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ABOUT THE JOURNAL

The *Journal of the National Black Association for Speech-Language and Hearing (JNBASLH)* is a peer-reviewed, refereed journal that welcomes submissions concerning communication and communication disorders from practitioners, researchers or scholars that comprise diverse racial and ethnic backgrounds, as well as academic orientations.

JNBASLH editorial board welcomes submissions from professionals or scholars interested in communication breakdown and/or communication disorders in the context of the social, cultural and linguistic diversity within and among countries around the world.

JNBASLH is especially focused on those populations where diagnostic and intervention services are limited and/or are often provided services which are not culturally appropriate. It is expected that scholars in those areas could include, but not limited to, speech-language pathology, audiology, psychology, linguistics and sociology. Articles can cover any aspect of child or adult language communication and swallowing, including prevention, screening, assessment, intervention and environmental modifications. Special issues of *JNBASLH* concerning a specific topic may also be suggested by an author or through the initiation of the editors.

Aims & Scope

Topics accepted for publication in *JNBASLH* could include, but is not limited to, the following:

- Communication breakdowns among persons due to culture, age, race, background, education, or social status
- Use of the World Health Organization's International Classification of Functioning, Disability, and Health (ICF) framework to describe communication use and disorders among the world's populations.
- Communication disorders in underserved or marginalized populations around the world
- Service delivery frameworks for countries' minority populations, including those who are minorities for a variety of reasons including race, religion, or primary language spoken.
- Dialectical differences and their effects on communication among populations
- Evidence base practice research with culturally and linguistic diverse populations
- Provision of communication services in low income/resource countries
- Provision of communication services in middle income/resource countries
- Provision of communication services to immigrant and/or refugee populations
- Effects of poverty on communication development and the provision of services
- Education/training issues in serving diverse populations
- Ethical issues in serving diverse populations
- Role of religion in views of communication disability and its effect on service delivery

Submissions may include:

- Research papers using quantitative or qualitative methodology
- Description of clinical programs
- Theoretical discussion papers
- Scientifically conducted program evaluations demonstrating
- Clinical forums
- Works using disability frameworks or model's effectiveness of clinical protocols
- Critical clinical literature reviews
- Case studies
- Tutorials
- Letters to the editor

Submission of Manuscripts

All manuscripts should be accompanied by a cover letter (e-mail) in which the corresponding author:

- Requests that the manuscript be considered for publication;
- Affirms that the manuscript has not been published previously, including in an electronic form;
- Affirms that the manuscript is not currently submitted elsewhere;
- Affirms that all applicable research adheres to the basic ethical considerations for the protection of human or animal participants in research;
- Notes the presence or absence of a dual commitment;
- Affirms that permission has been obtained to include any copyrighted material in the paper; and
- Supplies his or her business address, phone and fax numbers, and e-mail address.

All manuscripts must be submitted electronically and should follow the style and preparation presented in the *Publication Manual of the American Psychological Association* (Sixth Edition, 2010; see Journal for exceptions to APA style). Particular attention should be paid to the citing of references, both in the text and on the reference page. Manuscript submissions and inquiries should be addressed to: nbaslh@nbaslh.org.

Preparation of Manuscripts

Manuscripts must be written in English. Authors are referred to recent copies of the journal and are encouraged to copy the published format of papers therein.

Text should be supplied in a format compatible with Microsoft Word for Windows (PC). All manuscripts must be typed in 12pt font and in double-space with margins of at least 1-inch. Charts and tables are considered textual and should also be supplied in a format compatible with Word. All figures, including illustrations, diagrams, photographs, should be supplied in .jpg format.

Authors must write clearly and concisely, stating their objectives clearly, defining their terms, and substantiating their positions with well-reasoned, supporting evidence. In addition, they are encouraged to review articles in the area they are addressing which have been previously published in the journal and, where they feel appropriate, to reference them. This will enhance context, coherence, and continuity for readers.

All submissions are considered by the editorial board. A manuscript will be rejected if it does not fall within the scope of the journal or does not meet the submission requirements.

Manuscripts deemed acceptable will be sent to a minimum of two reviewers. This journal uses double-blind review, which means that both the reviewer and author identities are concealed from each other throughout the review process. The Editor and Associate Editor will consider the reviews and make a decision regarding a manuscript. Decisions are made on a case-by-case basis, typically within 6 weeks from submission, and the Editor's decision is final.

Disclaimer & Ethics Statement

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EDITOR'S NOTE

It is my privilege to publish Volume 16, Issue 1 of the *Journal of the National Black Association for Speech Language and Hearing (JNBASLH)*. Members and friends of NBASLH submitted a collection of works related to a range of issues related to the study of communication disorders in the form of Commentaries and Original Research. I sincerely thank all the contributors to this interesting issue of *JNBASLH* and anticipate that you will enjoy reading these interesting works.

Charles Ellis, Jr. PhD CCC-SLP
Editor
JNBASLH

Please Note: An inquiry has been received of a potential erratum in the December 2020 issue of the Journal. The matter inquiry is currently under review by the JNBASLH editorial board.



LOOKING DEEPER IN THE ASSESSMENT OF CHILDREN WITH SICKLE CELL DISEASE: A NEED TO CONSIDER LANGUAGE DEVELOPMENT AND LANGUAGE DISRUPTION ISSUES

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— ABSTRACT —

Sickle cell disease (SCD) is a group of inherited red blood cell disorders that is caused by an abnormal type of hemoglobin (Hb, S) which causes red blood cells to become sickle-shaped and rigid. The burden of SCD results in chronic fatigue, neurological complications, frequent hospitalizations, pain, and adverse pharmaceutical side effects from medications used to manage SCD and illnesses associated with SCD. Individuals with SCD are at an increased of mortality and morbidity as a result of neurological infarcts, infections, acute chest syndrome, and vaso-occlusive pain crisis. Many children with SCD frequently experience lower school achievement and attainment relative to students without SCD. There are significant gaps in the literature regarding the strong association of SCD and speech and language development in children. We propose there is an inherent need for early therapeutic intervention for cognitive and language development and disruption issues along with academic support for the many children with SCD who experience frequent hospitalizations and subsequently school absences thus impacting their academic performance.

Keywords: Sickle cell disease; child language; cerebrovascular accidents, language development; cognitive-linguistic function

Introduction

Sickle cell disease (SCD) is a group of inherited red blood cell disorders that affects millions throughout the world. According to the Centers of Disease Control and Prevention, it is estimated that about 100,000 people in the United States, mainly Blacks or African Americans, suffer from SCD (Centers for Disease Control and Prevention, 2020). These data also indicate that 1 in 400 African American newborns in the United States are born with the condition. SCD is associated with an increased risk of early death (Maitra et al., 2017) and adverse clinical complications impacting a variety of organ systems (Miller et al., 2000). In turn, patients with SCD and their families report significantly diminished quality of life (Dale, Cochran, Roy, Jernigan, & Buchanan, 2011).

Sickle Cell Disease and Stroke

One of the most serious complications of SCD is stroke, which occurs in 11% of children younger than 20 years of age with the condition, making it 221 to 300 times more common in children with SCD compared to healthy children (Earley et al., 1998; Ohene-Frempong et al., 1998). Further, children with SCD and abnormal brain imaging findings due to strokes show greater occurrence of cognitive impairment (verbal intelligence and verbal comprehension) than those with normal imaging findings (Steen et al., 2003). The resulting cognitive impairments could be due to diffuse brain injury as well as a host of other factors such as socioeconomic status, drug and alcohol exposure, inadequate nutrition, untreated attention deficit and hyperactivity disorders (ADHD), along with chronic brain hypoxia (Steen et al., 2003).

There is also evidence that many children with SCD experience silent infarcts that are subsequently corroborated by imaging. Webb and Kwiatkowski (2013) found that 22% of children with SCD between 6 and 19 years of age experience silent infarcts. Unfortunately, even silent infarcts in children with SCD can leave many with significant neuropsychological deficits that appear to decline over time. Interestingly, Wang et al. (2001) found that school-aged children with SCD and silent infarcts exhibited lower scores in math and reading with their performances declining over time. Further, there is evidence that many children with SCD and no brain abnormalities can exhibit lower intelligence quotients (IQ) when compared to healthy controls (Kawadler, Clayden, Clark, & Kirkham, 2016). It is also important to note that there is a strong association between the presence of stroke and lower educational attainment in children with SCD (King, DeBaun, & White, 2008). At the same time, other biological, socioeconomic, and environmental factors associated with this popula-

tion may also contribute to observed declines in IQ scores and overall reductions in educational attainment (Kawadler et al., 2016).

Sickle Cell Disease and its Comorbid Conditions

Along with greater risk of stroke and the neuropsychological consequences, asthma and acute chest syndrome (ACS) are comorbid conditions often seen in children with SCD. Children with SCD and asthma are at increased risk for developing ACS resulting in reduced lung function, and for some death (Knight-Madden, Barton-Gooden, Weaver, Reid, & Greenough, 2013). Common treatments for ACS and reduced lung function include corticosteroids and bronchodilators for the aggressive treatment and prophylactic management of asthma and ACS have known adverse effects on the central nervous system that contribute to cognitive performance issues. Research by Sharma, Hashmi, & Chakraborty (2020) offer evidence that bronchodilators increase excitatory responses which in turn result in issues that mirror attention deficit hyperactivity disorder (ADHD) symptoms. At the same time, corticosteroids are known to decrease serotonin levels which are also associated with ADHD and oppositional defiant disorder (ODD) (Saricoban et al., 2011). In summary, common medical therapies designed to improve quality of life can negatively influence cognitive performance.

Sickle Cell Disease and Cognition, Language, and Learning

Given the impact of medical therapies on neuropsychological functioning, there should also be concern regarding a range of other key developmental milestones and in particular language performance. Language performance is closely associated with neurological performance and commonly disrupted after neurological disorders such as stroke or other higher-level cortical disease processes. More specifically, speech, language, and learning disorders are common consequences of stroke in adults. The concern among children lies in studies that have shown that strokes occur in 25% to 60% of children with SCD (Balkaran et al., 1992; De Oliveira, Ciasca, & Moura-Ribeiro, 2008). Further concerns emerge from evidence that suggests cognitive decline can occur even in the absence of stroke. Consequently, one might hypothesize that language issues may also be present in the absence of stroke given their strong association.

Additionally, while language, and learning deficits have been largely documented in children with SCD, these same deficits are rarely described in significant detail to determine their long-term impact. For example, Hariman, Griffith, Hurtig, and Keehn (1991) noted in their study that their cohort of children with SCD and stroke presented with a variety of compli-

cations including severely impaired speech. However, specific speech and language diagnoses were not provided. Interestingly, De Oliveira et al. (2008) concluded that children with SCD and a history of stroke often present with acquired aphasia, learning difficulties, lack of initiative, and cognitive impairment all believed to derive from silent infarction prior to documented stroke onset. Similarly, Buchanan, James-Herry, & Osunkwo (2013) reported a case series of 5 children with SCD and a history of strokes where speech difficulties have been reported in case-descriptions, however not elaborated. Furthermore, specific deficits have been noted in various domains of language, including deficits in reading and writing skills (Sanders et al., 1997) as well as receptive and expressive oral language skills evident in difficulties following commands and formulating sentences respectively (Davis et al., 1997).

To date, little is known about how SCD specially disrupts speech and language development among children with SCD, many of whom are concurrently experiencing silent infarction even in the absence of a clear diagnosis of stroke. Yet there is some evidence that children with SCD exhibit language processing problem whether they are at low or high neurological risk (Schatz, Puffer, Sanchez, Stancil, & Roberts, 2009). The authors note that these issues are of major concern for children because language processing is linked to a range of language development skills. Of similar concern is the impact of SCD on speech and language skills in combination with the high frequency of missed school days due to SCD complications. In a large study in the UK, Dyson et al. (2010) found that children with SCD on average missed 8% of the school year or over 16 days. Over twelve percent of their sample missed 32 or more days. In a smaller study in the US, Schatz (2004) found that school-aged children missed on average 10% of the school year or 18.2 days each school year. They also noted that the significant number of missed days contributed to higher rates of grade retention relative to children with SCD. Overall, many children with SCD frequently experience lower school achievement and attainment relative to students without SCD (Swanson, Grosse, & Kulkarni, 2011). Given this likelihood of speech and language issues being present in children with SCD regardless of stroke and their relationship to school achievement, formalized approaches to assessment, monitoring, and management should be considered.

Conclusion

In conclusion, effective management of SCD requires knowledge and awareness of the disease itself but also commonly observed neurological im-

plications that can negatively impact cognitive and language performance. While it is not known how the disease in combination with its consequences of stroke, and in some cases only silent infarction, disrupt or impact cognitive and language development and subsequently performance. Regardless, there is an inherent need for early therapeutic intervention for cognitive and language development and disruption issues along with academic support for the many children with sickle cell disease who experience frequent hospitalizations and subsequently school absences that impact their academic performances. These issues should be considered along with frequent chronic pain, fatigue, and adverse pharmacological side effects that impact cognitive and language performance. Beyond the traditional SCD team members, children with SCD could also benefit from early and ongoing consultations with speech-language pathologists given their expertise in cognitive, speech, and language development and knowledge of neurologically based conditions such as stroke that also have a negative impact cognitive, speech, and language performance.

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COMMUNICATION IMPLICATIONS: FACE MASKS AND STUDENTS WHO ARE DEAF AND HARD-OF-HEARING

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— STUDENT COMMENTARY —

Many people, regardless of hearing ability, perceive information from seeing the faces of others, and most individuals who are Deaf and Hard-of-Hearing (DHH) lip-read to some extent during conversation. For the DHH, mask-wearing can become a hinderance that makes daily life more challenging. In this new “normal” of daily life brought about by the onset of the Coronavirus (COVID-19) pandemic, mask-wearing and physical distancing have become essential safety measures that we must take in order to keep ourselves and others safe. Face masks have become a public and social-gathering norm in addition to a primary line of defense against COVID-19. However, this barrier of protection has added a barrier of communication for the DHH. From bank tellers to physicians, therapists, and teachers, professionals around the country are treating and interacting through a barrier. For individuals who rely on lip-reading and facial expressions to communicate, the increased use of facial coverings can lead to even greater sense of isolation. The goal of this work is to highlight communication challenges encountered by the DHH community when communicating with others wearing face masks and offer simple solutions to address the difficulties that mask-wearing presents to this population.

The Global Pandemic and Students Who are DHH:

Students who are DHH may struggle to communicate basic needs at school, with friends and family. When this is coupled with a global health crisis, the consequences of these life-altering changes push the boundaries from interference to a very real and palatable impedance to a person’s quality-of-life.

Face Masks: How they Impact the DHH:

In a recent study, Goldin et al (1) tested medical masks and described how they “essentially function as a low-pass acoustic filter for speech, attenuating

the high frequencies (2000-7000 Hz) spoken by the wearer by 3 to 4 dB for a simple medical mask and close to 12 dB for the N95 masks.” The authors state that speech quality is reduced when a person communicates wearing a face mask. When the face mask is then coupled with background noise, signal reverberation, and an absence of visual (facial) cues, speech can be highly unintelligible for the DHH. Essentially, face masks make listening a more challenging task, particularly so for the DHH. Twelve decibels are the sound equivalent of a pin dropping, however; for a person with a pre-existing partial or significant loss of hearing, every decibel that is “heard” and “understood” matters. Essentially, further reduction of audible sound, even the amount equivalent to a pin dropping makes listening and understanding speech an increasingly challenging task. Relevant questions that maybe asked include, How might the DHH improve their understanding of speech within a mask-wearing culture? How does this affect students who are DHH?

Listening Challenges for Students Who is DHH:

Students who are DHH have transitioned back to school to continue their learning. However, their primary mode of understanding has been diminished. Masks are covering the teacher’s lips or muffling voices and are interfering with seeing facial expressions. In addition, there is debate occurring as to which type of mask is best for students who are DHH to help with facilitating communication. For example, clear masks often fog up and muffle sound, while cloth masks take away lip reading and facial expression cues but tend to transmit sound better. More importantly information from Centers for Disease Control (CDC) indicates face shields haven’t proven to completely stop or protect against the spread of the virus (2).

The COVID-19 Pandemic and Service Delivery Models:

School-based therapists should always evaluate their own risk and that of the students they serve when making decisions about service delivery. In the school setting, service delivery models may vary depending on the school district's model for instruction. These service delivery models include full in-person (within the school) setting, virtual-only interaction or a hybrid model of virtual and in-person learning. These models of instruction can even be on a staggered schedule and change week-to-week.

Communication Breakdown:

Communication breakdowns should be consistently considered when speaking to DHH. When a message is not understood, blame is often placed on the listener. But it is both the speaker and the listener who have an equal responsibility for ensuring the intended message is understood. As a speaker, I should ask: What can I do to minimize the communication breakdown? Should I rephrase the question? Should I say it louder? Should I say it slower?"

Communicating with PPE: Impact on Students Who are DHH:

A key question that exists is "How do we help our students who are DHH during the COVID-19 pandemic?" Each student's hearing acuity, learning style and receptive language comprehension is unique. We need to consider each student's individual strengths and abilities before we as therapists make a decision regarding the type of Personal Protective Equipment (PPE) that we use for therapy with students who are DHH. We must treat every student individually and make decisions regarding mask types, hearing, learning, and understanding according to their unique needs.

Self-Advocacy Skills for the DHH During COVID-19:

Now more than ever, self-advocacy skills are an imperative for the students who are DHH within the learning environment. Students who are DHH should be given the opportunity to express to the school's instructional staff their areas of difficulty so the school can most effectively educate these students. The combinations selected by students will be unique to their hearing and learning needs. Some students may require a Functional Modulation (FM) system, ask their therapist to wear a cloth mask, and provide visual support before the lesson. Other students may request their therapist wear a clear mask and utilize an FM system only. Other students may indicate they would prefer distance learning to see their therapist on the screen without a mask paired

with the use of closed captioning (CC) to best facilitate learning.

Gaining Access to the Curriculum: COVID-19 and Individual Assessment:

Individually assessing each student's needs to determine what works best for the individual may take some time and creativity on behalf of the therapist. Masks have changed the way DHH students are educated without consideration of the implication of the recommended safety approaches. We must be aware that we are all in this together and we must figure out what works best for each student. Encourage students, families, and staff to think outside the box when it comes to educating DHH students during this special time. Other instructional methods and strategies may include functional listening evaluations, time in a sound booth, experimenting with different masks, small group instruction, and one-on-one teaching sessions to impart new concepts.

Accessibility to online learning platforms (Schoolgy, Google Slides, Google Classroom, pre-recorded lessons using Loom) have become an integrated part of our daily teaching modality and are quickly becoming the rule than the "exception". Perhaps we should reframe our thinking and look at this new way of instruction as an opportunity for us as educators and therapists. We can broaden our knowledge of using online learning tools and a variety of media platforms to incorporate these into our sessions and classes. With accessibility to online learning materials, you may consider a variety of tools to better understand and figure out what works best for each student. In this time of uncertainty and high stress, there is no right or wrong answer. Now more than ever, it is our opportunity to truly serve our population of hearing-impaired students to give them the assistance they need to navigate the new world of wearing masks.

Suggestions for Improving In-Person Communication:

- Speaking in the same room as the person with whom you are speaking; do not yell across rooms or between rooms
- Face your communication partner (i.e., do not turn your back to the other person in your conversation),
- Turn down background noise (television, radio, music, vacuum cleaner)
- Call the listener's name to gain attention before speaking

- Describe the topic you are speaking about so the listener can better guess on words that were missed.
- Look at the person with whom you are speaking
- Do not touch or cover your mask while you are speaking as doing this can further reduce sound transmission through the mask. Placing hands near your mouth may also add a visual distraction to the person focusing on listening
- Ask your communication partner to write down what they are saying. If a pen and paper is not available, suggest they use a cell phone (i.e., open the Notes app. or a new text message box) and ask them to type and share their screen with you
- Be precise when describing what you did not hear (e.g., Did you say, “hat or “cat?”, “The last word I heard clearly was “book;” I heard you up until the word “happening;” What did you say before the word “house?”)
- Ask if they would be comfortable taking their mask off while they speak if you agree to remain masked while keeping a six-foot distance.

Speaker and Listener Responsibilities when Communicating:

- Inform your communication partner of your awareness and understanding during a conversation. Nodding shows the speaker that you are comprehending what is being said. Gestural cues such as a thumbs up, paired with nodding can also send the same message. Visual information tells the speaker a clear message that is comprehensible. Alternatively, pointing to your ears, paired with shaking your head “no” also sends a message that you do not understand the message. Follow this by requesting the speaker repeat or reword the message.

Suggestions for Wearing a Mask with Hearing Aids:

Due to the location of hearing aids, masks prove to be a challenge when placing or removing a mask. There are a few concerns that I will describe with regard to placement of and removal of your mask. These strategies might help increase awareness of hearing aids during mask usage. I would recommend that you wear your mask using the following strategies to ensure that you do not interfere with your hearing aids and that you are still maintaining adequate coverage of your face and nose:

Mask Wearing Considerations

- Use a mask that has thin straps: If the straps of a mask are thick, it will take up more room behind

the ear. A thin strap will allow for more space behind your ears.

