹Newcastle University, Newcastle upon Tyne, England, ²Temple University, Philadelphia, PA, USA

This study aims to improve our understanding as to which factors determine on-line production of utterances in latent and anomic aphasia in a discourse context. Participants comprised people with latent and anomic aphasia, plus neurotypical controls (10 per group). Duration of pauses in Cinderella narratives were analyzed with Praat according to, location (between or within utterances), syntactic complexity, and length (number of words). The two clinical groups (latent, anomic) differed from controls in pause durations, both between and within utterances. Complexity did not exert an effect at all. Both clinical groups paused more before long in comparison to short utterances.

20. Physiological arousal, behavioral engagement, emotion, and word retrieval in aphasia: Effects and relationships

Tyson Harmon¹, Angela Johnson², Vivian Ward¹, & Shawn Nissen¹

¹Brigham Young University, Provo, UT, USA, ²Mount Nittany Medical Center, State College, PA, USA

This study investigated the relationship between physiological arousal, behavioral engagement, emotion, and naming performance in people with aphasia (PWA). Participants completed a confrontational naming task across three conditions (naming neutral, negative, and positive stimuli). Physiological arousal measurements (taken through ECG recordings) and behavioral engagement (rated through video footage) were compared to perceived arousal, naming accuracy, and response time. Compared with a control group, PWA demonstrated lower physiological arousal across two of three measures. Correlations among measures are also explored and reported.

21. Picture description and functional communication rating correlates in aphasia due to neurodegenerative etiologies

Donna Tippett¹, Sam Suh¹, Rhonda Friedman², & Aaron Meyer²

¹Johns Hopkins University, Baltimore, MD, USA, ²Georgetown University, Washington, DC, USA

We compared total content units on Cookie Theft Picture Descriptions and scores on the Boston Naming Test (BNT) from 23 individuals with aphasia due to neurodegenerative etiologies (mean age = 68.52 years \pm 8.07; 17 female) with caregivers' ratings on the Communication Problems Rating Scale (CPS) and the Georgetown University Center for Aphasia Rehabilitation and Research (CARR) Communication Scale. Total content units were moderately correlated with the CARR Scale ($r_{s[43]} = 0.466$, $p = 0.001$), but were not correlated with the CPS. BNT scores were not correlated with either rating scale. Content of the functional rating scales (as well as other variables) was judged to influence these results.

22. The effect of prosodic timing structure on speech production in people with aphasia: A pilot investigation

Ayelet Kershenbaum¹, Stefanie Shattuck-Hufnagle², & Lauryn Zipse³

¹Harvard University, Cambridge, MA, USA, ²Massachusetts Institute of Technology, Cambridge, MA, USA, ³MGH Institute of Health Professions, Boston, MA, USA

Unison production is common treatment technique in which the clinician and person with aphasia (PWA) produce phrases aloud together. It can be implemented using a

"conversational," syntax-influenced prosodic timing structure or a "metrical," beat-based timing structure, but no study has directly compared the two approaches. 13 PWA and 14 controls heard and repeated conversational and metrical sentences in unison with audio recordings. PWA produced a greater number of accurate syllables and were more synchronized with recorded stimuli in the metrical condition. This may suggest that rhythmic regularity aids PWA in predicting and subsequently producing spoken output during unison production.

23. Using speech function analysis to examine how speakers with chronic aphasia initiate conversation following communication-based group treatment

Christa Akers¹, Mary Boyle², Elizabeth Armstrong³, Roberta Elman⁴

¹Thomas Jefferson University, Philadelphia, PA, USA, ²Montclair State University, Montclair, NJ, USA, ³Edith Cowan University, Perth, Australia, ⁴Aphasia Center of California, Oakland, CA, USA

Speech function network is a system for analyzing casual conversation based on units of discourse called moves. Opening moves serve to initiate talk around a proposition and their use may change as a result of treatment. By analyzing pre-and post-treatment conversational discourse samples for moves within the speech function network, this study examined if communication-based treatment changed the way in which persons with chronic aphasia used opening moves. Though we found a positive post-intervention trend in opening move use, changes were not statistically significant. Some participants demonstrated a post-treatment change in the variety of opening move types utilized during conversation.

24. Item response theory modeling of the Verb Naming Test

Gerasimos Fergadiotis¹, Stacey Steel¹, Hannele Nicholson², Alexander Swiderski³, Michael Walsh Dickey³, & William Hula⁴

¹Portland State University, Portland, OR, USA, ²Minneapolis Veterans Affairs Healthcare System, Minneapolis, MN, USA, ³University of Pittsburgh, Pittsburgh, PA, USA, ⁴Veterans Affairs Pittsburgh Healthcare System, Pittsburgh, PA, USA

Verbs play a central role in sentence production which underlines the importance of rigorous measurement of action naming for both theory and clinical practice. Item response theory is a robust psychometric framework that can be successfully applied to the development of tools for the assessment of verbs. To this end, we demonstrate that the Verb Naming Test can be adequately fitted to an appropriate IRT model. Further, we share results that provide a first step towards an explanatory model that gives meaning to the construct of action naming, including developing a list of construct-relevant item features that could be used for the development of future test items.

25. Measuring and interpreting word syllable duration after stroke-induced aphasia and AOS
Katarina Haley¹, Adam Jacks¹, Soomin Kim¹, Marcia Rodriguez¹, & Lorelei Johnson²

¹The University of North Carolina at Chapel Hill, Chapel Hill, NC, USA, ²Atrium Health, Charlotte, NC, USA

The primary purpose of this study was to develop normative values for word syllable duration (WSD) in single words produced by neurotypical adult speakers. In addition, we evaluated feasibility for an automated analysis process that included a novel strategy for identifying syllables. Results indicated that a cutoff value of 314 ms is reasonable for manually generated measures, but that standard or percentile scores may be more practical. The automated analyses corresponded well with the manual measures, but need to be further refined before accepted in clinical practice.

26. Repetition priming treatment for anomia: effects of a multiple-exemplar protocol

JoAnn Silkes, Serena Mueller, Stephanie Wan

San Diego State University, San Diego, CA, USA

Studies of repetition priming treatment for anomia have used a single exemplar picture in the training protocol, which may limit stimulus generalization. This study presents data from one participant whose treatment used a single picture for each training target and three whose treatment used multiple pictures. Data confirm that the presence of a prime word yields greater acquisition effects than mere repeated exposure to pictures and suggest that training with a single exemplar may lead to better acquisition and maintenance than multiple exemplars. This raises questions about the mechanisms of change engaged and the potential importance of using personally relevant treatment stimuli.

27. Training interpreters in aphasia assessments: a pilot study

Edie Babbitt, Yina M. Quique, Matthew Ginsberg-Jaeckle, Sylvia Escárcega, Elissa Larkin, & Leora Cherney

Shirley Ryan AbilityLab, Chicago, IL, USA

Untrained interpreters may introduce errors in aphasia assessments for patients with limited English proficiency. Interpreters are trained to maintain professional boundaries or remain “invisible”. To provide accurate diagnoses, SLPs must recognize what type of errors their patients are producing. Four of eight interpreters were randomized to receive training in the goals and methods of aphasia assessments. All interpreters conducted two aphasia assessments. The results demonstrated that trained interpreters significantly reduced the number of errors during the post-training assessments. Interpreter training may be an important step toward improving interpreter-mediated aphasia assessment.

Participants may register for any two 45-minute roundtable sessions.