- Ensure proper fitting of the mask: If a mask is too small, your ears will be pulled forward, which could compromise the seal of your hearing aid inside of your ear. It might also reduce the fit of the hearing aid that is worn behind-the-ear. Ensure that your mask is the correct size to both cover your nose and mouth, and that your hearing aids are not falling off of your ear(s).

Mask Removal and Placement:

- Make sure that you are not pulling off your hearing aids when you remove your mask. Feel around your ear(s) to locate your hearing aid. Slowly remove the mask’s straps, holding your hearing aid in place as your second hand removes the straps. If you have reduced mobility of your hands, ask another person to assist you in removing your mask.
- Ask for assistance with mask placement and removal: If you have reduced dexterity (movement of your hands and fingers) ask a trusted person to assist you. Alert the person of your hearing aids and show them where your hearing aids are located prior to their assistance. Always feel for your hearing aids before and after mask placement and removal.
- Consider wearing a mask that tie around your head. Masks that don’t have to wrap around the ears are better for those with hearing aids.

Environmental Concerns when Removing Your Mask:

- Try to avoid removing your mask when you are in the car, above a sink, in a restroom, and other public gathering space (i.e., restaurant, hotel). These locations are spaces that might prove more difficult to locate your hearing aid(s) if they do fall off when you remove your mask.

What to Do if Hearing Aids Fall Off when Adjusting a Face Mask:

- Some hearing aids have a feature called “Find My Hearing Aid” which, when paired with the person’s smart phone, will send a signal to the hearing aids indicate whether you are getting closer or farther from the device. Even if your hearing aid is lost outdoors and runs out of battery charge, your phone’s GPS will show where the hearing aid was when it was last connected.
- If your hearing aids do not have a “Find My Hearing Aid” feature, be patient and ask for assistance from others around to help you search

for your lost hearing aids. Try to identify the area where it is most likely you lost your hearing aid.

- If you are unable to find your hearing aids, call your hearing aid provider to find out if your hearing aids are covered under a “loss or damage” policy for replacement.

The strategies, suggestions and accessibility features compiled below are intended for therapists to share and use with students who are DHH. These resources are aimed at assisting students using virtual communication by incorporating assistive listening devices, phones with captioning, smartphone apps into their daily life. The technology described below will help change spoken language into text, and the strategies described serve to help the DHH advocate for themselves when spaced apart and communicating with others wearing face masks.

Many types of technology support individuals who are DHH. These devices have accessibility features including:

- Adding Captioning to a smartphone: The following captioning applications are available to be downloaded for smart phones: CaptionCall (iOS), Clarity, Clear Captions (iOS), InnoCaption (iOS and Android), Hamilton (Android)
- Pairing Your Hearing Aids: Hearing aids direct input to device: Many hearing aids now can be “paired” (i.e., Bluetooth pairing) to your devices. Once you pair your hearing aid(s), you can control the input volume with your device. This allows you to hear phone calls and other audio more clearly on your cellphone or other device (i.e., tablet or iPad).
- Allow Subtitles when viewing videos: Some video content online includes alternative accessibility features such as closed captions (CC) and subtitles for the DHH (i.e., called SDH). For example, YouTube has videos that have a “CC” button on the control bar of the video. By clicking on the “CC” button, subtitles will be enabled for the video you are watching. You may also change the subtitle’s language to best fit your needs.

- Use visual alerts on your smart phone: Some phones have an LED flash (i.e., your camera’s flash) on your phone that blinks when your device is locked. This can be useful if you don’t want to miss a notification while your device is locked.
- Utilize RTT calls when needed: Real-time text (RTT) phone calls provide instant transmission of a message as you compose it. Transcripts are saved in the call history of the Phone app. You can upgrade a regular call to RTT.
- Make your conversations more visual with FaceTime or Video Calls: FaceTime (iPhone) and Video Calls are another way the DHH may wish to communicate with others. These video calls enable you to have live video wherever you and your caller are at the time. Such video calling uses high-quality video and fast frame rate making it an ideal option for communicating with sign language. Furthermore, if the person you are calling is home, they may wish to remove their mask, which would allow you to see their lips.
- Live Listening or Live Streaming: Developers like Apple have created a feature called “Live Listen”. This option pairs your smartphone (iPhone, iPad, or iPod Touch) to a remote microphone that sends sound from your environment to your hearing aids or your earbuds.

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COVID-19: EQUAL ACCESS TO REMOTE LEARNING AND TELE-THERAPY

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— STUDENT COMMENTARY —

The coronavirus pandemic (COVID-19), like a sweeping tsunami, has caused unfathomable tragedy worldwide. It has thrown many families into economic despair causing widespread job losses and furloughs. COVID-19 has led to deep anxiety and grief for lost loved ones. Our goal as therapists has remained the same: ensure every student, regardless of background, ethnicity and socioeconomic status has equal access to therapeutic intervention. COVID-19 has uncovered inequities in therapeutic service delivery by identifying clusters of clients who have no access to and difficulty using remote learning technology.

As the pandemic has continued to spread across the country, therapists must remain aware of our service delivery mandate related to diverse populations. During the rapid transition from in-person to remote learning, clients without online services were placed in a non-access situation. Some areas within our communities are essentially 'digital deserts', or areas in which clients do not have access to online technology. Giving clients technology and teaching them how to use this technology independently is a which must be achieved.

According to a report in 2018 from the Pew Research Center, 73% of American adults have a home with broadband connection. This means that 27% of American adults do not have access to such technology. We must take these statistics into account when developing our service delivery with clients of all backgrounds, particularly those from low socioeconomic backgrounds. Some school districts were forced to close due to COVID-19 but continued to offer instruction remotely. They needed to remain accessible to all clients regardless of ethnicity and socioeconomics.

Role of Therapists:

Therapists must be pillars of change. We must work with our clients to create student-centered learning environments. We need to embrace all linguistic and cultural identities. We must prepare clients for the rigors of independent learning; develop clients' abilities to connect across lines of difference and elevate historically marginalized voices. We must be aware that COVID-19 has marginalized some of our clients. Through unequal access to technology, families of clients who are of diverse backgrounds may find remote learning and tele-therapy unusable, stressful and yield this service delivery ineffective.

Removal of Inequalities Through Self-Assessment:

Through identification, the therapist can remove the barriers for learning that inhibit our clients' equal access to therapy. A creative therapist can initiate change in a system that perpetuates inequalities. Therapists should have an awareness our clients' negative self-perception and exposure to daily stressors. Therapists can shape a positive and lasting relationship with their clients and improve therapeutic outcomes. Therapists may begin with self-reflection to understand and identify the inherent obstacles in therapeutic applications:

Therapist Self-Assessment Questions:

- **Role Reversal:** Identify a time in your life in which you experienced a social inequality. Examine this example and how it affected you and the outcome it had in your life. Ask yourself, "How has this inequality affected my personal experiences and what were the results?"
- What are the observable inequalities experienced by my clients and their families?

- Do I know the impact remote learning and access to technology has on the lives of my clients and their families?
- Do I know the extent to which online service delivery has affected my clients' learning quality?

Suggestions for Therapists to Remove Inequalities:

Therapists and related professional specialties can remove inequalities thorough clinical practice. Therapists alike must make a conscious choice to be part of a solution. The following questions are suggestions for optimizing tele-therapeutic intervention:

- Does the school district or agency distribute iPads or personal laptops?
- How can broadband be setup up in underserved communities?
- Is the school or agency eligible for company discounts to purchase equipment for student use for remote learning?
- Is the school or agency eligible for tax credits for purchase of student equipment?
- Will the cellphone company offer school or agency a reduced cost of data streaming on student-owned cellphone for student use in remote learning?

Tailoring Therapeutic Intervention

During the initial COVID-19 outbreak, some therapists sought to meet the needs of their clients by any means necessary. Some therapists printed therapy materials using their own home printers and resources. Some therapists drove pre-handwritten materials to their clients' homes. Other therapists printed packets of materials in their school buildings and asked parents to pick-up the materials. While these suggestions are not available to all therapists, they are certainly a place to start.

Consistent Communication from the Start: Therapists should maintain an open line of communication with clients' families. I initiate open conversations with parents or caregivers as soon as they begin working with me. I explain how I will support their child's learning and to the best of my ability assist the family's access and success in remote therapy. I strive to ensure the family feels comfortable reaching out to me if anything changes in their home life that might make it difficult for them to access remote therapy. I also recommend communicating frequently with the client's related service team members such as social workers and related professionals working with the student to confirm the family can access community resources such as free meals and counseling services.

Inquire about available materials and toys in the home: When working with families through tele-therapy, prior to starting our sessions, I ask parents if there are children's books in the home and which ones are available. I also ask about board games, art supplies, and toys within their home. I do not assume a family owns any of these materials. After I have conducted an initial intake of the materials available for therapy, I focus my sessions and carryover activities around those items. In utilizing familiar materials, I seek to make families feel secure in what they can provide in their home. In using unfamiliar activity materials or computer apps, it may lead parents to feel the activity is unsupportive of their child's skill development.

Assist families in setting-up technology for tele-therapy: If the student's parent needs help accessing the technology used for remote sessions, find out if the parent has a friend or family member who can assist them in setting up remote access technology within their home. Ask if that friend or family member would stay nearby to help troubleshoot any technological difficulties that might arise during the first session. Ask the family which type of device and internet capabilities they can access for sessions and offer instructions specific to that technology.

Offer Material Options: When I am unsure if a family has children's puzzles in their home, I might use paper or a thin cardboard box (i.e., a breakfast cereal box) to draw and cutout shapes to make a self-made puzzle. I have created sensory jars for my clients and sensory bags (i.e., plastic sealed bags) containing various textures. I have created fine-motor activities using homemade play dough and cold noodles. Encouraging self-made therapy materials empowers parents to continue a strategy outside of your session. Always be aware of the family's willingness and financial ability to "create", we must take their available time and resources to create such materials into consideration.

Openness to Learning and Expanding Upon Our Own Practices:

Open the discussion to your colleagues, asking "What are you doing to give access to your clients and families?" In my own circle of colleagues, I have found creativity to be "contagious". While this was not intended to be a pun, it certainly fits the situation. If anything should be contagious, it should be our drive to be the best for our clients. It should be asking others how they are tailoring their therapy and then having open ears with which to listen and learn from colleagues. Pride should be put aside. Since the onset of the pandemic, my colleagues have shared countless new ideas, and I have expanded

upon my own therapeutic techniques. I have sought assistance from colleagues outside of the speech and language world. Learning from others should not stop at professional colleagues, open the conversation to families. I have asked parents, “What works for you?” With this in my, I created a questionnaire for families to help me best tailor my own therapeutic intervention. Therapists, you should keep a questionnaire sent home to parents concise. Keep your questionnaire user-friendly and free from professional terminology.

Template of Parent Questionnaire:

- Some of the questions included:
- Did you use the [material]?
- Did you find [material] easy to use?
- What would have made this [material] easier for you to use?

Therapeutic Agents of Change:

While access to equal technology in the home is still faced by many clients of different backgrounds, it is simply not enough for therapists to stand by and do nothing. We must progress toward systemic change and equity that will help all clients access therapy. To do this, it will require that the following steps be taken:

- Promote equity by adequately addressing racism, bias, discrimination, and other systemic barriers within the therapeutic intervention system. To do this, stakeholders and policymakers must acknowledge the historical foundations of inequality and ensure that service providers, personnel and staff are substantively trained to recognize and eliminate all forms of bias in the therapeutic system. Accountability measures at both the individual and systems levels should be in place.

- Incorporate evidence-based tools to adequately address disparities that impact clients of varying backgrounds. This includes focusing on patient-centered approaches to therapeutic intervention. Inequal access to therapy should be eliminated.

There is No One-size Fits All: Therapist Intervention and Student Learning:

There is no “one size fits all”. Be creative! Know the families with whom you are working and their available resources and tailor therapy accordingly. After all, isn’t our therapy supposed to be conducted in this manner? We must remember, we are all in this together and every effort made on behalf of the therapist to make education equitable will not go unnoticed.

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RESPONSIBLE RESEARCH RIGOR: THE KEY TO OVERCOMING SYSTEMIC RACISM IN COMMUNICATION SCIENCES RESEARCH

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— ABSTRACT —

By continuing use of conventional tools of assessment, employing uni-disciplinary research teams and interpreting results only on a cursory level, researchers may be continuing to cling to practices that contribute the systematic racism that has cluttered research for decades. Use of multidisciplinary teams, incorporation of innovative modes of assessment and consideration of new social and biological determinants will allow researchers to utilize their skills as instruments for social change and benefit those vulnerable and marginalized populations who are in need.

The year 2020 will likely remain on the consciousness of many Americans due to the combined impact of the coronavirus pandemic and the racial discord that erupted following the death of George Floyd, Breonna Taylor, Ahmaud Arbery and others. The senseless death of these noted individuals awakened the country to longstanding systemic racism and called a referendum on strategies to address this inherent injustice. While the coronavirus pandemic abruptly forced treatment for individuals with communication disorders to change suddenly, specific approaches and strategies to address the issue of race and racism in the field has been slower to pivot. No forcible opponent has compelled the inherit, institutional racism in the US to stop. Since the rash of tragic African American deaths at the hands of police, the field of communication sciences and disorders (CSD) has been swift in its attempts to acknowledge the issue of systematic racism. Statements in the field have addressed the impact of systemic racism

on CSD programs, students and the membership at-large (Daughtry, 2020; Deal-Williams, 2020; Franklin 2020). While publicly acknowledging the need to understand the drivers of systemic racism—access to services, bias, lack of cultural humility, lack of diversity and inclusion and a need for reconciliation and justice—little if any attention has been given to the impact of these issues on the CSD research--the enterprise the drives the practice, philosophies, beliefs and attitudes of the membership providing critical CSD services.

CSD researchers and scholars understand the significance of race in the study of clinical outcomes, but often fail to acknowledge the critical role that the reporting of race in CSD research has on the thoughts, feelings and behaviors of the clinicians attempting to utilize and interpret the research. More importantly, this research and its dissemination is governed by a small number of “gatekeepers”—those same scholars who debate and publish their research as experts

in the field thereby dictating how and what literature emerges (DeWitte, 2020). Damian and Gonzalez (2020) argue that researchers “must look within and question the approaches up which scholarship is built, so as to ensure that we are part of the solution” p. 237.

Similarly, a recent article in the Smithsonian posed the following “Scientists, including those who study race, like to see themselves as objectively exploring the world, above the political fray. But such views of scientific neutrality are naive, as study findings, inevitably, are influenced by the biases of the people conducting the work.” (p.1). (Skibba, 2019). Although there is a general belief that those conducting research understand how racism works and how it impacts research, there seems to be no anti-racist research mechanisms in place to address potential racism in the generation and publishing process.

The dismantling of racism in research requires the field transform some aspects of how research is currently being completed and interpreted (Damian & Gonzalez, 2020). Those engaged in the research enterprise must utilize their research skills as an instrument for social change and beyond general research productivity (The Lancet, 2020). Novel methods and approaches utilizing secondary data to study of CSD outcomes have been suggested as a way to address clinical and non-clinical questions in the fields (Raghavan, Camarata, White, et al., 2018; Justice, Breit-Smith & Rogers, 2010). Analysis is a tool that allows researchers to discover, adapt and improve the lives of those they study. However, when empirical analysis is conducted insufficiently, partially or improperly, conclusions can be inaccurate and misleading. Misleading conclusions not only weaken the field of CSD research, but also lead to neglect and improper treatment of minority populations. Conventional statistical tools such as Student’s t-tests or chi-squares test rely on distributional assumptions about the populations. They are based on deviations from a group mean providing few allowances for heterogeneity. Conducting these tests without a full and complete understanding of the underlying assumptions, leads to gross misspecifications of findings and misrepresentation of research results. Relying cursory analyses to assess racial-ethnic differences can serve to exacerbate the racism that exists in research and the widely accepted misinformation regarding racial-ethnic differences in clinical outcomes. Inaccurate interpretation not only renders inaccurate conclusions, but also ignores significant nuances within the sample.

Since very few researchers possess expertise in multiple fields, collaboration becomes essential. Coupling experts in fields of rehabilitation, aphasia, sta-

tistics and mathematics allow for new and diverse research questions, tools and perspectives. Through these relationships and synergies, research can extend beyond conventional findings and understandings to discover elements previously hidden within the data.

Additionally, investigators must look beyond simple Black-White comparisons to the range of factors that simultaneously affect outcomes in an intersectional manner and necessitate statistical adjustments. For example, racial-ethnic differences in any health outcome are likely to also be influenced by the associated social determinants of health (SDH)—those policies, programs, institutions and any other aspect of an individual’s social structure that influences their health outcomes (Healthy People 2020). These can include poverty, unequal access to health care, lack of education, stigma and racism. The SDH are the result of a cumulative and synergistic effect of health. Consequently, any research that measures outcomes between groups whether race-ethnicity, age, socioeconomic status, etc. must carefully consider the array of social, political and economic influences on those outcomes and that inter-relationship between these influences, other sociodemographic characteristics and clinical variables.

Evidence suggests that when researchers do find racial-ethnic differences in research trials, they are less likely to consider both biologic and social causes for the observed differences (Geller, Koch, Pellettieri & Carnes, 2011). Failure to extend beyond conventional interpretation and plausible consideration is itself racist with deleterious consequences as misinterpreted findings can translate into less than optimal care considerations for racial-ethnic minorities and subsequently a widening of the racial-ethnic disparities. While “scientific research” has struggled with concepts of race for centuries, often proposing misleading or erroneous explanations of racial differences.” (Skibba 2019, p. 2), Ultimately, greater responsibility among researchers is required to overcome these barriers. High methodological rigor and scientific scrutiny is necessary to accurately assess empirical findings related to racial-differences and avert potentially negative, diluted clinical impacts particularly among the same populations that are most likely to experience disparate clinical outcomes.

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LISTENERS' VARIABLE REACTIONS TO THE EXPRESSION "ACCENT"

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— ABSTRACT —

This paper explores listeners' potential bias to the expression, 'accent,' when listeners' were asked to associate names of different variations of English accent with several unrelated psychophysical attributes. In addition, the elevated need for culturally calibrated sensitivity towards nonnative accents in the field of speech-language pathology is discussed. Participants responded to twenty-five questions, where only names of different nonnative varieties of accent and different psychophysical attributes were presented. No audio clips or acoustic cues of different accents were provided. One hundred and nineteen participants from varying backgrounds, including some from the field of speech-language pathology, participated. The study results indicate participants associated accents with various unrelated psychophysical attributes. Additionally, members from the speech-language pathology community also exhibited similar bias. This study offers a preliminary caution that, despite a relentless focus on multicultural awareness, speech-language pathologists are not immune to accent related bias.

Keywords: Accent; bias; discrimination; perception; speech pathology; stigmatization

Introduction

The word ‘accent’ is interpreted as, ‘the unique way that speech is pronounced by a group of people speaking the same language (ASHA, 2007). Specifically, an ‘accent’ is the paralinguistic component including the phonological and intonation features of the spoken word’ (Giles, 1970). Such paralinguistic differences often encourage variable social perceptions about speakers (Chakraborty, Schwarz, & Vaughan, 2019; Gluszek & Dovidio, 2010a). Socially, due to growing immigration, globalization, and language contacts among speakers of English from various first language (L1) backgrounds, accent-bias is a global phenomenon (Chakraborty et al., 2018). Thus, a better understanding and appreciation of the potential social consequences of speaking with a non-native accent can help understand the potential bias related to one’s accent.

In this paper, first, an overview of accent bias is offered, with an emphasis on how accent variations can serve as a breeding ground for biased perception. Second, the results of a survey designed to explore whether listeners arbitrarily associated different types of nonnative accents with some unrelated psychophysical attributes are presented. Here, the phrase ‘psychophysical attributes’ should be interpreted as mental and physical aspects of the speakers; e.g., intelligent, fat, kind, thin. Third, the critical relevance of highlighting nonnative accent bias and its consequences for the field of speech-language pathology, is discussed.

The criticality of accent and potential bias associated with an accent, are numerically alarming in the United States (US). In 1990, 31.8 million out of the 230.4 million people aged 5 years and over (i.e., 13 percent of the population) spoke a language other than English at home (U.S. Census Bureau, 1990). The number increased to 47.0 million in the 2000 census which represented 18% of the 262.4 million US population (U.S. Census Bureau, 2000). Therefore, a 4.1% increase was observed in the 1990s in the number of people speaking a language other than English at home (U.S. Census Bureau, 2000). Thus, contacts among various linguistic communities was promoted. In 2010, out of 291 million people of 5 years of age and above, 21% spoke a language other than English at home (American Community Survey Report, Ryan, 2013). Hence, in the USA, we have speakers from different first language backgrounds with variable proficiency levels in English, eventually leading to presence of variations in accents in English. Consequently, the increases in accent variations have the potential to influence intolerance towards differences in accent leads to biased perception and subsequently results in discriminatory

behaviors (Neuliep & Speten-Hansen, 2013). Thus, accent could be a construct that might evoke an irrational and arbitrary association between speakers’ accent and listeners’ perception of the speakers.