Roundtable Sessions: Friday, May 20, 2022, 7:00-8:30 PM

A. Conceptualizing Discourse-Level Aphasia Intervention Through Process and Trained-Item Frameworks

Jessica Obermeyer¹, Marion Leaman²

1. University of North Carolina at Greensboro, Greensboro, NC, USA

2. University of Kansas Medical Center, Kansas City, KS, USA

Historically, aphasia treatments have often taken a trained-item approach in which specific items are trained during intervention. Recently, several interventions have taken an alternative approach, especially in relation to discourse-level treatment. These approaches can be described as process-based, because they target the cognitive or linguistic process being addressed instead of specific linguistic items. The purpose of this roundtable will be to introduce the framework of process-based interventions, discuss examples from the aphasia discourse literature, and facilitate dynamic discussion on potential clinical applications of these constructs, such as informing treatment decision-making.

B. Emotion-related communication after stroke: State of affairs and paths forward

Alexandra Zezinka Durfee¹, Deena Schwen Blackett², Rebecca Pompon³

1. Johns Hopkins University, Baltimore, MD, USA

2. Medical University of South Carolina, Charleston, SC, USA

3. University of Delaware, Newark, DE, USA

Emotional communication can be impaired following stroke, and early evidence suggests emotion and linguistic processing have a complex relationship. This roundtable examines the evidence surrounding emotion-related communication after left- and right-hemisphere stroke. Discussion will consider reported impairments in these two stroke populations and on attendees' personal experiences in emotion-related communication impairments and literature gaps including how emotion, communication, and psychosocial factors interact to impact performance. Attendee participation will help to facilitate a conversation on future research avenues for the field to pursue to ultimately improve clinical care.

C. Inclusivity is More than a Seat at the Table

Rachel Johnson

Old Dominion University, Norfolk, VA, USA

Motivation to participate in therapy is a predictor used to determine rehabilitation potential following a brain injury based on patient demeanor and therapy compliance. While there is overlap between the theoretical framework for motivation and person-centered approaches to intervention, there is limited research applying these concepts in rehabilitation. The aims for this presentation are to 1) describe and compare patient-reported motivation to participate in rehabilitation with a theoretical motivation framework specifying barriers to participation and support, 2) discuss outcomes and options for closing the gap between what we know and the reality of clinical practice.

D. Assessment Fidelity in Clinical Research: Considerations for Administration and Scoring of the WAB-R

Mary Aitchison, Lynsey Keator, Allison Croxton, Leigh Ann Spell, Julius Fridriksson

University of South Carolina, Columbia, SC, USA

The Western Aphasia Battery-Revised (WAB-R) is a widely used test to assess aphasia type and severity. In recent years, the WAB-R has received the greatest consensus among members of the Research Outcome Measurement in Aphasia group as a primary outcome measure for

language impairment. Despite this, there is subjectivity in scoring, particularly for the Spontaneous Speech subtests, which is highly influential in the aggregate Aphasia Quotient score. To delineate 'best practice' and improve assessment fidelity, speech-language pathologists scored the performance of participants with aphasia on the WAB-R. Discrepancies in scoring were discussed and practices were implemented for fidelity.

E. Impact of Aphasia on Friendship: Stakeholder Perspectives and Next Steps

Elizabeth Madden¹, Lauren Bislick², Sarah Wallace³, Rachel Goff-Albritton¹, Michelle Therrien¹

1. Florida State University, Tallahassee, FL, USA

2. University of Central Florida, Orlando, FL, USA

3. University of Pittsburgh, Pittsburgh, PA, USA

Aphasia alters relationships; however, the specific topic of friendship is understudied. Friendship is critical for one's well-being and quality of life, making this research important and meaningful to the aphasia community. It is known that friendships often suffer post-stroke, yet there are no assessment or intervention approaches to address friendship maintenance or development. We present work from three studies to highlight perspectives of key stakeholders, individuals with aphasia, care partners, and speech-language pathologists, regarding effects of aphasia on friendship. Implications for research and clinical practice will be discussed and needs prioritized as a group.

F. Interprofessional Training to Support Psychological Well-being in Persons with Aphasia

Michelle Gravier¹, Chaleece Sandberg²

1. California State University East Bay, Hayward, CA, USA

2. Penn State University, State College, PA, USA

Persons with aphasia (PWA) are at high risk of experiencing depression although fewer than 1% receive any direct psychological treatment. Factors contributing to this disparity include mental health professionals' lack of training in communicating with PWA, and speech-language pathologists lack of training in using counseling approaches with PWA. Interprofessional clinical training for graduate students in both fields provides an opportunity to increase knowledge, confidence, and collaboration skills, although, to our knowledge, it is rarely implemented. The aim of this roundtable is to discuss preliminary programmatic efforts, and to identify relevant barriers and opportunities.

G. Leveraging Implementation Science to Advance the Reach of Aphasia Best Practices

Megan Schliep¹, Robert Cavanaugh², Carla Tierney-Hendricks¹, Sarah Schneck³, Natalie Douglas⁴

1. MGH Institute of Health Professions, Boston, MA, USA

2. University of Pittsburgh, Pittsburgh, PA, USA

3. Vanderbilt University Medical Center, Nashville, TN, USA

4. Central Michigan University, Mount Pleasant, MI, USA

Implementation Science (IS) is the study of methods to promote research into clinical practice by narrowing the research to practice gap. Implementation initiatives are increasingly being incorporated in aphasiology; however, the majority of clinical research in the field continues to favor efficacy and effectiveness studies. Advancing researchers' knowledge of foundational IS principles, including the multiple frameworks, strategies, and outcomes available, has the potential to increase the uptake of evidence-based practices and meet real-world practice needs. This roundtable aims to advance dialogue surrounding research-practice gaps and support aphasia researchers in incorporating IS.

H. Research-Practice Partnerships (RPPs): An implementation science pathway to advance evidence-based practices in aphasia care

Carla Tierney-Hendricks¹, Megan Schliep¹, Natalie Douglas²

1. MGH Institute of Health Professions, Boston, MA, USA

2. Central Michigan University, Mount Pleasant, MI, USA

Research-Practice Partnerships (RPPs), defined as long-term, mutualistic collaborations between researchers, practitioners, and/or community stakeholders, are foundational to implementation research as they provide a pathway aligning research and practice. Research produced through RPPs addresses clinical needs and is conducted within a real-world context, yielding evidence with greater relevance to practice and policy. Despite its benefits, RPPs are underutilized in aphasia research. Leveraging existing RPP frameworks to negotiate and assess partnerships has the potential to facilitate successful and sustainable implementation research and equitable care in aphasia rehabilitation.

I. Respondent Burden and Readability of Patient-Reported Outcome Measures for People with Aphasia

Amy Engelhoven¹, Lauren Bislick¹, Sara Gray², Rebecca Pompon³

1. University of Central Florida, Orlando, FL, USA

2. Orlando Regional Medical Center, Orlando, FL, USA

3. University of Delaware, Newark, DE, USA

Purpose: The aims of this study were to determine how PROMs for PWA compare in level of respondent burden and on readability levels.

Method: Irwin's 2012 review of PROMs for PWA was used for inclusion criteria and an additional PROMs developed after 2012 were identified. This method resulted in 14 PROMs, which were rated on proposed respondent burden criteria and also underwent a readability analysis.

Results: Four PROMs achieved an 8 or higher with the proposed respondent burden measurement. Four PROMs met the nationally recommended reading level of sixth grade.

Conclusions: Results indicated that the majority of PROMs available for PWA contribute to respondent burden.

J. What is autonomy and how do we support it?

Michael Biel¹, Katarina Haley²

1. California State University Northridge, Northridge, CA, USA

2. University of North Carolina, Chapel Hill, NC, USA

Autonomy is an important concept in both bioethics and psychology and has been described as a key factor in successful client-centered care. The definition and use of this concept in the rehabilitation literature, however, has been inconsistent and often associated with independence. In this round table, we will discuss the definition of autonomy, its role in aphasia rehabilitation, and how to promote it.