An Overview: Accent variation as a potential breeding ground for biased perception

Bias promotes stigmatization and stereotype formations (Cargile and Giles, 1997; Dixon et al., 2002; Edwards, 1999; Giles and Billings, 2004; Lippi-Green, 1994; Stewart et al., 1985). Even though social science has widely accepted that the primary reason behind bias is an ethnocentric attitude (Neuliep & Speten-Hansen, 2013; Giles, 1970), the field of speech-language pathology has offered only cursory attention to the issue of accent-related bias (Chakraborty, 2015). In the last 50 years, in the field of social psychology, a predominant finding is that speakers’ accents influence listeners’ perception in constructing different attributes about the speakers (e.g., Giles, 1970; Giles & Johnson, 1987; Gluszek & Dovidio, 2010b). Even though listeners use speakers’ nonnative accents to speculate about speakers’ social origins, national and/or regional affiliations, ethnic group membership, social class, intelligence, warmth, and loyalty (Kinzler et al. 2009), any inference made just on the basis of accent has the potential of being inaccurate. Simultaneously, a nonnative accent also promotes stigmatization as aliens and linguistically incompetent (e.g., Cargile & Giles, 1997; Dixon et al., 2002; Edwards, 1999; Giles & Billings, 2004; Lippi-Green, 1994; Stewart et al., 1985).

Speakers with a nonnative accent are perceived as less intelligent, less loyal, less competent, of lower status, and poor language users, even though their language performance may not deserve such treatment (Gluszek & Dovidio, 2010b). The linguistic distance between two accents influences listeners’ attributes of speakers’ accents (Heblich, Lameli & Riener, 2015); individuals with the same accent tend to cooperate more when presented with a common task. However, when an individual is paired with someone of a different accent, more competitiveness is revealed. In general, nonnative speakers face both prejudice and stereotypes as a function of their non-native accent; and such bias is not domain-specific (Gluszek & Dovidio, 2010b; Ng & Bradac, 1999).

Accent and Stereotype

Although listeners’ associate accent and form stereotype about specific social or cultural groups (Giles et al., 1995; Milroy & McClenaghan, 1977), sometimes holding such stereotypes might not accurately identify the ethnic or national origin of an accent to make such judgments (Giles et al., 1995; Milroy & McClenaghan, 1977). For example, Yzerbyt, Provost,

and Cornielle (2005) demonstrated stereotype formation by French speakers. Their results indicated that Belgian speakers were perceived as less competent but warmer than French speakers. Similar results were reported when speakers with standard American accents delivering false information were perceived as more trustworthy (e.g., Vornik, 2003). Thus, a significant variation in the perception of accent is observed.

The primary goal of this project was to utilize a survey to examine, if listeners only get to read the names of different accent types, and do not hear any audio samples of those accent variations, would they then also exhibit a bias towards different accent types? The second goal, was to examine the probable nature of potential accent bias. Specifically, do listeners overtly associate different types of accents with some unrelated psychophysical attributes (e.g., obesity, intelligence, honesty, criminal intent, etc.), even when no audio sample of the accent types are presented? The overarching target of the survey is to understand the nature of potential stereotypes associated with the names of different accents.

Method

Participants

Participants were recruited using personal contacts, email, and social media. A wide range of participants were contacted to capture a cross-sectional trend, including members from the field of speech-language pathology. A total of 119 participants completed the survey. The survey participants consisted of U.S. natives, nonnative participants currently living in six different regions of the United States, and participants from several countries outside of the U.S. Of the 119 participants, 106 considered themselves fluent speakers of Standard American English (SAE), 7 participants identified themselves as nonfluent, and 6 participants did not respond. Of the 106 participants (fluent speakers of Standard American English), 60 classified themselves as bilingual, 41 classified themselves as monolingual, and 5 did not respond; there were 32 males and 72 females. Thirty-four acknowledged that they had accents and 64 claimed an absence of accent in their speech. Thirty-three participants were between 18-24 years, 38 were between 25-34 years and 32 were above 35 years. Hence, based on self-identification, participants naturally fell into four distinct categories and then within-category groups were compared based on their responses: Category 1: Bilingual (n = 60) versus Monolingual (n = 41); Category 2: Males (n = 32) versus Females (n = 72); Category 3: self-acknowledgement of accent; Yes (n = 34) versus No (n = 64); Category 4: age groups - 18-24 years (n = 33),

25-34 years (n = 38), 35+ years (n = 32). Finally, 11 participants belonged to the field of speech-language pathology and audiology. The survey was approved by the IRB of Texas State University.

Task and Procedure

Each participant completed a 41-question survey, which averaged 15 minutes to complete. The survey was comprised of 16 questions related to demographic information and 25 questions related to each participant's reaction to written names of various accent types. Accent was defined as being variations of English with different characteristics based on the region of origin and/or other language-influence. For example, "British English" was considered to be the spoken variety of English with a British dialectical influence. The targeted English accents were American, Arabic, Asian Indian, Australian, British, Chinese, French, German, Irish, Italian, Japanese, Russian, Scottish, Spanish, Swedish, Vietnamese, and Welsh. The unrelated psychophysical attributes were, 'smartest,' 'not smartest,' 'hardest working,' 'not hardest working,' 'friendliest,' 'meanest,' 'most serious,' 'most carefree,' 'richest,' 'poorest,' 'happiest,' 'most beautiful,' 'ugliest,' 'fattest,' 'thinnest,' 'funniest,' 'most honest' and 'saddest.' For example, a sample question was, "What accent do you perceive as the most honest?" The complete list of questions is included in appendix A.

Since the goal of this survey was to capture listeners' reactions towards the expression 'accent' of different types, no audio or speech samples of any accent were presented to the participants. We wanted to capture what associations were evoked in listeners' expression when the written names of different accent types were presented in front of them. Bias was operationalized as a listener's arbitrary association of an accent with any unrelated psychophysical attribute. So, participants were given a link to the online research survey using Survey Monkey, which they completed on their own devices. Researchers allowed the survey to remain active for approximately 2 weeks, giving the participants ample time to complete the survey at their convenience. For each survey, the questions were presented in the same order. All survey questions were a combination of multiple-choice and fill-in-the-blank. To allow participants an opportunity to provide additional feedback, a comment/essay box feature was provided with every question. This comment section was included for a non-biased answer. For example, if someone were taking the survey and wanted to answer, "perception of intelligence is not influenced by accent," then they would have an option to write that in the comment-box. Participants also had the option to skip any question. These survey questions were cho-

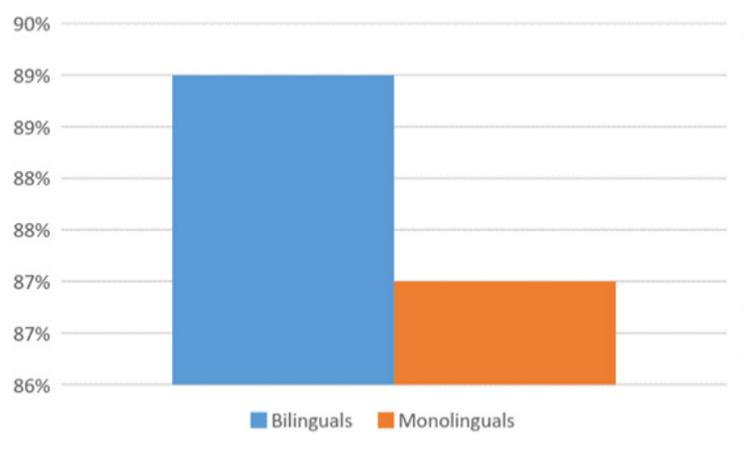


Figure 1: Percentage of bilingual speakers and monolingual speakers exhibiting bias. Blue bar – bilingual speakers, Orange bar – monolingual speakers. Y-axis marking % of biased participants within a specific category. X-axis marking the category of participants.

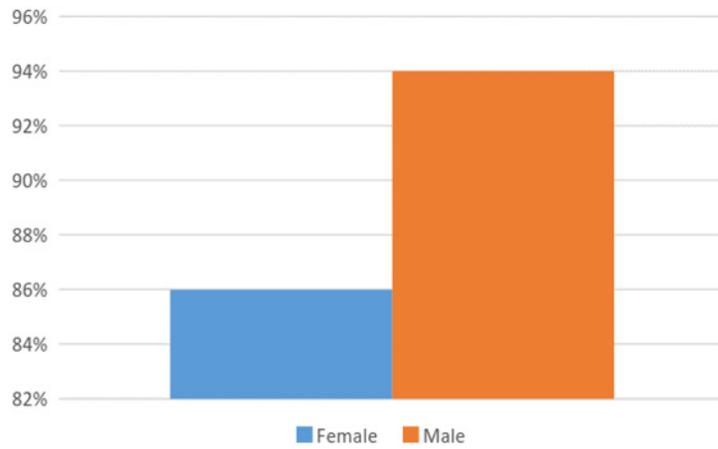


Figure 2: Percentage of male participants (Blue bar) and female participants (Orange bar) exhibiting bias. Y-axis marking % of biased participants within a specific category. X-axis marking the category of participants.

sen based on the common attributes that were easily contrastable. All responses were recorded using Survey Monkey and were organized into data trend charts. The total composite responses were analyzed and grouped into charts showing the general trends of participants’ self-reported demographics and their responses to questions probing reactions towards different accents. The research reported in this manuscript adhered to basic ethical considerations regarding the protection of human participants in research and had been approved by Texas State University’s Committee on the Use of Human Research Subjects.

Results

Each participant’s responses were analyzed to examine whether or not a given grouping of participants demonstrated bias in response to the 25 questions on perception of accents. If for 1 question (out of 25), a participant associated an accent with any unrelated attributes, the participant was considered biased. Selective or domain-specific bias was also considered a form of discrimination with potential consequences. Results indicated, that 89% of the bilinguals (n = 60) and 87% of the monolinguals (n = 41) exhibited bias (Figure 1).

Between two different gender categories, 94% of the males (n = 32) and 86% of the females (n = 72) exhibited bias (Figure 2).

Of the participants who acknowledged that they have an accent (n = 34), 87% of those exhibited bias, and 88% of those who did not feel that they have an accent (n = 64), also exhibited bias (Figure 3).

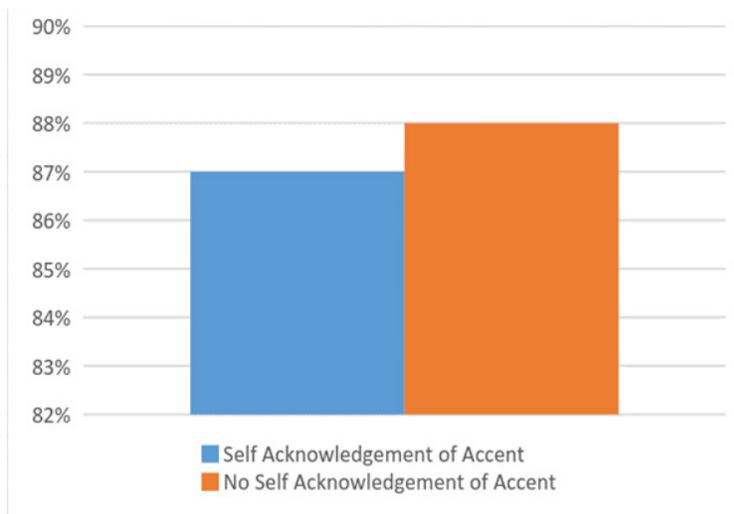


Figure 3: Percentage of bias of speakers acknowledging that they have an accent (Blue bar) and not acknowledging that they have an accent (Orange bar). Y-axis marking % of biased participants within a specific category. X-axis marking the category of participants.

Across the 3 different age categories, 89% within the age groups 18-24 years (n = 33), 92% within the age group 25-34 years (n = 38) and 84% of the participants who were above 35 years (n = 32) exhibited bias (Figure 4).

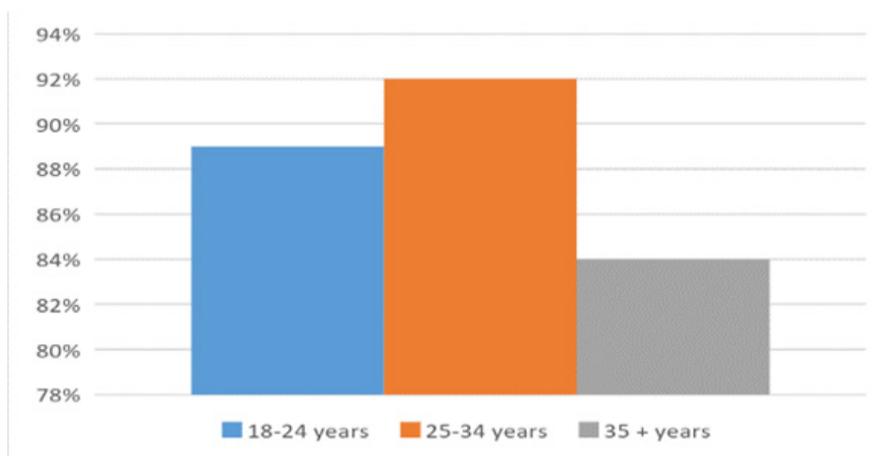


Figure 4: Percentage of speakers of different age groups exhibiting bias. Blue bar – participants between 18 and 24 years, Orange bar – participants between 25 and 34 years, Grey bar - participants 35 years and beyond. Y-axis marking % of biased participants within a specific category. X-axis marking the category of participants.

Hence, overall, most participants, including all participants from the field of speech-language pathology and audiology, associated accent with some unrelated variables.

Also, across the participants, results for each question were tallied and converted into percentages to show which accent type was associated with different psychophysical attributes. British English was associated with three attributes, 'smartest,' 'richest,' and 'most honest.' Australian English was also associated with three attributes, 'most carefree,' 'happiest,' and 'funniest.' American English and Spanish English were associated with mixed attributes; 'friendliest,' 'fattest,' and 'not hardworking' for American English and 'not the smartest,' 'most hardworking,' and 'poorest,' for Spanish. Arabic English was considered 'ugliest,' Russian English was considered 'meanest' and 'saddest,' and German English was considered 'most serious.' Chinese English was considered 'thinnest,' French English was considered the 'most beautiful,' and Irish English was considered the 'funniest.' Clearly, analysis of data suggested that there exist bias representing a wider spectrum of psychophysical attributes.

Discussion

This survey examined listeners' reactions to the names of different accents when no audio sample of accent types were presented. The survey also explored if listeners associated variations in accent with unrelated psychophysical attributes. Overall, most participants associated accents with some unrelated

variables; thus exhibiting biased perceptions towards accents.

In general, processing differences across different participants might bring us closer to the underlying mechanism for biased perceptions of accent. Evidence exists that suggests some listeners are selective processors while others are comprehensive processors (Nemecek, 1997; Meyers-Levy, 1989). According to Nemecek (1997), people who usually do not engage in comprehensive processing of all information

before rendering judgment are engaged in selective processing. On the other hand, some listeners attempt to assimilate all available information before rendering judgment and they are known as comprehensive processors. It is reported that comprehensive processors tend to use less cognitive structuring (CS) than selective processors. Here, the phrase "cognitive structuring" (CS) is defined as "the creation and use of abstract mental representations (e.g., schemata, prototypes, scripts, attitudes, and stereotypes) - representations that are simplified generalizations of previous experience" (Neuberg & Newsom, 1993). People who extensively use CS apply well-demarcated categories, stereotypical thinking, biased cognition, and heavily depend on previously stored information that might be in the form of stereotypes (Fiske & Taylor, 1991; Kruglanski & Webster, 1996; Kruglanski & Ajzen, 1983). So, people who are biased in their world-view and form stereotypical perceptions, engage in CS. People who are biased usually attain certainty most efficiently probably because CS is relatively automatic, effort-free, and faster than piecemeal processing (Brewer, 1988; Shiffrin & Schneider, 1977). For example, Meyers-Levy (1989) hypothesized that women tend to use less cognitive structuring than men and are less biased than men; women use more analytical (less intuitive) information processing than men (Hayes, Allinson & Armstrong, 2004).

Based on the research history, it is probably safe to assume that some degree of bias is omnipresent under some specified conditions (e.g., Heblich, Lameli & Riener, 2015). In the current paper, the presence of biased perception of nonnative accents did not surprise us. For example, in our study, regardless of the category represented by the participants, bias ranged between 84% and 94%. Nevertheless, how one deals with biased perception and how a person can avoid interference of biased perception are critical issues to consider.

In the current study, specific accent types were associated with unrelated psychophysical attributes. The results of this study evoked more questions than the answers it provided. For example, an Arabic English accent was considered the ‘ugliest.’ Could it be due to the history of tension between the Arabic world and the countries in the western hemisphere, specifically the North American subcontinent? Could such responses be stemmed from the history of religious tension (Gualtier, 2009), post 9-11 perception (Group, 2009), their oil-based economic conflicts (Jones, 2012), or even interpretation of terrorism (Group, 2009)?

Spanish-accented English was considered ‘not the smartest,’ ‘most hardworking, and ‘poorest.’ Such perception could be driven by the perceived predominance of the Hispanic population in blue-collar jobs, in the construction industries, automobile industries (Duncan, Hotz, & Trejo, 2006), and among immigrants (Cobb, 2019). Could any geo-economic reason or political tension be driving such perception (Domínguez & Fernández, 2001)? Is a Spanish accent in English perceived with similar kinds of bias if the speakers are from Spain versus Mexico or some other Latin American countries?

However, American English was considered the friendliest,’ ‘fattest,’ and ‘not hardworking.’ Is there any ethnocentric motivation? Is such perception partly an overgeneralization, reflecting the current unemployment condition in the U.S.A.? Interestingly, British English was considered the ‘smartest,’ ‘richest’ and ‘most honest’; Australian English was considered the ‘most carefree,’ ‘happiest’ and ‘funniest.’ Are there any political, religious, racial, historical, or even lineage-related underlying reasons behind such accent perception? Is ethnocentrism dominating listeners’ judgment of accent? Why do listeners attribute different qualifiers to different accents? Are these decisions driven exclusively by personal experience or do listeners take into account other variables, process stimuli critically, question the rationale behind their decisions, and then offer their judgments or verdicts about the accent?

One can always argue that in this study what is actually being measured is stereotypes of each of the groups in the survey instead of respondents’ perceptions of their accents. That was exactly the goal of this survey - to capture potential stereotypes. Hence we choose not to offer any acoustic sample of any accent or any speaker with specific accent type. In a follow up study, it would be interesting to ensure that the participants could all accurately differentiate between each of the accents presented on the survey first, and then answer the survey questions, counter balancing the order.

Since, accent perception studies are restricted primarily to the English language accent, it is imperative to explore similar questions incorporating other ethnic groups, languages, methods, and geographical belts. If accent-related bias is a general human trait across the globe with other world languages and is devoid of any protective provisions offered by the law, then we immediately require some legal protection against such bias. Research history can document instances and criticize such bias, but unless legal protection is offered or even discussed to curb such practices, there will be injustice. This issue is especially relevant for any service provider in any industry.

Speech-Language Pathology: A Service Industry

This paper resurfaces the critical relevance of nonnative accent bias and its consequences for the field of speech-language pathology. With increasing linguistic diversity in the USA and elsewhere, there is an increased likelihood that SLPs would be serving clients with an unfamiliar accent and/or clients would be served by a clinician with a nonnative accent. Levy and Crowley (2012) highlighted that only 6% of ASHA members are multilingual or bilingual service providers (ASHA 2010). Hence most clients, requiring services in a language other than English, receive services from SLPs who either do not share their clients’ languages or serve clients with nonnative accents. Besides, ASHA’s recent drive to promote more clinicians from diverse student populations has increased the number from 11.7% in 2007 to 13.3% in 2010 (ASHA 2011), which creates a context where more native English-speaking clients are being served by clinicians from diverse language backgrounds. Either way, a clinician-client mismatch in language background potentially leads to accent differences, or as increasingly the case, clinicians speak their clients’ language with a nonnative accent (Levy & Crowley, 2012).

However, it has been reported that L2 speakers may be perceived as fully intelligible and easy to understand despite having a moderate foreign accent (Behrman & Akhund, 2013; Kennedy & Trofimovich, 2008). Hence, nonnative accent might not always lead to poor speech intelligibility and reduced comprehensibility (Munro & Derwing, 1995), as these measures appear to capture different aspects of nonnative accents (Behrman & Akhund, 2013).