Virtual Poster Session 1

Friday, May 20, 2022, 9:30 - 11:00 AM

1. An Analysis of Virtual Therapy Efficacy for Anomia Treatment (NIDCD RSCA Fellow poster)
Barry Baker, Victoria Diedrichs, Tema Cohen, Jessica Timog, & Stacy Harnish

The Ohio State University, Columbus, OH, USA

COVID-19 accelerated the use of online video-conferencing platforms. With telemedicine gaining further traction, this study sought to examine the efficacy of a virtually-delivered aphasia therapy. In our retrospective analysis, 12 participants received in-person cued picture-naming therapy for anomia and seven participants received the same treatment virtually. The average of participants' treatment effects revealed a large and a very large effect size, respectively. We consider possible explanations for the difference in outcomes, including features of the virtual environment and the potential for participants to experience reduced pressure to perform.

2. Morpho-syntactic processing in Primary Progressive Aphasia and stroke-induced aphasia: comparison of ERP response patterns
Brianne Chiappetta, Elena Barbieri, Haiyan Wang, Ken Li, Marek-Marsel Mesulam, & Cynthia Thompson

Northwestern University, Evanston, IL, USA

Neurophysiological responses to morpho-syntactic violations were investigated in individuals with agrammatism resulting from neurodegenerative (PPA-G) or vascular (StrAph) disease. Compared to a group of controls, the StrAph group showed a delayed P600 with an anterior shift, while the PPA-G group showed no response to morpho-syntactic violations. These results indicate that the StrAph group showed delayed re-analysis processes elicited by the violations. The anterior shift of the P600 in the StrAph, but not PPA-G, group may reflect an increased reliance on domain-general resources. These findings suggest recruitment of domain-general cognitive resources may be hindered in people with PPA-G.

3. Comparison of spoken discourse performance of Bengali speakers with Alzheimer's Disease using two elicitation tasks
Manaswita Dutta¹, Niladri Sekhar Dash², Aparna Dutt³, Ranita Nandi³, Samrah Ahmad⁴, & Arpita Bose⁴

¹Rush University, Chicago, IL, USA, ²Indian Statistical Institute, Kolkata, India, ³Duttanagar Mental Health Centre, Kolkata, India, ⁴University of Reading, Reading, UK

This research investigated spoken discourse productions of Bengali individuals with AD and matched healthy controls. Language samples were elicited using story retell and the picture description tasks. Comprehensive linguistic analyses across domains of productivity, lexical, semantic, and morphosyntax revealed that the story retell task generated samples which were richer and sensitive in detecting linguistic differences between both groups. Our findings provide compelling evidence for the use multiple tasks whilst researching underexplored languages to enable appropriate, fine-grained characterization of their deficits and development of language specific diagnostic markers in dementia.

4. Are aphasia treatment choices affected by available treatment time?

Jackie Hinckley & Leticia Sanchez

Nova Southeastern University, Fort Lauderdale, FL, USA

The potential role of anticipated amount of treatment time in aphasia treatment selection was investigated in a vignette-based online survey. Respondents identified the treatment they would most likely use based on anticipated treatment time (10 or 60 hours). 26 certified speech-language pathologists with at least 5 years of outpatient experience with aphasia completed the entire survey. Respondents changed their treatment 76-84% of the time when anticipated treatment time changed. The most commonly given reason for treatment selection was anticipated functional impact. Implications for packaging, disseminating, and training clinicians on evidence-based practices are discussed.

5. Preliminary efficacy and acceptability of a psychosocial intervention: Resilience Skills for Aphasia

Brittany Stroker & Rebecca Hunting Pompon

University of Delaware, Newark, DE, USA

The Resilience Skills for Aphasia (RSA) intervention was developed to foster stress management, coping skills, and related personal growth in individuals with aphasia (IWA). The RSA pilot was presented to two groups of participants. Session I participants provided qualitative data on program acceptability, which was incorporated into the Session II program. Session II participants provided program acceptability data and pre-, immediate post-, and one-month post-intervention data on stress, resilience, and depression. Session II participants reported statistically significant improvements in stress at immediate post-intervention phase. Findings will help further develop the RSA intervention.

6. Between-session intraindividual variability in phonological, lexical, and semantic processing in post-stroke aphasia: Preliminary data

Lilla Zakariás¹ & Ágnes Lukács²

¹Eötvös Loránd University, Budapest, Hungary, ²Budapest University of Technology and Economics, Budapest, Hungary

In this study we systematically investigated intraindividual variability (IIV) in accuracy and reaction times in language performance across days in post-stroke aphasia, and its associations with mean accuracy and aphasia severity. Thirteen people with aphasia due to stroke were assessed on four consecutive days using the same set of 6 auditory experiments on each day, testing phonological, lexical, and semantic processing. Our preliminary results suggest that (1) greater IIV in accuracy is associated with more severe aphasia and lower mean performance in post-stroke aphasia, and (2) greater IIV in one task tends to be associated with greater IIV in other tasks.

7. Telehealth assessments and interventions for individuals with post-stroke aphasia

Selina Teti, Laura Murray, JB Orange, & Allyson Page

University of Western Ontario, London, Ontario, Canada

The purpose of this scoping review was to address what is known about the delivery of assessments and interventions using telehealth for individuals with post-stroke aphasia. A scoping review of the literature published in English since January 2013 was conducted using MEDLINE, EMBASE, PsychInfo, CINAHL, and Scopus to identify relevant studies. There were 24

eligible studies included. The studies illustrated both effectiveness and feasibility regarding telehealth. Overall, the scoping review offers continued support for the use of telehealth as an alternate mode of delivery. Future research is needed to investigate the range of administration protocols used via telehealth.

Virtual Poster Session 2

Friday, May 20, 2022, 7:00-8:30 PM

1. An ERP Investigation of Working Memory Processing during Real-Time Long-Distance Dependency Resolution in Agrammatic Aphasia

Chien-Ju Hsu, Elena Barbieri, & Cynthia Thompson

Northwestern University, Evanston, IL, USA

This study manipulated linguistic complexity and working memory (WM) load to investigate the relation between WM and comprehension of sentences with long-distance dependencies in aphasia. Participants with and without agrammatic aphasia performed a sentence reading task with short- vs. long-distance conditions with and without grammatical dependencies. Sustained Anterior Negativity (SAN), an ERP component, was used to index online WM storage. Results revealed that whereas the agrammatic group showed SAN in both short- and long-distance dependency conditions, the effects in the long-dependency condition were weaker, suggesting that online WM processing in agrammatic aphasia is more vulnerable.

2. Cognitive and behavioural digital health interventions for people with traumatic brain injury and their caregivers: a systematic review

Petra Avramovic¹, Leanne Togher¹, Rachael Rietdijk¹, Emma Power², Belinda Kenny³, Michelle Attard⁴

¹The University of Sydney, Sydney, Australia, ²University of Technology Sydney, Ultimo, Australia, ³Western Sydney University, Greater Western Sydney, NSW, Australia, ⁴La Trobe University, Melbourne, Australia

Traumatic brain injury (TBI) leads to cognitive and linguistic deficits that impact on quality of life. Digital health offers timely access to specialised services. This systematic review evaluated and synthesised digital health interventions in TBI communication, social, cognitive or psychological skills rehabilitation. Across 40 included studies, there were 3666 participants with TBI and 213 caregivers. There has been an uptake in videoconference and web-based interventions in the last five years; primarily synchronous interventions. Caregiver-only interventions were limited to only 2 studies. Digital health interventions for people with TBI and caregivers reported positive outcomes.