Future directions

Recall, that the procedure of the current study was constructed in a way that probably forced participants to provide some answer, even though there was a comment-section with every question on accents. It

is possible that participants, in reaction to a person or a recording, would have responded differently. But in the current study, participants were using stereotypes to infer something about the names of different accents, even though they always had an option of not responding and/or commenting that they could not establish an association between different types of accents and different psychophysical attributes. But all participants choose to associate accents with some psychophysical attributes; there was some stereotyped formation or preconceived ideas about specific accent type.

Probably, listeners' reactions to words could be consciously controlled and corrected much easier than reactions to people with an accent or at least to recordings of people with different accents. Future studies might attempt to compare listeners' responses to live-recording versus listeners' reactions to the names of different accents. Despite using just the word, 'accent,' variable responses from different listeners have been observed in the current survey. Since, in the current study, listeners' reactions to just the names of different accents evoked biased responses, there are stronger reasons to suspect stereotype formation by the listeners. Simultaneously, we do acknowledge that the participants were very diverse, and one might hypothesize that some demographic variables might have impacted the results.

Conclusion

Potential linguistic tension between the service provider and the clients could be minimized if we could develop strategies to manage customers' emotions and reactions. SLP clinicians and SLP students are also clinical service providers. Aspects of customer service employee attributes are thus critical for SLPs and are of special relevance to countries such as the USA, Canada, the UK, New Zealand, and Australia where immigrants with varying accents are a large part of the service workforce and clientele. Consistently, ASHA has invested significant resources and has taken several initiatives to encourage multicultural sensitivity because it feels alarmingly critical for any field if its members are biased service providers.

Acknowledgment

We thank Ellie R. Courtney and all our participants.

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APPENDIX A.

1. Do you have an accent?
2. Do you know anyone who has an accent?
3. Based on someone's accent, I can guess their,

<ol style="list-style-type: none"> a. Educational level b. Economic level c. Intelligence level d. Religious preferences e. Language proficiency f. Family structure 	<ol style="list-style-type: none"> g. Vocational (work) background h. Culture i. Dietary preference j. Race k. Level of alcohol consumption
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4. You schedule to meet with someone online. They arrive in-person to your meeting dressed professionally. They begin speaking and have a very thick accent. Does that surprise you?
5. If you were to see one person dressed professionally and another person dressed casually, which would have more or less of an accent?
6. Have you ever seen an image of someone (such as a football player, musician, or college student) then hear them speak in a way you weren't expecting?

For questions 7 through 24, the same answer option "a" to "q" was offered. To minimize redundancy, the answer options are not repeated between Q 8 - 24.

7. What accent do you perceive as the "smartest"?

<ol style="list-style-type: none"> a. American English b. Arabic English c. Asian Indian English d. Australian English e. British English f. Chinese English 	<ol style="list-style-type: none"> g. French English h. German English i. Irish English j. Italian English k. Japanese English l. Russian English 	<ol style="list-style-type: none"> m. Scottish English n. Spanish English o. Swedish English p. Vietnamese English q. Welsh English
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8. What accent do you perceive as “not the smartest”?
9. What accent do you perceive as the “hardest working”?
10. What accent do you perceive as “not hardest working”?
11. What accent do you perceive as the “friendliest”?
12. What accent do you perceive as the “meanest”?
13. What accent do you perceive as the “most serious”?
14. What accent do you perceive as the “most carefree”?
15. What accent do you perceive as the “richest”?
16. What accent do you perceive as the “poorest”?
17. What accent do you perceive as the “happiest”?
18. What accent do you perceive as the “most beautiful”?
19. What accent do you perceive as the “ugliest”?
20. What accent do you perceive as the fattest?
21. What accent do you perceive as the “thinnest”?
22. What accent do you perceive as the funniest”?
23. What accent do you perceive as the “most honest”?
24. What accent do you perceive as the “saddest”?
25. What accent do you perceive as the “most cruel”?

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PARENT REPORTED CHALLENGES FOR TEENS WITH ASD TRANSITIONING TO YOUNG ADULTHOOD

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— ABSTRACT —

Introduction: Teens with autism spectrum disorders (ASD) can experience challenges with transitioning out of high school and into young adulthood. Exploring diverse parent perceptions of challenges during this time is critical to best support the needs of an increasing diverse population of children receiving speech and language intervention services. **Methods** Participants were 13 parents of 11 culturally and/or linguistically diverse teens with an existing diagnosis of autism spectrum disorder who participated in a 90-minute focus group to explore their perceptions about perceived challenges with their child's transition to young adulthood. **Results** Qualitative data analysis explored parent reports of concerns throughout this critical transition period. Results revealed primary themes of employment, independence, transition support, and meaningful reciprocal relationships as parents' greatest concerns. **Discussion** Analysis revealed parents have significant reservations during this critical period with limited knowledge of supports to assist during this transition. Suggestions to alleviate these challenges are provided such as engaging in early and repeated intervention focused on prevocational goals for teens preparing to transition to young adulthood, promoting pipelines to employment within the community to broaden access to valuable networks of future support, and intentionally sharing positive outcomes with parents to mitigate concerns. Speech-language pathologists and other allied health professionals can use findings to inform their clinical practices to serve culturally diverse clients preparing to transition out of high school.

Keywords: autism, social skills, parent perspectives, teens, adulthood

Introduction

Transitioning to young adulthood, a period from the late teens to mid-twenties, can be a challenging process for individuals with autism spectrum disorders (ASD). Prior research asserts potential challenges following high school include employment, post-secondary education, independent living, social relationships, experiences with services, need for support, and speculation about the future (Sosnowy et al., 2018). Areas of deficit in ASD include social skills, and communication, which can create difficulty throughout the school age years that continue into college settings (Alverson et al., 2019). As primary caregivers, parents of individuals with ASD often strive to help their children meet the challenges of transitioning into young adulthood. This current study sought to explore the perceptions of parents of teens with ASD who are preparing to graduate from high school and shift into young adulthood.

ASD includes two core symptoms: social communication deficits and the presence of repetitive behaviors and/or restricted interests. Social skills deficits are prominent among this population. Deficits include, but are not limited to, issues such as: starting and maintaining conversations, coordinating eye contact, demonstrating theory of mind, and responding appropriately to an established conversation topic (Bellini, 2009). However, social skills demands change over time with age and environmental contexts. The substantial social shifts during adolescence coupled with the hormonal and neurological changes during that time period contribute to the difficulty transitioning into young adult roles (Picci & Scherf, 2015). As such, continued social skills training for individuals with ASD may be warranted throughout the lifespan as they encounter new social environments with new demands such as the transition into young adulthood.

Social skills deficits can make it difficult for teens with ASD to initiate and maintain friendships in addition to romantic relationships. Adolescents with ASD may desire to be socially involved with others, but lack the necessary skills to do so successfully, which can lead to social isolation. Adolescents with ASD report more loneliness than their neurotypical peers and demonstrate poorer friendship quality (Lasgaard et al., 2010; Locke et al., 2010). Individuals with ASD who learn and develop appropriate social interaction skills early in life often experience more optimal outcomes in language and academic achievements similar to neurotypical peers (Bauminger, 2002; Chang et al., 2014). Group-based social skills programs can provide teen clients with related examples and opportunities to practice their skills (Gates et al., 2017). In addition to direct and explicit instruc-

tion, targeted programs can help with social skills by simulating an environment for success to prepare for future situations by allowing the child to practice required skills in a safe environment. Social skills can be practiced in a structured environment, which can make it easier for the person with ASD to generalize these skills to real-life situations.

The transition from high school can be difficult for all teens, but particularly challenging for teens with ASD who may show difficulty adjusting to changes in routine. A number of factors can contribute to challenges post high school for students with ASD. One of the factors may be reduced support services. As individuals with ASD age into adulthood, many may have poor experiences during this time of transition (Anderson et al., 2018). Research suggests almost 40% of young adults were not receiving medical, mental health, case management, or speech and language services after high school (Shattuck et al., 2011). The lack of services for young adults is consistent with parent report (Anderson et al., 2018). As young adults with ASD get older, there are a scarcity of available support services compared to available services for school age children. Research on college students with ASD shows more supports are needed to promote optimal success such as increased retention and graduation (Accardo et al., 2019).

Navigating educational opportunities post high school can be particularly challenging for individuals with ASD. In the years post high-school, 50% of individuals with ASD are not enrolled in college or employed (Shattuck et al., 2012). With established laws protecting student privacy in higher education, individuals with ASD who attend college are required to navigate special education services independently without parent assistance in academics (Geller & Greenberg, 2009). Additionally, education faculty may have limited knowledge about ASD and how to assist with challenges students with ASD may have in the classroom (Alverson et al., 2019). In comparison to other disability groups, individuals with ASD have one of the lowest rates of college enrollment (Wei et al., 2014). Among students with ASD who do attend college, experiences can be bleak. Some students may report feeling overwhelmed by the experience (Cai & Richdale, 2015). Identified challenges to college success include the extent of the core features of ASD, the presence of co-morbid conditions, lack of preparation for transition, not disclosing diagnosis, and lack of services (Cai & Richdale, 2015). Research indicates individuals with ASD may benefit from targeted supports to address social interaction challenges that can be particularly manifested in common student tasks such as group projects and interactions with instructors (Vanbergeijk et al., 2008).

Young adults with ASD enter the workforce may also face particular challenges. Individuals with autism spectrum disorders are the least employed group with disabilities (Wehman et al., 2013). Some employers report positive feedback about individuals with ASD such as punctuality, a reliable work ethic, and dependability (Wei et al., 2014); however, parent report and evidence indicates many young adults with ASD are underemployed or not compensated fairly enough (Anderson et al., 2018; Burgess & Robert, 2014). Employment opportunities can make a positive impact on an individual with ASD in adulthood by helping to facilitate relationships and promote overall independence. Research indicates 80% of young adults with ASD still live at home, 21% have no higher education or employment experiences, and only 6% have competitive jobs (Shattuck et al., 2012). Social communication impairments may adversely impact the ability to understand different work environments and expectations of employers within these environments (Baker-Ericzén et al., 2018). Findings suggest impairment-focused interventions alone are not enough to achieve and maintain successful work outcomes for individuals with ASD (Scott et al., 2018). Contextual factors may be required to improve employment outcomes for individuals with ASD such as workplace accommodations with support from supervisors and co-workers trained in ASD differences (Scott et al., 2018). Overall, challenges to successful employment are evident despite many individuals with ASD having typical or minimally delayed communication skills.

In addition to higher education opportunities and employment, meaningful relationships are a critical component of success in young adulthood. Individuals with ASD are often at a higher risk for social isolation and peer victimization. A cross-sectional study conducted on children and adolescents with ASD compared to other groups such as children with ADHD and typically developing children found adolescents with ASD reported the highest levels of loneliness (Deckers et al., 2017). Individuals with ASD can report low levels of desire for social interaction due to lacking the necessary skills to do so, which can further exacerbate feelings of loneliness (Bauminger, 2002; Deckers et al., 2017; Mendelson et al., 2016). Volkmar and Wolf (2013) found less than 25% percent of adults with ASD were found to have meaningful friendships. Additionally, social interactions become more complicated with age and the awareness of social competence increases (Deckers et al., 2017). Navigating sexual relationships and close friendships independently into young adulthood may require support to experience success.

Given the noted gap of knowledge about adults with

ASD in comparison to the information known about children, more research is needed to better understand factors that can lead to success in teens with ASD transitioning into young adulthood. Landmark et al. (2007) found that parents of teens with disabilities from diverse backgrounds had varying levels of knowledge regarding transition experiences as well as various barriers impacting involvement in transition planning. Zhang and colleagues (2010) found differences among cultural groups in parent perspectives of self-determination in regards to their high schoolers with varying disabilities. Prior research suggests the need to increase our understanding of the transition to young adulthood needs of teens with ASD from diverse backgrounds.

For the purposes of this current study, perceptions of parents of diverse teens with ASD preparing to transition into young adulthood were explored to address the following research questions: (1) How do parents envision their child's future (work, living, relationships) with ASD? and (2) How do parents report the current level of support for their children with ASD as they are preparing to transition to young adulthood? As primary caregivers, parent input may help to better inform intervention needs and practices to best support individuals with ASD as they transition out of high school and into young adulthood.

Methods

Participants

Participants were parents of teens with an existing diagnosis of autism spectrum disorder. Participants were recruited via posted flyers and emails to parents of teenagers with ASD participating in a weekly teen social skills group at a private practice speech and language clinic in Los Angeles, CA. Flyers were posted on clinic entry doors and at reception desks where clients signed in for scheduled appointments. One email was sent from clinic staff regarding the voluntary option to participate in the focus group study. Parents who were interested in participating called or emailed the primary investigators to consent to participation. Fourteen parents made inquiries and thirteen parents completed the study. One parent was unable to participate due to scheduling conflicts. After giving informed consent, participants completed a brief survey with demographic information and participated in one 90-minute focus group facilitated by the second author and assisted by a student research assistant to support translation for Spanish-speaking parents. Participant recruitment, informed consent, and focus group activities adhered

to standard procedures of rights of human subjects as dictated by an independent institutional review board process attained prior to initiating the investigation.

A total of 13 parents of 11 teens with ASD participated in the study including 5 fathers and 8 mothers. The parent participants reported their children were from a variety of ethnic/cultural backgrounds, reporting eight from minority racial/ethnic backgrounds. Two families reported speaking both Spanish and English at home, and one family reported speaking both Arabic and English at home. The remaining families were monolingual English-speaking (N = 8). Parent participants reported their teens with ASD were between 13-19 years old (2 female, 8 male, 1 not reported). Participants ranged in family income levels (1 family - \$10-25K, 2 families - 25-45K, 1 family - 45-60K, 5 families – 60K +, 2 families – not reported). Eight mothers of teens were employed (0 unemployed and 3 not reported) and five fathers were employed (3 unemployed and 3 not reported). See Table 1 for characteristics of participants.

Table 1. Participant Reported Characteristics

Characteristic	
Participants	
Mother	8
Father	5
Gender of teen	
Female	2
Male	8
Not reported	1
Child background	
White/Caucasian	3
Black/African-American	6
Hispanic/Latino	2
Family Income Level	
10,000-25,000	1
25,001-45,000	2
45,001-60,000	1
60,001 +	5
Language(s) spoken at home	
English	8
Spanish/English	2
Arabic/English	1
Parent Employment Status	
Mother Employed	8
Mother Unemployed	0
Mother Not reported	3
Father Employed	5
Father Unemployed	3
Father Not reported	3

Parents also described their teen’s educational placement and current services received on a demographic form. It was reported that seven teens were in high school, and six of those in high school were reported to be in the 12th grade. One teen was reported to be in middle school. For three teenagers, the information was not reported. All teenagers were verbally fluent, although in varied educational settings. Four parents reported their teen was in a special education placement, two indicated general education placement, and five were not reported. Only one parent indicated their teen was employed part-time through a workability program. No other teenager was reported to be employed. Seven parents reported their teen was in a social skills group, five were reported to be in speech therapy, one received occupational therapy, one received ABA, and one received recreation therapy/adapted PE services. No teenagers were reported to receive ESL services at school. See Table 2 for characteristics of teenagers.

Table 2. Teen Education Placement and Services Received

Educational level	
College	0
High School	7
Middle School	1
Not Reported	3
Educational Placement	
General Education	2
Special Education	4
Not Reported	5
Employment	
Full-time	0
Part-time	1
Not working/Not reported	10
Services Received	
Social Skills Group	7
Speech Therapy	5
OT	1
ABA	1
Rec Tx/Adapted PE	1
ESL	0

Procedures

The use of qualitative methods provides a systematic way of gathering in-depth information and allows the commonalities and discrepancies in individual perspectives to emerge. Additionally, qualitative methodology provides the opportunity for flexibility to explore questions related to better understanding participants’ perspectives. The method employed in

the current study aligns with phenomenological research because it emphasizes the parents' subjective experiences (Creswell, 2012) and seeks to understand their experiences from their unique point of view. The 90-minute focus group was audio recorded and transcribed by independent research assistants in its entirety for analysis. Interview questions were formed to quickly establish rapport, followed by a series of open-ended questions intended to ascertain parent experiences, opinions, feelings, and knowledge. Participants were informed about being audio recorded and prompted to not use identifying information (e.g., first and last names) during discussion in order to help maintain anonymity. A complete list of questions used to guide the focus group are provided in Appendix 1.

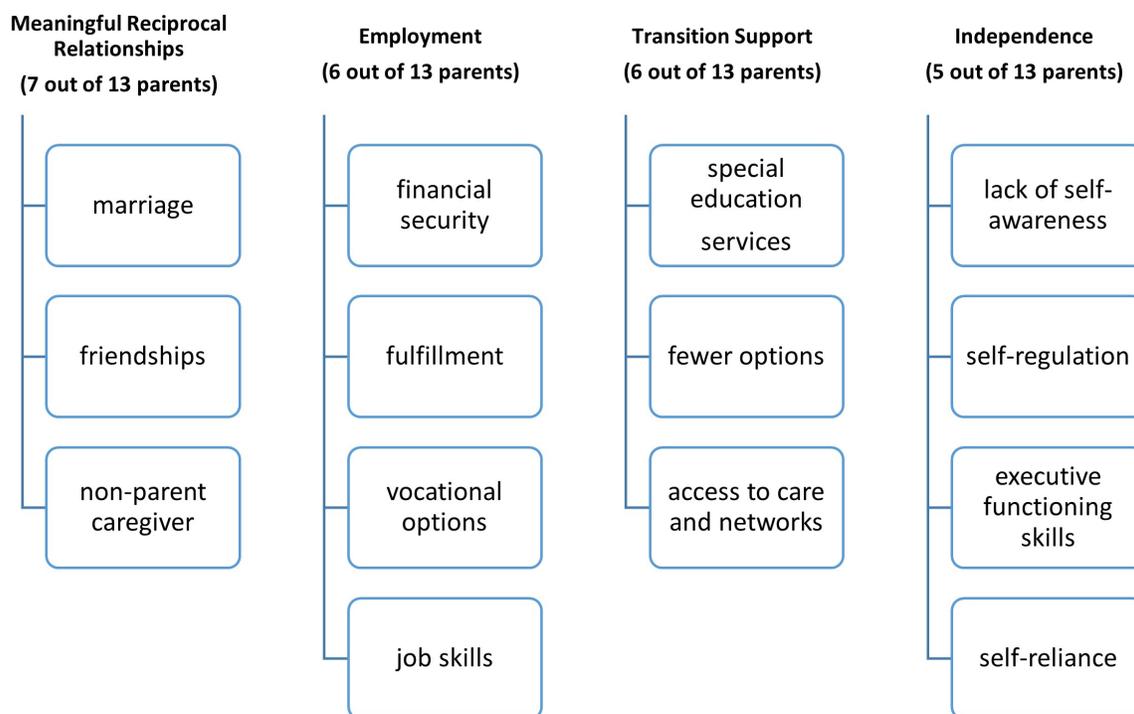
After the interview was transcribed, researchers developed codes, categories, and themes post data collection to form a reverse engineered hypothesis. Two independent assistants conducted initial coding, in addition to one of the primary investigators who did not attend the focus group. The first stage of analysis involved line by line coding to reveal recurring themes and ideas. All coders provided initial codes independently before discussing codes to identify the recurring themes and categories. Supporting quotations were extracted to support each category and reinforce the validity of the theme until the point coders agreed there were no additional data supporting the emergence of new codes or themes, signaling data saturation (Saunders et al., 2018). Analyst triangulation was used by employing at least two in-

dependent coders to review the collected transcripts and interpret the data. Independent coders used grounded theory methodology by allowing ideas and patterns to emerge from the transcript data, rather than first hypothesizing findings (Charmaz, 2006; Dey, 1999). As such, generalizations emerged from the collected data after collection, instead of prior to the focus group. The use of open and axial coding allowed for a systematic, two-phase approach of analyzing the data (Corbin & Strauss, 2008).

Results

Three independent raters yielded a total of eight codes reported by at least half of the participants as concerns about their teenager's impending transition to young adulthood. Codes in order of appearance by frequency included employment, independence, relationships, fading support, friendships, lack of self-awareness, discipline, and lack of life skills. These codes were analyzed and organized into four dominant themes: (1) meaningful reciprocal relationships (reported by 7 out of 13 parents – 54% of participants), (2) employment and (3) transition support (both reported by 6 out of 13 parents – 46% of participants), and (4) independence (reported by 5 out of 13 parents – 38% of participants). Table 3 reflects the development of dominant themes from initial coding.

Table 3. Initial to focused coding of themes (in order of frequency of parent report, N= 13)



Meaningful Reciprocal Relationships

Codes of romantic relationships, friendships, and care were categorized into a larger theme of meaningful reciprocal relationships. Statements from parents about friend(s), friendship, marriage, and relationships were analyzed. Parents reported concerns about who would serve as a caregiver for their child in the future, expressing fears of lack of emotional support for their young adult in their absence. Parents expressed fears about future loneliness. A parent said, “I pray to God maybe God will send him someone in any way. . . Wife, friend, or somebody to continue his life with.” Nearly all parents expressed distress at the idea of dying because of fear of their child being alone and becoming socially isolated. Discerning true friends was a repeated concern expressed by parents. One parent described her teen as naïve. She reported, “The lack of self-awareness. I worry about trusting everybody. Like he trusts everybody.” Many parents expressed concerns about others taking advantage of their children who may not have mastered perspective-taking skills and theory of mind to discern others’ intentions. One parent described a past situation when her son spent his money buying food for his “friends” who never reciprocated the gesture. One parent explained, “I want him to be safe. If I die or something happen to me, my son in a good hand. Not only for money, money you can leave in a trust for them or a bank account, but I really would love to feel safe if I’m gone or, you know, he’s alone there is someone looking after him.” Overall, whether reporting the desire for friends, a parental figure, or a significant other, parents appeared significantly concerned about the need for meaningful, reciprocal intimate relationships to support their children as they transition into young adulthood. Parents expressed fears about future loneliness. For example, one parent expressed, “Cause we aren’t going to be there forever, so appointing someone, finding someone that knows how to work with your child, that’s scary.” Emotional closeness seemed to be a primary concern as parents reported a general idea of wanting their child to have emotional safety via someone to lean on for support, encouragement, and care.

Employment

Many parents discussed the importance of working. Beyond securing a job, parents reported concerns about their children sustaining meaningful employment appropriately matched to their interests and ability levels. Parents cited the need for prevocational programs to assist with the transition to meaningful employment as a means of attaining independence and financial security. Another parent expressed a similar sentiment and said, “They want to apply for a job, but they don’t know how to do anything. What

are they going to do? Picking trash or things like that? I want that they learn to do something. They can pay the bills.” Parents who referenced continuing education via attending community college or a four-year institution mentioned the connection of earning a college degree to being able to obtain meaningful employment. One parent stated their child needed “More options if they can’t just you know clean up or be bus boys.” Overall, report indicates concern about finding employment that is both fulfilling and provides financial stability.

Transition Support

Related to the need for independence was the realization of dwindling support services as parents cited the dichotomy between the abundance of services offered for younger children compared to the limited programs for teenagers transitioning to young adulthood. One parent lamented, “It seems like elementary they give you everything you need . . . high school may be a little different.” Many parents agreed funding for support services becomes increasingly scarce with increasing age. One parent simply stated, “As they become older, the support becomes less.” Another parent agreed and further explained, “That’s one of the biggest things we’ve seen. Like when he was in elementary, the support was everywhere. Then from junior high the support went down. . . and then high school the support even went lower so that’s our fear is once he becomes an adult in the real world.”

Independence

Parents discussed independence as a primary concern. One parent explained, “We just want him to be able to make it without us. Being independent is a big thing . . . Him just being independent is our biggest goal.” Expressing similar sentiments, a parent said, “Hopefully he can be independent and doesn’t need us all the time.” Largely, independence encompassed both small daily tasks such as independence in completing daily chores and activities, as well as large-scale independence such as independent living and financial self-sufficiency. Another parent stated, “We want her to be mentally capable of doing whatever she wants.” Overall, the idea of teens being able to appropriately assume more age-appropriate responsibility and self-sufficiency was a dominant concern.

Discussion

This current pilot study sought to explore the perceptions of culturally and/or linguistically diverse families with teens with ASD preparing to transition into young adulthood. Although this population has been under-engaged in the research literature, un-

derstanding the perspectives of diverse clients within this population is critical to help inform concerns of families during this critical transition period. Previous work examining diverse parent perspectives of transitions with teens with varying disabilities found differences among cultural groups (Landmark et al., 2007; Zhang et al., 2010). Our work adds to the existing literature by examining the parent reported challenges for diverse teens with ASD transitioning to young adulthood using focus group methodology.

Prior research on global outcomes for individuals with ASD suggests that, despite improvements and more opportunities, positive outcomes on work, friendship, and independence are still significantly challenging (Eaves & Ho, 2007). In comparison to their neuro-typical peers, individuals with ASD can face greater difficulty transitioning into independent young adulthood. This challenging transition can lead to poor outcomes such as difficulty finding and sustaining postsecondary employment, successfully completing their education, or living independently with some degree of social involvement. Aligned with other healthcare disparities, culturally and/or linguistically diverse groups of individuals with ASD can experience even more challenges (Bishop-Fitzpatrick & Kind, 2017; Magaña et al., 2012). Thus, direct report of diverse parent concerns is critical to inform clinicians who treat teenagers preparing to transition to young adulthood. Parents in the current study reported more on long-term concerns for employment, rather than post-secondary education. This finding may suggest parents are ultimately interested in outcomes for their children that will support their future livelihood, indicating parents may be more concerned about independence than higher education achievements and milestones. As such, higher education was viewed as a pathway to obtaining a more stable and financially secure job. Comments by parents suggest meaningful employment, rather than limited job prospects with repetitive tasks, is a primary concern as parents repeatedly echoed sentiments of wanting their teen to have a job related to their interests that allows them to support themselves financially. Research attests the chronic unemployment and underemployment of individuals with ASD, often citing challenges of both skills required to complete job-related tasks and the interpersonal skills that contribute to successful employment (Hendricks, 2010). Notably, research suggests the significantly high risk of unemployment for individuals with ASD after high school in comparison to other disability groups and the need for improved transition planning (Shattuck et al., 2012). Similar challenges are found in young adults with specific language impairment who demonstrate less success-

ful outcomes than their typical peers in education and employment (Conti-Ramsden & Durkin, 2012); however, individuals with ASD appear to be one of the most adversely impacted disability groups in regards to postsecondary employment. More research on appropriate supports is needed, but preliminary studies on supported employment approaches for individuals with ASD have demonstrated positive outcomes (Wehman et al., 2012). Additionally, findings on the importance of relationships indicates parents are anticipating their child's existence without them and see the value of emotional, rather than solely financial, supports. In comparison to other disability groups, young adults with ASD demonstrate significantly less social participation, which is an important indicator of quality of life (Orsmond et al., 2013).

Results of the study will contribute to the field by offering information on ways to better assist families of children with autism spectrum disorders as their children transition out of high school and into young adulthood. Direct input from families will help speech-language pathologists and other professionals better serve families as they approach this critical milestone period from high school into college and/or employment. Parents in the current study reported significant concerns about the future for their children; however, they expressed limited optimism in spite of significantly growing opportunities for young adults on the autism spectrum to thrive as they transition out of high school and into the "real world." Speech-language pathologists and other professionals working with families during this transition period should seek to highlight cases of individuals with ASD who successfully transitioned into young adulthood. Sharing positive outcomes for families may help to alleviate some of the reservations during this timepoint. Specifically, sharing targeted anecdotes can assist caregivers who may only be viewing their child's future from a deficit, rather than strength, based approach. While all parents of teens transitioning into young adulthood are experiencing a period of uncertainty, given the known challenges for individuals with ASD, more targeted and direct encouragement to increase awareness of successful outcomes may be warranted to counteract parent apprehension. Targeted campaigns to communicate the accomplishments of individuals with autism spectrum disorder such as climate change activist Greta Thunberg, scientist Temple Grandin, and Kent State Division I basketball player Kalin Bennett, to name a few, may help parents conceive of more positive outcomes for their children focused on their children's unique strengths, rather than only their challenges. These targeted campaigns to share success stories may be even more necessary in

diverse communities who can often find themselves underrepresented in mainstream media. In addition to sharing the stories of well-known individuals, parents may benefit from discussing outcomes of local students such as prior clients who are attending college or working successfully with appropriate supports. In this case, speech-language pathologists may serve as facilitators to help former students share their own outcomes with current families, which may help parents to view the transition into young adulthood more positively, despite this critical transition period often being unknown.

In the current study, parents' remarks of limited varied employment opportunities may be the result of limited networks that have the potential to provide access to pathways to independence such as higher education and/or employment. When possible, clinicians may develop community partners to best facilitate prospective job experiences for teen clients with ASD. Similar to neurotypical peers, experiences like internships and summer employment should not be overlooked for teen students with ASD. Tasks targeting executive functioning skills such as completing a job or internship application, preparing for an interview, organizing a viable work schedule, and budgeting money are tasks that would support functional goals for individuals with ASD transitioning into young adulthood. To support relationships, intervention should be delivered in a group format with age-matched peers when appropriate and clinically feasible. Efforts should be made to support genuine relationship development by assisting teens to identify mutual interests and to organize opportunities for continued social interaction. Tasks such as identifying a clear activity and planning details such as where and when to meet for social outings all target executive functioning goals such as making inferences, perspective taking, and organizing with an end goal in mind. Repeated sessions of social opportunities with fading adult support would serve to assist students to build genuine relationships with peers by repeated exposure as friendships are strengthened and maintained by ongoing interaction. Additionally, clinicians may support families by discussing topics such as estate planning and long-term care in order to better help clients and their families to prepare for the future.

In regards to direct intervention with teenagers preparing to transition to young adulthood, suggested therapy goals during this period may incorporate tasks to increase independence, self-advocacy, perspective taking, and building friendships to provide emotional support. Suggestions such as interventions utilizing antecedents, videos, and consequences in intervention, as well as incorporating preferred in-

terests in socialization activities to foster increased peer engagement have been explored as potential evidence-based practices for adolescents with ASD (de Bruin et al., 2013; Koegel et al., 2013). Further, professionals including speech-language pathologists, vocational counselors, special education teachers, may help families by targeting these essential skills long before the transition to young adulthood takes place to help readily identify areas of greatest need for families. Ideally, interventions for young adults approaching this critical transition period will take place outside of the traditional therapy setting. Rather, intervention could prove most useful in the natural environment and/or with peer involvement to best replicate the "real world" to prepare clients for the next chapter. Clinicians may consider probing students' interests during early teen years in order to consider how those interests may link to potential vocational tracks.

Overall, by considering direct concerns from parents of teenagers with ASD, this current study serves to provide direction about how clinicians may better serve clients and their families preparing to transition into young adulthood. Future directions may include firsthand accounts via direct interviews with teenagers with ASD to ascertain their own perceptions of their future as they prepare for adulthood. Comparing parent to teen perceptions may be a valuable tool to distinguish distinct patterns of congruence and divergence in views of parents and their children. Future areas of research may also explore long-term outcomes for emerging young adults to help identify precise factors that may contribute to optimal outcomes such as independence and meaningful employment for individuals with autism spectrum disorders and their families.

Limitations of the current study include the small sample size and demographics as the 13 participants were all from the Los Angeles area, which limits generalization. While the current study may be limited in scope, it can help to inform intervention practices by providing a better understanding of supports that have been helpful and the assistance that might be absent in supports needed to facilitate transition into young adulthood. Future studies may seek to collect data from additional participants and to analyze finding within cultural groups to generate a more comprehensive understanding of parent concerns across a variety of backgrounds. Additionally, future studies may seek to explore parents' knowledge of available support services during this transition period in order to assess how and where parents are accessing this critical information and if they report such supports to be effective.

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Appendix I

Focus Group Questions

INTRODUCTION

- Tell me about your child. What does he/she enjoy doing?
- What do you think are your child's strengths and weaknesses?
- Which services/groups/etc. have been helpful in your child's successes so far?
- How did you learn about these supports?
- Where do you see your child 5 years from now?
- Do you think your child will live independently?
- Has your child ever expressed a desire to live alone now or in the future?
- In 20 years, how do you see your child taking care of him/herself?/If you were not your child's primary caretaker (not able to be your child's primary caretaker), how do you think your child would take care of him/herself?
- What are your hopes for your child's future?
- What are your greatest fears for your child's future?
- What are your biggest concerns?

HIGHER EDUCATION

- What kind of career field do you see your child entering?
- What kind of career has your child expressed interest in?
- Do you think this choice matches their strengths/talents/abilities?
- Does your child want to attend college or are they attending now?
- Do you want your child to attend college?

FAMILY/RELATIONSHIPS

- Do you have a desire for your child to be with a life partner or married?
- Do you envision your child having a family of his/her own?
- Has your child ever expressed a desire to have a family now or in the future?

SUPPORTS

- Who has helped/is helping you navigate the transition as your child enters young adulthood?
- Who would you identify as your support network in helping you care for your child? How do these individuals assist?
- Do you feel more or less (or the same) level of support as when your child was younger? Do you think the quality of support is the same?
- How is support funded? Insurance, private, regional center, etc.

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EFFECTS OF A VOCABULARY SCENARIO TECHNIQUE ON NINTH GRADE ENGLISH LEARNERS' VOCABULARY ACQUISITION

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— ABSTRACT —

The purpose of this study was to examine the effects of a peer led intervention aimed at improving vocabulary acquisition through explicit vocabulary instruction. The Vocabulary Scenario Technique English Learner Peer (VST-ELP) protocol was administered to the experimental group. The VST-ELP protocol used was an adapted version of the original Vocabulary Scenario Technique. The control group received typical vocabulary instruction from their classroom teacher. The experimental group participants made gains in mean scores from pre- to post-test measures. The results suggest that the Vocabulary Scenario Technique English Learner Peer Protocol was effective in proving the vocabulary acquisition of ninth grade English Learners (ELs). Practical implications are discussed, and recommendations provided.

Keywords: English learner, vocabulary acquisition, reading intervention, secondary education, literacy

Background

English learners (ELs) are described as individuals whose language backgrounds are other than English and they represent the fastest growing school-age population in the United States and have been projected to represent over 40% of the school-age population by the year 2030 (Matthews & Ewen, 2006; National Clearinghouse for English Language Acquisition [NCELA], 2006; Padolsky, 2005; Thomas & Collier, 2001). In comparison to native English speakers, ELs tend to exhibit lower academic achievement in areas like literacy due to English proficiency that is not yet developed to the extent where they can benefit fully from English-only instruction (August & Shanahan, 2006; Klingner, Artiles, & Barletta, 2006). For instance, at the secondary level, ELs face the challenge of learning content while improving their English language proficiency, both socially and academically (de Schonewise & Klinger, 2012). The consequences of limited reading proficiency can be significant, including limited academic success, fewer employment opportunities, financial difficulties, and a challenging overall existence in society.

Reading is described as a complex cognitive activity (Kamhi & Catts, 2012). The simple view of reading (Gough & Tunmer, 1996) consists of two components: decoding and linguistic comprehension. Scarborough (2001) The "Reading Rope" model further describes additional skills housed within these two components. For instance, vocabulary skills, background knowledge and print knowledge are needed for proficient linguistic comprehension, while decoding and phonological awareness is needed for word recognition. Reading skills develop on a continuum. In the early grades, literacy instruction focuses on teaching students to read and in later grades, students are being taught to read for understanding of current and new knowledge (Stone & Learned, 2014).

Vocabulary knowledge is one of the skills needed for language comprehension and is an important determinant of reading comprehension for both narrative and informational texts (Nakamoto, Lindsey, & Manis, 2008; Proctor, Carlo, August, & Snow, 2005). Beginning in the early grades, vocabulary predicts varying reading skills among monolingual children (Hemphill & Tivnan, 2008). However, for students with limited English proficiency, learning to read in English may be challenging if they do not have the necessary knowledge of English vocabulary (Lugo-Neris, Jackson, & Goldstein, 2010). Among ELs' errors, vocabulary errors happen most often, occurring as frequently as three times more often than grammatical errors (Chung, 2012; Gass & Selinker, 2008). Estimates of the receptive vocabulary size of ELs before receiving formal school instruction vary

from 5,000 to 7,000 or even 10,000 words (Biemiller & Slonim, 2001; Blachowicz, Fisher, Ogle, & Watts-Taffe, 2006; Chung, 2012; Graves, 2007). Graves (2007) suggested that an estimate of 3,000 to 6,000 English words is reasonable for ELs vocabulary size to be successful in comprehending text.

Vocabulary Knowledge and Reading Comprehension

Singleton and Shuleman (2019) define vocabulary as the words people must know to communicate effectively and exist in both oral and written modes. The breadth of vocabulary and depth of vocabulary knowledge are the two dimensions key to developing vocabulary knowledge; therefore, making learning a word a gradual process (Taboada, 2009). The breadth of vocabulary knowledge is defined as vocabulary size (Chung, 2012). The depth of vocabulary knowledge refers to literal meanings, connotations, antonyms, synonyms, morphological forms, and syntactical forms. Past studies (Sidek & Rahim, 2015; Beck & McKeown, 1989; 2007) have indicated that an extensive vocabulary is one of the strongest indicators of reading capability and comprehension. Studies have proven that one's word knowledge is related to comprehension as early as elementary school and has the potential to impact high school as well (Neuman, Newman & Dwyer, 2011). The depth of vocabulary knowledge affects not only reading comprehension but also oral comprehension. It enables listeners to identify syntactic relationships, a requirement for sentence comprehension (Chung, 2012).

Theories of reading development highlight the importance of vocabulary as well as breadth and depth of vocabulary knowledge (Li & Kirby, 2014; Lugo-Neris, Jackson, & Goldstein, 2010, Nation and Snowling, 2004); which is specifically the lexical quality hypothesis (LQH) (Shen, 2008; Johnston, Mercer, & Geres-Smith, 2018; Perfetti, 2007). According to the LQH, skilled reading depends on high-quality lexical representation; therefore, intervention for ELs consists of a strong focus on vocabulary development (Li & Kirby, 2014).

English Learners and Vocabulary Instruction

Interest in the relationship between vocabulary and reading comprehension has a long history in the research of English as a Second Language for Foreign Language (ESL/EFL) reading (Shen, 2008). For the past decade, growing attention has been placed on vocabulary instruction due to inadequate instruction in elementary and secondary classrooms (Sibold, 2011; Biemiller & Boote, 2006). Academic vocabulary, specifically the language that may occur in multiple contexts or the precise words that are presented in a specific context, can help students acquire new learn-

ing strategies and skills (Marzano, 2004). Furthermore, Sibold (2011) notes that vocabulary is notably more difficult to learn than conversational language because it is more abstract; therefore, heightening difficulty in acquisition. In the United States, there are no reliable estimates of the breadth of vocabulary of Spanish-speaking ELs upon school entry or of the magnitude of their vocabulary growth over a school year (August et al., 2005). ELs often feel that vocabulary is a frequent obstacle as they are immersed in the classroom, which is problematic with vocabulary being a critical component and correlates with how they read and comprehend text (Hunt & Feng, 2016; Silverman & Hines, 2009). For example, the National Assessment of Educational Progress (NAEP, 2009) revealed that ELs with varying backgrounds are below proficiency. Students often score below the proficiency level because they lack major components of good reading skills such as making inferences, making connections, and drawing logical conclusions (Cisco & Padrón, 2012).

For EL students, their development and English proficiency will take time. We are aware that they move along a continuum of overlap in stages of language acquisition, which allows the instructor to scaffold with varying strategies (Coady & Huckin, 1997; Meara, 1988). Instructional approaches of vocabulary have varied in the amount of emphasis placed on the explicitness or implicitness for teaching specific words, the types of vocabulary taught (text vs. content), and the depth and breadth of the words taught (Taboada, 2009). Explicit teaching of vocabulary words creates rich language contexts in which students are exposed to words on multiple occasions and where word awareness is created through the explicit focus on words (Taboada, 2009). Specifically, explicit teaching is characterized by the use of shared book reading, interactive hands-on activities, and repeated vocabulary knowledge as techniques found to increase vocabulary knowledge (Restrepo, Morgan & Thompson, 2013).

ELs typically move through different stages as they acquire English proficiency and they might need opportunities for comprehensible input; therefore, they need more instructional support (Deussen, Autio, Miller, Lockwood & Stewart, 2008). Effective vocabulary instruction emphasizes direct instruction (Sibold, 2011). By using direct instruction and elaborating on vocabulary instruction, teachers can incorporate relevance into before, during, and after reading stages of instruction (Sibold, 2011). During direct instruction, teachers help to facilitate the effectiveness by supporting student participation, checking for understanding of concepts, while practicing utilization of new words (Green, Stockholm,

Cearley & Sheffield-Anderson, 2015). There are several instructional practices for teaching vocabulary words, which include: (a) repetition, (b) signal word of the day, (c) talk through, (d) academic vocabulary journals, (e) graphic organizers, and (f) board games (Sibold, 2011). Green, Stockholm, Cearley, and Sheffield-Anderson (2015) reported that ELs who were exposed to activity-based practices to help them understand methods had more success in acquiring new vocabulary compared to those who received traditional methods of vocabulary exposure such as tests on everyday dictionary words.

It is evident a need exists for more experimental and quasi-experimental studies on approaches for enhancing ELs' vocabulary knowledge (Chung, 2012). Vocabulary knowledge plays a crucial role in closing the literacy achievement gap amongst ELs (Chung, 2012). The present study aimed to explore the effects of a Vocabulary Scenario Technique English Learner Peer (VST-ELP) protocol for ninth-grade ELs who struggled with literacy.