3. The Impact of Background Noise on the Spoken Language of People with Mild to Moderate Aphasia: A Preliminary Investigation

Brenna Scadden Nelson¹, Tyson Harmon², & Christopher Dromey³

¹Jordan Child Development Center, Riverton, UT, USA, ²Brigham Young University, Provo, UT, USA

This study examined how background noise conditions affected the spoken language of people with mild to moderate aphasia (PWA) when performing a story retell task. Participants included 11 adults with aphasia and 11 controls. Participants retold stories in a silent baseline and five background noise conditions. Dependent measures of speech fluency and language production were compared between groups and across conditions. Background noise resulted in significantly lower communication efficiency for the aphasia group. PWA also experienced background noise costs in relation to speech fluency and lexical production during two of the informational background noise conditions.

4. Transcranial Direct Current Stimulation of Inferior Frontal Gyrus Plus Verb Therapy Improves Naming in Primary Progressive Aphasia (PPA)

Shannon Sheppard¹, Emily Goldberg², Rajani Sebastian³, Erin Meier⁴, Argye Hillis³

Chapman University, Orange, CA, USA, University of Pittsburgh, Pittsburgh, PA, USA, Johns Hopkins University, Baltimore, MD, USA, Northeastern University, Boston, MA, USA

Few evidence-based language treatments exist for Primary Progressive Aphasia (PPA). Verb network strengthening treatment (VNeST) can improve anomia in post-stroke aphasia, but has not been studied in PPA. Research shows pairing language therapy with transcranial direct current stimulation (tDCS) can boost treatment effects. This study used a double-blind, within-subjects, sham-controlled crossover design to study the effect of VNeST plus anodal tDCS (A-tDCS) applied to left inferior frontal gyrus versus VNeST plus sham stimulation in two individuals with nonfluent PPA and one with logopenic PPA. A-tDCS improved generalization to untrained words. VNeST plus A-tDCS can improve naming in PPA.

5. Impact of a Group Storytelling Program on Conversational Acts and Language Outcomes for Persons with Aphasia

Ranjini Mohan¹, Bijoyaa Mohapatra²

¹Texas State University, San Marcos, TX, USA, ²Louisiana State University, Baton Rouge, LA, USA

A group storytelling program was administered remotely over fourteen sessions to six persons with aphasia (PWA). Participants collaboratively created a story from a stimulus picture. Conversational acts produced during story creation and generalization to language was measured. The participants produced a greater proportion of assertive utterances across the sessions and became more confident in their communication post-intervention. Aphasia severity reduced, and narrative samples revealed increased informativeness and reduced linguistic errors. Group interventions that emphasize creativity over linguistic accuracy can improve conversational and linguistic abilities among PWA.

6. Determining the Potent Effect of CILT: Evidence from Meta-Analyses

Jane Roitsch & Anastasia Raymer

Old Dominion University, Norfolk, VA, USA

Constraint induced language therapy (CILT) is an aphasia treatment approach that facilitates language recovery in individuals with stroke-induced aphasia. We searched the literature for SRs conducted to summarize results of research examining Constraint-Induced Language Therapy (CILT) for post-stroke aphasia. We rated each SR for methodologic quality in duplicate using the AMSTAR2 and extracted findings across the six reviews. Five of the six SRs were conducted with appropriate rigor. Conclusions varied across SRs as descriptive summaries reported positive effects of CILT studies, yet meta-analyses showed CILT effects often did not surpass effects of comparison treatments.

7. Developing a web-based stimulus selection hub for anomia treatment using R and Shiny

Mengyang Qiu & Nichol Castro

University at Buffalo, Buffalo, NY, USA

Many factors influence stimuli selection for anomia treatment, including the psycholinguistic properties of words and the similarity between treatment and generalization words. Collecting and managing multiple databases to ensure coverage of a number of commonly used psycholinguistic variables can be burdensome. We developed a web-based tool that presents

the psycholinguistic properties of target words, as well as identifies and presents the properties of potential generalization words. In addition, the tool provides visualization of target words for an intuitive approach to seeing similarity between target and generalization words. This tool is available for clinician and research use.