The following research questions were posed:

Research Question 1: When controlling for language proficiency, do ninth-grade ELs receiving peer-assisted vocabulary intervention with the VST-ELP protocol, demonstrate greater gains on a multiple-choice synonym test than EL ninth graders who are taught using typical vocabulary instruction by a ninth-grade EL teacher?

Research Question 2: When controlling for language proficiency, do ninth-grade ELs receiving peer-assisted vocabulary intervention with the VST-ELP protocol, demonstrate greater gains on a fill-in-the blank/word-bank sentence test than EL ninth graders who are taught using typical vocabulary instruction by a ninth-grade EL teacher?

Method

Procedures

We obtained institutional review board (IRB) approval from the authors' university as well as the school district's IRB where the study took place. The study set out to explore if EL ninth-grade students receiving intervention with the VST-ELP protocol made any gain scores on multiple-choice synonym test and word-bank sentence measure than their counterparts who did not receive this intervention, especially when we control for language proficiency. We controlled for language proficiency because even though the students, by their State-mandated Comprehensive English Language Learning Assessment (CELLA) scores, were deemed proficient in English

(i.e., able to speak and understand English), they still struggle with understanding synonym and sentence tests.

Thirty-six EL students were randomly assigned to experimental and comparison groups. The students were already assigned to reading classes per their scores on the Florida State Assessment reading portion. Even though participants were randomly assigned to either the experimental or comparison group, we classified this study as quasi-experimental because groups were not representative of a single population (Sprinthall, 2007).

The intervention and typical instruction were conducted simultaneously over a four-week time period. The experimental and comparison groups were each taught 32 words, eight words a week. The experimental group received the VST-ELP protocol from the lead researcher while the comparison group received their typical vocabulary instruction from their classroom teacher. Typical vocabulary instruction included methods used by the teacher to teach vocabulary.

Setting

The study took place in an urban Title 1 Central Florida high school. Table 1 describes the school district demographics, vis-à-vis the school (study site) demographics.

Table 1

Comparative Demographics of School District and High School

Description	School District	High School
Caucasian	28%	2%
African-American	27%	84%
Hispanic	38%	10%
Asian/Pacific Islander	2%	1%
Multicultural	2%	3%
Exceptional Learning Students	22%	17%
English Learners	28%	12%

This particular high school has the largest population of Haitian American students in the district. For school demographic purposes, Haitian American students were counted as African-American.

Participant Selection and Randomization

After addressing all ethical considerations, 36 English learning students were randomly assigned to experimental and comparison groups. Two students

were not included due to their absences reducing the total participant number to 34. Eighteen students were in the experimental group, and 16 students were in the comparison group.

Eighteen (56%) participants were female and 14 (44%) were male. In the comparison group, there were five (31.3%) males and 11 (68.8%) females. However, in the experimental group, there were nine (56.3%) males and seven (43.8%) females. Median age of participants was 15 years ($M = 14.97$; $sd = .93$). Of the 34 participants sampled, 29 were Haitian and five Hispanic. All participants spoke another language apart from English at home – Haitian Creole (81.3%) and Spanish (15.6%).

The participating classes were two double block English learning reading classes. Double block classes mean that students are getting twice the instructional time that other students get. According to the Florida Department of Education, high school students who scored at Level 1 or Level 2 on the Florida Comprehensive Assessment Test reading portion and have intervention needs in the areas of decoding and/or fluency must have an extended block of reading intervention.

Once students were assigned to the experimental and comparison groups, they were placed in dyads according to their language proficiency levels. Stu-

dents' language proficiency levels were determined by their CELLA scores. The No Child Left Behind (NCLB, 2001) provided for creation of Assessments of EL students that aligns with rigorous state standards. Based on that mandate, the CELLA is one of the four assessments that many secondary schools utilize to test their English learners (Bunch, 2011). The CELLA assessment was created to reflect the reality of the process for instruction and acquisition

in diverse classrooms today for EL students. There are some students who quickly make continuous progress in developing reading, listening, writing and speaking, while others struggle in varying areas in English (Rebarber, Rybinski, Hauck, Scarcella, Buteux, Wang & Cho, 2007). The CELLA design addresses legitimate concerns for educators who support the wellbeing and success of EL students. In secondary schools, the CELLA test helps to determine if the students are prepared to exit the EL program, but some schools use it to keep programs accountable in providing appropriate services for the students (Rebarber, Rybinski, Hauck, Scarcella, Buteux, Wang & Cho, 2007) For this study, the student language proficiency levels were determined by their CELLA scores.

The students were placed in eight dyads. The dyads consisted of one student who was proficient in English and one student who was not proficient in English. Students identified as being proficient or high intermediate in speaking English according to their CELLA were selected to be interpreters for their peers who were identified by the CELLA as either a beginner or lower intermediate in speaking English. Once the interpreters were identified, they received a 30-minute training by the lead researcher the day before the intervention began. The training consisted of showing the interpreters how to use their prompts for interpreting.

The classroom teacher providing the typical vocabulary instruction was an English to Speakers of Other Languages (ESOL) teacher. She had a background in Spanish and a teaching certificate in ESOL and world language Spanish as well as endorsements in reading and ESOL.

Experimental Measures

An informal synonym test and fill-in-the-blank/word-bank sentence test was developed and used as pre-and post-test measures for both the experimental and comparison groups. The synonym test was developed and used for the Vocabulary Scenario Technique (VST) pilot study (Ehren, Zadroga, & Proly, 2010). The fill-in-the-blank/word bank sentence test was developed and used for the Spielvogel (2011) Vocabulary Scenario Technique- Language Sensitive (VST-LS) study. The VST-LS had a less intensive protocol that included 14 word encounters and was conducted at an elementary school. The synonym test was developed from a corpus of 44 Tier-2 words selected from a reading passage being taught during the time of the study. The classroom teacher selected the words based on their complexity compared them to previous words the students had learned in class. The results of the synonym test led to another corpus

of words that met the criteria of more than 50% of the students not knowing the word. These words were then used for the fill-in-the-blank sentence test.

The lead researcher utilized the VST-ELP protocol for the experimental group. The VST was first created as a protocol intended for use by speech-language pathologists and teachers for direct vocabulary intervention in a classroom or therapeutic setting (Ehren, 2008). The VST, created to meet the needs of students at different English proficiency levels allows the speech-language pathologist and/or teacher to provide scaffolding to students as they experience several encounters with new words (Ehren, Zadroga, & Proly, 2010). Specifically, it is an explicit instructional technique grounded in scenarios, short stories of two to five sentences that are created to reverberate with students' experiences and explicate the meaning of the targeted words. The scenarios provide a base for language-focused vocabulary instruction which include listening, reading, speaking, and writing (Ehren et al., 2010).

Intervention for Experimental Group

The VST-ELP protocol required student encounters, which is defined as the number of times the students were exposed to the English target words. The protocol presented 20-word encounters to participants. After the word was presented to the group, the lead researcher held up a written sign that read "interpret." This prompted the interpreters to turn to their peer in their dyad and provide the English instruction in the peer's primary language for their understanding. For the purpose of this study, this act was described as the interpreting moment.

For day one and two of the protocol, the lead researcher taught four words each day and the students experienced 16 encounters with those words. Encounter one was a visual display of the vocabulary scenario presented by the researcher on paper. Encounter two allowed the peers in the dyads to interpret the scenario. In Encounter three, the first author required the students to suggest a synonym for the word. Encounters four and five allowed the peers in the dyads to interpret the word and suggest a synonym. In Encounter six, the group was required to read the scenario aloud with the target vocabulary word and the synonym. Encounters seven and eight required the students to write the target word on their portable word wall. Encounters nine and ten, required the students to write the target word and think about how they could use the target word in a sentence. Encounters 11 and 12 allowed the students to create sentences using the target word (these sentences were elicited from students who did not require interpretation). Encounters 13 and 14 allowed

the first author to select the best sentence using the target word and write it on the board for the students to copy on the back of their portable word walls. Encounter 15 allowed the peers in the dyads to interpret the information for reviewing the words and saying the synonyms together. Encounter 16 allowed for another recital of the synonym in unison by the class. On day three, the students were introduced to the morphological variations of the eight words they learned during the week. The morphological variations were encounters 17-20.

Intervention for Comparison Group

The ESOL teacher used a different method of instructing the control group but used the same vocabulary words as was used with the experimental group. The students who were in the comparison group were not grouped into dyads. Many of the students in the comparison group had various levels of English proficiency, but they often interpreted for one another in the classroom during vocabulary and other instructional activities.

The classroom teacher began by dividing the group into two teams. The teacher introduced the target words to each team to determine if the students were familiar with it. If a team was familiar with the word, she would then ask for their interpretation of the word. If the team's interpretation of the word was correct, she continued. If the team's interpretation of the word was incorrect, she would instruct students to review the word (such as looking at the beginning, middle, and end of the word) to see if they recognized any familiarities with it. If the teams were still not familiar with the word, the teacher provided the definition, synonym, and antonym for the word. The teams were then instructed to fold a piece of paper into four squares and write the word in the middle and in the top left they wrote the definition.

Once the students finished discussing the word, they completed a review. The method of review used was similar to the game of Taboo. It required that the students be divided into two teams. The teacher wrote the word on a piece of paper. An individual from each team showed the word to his or her team. The other team had to then attempt to guess the vocabulary word. The teams were allowed to act out the words and use other words to guess the targeted vocabulary word. Once a team member guessed the correct word, they had to provide the definition, synonym, and antonym.

Analysis

Raw data for participants were entered into SPSS V26, where descriptive statistics were used to analyze

participants' demographic information. Participants' pre and post-test scores were classified as dependent variable; the two groups, the independent variable, and the CELLA scores was the covariate. Because of the classification of these variables, the test most suited to address the research questions was the analysis of covariance (ANCOVA; Field, 2013; Lomax & Hahs-Vaughn, 2012). In conducting an ANCOVA, we want to establish that there is no mean difference in the dependent variable (post-test scores) between groups (comparison and experimental) when controlling for the covariate (CELLA scores).

We chose to use a one-way analysis of covariance (ANCOVA) to address the research problem – holding CELLA scores constant, what gain scores are identified in experimental group versus comparison group when the VST-ELP protocol is used in teaching 9th grade EL students synonyms and sentence completion? The ANCOVA is an extension of the one-way analysis of variance (ANOVA). However, whereas the ANOVA explores differences in group means, the ANCOVA identifies differences in adjusted means – means that have been adjusted for the covariate (Lomax & Hahs-Vaughn, 2012). We statistically control for a covariate when there is an indication that a “confounding variable” will affect the results (Field, 2013).

Some assumptions to consider when conducting an ANCOVA include independence of observations, which means our groups need to be two or more (i.e., experimental and comparison); our covariate and dependent variable should be continuous; normal distribution of the covariate and dependent variable; covariate should have a linear relationship to the dependent variable; and homogeneity of variance (Lomax & Hahs-Vaughn, 2012). The Levene's test is used to assess for homogeneity of variance. If the significant value in the Levene's test is more than .05, then the assumption has been met. Finally, a grouped scatter plot of the variables is used to test the assumption of linearity.

Results

Descriptive data for all of the dependent measures are presented in Table 2. Some of the participants had missing data because even though they were present for the pretest, they were absent during the post-test measurement. We were therefore left with 14 participants in the comparison group and 15 in the treatment group.

Table 2: Means and Adjusted Means for Variables

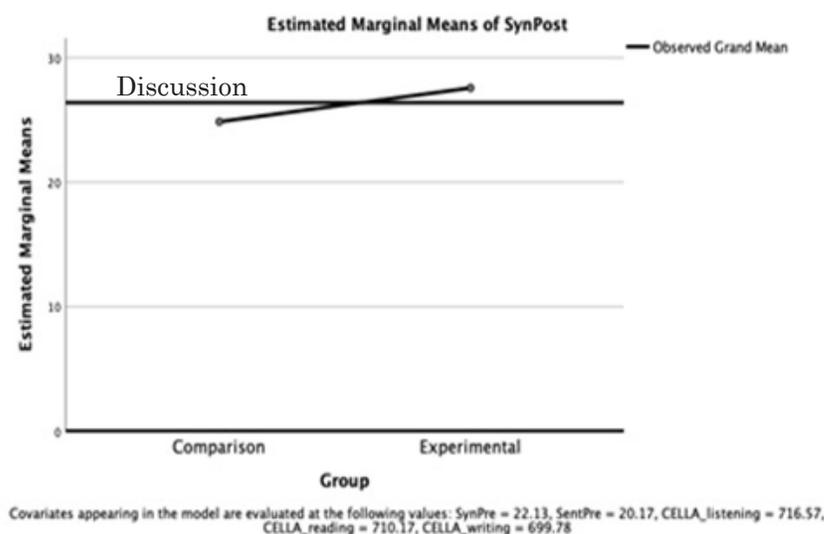
Group	N	Synonym			Sentence		
		Mean	SD	Adjusted Mean	Mean	SD	Adjusted Mean
Comparison	14	25.00	7.23	23.50	22.00	11.65	22.42
Treatment	15	26.07	8.12	27.47	24.07	11.83	23.68

The results of the ANCOVA suggest a statistically significant effect of the covariate on the dependent variable ($F_{\text{synonym}}[1, 26] = 6.51; p = .02$) with a moderate effect size (partial eta squared $[\eta^2] = .20$). The effect size suggests that about 20% of the variance in synonym can be accounted for by the VST-ELP protocol when controlling for CELLA scores. Difference between mean (26.07; $sd = 7.23$) and adjusted mean (27.47) indicated an improvement in synonyms. Mean score for comparison group, however, demonstrated a reduction between the mean (25.00; $sd = 7.23$) and the adjusted mean (23.50).

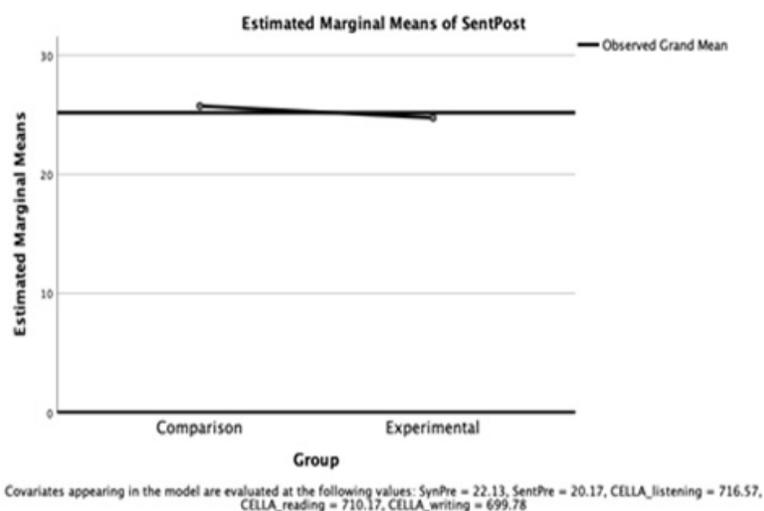
When the ANCOVA was performed for sentence completion, there was no statistically significant effect of the covariate on the dependent variable ($F_{\text{sentence}} [1, 26] = .53; p = .48$); effect size was small (partial $\eta^2 = .02$). Means for treatment group (24.07; $sd = 11.83$) was higher than the adjusted mean (23.68). Interestingly, the comparison group score increased from the mean (22.00; $sd = 11.65$) to the adjusted mean (22.42). These analyses are validated by the graphs (see Figure 1).

Figure 1

Graphs of estimated marginal means of synonym and sentence at posttest



The purpose of this study was to examine whether an explicit method of teaching vocabulary, the VST-ELP protocol was effective for increasing the vocabulary of ninth-grade EL students. The results of repeated measures ANCOVA and ANOVA indicated the protocol to be effective in increasing scores of the experimental group on the synonym post-test. For the sentence test, the protocol was effective in increasing post-test scores for the experimental group.



For Research Question 1, results from the descriptive statistics confirmed that the experimental group made higher gains on the synonym post-test than the comparison group. The experimental group mean score increased by six points on the post-test, even though this group's pre-test mean score was four points lower than that of the comparison group. The comparison group showed a two-point mean score increase from pre- to post-test on the synonym test.

The effect of the synonym test between the experimental and comparison group was not statistically significant when controlling for the covariate, even though there was a medium effect size. Neither the experimental nor the comparison group had scores that showed enough improvement to have a significant effect. There

was, however, a statistically significant interaction effect of the synonym test between the experimental and comparison groups.

This indicated that no variance could be accounted for from the sentence test between the two groups. The VST pilot study and the VST-LS both showed statistically significant differences in the post-test scores for the synonym and sentence measures between the experimental and comparison groups. These results were encouraging and showed that explicit vocabulary instruction can be beneficial for all students who are acquiring new vocabulary. The major difference between these studies and the VST-ELP was that monolingual English speakers were the participants. Because this is the first time this instrument has been used with this population, we recommend that other researchers use it with similar populations to establish whether the sentence completion portion will demonstrate any statistically significant gain scores between pre-test and post-test.

Limitations and Recommendations for Future Research

Although the results of the study are promising, there were some limitations. In regard to the CELLA/language proficiency scores, some of the scores were not indicative of the participants' current English proficiency. The school system administers the CELLA annually to students until they are classified as being English proficient. With the exception of five students, all participants were last administered the CELLA in March of the previous school year. This study took place between March and April of the following year. Thus, participants who were not yet English proficient should have taken the CELLA again in March, but those scores were not available to the researcher. Therefore, there was no way of determining if participants had acquired English proficiency or if some were still functioning at lower levels of proficiency.

Another limitation was interpreting in Creole. Even though the students were paired in dyads with peers who had higher English proficiency scores, the interpreters sometimes indicated that they were unable to interpret certain words in Creole. For future research, it would be beneficial to have a professional interpreter who speaks Haitian Creole and could ensure that the students were comprehending what was being said to them. Also, having access to current English proficiency scores would help identify the proficiency level of participants and ensure that those who need an interpreter/peer tutor are assigned to one.

Summary

It is known that vocabulary acquisition plays a critical role for English Language Learners in school achievement and learning English (August et al., 2005). This study revealed that the VST-ELP could be a useful instructional tool for adolescent English Language Learners. Vocabulary plays a large role in reading comprehension for adolescents as they go through high school and into secondary placements or the workforce (Ott, 2001). The results of this study showed support for using explicit vocabulary instruction with adolescents. Being able to explicitly teach vocabulary to EL adolescents will add to their thinking, reading, writing, listening, and speaking skills. Sibold's (2011) recommendations on teaching vocabulary instruction with an emphasis on direct instruction. The direct, explicit instruction from this study can help students understand vocabulary before, during, and after their stages of reading instruction.

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FORGING COMMUNITY PARTNERSHIPS TO REDUCE HEALTH DISPARITIES IN LOW-INCOME AFRICAN AMERICAN ELDERS OF NORTH ST. LOUIS AT RISK FOR DEMENTIA

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— ABSTRACT —

Low-income African American elders experience disproportionately high prevalence of dementia, preventable hospitalizations, healthcare cost and caregiver burden. We describe our clinical program of group therapy services for low-income community-dwelling African American elders at risk for dementia, in partnership with two community health centers in the historic neighborhood of The Ville in North St. Louis. During our group sessions conducted in a revered setting at the heart of this neighborhood, our interventions incorporated culturally meaningful activities informed by input from participants and on-site staff. The program also promoted aging health literacy, leveraged local university and community resources for guest lectures and engaged in referrals to related health services as well as training on mobile technology devices. As a result of their involvement in our weekly group sessions, participants reported a) implementation of actionable new knowledge acquired during our activities and discussions; b) less stigma surrounding their perceived disabilities; increased utilization of local healthcare services; and c) enhanced confidence and independence with mobile technology. Preliminary data suggest that our provision of comprehensive, integrated and preventive services through our campus-community partnership can be a model for reducing health disparities that systematically affect African American elders at risk for dementia.

KEY WORDS: African Americans, Aging, Dementia, Health Disparities

I. INTRODUCTION

Population trends suggest that underserved elderly minorities, including African American and low-income communities, experience greater prevalence but inadequate or delayed detection of dementia, increased numbers of preventable hospitalizations, and higher healthcare cost burden (Al Hazzouri et al., 2017; Alzheimer's Association, 2019; Chin, Negash, & Hamilton, 2011; Glymour & Manly, 2008; Kaufman, Gallo & Fahs, 2018; Ouvrard et al., 2016; Reitz et al., 2010; Zhang et al., 2015). Statistics on dementia and mortality in the state of Missouri reflect these national trends (Glymour et al., 2011; Liu et al., 2015). To answer repeated calls to action for speech-language pathologists to address and correct health disparities experienced by aging minority populations at risk of dementia (Ellis et al., 2016; Fleming & Harris, 2017; Mayo & Mayo, 2016; Threats, 2010a), we developed the "Senior Social Group For Brain Health As We Age", a novel and unprecedented clinical program for economically disadvantaged African American elders of North St. Louis.

The ultimate aim of this community-based clinical service endeavor, continuously operating since its foundation in January 2017, was to create a model for reducing dementia-related health disparities that systematically and disproportionately affect populations of underserved and economically disadvantaged elderly African Americans in urban settings such as North St. Louis. This model met the cultural and linguistic needs of our participants by tailoring group sessions and performance assessments according to their specific characteristics. In this description of our clinical program, we first provide an overview, then we highlight each of the components identified as contributing factors to the success enjoyed by our group's stakeholders. These crucial contributing factors were: 1) the symbolic significance of the historic setting of our group sessions; 2) our attention to the cultural and linguistic backgrounds of each participant; 3) our efforts to enhance health literacy for matters related to aging; 4) our recruitment of representatives from local universities and other organizations for guest lectures; 5) our provision of hearing health services through our university's audiology clinic; and 6) our integration of mobile technology into our sessions. Our protocol was dynamically adapted to respond to repeatedly solicited feedback from participants and input from the staff of our community partners CareSTL Health and Northside Youth and Senior Service Center.

II. PROGRAM DESCRIPTION

Participants: From the launching of our program

in January 2017 through 2020, over 20 elderly African American residents of North St. Louis who were long-standing clients of CareSTL Health and Northside Youth and Senior Service Center, Inc., were recruited to our "Senior Social Group For Brain Health As We Age" thanks to referrals by the CareSTL Health Medical and Behavioral Health staff. Participants' ages ranged from 62 to 92 years old. Upon recruitment to our group, participants were screened with the Saint Louis University Geriatric Workforce Enhancement Program's Rapid Geriatric Assessment, a screening tool to evaluate frailty, nutrition, loss of muscle mass (sarcopenia), and cognitive function (Morley & Adams, 2015). Moreover, all participants subjectively reported experiences of cognitive-communicative decline, such as decreased concentration, verbal memory and spatial orientation capacities. No specific diagnosis of mild cognitive impairment or dementia was required for entry into our group.

Leadership: The group was led by the first author (WP), whose background in cognitive neuroscience of language, linguistics with concentration on cross-linguistic comparison, and medical speech-language pathology allowed prioritization of cognitive-communicative impairments as therapeutic targets (see Figure 1). Assisting in preparation and leadership of group sessions were graduate-level students training in speech-language pathology, one undergraduate pre-medical student training in neuroscience, and another undergraduate student training in both speech-language pathology and sociology. Graduate students were supervised by WP as part of their clinical practicum experience. One member of our team was African American, and the other members identified as Caucasian, Semitic (Middle Eastern) or Asian.

Weekly Group Focus: An average of 10 to 12 participants attended our weekly group sessions; not all of the 20 recruited participants overlapped, as some left the group in 2018 for reasons of declining health while others joined our group more recently. Activities were constructed with an emphasis on age-related health topics relevant to dementia risk such as hearing and vision loss, nutrition, mnemonic strategies, stress management, and chronic renal and cardiac conditions (Bourgeois et al., 2016; Fortune et al., 2013; Lin & Albert, 2014). Weekly 2-hour-long sessions engaged members in activities that stimulated social interaction, communication, memory and executive functions. Inherent within our group leadership was the value of inclusion: the learning environment was optimized to promote socialization among members while simultaneously adapting group tasks to each individual's wants and needs.

An illustration of a popular collective initiative that resulted in a product of great pride was composition of a blog-post about our group for the Diverse Elders Coalition website (Postman, 2019). Each participant contributed to our blog-post entitled “Group sessions in St. Louis offer hope and help to African Americans at risk of cognitive decline”. Also, each participant reviewed, edited and approved the final draft before publication on the Diverse Elders Coalition website and social media page. After publication, each participant received a printout of our blog-post, and instructions for accessing the website through their personal mobile devices.



Figure 1. Dr. Whitney Postman, Ph.D./CCC-SLP served as team leader of our “Senior Social Group For Brain Health As We Age”. This scene depicts our setting, in the auditorium of the historic Homer G. Phillips Hospital at the center of The Ville neighborhood of North St. Louis.

III. SYMBOLIC SIGNIFICANCE OF OUR SETTING

Weekly group sessions were conducted in North St. Louis at CareSTL Health’s site on the grounds of the former Homer G. Phillips Hospital (HGPH). HGPH has been a meaningful symbolic site for the St. Louis African American community since 1937, when HGPH opened its doors as a segregated facility that welcomed African American patients. Until

its forcible closing in 1979, HGPH served as the premiere teaching hospital for African American physicians, nurses and allied health professionals (Fitzpatrick, Shackelford, & Robinson, 2018). The history of HGPH continues to serve as an emblem of black excellence in medicine and the persistent need to overcome racial health disparities.

Group leaders demonstrated respect for the cultural heritage of our participants by inviting them to engage in urgent debates relevant to the legendary HGPH setting and the surrounding African American community. For instance, in recent years racial conflicts in St. Louis and other cities in the state of

Missouri have riveted the nation’s attention. Notably, the killing of Michael Brown on August 9th, 2014 in Ferguson, a city in St. Louis County, and outcries against racism throughout 2015 at the University of Missouri’s main campus in Columbia, have propelled Missouri onto the national stage as a focus of discourse on deeply rooted and persistent racial inequalities, in particular the intersections between race and poverty (Gordon, 2008). These events fostered topical discussions about racism that were channeled by the group leaders into deliberations about racial health disparities.

Our team repeatedly underscored our group’s goal of continuing the legacy of HGPH: our group strove to address and correct the accumulation of a lifetime of racial health disparities affecting aging populations, at the very site in the participants’ community that was constructed to address and correct racial health disparities.

To illustrate, our team shared a provocative news article entitled “Black women are suffering from Alzheimer’s disease and nobody’s talking about it” (Meadows-Fernandez, 2017). Our participants took turns around our table to read this article in its entirety aloud, with assistance from our team members as needed. It sparked scintillating discussion about their own experiences with dementia in their families. One participant reported biweekly visits to a nursing home where her older sister was residing

and receiving care for Alzheimer's disease. Her confession to feelings of sadness and helplessness as she witnessed her sister's decline led to an outpouring of expressions of support from our group members, all of whom were then compelled to share similar family experiences.

Another participant insisted on expressing her dissatisfaction with the premise of this news article. She asked, "Why is the news always talking about black people as if we're sicker than everybody else?" Our team responded to this participant's poignant inquiry by validating her objections and elaborating upon them in a way that re-directed the entire group's attention to a positive development described in the news article. Group leader WP answered, "I'm so glad you said that, Ms. J——. You're absolutely right! Health disparities are totally offensive. That's one reason our group gets together every week. Check out what the article said about new organizations aimed at connecting with and educating African American elders, like the Purple Power Champions initiative in Colorado. Isn't that what we're doing together right here in St. Louis with our group? We're in this fight together, Ms. J——!" This response was deemed acceptable to this participant, because it restored power to her and the other participants through our collective action as a unified group with an expressed purpose to combat and overcome longstanding health inequities.

IV. INDIVIDUAL, CULTURAL AND LINGUISTIC DIVERSITY CONSIDERATIONS

Crucial to the success of our group sessions was person-centeredness. More specifically, participants were respected as unique individuals whose self-worth was reaffirmed through consideration of their specific histories, personalities and coping mechanisms. Choices of activities inspired by evidenced-based techniques including group games such as "Brain Health Jeopardy", word-search contests, and reminiscence tasks (Harris, 1997) were offered to cater to each participant's interests and capacities. Discourse was enhanced through pragmatic turn-taking cues, and reading and writing were supported with orthographic, phonemic and semantic assistance. We led conversations and activities that elicited participants' voluntary personal narratives about their individual backgrounds.

The interactive approach of our team with the participants was informed by foundational research on cultural and linguistic sensitivity in care for diverse populations (Harris & Fleming, 2009; Harris, Fleming & Harris, 2012; Mayo & Mayo, 2016; Payne, 2011, 2014; Wallace, 2014). Crucially, our team never entertained any preconceived notions or general-

izations about the cultural and linguistic characteristics of our participants. With regard to language, we refrained from unfounded assumptions, such as the false premise that all of our participants spoke only an African American English dialect or a local St. Louisan dialect. To illustrate, the spontaneous exchange given below occurred between a subset of our participants (referred to as Participants 'A', 'B' and 'C' for convenience) during a group conversation on their childhood backgrounds. This exchange revealed that they were acutely aware of their distinctive speech patterns based on their places of origin, as well as how their speech patterns had evolved in response to the socio-political pressures of the communities that they encountered in St. Louis. Through these spirited exchanges, our participants and our team members demonstrated mutual respect for our inherent diversity.

Participant A: I came from Clarksdale, Mississippi. So I hold my chest up and be proud of myself. I used to hate it. Say I don't want that, right, all them country folks down there, right? And then when I come up here (...) it was starting to get where I would get that country talk outta me. But sometimes when I talk I feel it comin' back. You know, that accent.

Participant B: Southern drawl.

Participant A: Right, you know! But I mean, I used to be embarrassed by it.

Participant C: A lot of people were born in Mississippi, in St. Louis. 'Cause I ran into a lotta people...

Participant A: But then they be talkin' about way down yonder. Now I don't know what that means.

Participant C: Uh-huh!

Participant B: The Bayou girls!

Participant A: Is that what they said?

(Laughter around the table)

(November 28, 2018)

V. AGING HEALTH LITERACY

A secondary goal of the group was to provide them with comprehensive, integrated, and perhaps most crucially, *preventative* health services. The emphasis on prevention is now a dominant trend in the science of care for aging populations (Livingston et al., 2017; Vellas & Morley, 2018), especially those at highest

risk of dementia due to chronic health disparities (Dilworth-Anderson, Pierre & Hilliard, 2012; Mayo & Mayo, 2016). We introduced group participants to lay-friendly accessible literature on relevant issues related to our theme of “Brain Health As We Age”, with the aim of enhancing participants’ literacy for issues directly related to their health statuses (Qualls, 2014). We routinely distributed handouts, print-outs, brochures, pamphlets and booklets from authoritative sources such as the National Institute on Aging, the National Institute of Neurological Disorders and Stroke, the National Institute on Deafness and Other Communication Disorders, the Alzheimer’s Association, the Centers for Disease Control and Prevention, the Mayo Clinic, the Cleveland Clinic, the American Heart Association and the American Diabetes Association.¹ Participants appreciated our distribution of visually appealing and highly informative materials to take home, review, and share with relatives, friends, and other healthcare professionals. They claimed that these materials deepened their understanding of aging health and improved their communication with their healthcare providers.

VI. RECRUITMENT OF LOCAL HEALTH RESOURCES

Among the most popular features of our “Senior Social Group For Brain Health As We Age” was our involvement of representatives from local universities as well as related advocacy and not-for-profit organizations such as the Alzheimer’s Association Greater Missouri Chapter. A list of our most well-received invited speakers is provided in Appendix A. Our invited speakers augmented the value of the information content of our group sessions by offering expert interactive lectures on relevant topics such as awareness and management of stroke risk and the relationship of stroke risk to dementia risk (see Figure 2); optimal nutrition and free social services for aging individuals; trauma recovery; insurance coverage for common prescriptions; opportunities for involvement in research studies; and care for the aging voice. CareSTL Health and Northside staffs were encouraged to attend these lectures, which were ideal

¹ Readers interested in acquiring these publicly available materials are encouraged to contact the corresponding author.

opportunities for networking with local health experts and related service providers.

In addition to supplementing the subject matter of our group discussions, our recruitment of local experts from associated universities and organizations enhanced participants’ awareness of the well-coordinated network of support for aging health in St. Louis. In this way, participation in our “Senior Social Group For Brain Health As We Age” involved much more than mere attendance at group sessions: it served as a launchpad for connection of our members to a wide array of local support services and sources of expertise.



Figure 2. Dr. Alexandre Carter, M.D./Ph.D. from the Neurology Department at Washington University School of Medicine led an interactive presentation about the relationship between stroke prevention and reduction of dementia risk. In this scene, Dr. Carter explained to our participants how to complete the National Stroke Association’s “Stroke Risk Scorecard” that was distributed to them as take-home handouts.

VII. AUDIOLOGY SERVICES THROUGH OUR UNIVERSITY CLINIC

From its inception, our “Senior Social Group For Brain Health As We Age” was an ideal platform for directing participants to the no-fee audiology services led by author MF at Saint Louis University’s Paul C. Reinert, S.J. Speech-Language and Hearing Clinic. Students were supervised on-site at CareSTL Health as they provided hearing screenings and counseling/education on age-related hearing loss for 100% of our group participants. For participants whose hearing screening results indicated further audiology services, appointments were arranged at MF’s audiology

gy clinic on Saint Louis University campus, with free transportation provided by Northside Youth and Senior Service Center, Inc.

These arrangements signified to our participants a rewarding reciprocal relationship between Saint Louis University and our community partners CareSTL Health and Northside; they were invited to benefit from free services at our university clinic in addition to our weekly gatherings at CareSTL Health's Homer G. Phillips Hospital location. This partnership helped us to eliminate barriers to hearing healthcare such as cost and lack of knowledge or access to services. Crucially, our participants who received treatment for hearing loss benefitted from intervention prior to reaching more severe levels of auditory disability. For involved students, these arrangements signified the rich rewards of interdisciplinary collaboration between speech-language pathology and audiology.

The coupling of our audiology services with our focus on brain health in our group sessions was an opportunity for us to concurrently treat hearing loss with cognitive-communicative decline in this vulnerable population. For participants with hearing impairment, we integrated aural rehabilitation goals into their cognitive-communicative goals, in a manner that respected the well-established links between presbycusis and dementia (Lin & Albert, 2014; Livingston et al., 2017). And for participants without hearing impairment, this coupling remained relevant to our principal theme of aging brain health. Lively group discussions of hearing loss as a risk factor for dementia emphasized how to protect and/or maintain hearing health, as means of reducing the potential impact of hearing loss on cognitive-communicative decline.

VIII. INTEGRATION OF MOBILE TECHNOLOGY INTO GROUP SESSIONS

Another innovative approach of our "Senior Social Group For Brain Health As We Age" was the integration of mobile technology into our sessions. Despite prevailing pre-conceptions of elderly individuals' aversion to new technological devices, aging populations—and especially minority elders—are among the most avid consumers of these devices (Kwan, 2012; Turner-Lee, Smedley & Miller, 2012). Our harnessing of mobile technology on behalf of our elderly African American participants was conducted in accordance with the biopsychosocial model of the World Health Organization's International Classification of Functioning, Disability, and Health (Atticks, 2012; Kong, 2015; Muñoz, Hoffman & Brimo, 2013; Postman, 2016; Threats, 2010b).



Figure 3. Graduate students Rebecca Ferron and Kailin Leisure conducted hearing screenings for our participants on-site, in private offices adjacent to our group setting in the auditorium of the historic Homer G. Phillips Hospital.



Figure 4. Undergraduate student Tayla Slay trained our participants on implementation of basic apps with iPad devices from Dr. Postman's Neuro-Rehabilitation of Language Lab at Saint Louis University.

After training on iPad interface fundamentals during our group sessions, 100% of our participants demonstrated intact learning of the iPad interface with multi-touch gestures (e.g., tap, swipe). And with minimal to no set-up assistance, they could also complete functional application tasks such as basic computation with calculator apps, temporal orientation with calendar apps, games involving orthography (e.g., word completion) and syntax/semantics (e.g., sentence completion), and photography/videog-

raphy apps (see Figure 4). They acknowledged the universal appeal of the artfully designed iPad interface, along with the wealth of apps and audio-visual stimuli that were accessible and amenable to their needs, norms and preferences. Because the majority of participants owned smart-phones, our training extended to their personal devices. As evidenced by their questionnaire responses shared in the next section, they reported increased confidence and independence with mobile technology, and keen interest in continuing tablet-mediated training.

IX. PARTICIPANT FEEDBACK

To maximize our responsiveness to participants' needs and wants from our group sessions, we solicited feedback through both informal and formal means. As an informal means of continuously soliciting feedback from our participants, either the team leader (WP) or a student conducted personal phone calls to the home phones or mobile phones of each of our participants on a weekly basis. These habitual calls were reminders of upcoming group sessions, but also opportunities for participants to privately contribute their feedback. Formally, participant-reported outcome measures were collected at least once per year from group members through participant satisfaction surveys.

Their comments revealed some underlying reasons for their enthusiasm for our group. They expressed appreciation for the fostering of respectful and responsive interactions within group sessions that generalized to improved socialization between group sessions. They also reported reduced stigma surrounding their perceived disabilities, increased confidence with mobile technology and with implementation of actionable new knowledge about healthy aging (e.g., management of blood pressure or diabetes), and enhanced awareness and utilization of healthcare services provided by community resources. Listed below are examples of their feedback, received either as written comments on our participant satisfaction surveys or as audio- or video-recorded oral interviews:

Participant (video-recorded oral interview): I'm so thankful to Doctor Sydney for showing me how to make a video on my phone, because I had made a video of my sister and I singing, "I Come to the Garden Alone". And yesterday I went to see her. She had a stroke. And, uh, she hadn't been able to talk for five days. And yesterday when I showed her the video of us singing, she tried to sing. And I was so happy, I mean, I couldda shouted all over! I'm just so thankful, and I thank Doctor Sydney for showing me how to make a vid— this was the first

one I've ever made, besides the ones that she taught us, you know, when she was in class. (July 10, 2019)

Participant (written comment): This group has had a very positive influence in my life and has helped me in understanding better the aging process and has also renewed my interest in life. Before joining I was somewhat depressed after losing my employment. It has renewed my interest in life and has been a catalyst to help me to encourage others. (December 12, 2018)

Participant (written comment): You can learn about your health and you can follow up on your body and what's going on with you and your health. (December 12, 2018)

Participant (written comment): The information that is given (topics) as far as health issues that we all have & are experiencing (sic) are great topics such as Neurology (sic), Cancer, Strokes, Heart Attack: All information is very informative. (December 12, 2018)

Participant (written comment): I like coming to group, the leaders, and others in the group. We get help from the group. I am learning a lot from the group. Good students that read to us. Learning about my health and diabetes. Learned about dementia, brain health, and high cholesterol. The group answers my questions and what I want to learn. We learn about each other. I am no longer ashamed of my disability. I can also learn a lot from others in the group. (November 8, 2017)

Participant (written comment): I have really benefited and enjoyed being a part of this group. Dr. Postman has a special loving personality that makes each of us feel comfortable and welcome. I am trying to do better health-wise and make the "aging process" more tolerable. The information that is given (pamphlets as well) is very, very helpful. I have made new friends as well. (November 8, 2017)

Participant (written comment): Talking about different things made me realize what I need to change in life. (May 17, 2017)

Participant (written comment): This group helped me to feel free to communicate more. Dr. Postman makes everyone feel special, seem like she really care for real. (May 17, 2017)

Participant (audio-recorded oral interview): Y'all wonderful peoples. Y'all know how to

talk to us. (...) Y'all know how to respect us. We respect y'all. The-the games we do, we have fun doing the games, you know (...). 'Cause we learn a lot from y'all, you know. Y'all tell us about our ears, our eyes, our history of me being a diabetic, you know. And and that's something, that's com- that's something comfortable. You know you sit and think about things that y'all teach us and y'all show us, right? (...) And I think that's wonderful. Y'all not racist. You're not prejudiced. (April 12, 2017)

X. CONCLUSIONS

In this description of our “Senior Social Group For Brain Health As We Age” for low-income African American elders of North St. Louis, we have recounted the principal strategies that contributed to our group’s successful operation since its inception in January 2017. These strategies followed the directives of the leaders in the field of culturally and linguistically competent clinical services to diverse populations. They included our demonstration of respect for our participants’ heritage by situating our group sessions at a historically important site, integration of culturally meaningful activities as chosen by participants, promotion of aging health literacy, leveraging of local university and community resources, coordination of referrals to audiology services at our university clinic, training on mobile technology, and responsiveness to participants’ actively solicited feedback.

To our knowledge, no such clinical program had been implemented for African American elders of North St. Louis prior to our establishment of this partnership with CareSTL Health and Northside Youth and Senior Service Center, Inc. Our comprehensive intervention and prevention approach overcame barriers to their care, thus helping them to maintain and maximize their cognitive-communicative capacities and overall health as they age. Our preliminary data suggest that our culturally and linguistic sensitive approach, enriched by interdisciplinary and local community collaborations, can inform best practices for reducing health disparities that systematically affect low-income urban-dwelling African American elders at risk of dementia.

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Director of Clinical Education at Saint Louis University, to Dr. Whitney Postman’s forever-mentor Ms. Janet Brodie, M.A./CCC-SLP and to the memory of Dr. Susan Colbert Threats, M.D. We also appreciate the encouragement of eminent scholars Dr. Joan Payne, Dr. Rachel Williams, and Dr. John Baugh.

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Appendix A

Invited Guest Speakers to our “Senior Social Group For Brain Health As We Age”

Guest Speaker	Affiliation	Lecture Content
Alexandre Carter, M.D./Ph.D.	Division of Stroke and Brain Injury, Department of Neurology, Washington University School of Medicine in St. Louis	Reduction of stroke risk & relationship to dementia risk
Melissa Ramel, Ph.D., M.P.H., R.D., L.D.	Nutrition and Dietetics Department, Saint Louis University	Optimal nutrition for aging individuals (e.g., reduce risk of sarcopenia & anemia)
Andrew Oberle, M.H.A./M.A.	Oberle Institute Development Director-Medical Center Development, Saint Louis University	Trauma recovery
Janese Prince, M.S.W. & Dahley Mensah, L.M.S.W./Q.M.H.P.	Alzheimer’s Association Greater Missouri Chapter	Free services offered by the Alzheimer’s Association for dementia prevention & care

Guest Speaker	Affiliation	Lecture Content
Kari Burch, OTD, OTR/L; Emily Townley, MSOT, OTR/L; Amy Sorbrino, MSW, LCSW; Advancement Specialist Nick Clark	Memory Care Home Solutions (not-for-profit organization)	Free services offered by Memory Care Home Solutions for in-home support & caregiver training
Bridget George	BG Resource Insurance Agency	Insurance coverage for commonly prescribed medications
Kym Radford, Outreach Coordinator	Center for Community Health Partnership and Research, Washington University School of Medicine in St. Louis	Participation in research (participants' rights, ethical conduct of research)
Faith Stagge, Students Preparing for Academic-Research Careers (SPARC) award winner	Master's program, Communication Sciences & Disorders Department, Saint Louis University	Presbyphonia, care for the aging voice, anatomy/physiology of human vocal tract
Debra Blessing, Geriatric Workforce Enhancement Program Coordinator	A.T. Still University in Kirksville, Missouri	Nutritional support for elderly Missouri residents

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CURL YOUR TONGUE SEVEN TIMES BEFORE YOU SPEAK: TRANSLATING ENGLISH STORYBOOKS READ ALOUD IN VIETNAMESE

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Quan Nguyen, B.S.

Department of Communication Disorders, Texas State University, Round Rock, TX, USA

Amy Louise Schwarz, Ph.D., CCC-SLP

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Antonio Gragera, Ph.D.

Department of Modern Languages, Texas State University, San Marcos, TX, USA

Maria Resendiz, Ph.D., CCC-SLP

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Andrea Hughes, M.S., CCC-SLP

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— ABSTRACT —

The purpose of this study was to determine how individuals with different proficiency levels and dialects in English and Vietnamese engaged in “real time” translation of a children’s book. In an effort to determine the syntactic and semantic measures that distinguish the oral translation of a children’s storybook by Vietnamese- English-speaking bilingual adults, two participants with differing proficiency levels and Vietnamese dialects were asked to translate *Don Freeman’s (1968) Corduroy*. The study showed that the participant who was less fluent in Vietnamese used fewer words than the participant who was more fluent. In addition, the participant who was less fluent in Vietnamese used more: 1) semantically related substitutions, 2) code switching, 3) semantically related additions, and 4) omissions. The authors suggest that it is important to prepare before translating storybooks paying particular attention to maintain the vocabulary and syntactic complexity in the text of the original storybook. Preparation is needed before translating a children’s book since real-time translation may result in decreased complexity of the text.

Background

The National Commission on Reading asserts that reading books aloud to children who cannot read independently is “the single most important activity” for helping children acquire the knowledge they need to become independent readers (Anderson, Hiebert, Scott, & Wilkinson, 1985, p. 6). The adult, the child, and the book are the three components of a read aloud (Martinez & Roser, 1985; Sulzby, & Teale, 1987; van Kleeck, 2003). A read aloud occurs when an individual reads a book collaboratively with one or more children. Much has been written about how the adult, the child, and the book influence the richness and difficulty of the linguistic exchanges between adults and children during read alouds (e.g., Beck, McKeown, & Kucan, 2013; McGee, & Schickedanz, 2007; Pellegrini, Brody, & Sigel, 1985; Schwarz, Gonzales, Resendiz, & Abdi, 2017; van Kleeck, 2006, 2014; van Kleeck, Gillam, Hamilton, & McGrath, 1997; Whitehurst, Zevenbergen, Crone, Schultz, Velting, & Fischel, 1999). Most of the current literature emphasizes monolingual adults and children sharing books collaboratively in English.

Read aloud activities in the United States are widely accepted among researchers as an effective strategy to promote emergent literacy knowledge in young children such as vocabulary learning and reading (Beck et al., 2013; Logan, Justice, Yumus, & Chaparro-Moreno, 2019; McGee et al., 2007; Pellegrini et al., 1985; Schwarz et al., 2017a; van Kleeck, 2006, 2014; van Kleeck et al., 1997; Whitehurst et al., 1999), understanding of syntax and grammar, and discriminating between the written language register from the everyday language register (Duursma, Augustyn, & Zuckerman, 2008). For example, Logan et al. (2019) found that parents who read to their child one storybook daily would expose the child to approximately 78,000 words each year. Also, kindergarteners who engage in book sharing at home in their first five years of life are estimated to have 1.4 million more words than their peers who are never read to (Logan et al. 2019). With the research suggesting that book sharing is important for the later literacy and academic success of children, it is relatively easy to find children’s literature in English; however, it is harder to find books in languages other than English. With the diversification of the United States (U.S.), it is necessary to have ready access to children’s books in all languages and not just English.

Approximately 13.6% of the U.S. population is foreign-born and 12.0% are U.S. born children of immigrant parents. Furthermore, 47.8% of the foreign-born population that is 5 years and older is not English proficient (Radford & Noe-Bustamante, 2019). Among new arrivals, 26.6% were Hispanic

and 37.4% were Asian (Radford & Noe-Bustamante, 2019). Vietnam is one of the top five origin countries for Asian immigration (Zong & Batalova, 2020). When compared to other immigrant populations in the United States, Vietnamese immigrants are more likely to have limited abilities to speak, read, and write English when they enter the United States (Alperin & Batalova, 2018). The two most commonly spoken dialects of Vietnamese in the United States are the Southern and Northern Vietnamese dialects (Pham, 2008), with the Northern dialect currently considered the academic dialect in Vietnam (Hays, 2008). Given that book sharing is a culturally based practice (van Kleeck, 2006), it is important to understand book-sharing habits in Vietnam.

Book Sharing in Vietnam

Vietnam has one of the highest literacy rates across the world at 96% (UNESCO Institute for Statistics, 2019). Until relatively recently, textbook reading was thought to be more beneficial and have more educational value to children than any other genre. In fact, children were discouraged from leisure reading (Hanemann & Krolak, 2017; Hossain, 2016; Vu, 2012). Historically, book-sharing activities in Vietnam primarily happened at schools and other academic settings between the educators and the child. Home-based book sharing practices have only become popular in recent years as the government has become aware of the positive impacts of book sharing on children’s emergent literacy skills (Tuoi Tre News, 2018; Vu, 2012). Vietnamese parents have become more engaged in reading activities with their children at home with the belief that it will foster later academic success. The parents also attend local clubs that promote reading culture and home-based book sharing to acquire and offer different techniques for practicing effective shared reading at home (Tuoi Tre News, 2010). To support the national effort, the Vietnamese Ministry of Culture, Sports, and Tourism (VMCST) decided to make promoting reading culture one of its prioritized missions (Vu, 2012). We cannot assume that children are read to at home nor assume parents who immigrated to the United States prior to this cultural shift have benefited from the VMCST’s promotion of reading culture. It is important to educate parents and not assume daily reading is done. We should offer resources to find free books written in Vietnamese or a library offering such books. Another critical issue for individuals faced with having to translate English children’s books includes being aware of dialectal differences in the target language when translating storybooks from one language to another. Now, let’s discuss the socio-historical issues that must be considered when engaging in real time translation of an English children’s book into Vietnamese.

Socio-Historical Considerations Important for Real Time Translation

Three different Vietnamese dialects are spoken in the United States: the Hanoi dialect (Northern dialect), the Hue dialect (Central dialect), and the Saigon dialect (Southern dialect) (Ly, 2009). We should know about the various dialects and the sociopolitical underpinnings to recognize the importance of translating a children's book into one of the three Vietnamese dialects. There are also tonal and phonological differences between these three dialects that must be taken into consideration (Hwa-Froelich, Hodson, & Edwards, 2002).

In the U. S. higher education system, the Northern dialect is often times taught as the general language/dialect (Pham, 2008). However, this can create conflict in speakers of the Central and Southern dialects since many Vietnamese Americans and their parents feel that this reflects certain political loyalties. They fear that using the Southern dialect may be dismissed as less academic or less prestigious than the Northern dialect (Lam, 2016). Understanding these socio-political controversies regarding the Vietnamese dialect of instruction in the U. S., is needed so we can take this into consideration when translating English storybooks into Vietnamese.

Summary & Research Questions

The purpose of this article is to examine the impact of proficiency level and dialect of adults when translating Freeman's (1968) Corduroy from the written English text into spoken Vietnamese by comparing the oral translations of two students: (a) an undergraduate student who recently immigrated from Vietnam and (b) a graduate student who is a United States first generation born of immigrant parents from Vietnam.

Method

Participants

This case study included two male participants. The first participant was a 26-year-old, bilingual, first generation Vietnamese-American born in 1994. He spoke both English and the Southern dialect of Vietnamese. His father was born in Vietnam and immigrated to the United States in 1962. The second participant was a 24-year-old, bilingual participant born in Vietnam in 1996. He spoke English as well as the Northern and Southern dialects of Vietnamese. Figure 1 displays the self-report proficiency levels of both participants for both English and Vietnamese from the Language Use Questionnaire (LUQ; Kiran, Peña, Bedore, & Sheng, 2010).

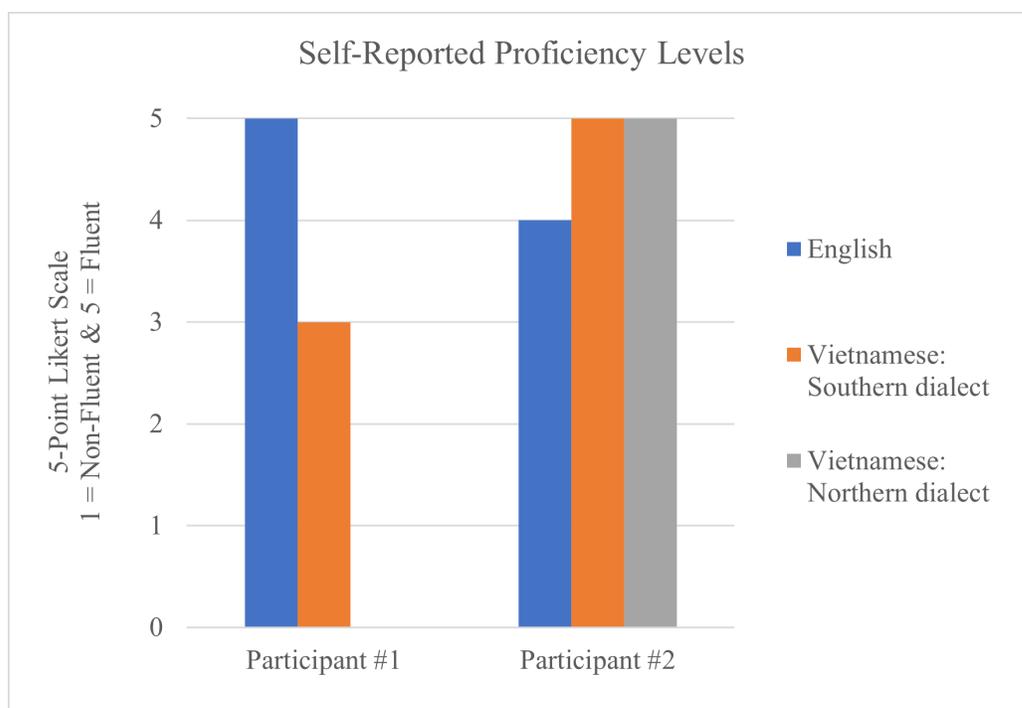


Figure 1: Self-reported proficiency levels

Participant #1 reported to be proficient in only the Southern dialect of Vietnamese due to the exposure of the dialect spoken by the family and community. Participant #2 reported proficiency in both the Southern and Northern Vietnamese dialects as he was raised in Ho Chi Minh City, the southern area of Vietnam. He also had 11 years of formal education in the Vietnamese public school system in which the Northern dialect is added as the official academic register.

Procedures

First, the participants completed the Language Use Questionnaire (LUQ, Kiran et al., 2010), which asks respondents to assess their proficiency across the following language domains for both languages using a 5-point Likert-type scale: (a) overall ability, (b) speaking in casual conversations, (c) listening in casual conversations, (d) speaking in formal situations, (e) listening in formal situations, (f) reading, and (g) writing (Kiran et al., 2010). The 5-point Likert-type scale ranges from 1 to 5, with 1 equaling non-proficient and 5 equaling native-like proficiency. Then, they were asked to audio-record themselves translating the English version of Don Freeman's (1968) Corduroy into Vietnamese. After completing the translation, the participants described in writing the process they engaged in when translating the storybook.

Analysis Plan

Coding. The Vietnamese translated recordings of the two participants were transcribed and translated back to English verbatim for the purpose of explicitly referring back (Stolze, 2003) to the original text of Corduroy. The word-for-word translated data were then analyzed. The analysis consisted of categorizing any of the differences into mutually exclusive categories. The noted differences were categorized into one of the following categories:

1. Semantically Related Substitutions (SRS): Instead of translating the original word verbatim, the participants substituted it with a similar concept that did not interrupt the semantic flow of the story;
2. Code Switching (CS): The participants alternated between English and Vietnamese;
3. Semantically Related Additions (SRA): The participants added another word that was not in the original story and did not interrupt the semantic flow of the story; and
4. Omissions (Om.): The participants skipped the words that were in the original text when translating.

Reliability. Two practicing bilingual, English-Vietnamese-speaking SLPs and both Participant #1 and #2 reviewed 100% of the transcribed oral translations and came to a consensus of which of the differences were dialectal in nature and which were due to a lack of proficiency.

Results

Proficiency Level Differences

According to the LUQ (Kiran et al., 2010), the two participants reported having different English and Vietnamese proficiency levels across languages and language domains as shown in Table 1.

Table 1. LUQ results for the two participants.

Language Domain	Participant #1	Participant #2
English		
Overall ability	5	4
Speaking in casual conversation	5	5
Listening in casual conversation	5	5
Speaking in formal situations	5	4
Listening in formal situations	5	4
Reading	5	4
Writing	4	5
Vietnamese		
Overall ability	3	5
Speaking in casual conversation	3	5
Listening in casual conversation	4	5
Speaking in formal situations	2	5
Listening in formal situations	2	5
Reading	2	5
Writing	2	5

Note. The 5-point Likert-type scale ranges from 1 to 5, with 1 equaling non-proficient and 5 equaling native-like proficiency.

Participant #1 reported to be more fluent in English with less proficiency in Vietnamese and Participant #2 reported to be more fluent in Vietnamese with less proficiency in English. The two participants approached the storybook with different translation processes based on their own proficiency levels. Participant #1 paraphrased every two or four pages instead of translating directly from the text due to the complexity of the book’s linguistic features. Participant #1’s translation resulted in mostly telegraphic speech after omitting a number of content and function words (content words: 48 nouns, 65 verbs, 34 adverbs, 18 adjectives; function words: 42 prepositions, 26 conjunctions). Participant #2, on the other hand was able to give a more literal, word-for-word translation restructured in Vietnamese grammatical sentences. However, even with high proficiency in the target language used for translation, Participant #2 omitted 3 content words (1 noun, 2 adverbs) and 5 function words (2 pronouns, 3 prepositions) out of the original context. In conclusion, regardless of proficiency level, a literal translation does not allow for maintaining the semantic and syntactic complexity. Refer to Tables 2 and 3 for a summary of the differences in word and syntactic categories produced by each participant.

As shown in Table 1, Participant #1, who is less fluent in Vietnamese, used fewer words when translating Corduroy than Participant #2, who is very fluent in Vietnamese. In addition, Participant #1’s differences were much higher in each of the categories than Participant #2’s differences. Participant #1 also exhibited more omissions of words (294) than Participant #2. The data from each of the categories were further categorized by syntactic types as shown in Table 3 (next page).

Participant #2 did not demonstrate consistency when switching between the Northern and Southern dialects.

A major noun translation difference was the word “overalls” (clothing item); in their translation, Participant #2 translated the word into *quần yếm*, which is equivalent to bib pants, a more descriptive term, while Participant #1 avoided translating the word entirely. This phenomenon can be explained by the problem of semantic range as described by Thompson (1987, p. 334). The phrase “sleeping in a bed” when translated word-by-word is due to language differences with preposition use in Vietnamese. The correct grammatical form would be *ngủ trên giường* *giống*, which actually means “sleeping on a bed.” Other word differences produced by Participants #1 and #2 included: (1) *con gái* which is equivalent to daughter, maiden, female (gender); (2) *cô gái, thiêu nữ*: relatively young (adolescent to adult age) lady; and (3) *bé gái*: little girl (baby to adolescent). Noticeably, the two participants engaged in similar errors when omitting three prepositions (ie. ‘down, with, in’). Also, the omissions of two prepositions ‘down’ and ‘with’ happened in the same sentences as translated by the two participants.

Participant #2 also used a lot of plural markers (*những*) and demonstrative markers (*nào, này, kia, gì, ấy*) in his translations. Participant #1 did not use any plural markers and only used two types of demonstrative markers (*nào, này*). Plural markers serve as restrictive complements while demonstrative markers serve as descriptive complements (Thompson, 1987).

Dialect Differences

Participant #1 and Participant #2’s dialectal knowl-

Table 2: Number of word category differences.

Participants	LUQ Overall Self-Reported Proficiency Rating	TNW	SRS	CS	SRA	Om.
1	English: 5 Vietnamese: Southern dialect: 3 Vietnamese: Northern dialect: 0	581	67	77	38	294
2	English: 4 Vietnamese: Southern dialect: 5 Vietnamese: Northern dialect: 5	909	5	0	3	8

Note. TNW = total number of words; SRS = semantically related substitutions; CS = coding switching; SRA = semantically related additions; Om. = omissions. The 5-point Likert-type scale ranges from 1 to 5, with 1 equaling non-proficient and 5 equaling native-live proficiency.

Table 3: Breakdown of word categories into syntax types for each participant.

Categories	Syntactic Types	Participant #1	Participant #2
Semantically Related Substitutions	Nouns	37	0
	Verbs	14	2
	Adverbs	1	0
	Adjectives	2	1
	Pronouns	10	0
	Prepositions	3	2
	Conjunctions	0	0
	Subtotals	67	5
Code Switching	Nouns	52	0
	Verbs	3	0
	Adverbs	1	0
	Adjectives	3	0
	Pronouns	0	0
	Prepositions	1	0
	Conjunctions	17	0
	Subtotals	77	0
Semantically Related Additions	Nouns	5	0
	Verbs	17	0
	Adverbs	5	0
	Adjectives	1	1
	Pronouns	7	0
	Prepositions	3	0
	Conjunctions	0	2
	Subtotals	38	3
Omissions	Nouns	48	1
	Verbs	65	0
	Adverbs	34	2
	Adjectives	18	0
	Pronouns	61	2
	Prepositions	42	3
	Conjunctions	26	0
	Subtotals	294	8

When comparing the translations of Participants #1 and #2, there were differences based on the participants' degree of proficiency in the Vietnamese language. It is important to reiterate that there were no right or wrong answers. As stated in ASHA's Position on Social Dialects (1983), no one dialect is better or more prestigious than another. All social dialects are very rule-governed and systematic.

The participants exhibited several differences in semantics that may be due to cultural differences, including location of education and degrees of expo-

sure. Participant #1 used more semantically related substitutions, omissions, and semantically related additions than Participant #2. Participant #1 also engaged in more code switching than Participant #2. Participant #2 used more specific wording in the translation while Participant #1 used more non-specific or generalized terms. For Participant #1, phrases using Vietnamese classifiers, pronouns, and prepositions were most difficult and often skipped or modified. For both participants, similar prepositions were reportedly skipped ("down", "in", "with"). Also,

edge greatly influenced the vocabulary of live translation. For instance, Participant #1 primarily used the classifier “cái” as a classifying noun that typically reflects the semantic class of the target following noun (Pham & Kohnert, 2008). As a classifier, “cái” is considered a Southern dialect use and thus, would be used as an informal register. Participant #2, on the other hand, used “chiếc” as the primary classifiers in the translation. Unlike “cái,” “chiếc” is a Northern dialect classifier and would be deemed appropriate for formal and academic use. Unexpectedly, like Participant #2, Participant #1 translated the word “mom” and “mother” as “má” which is mainly used in the Northern dialect in his live translation despite using “má,” a Southern term for mom/mother, exclusively in his personal life. Another example of dialectal differences was the participants’ translated options for “I” (as used by Corduroy). Participant #1 translated “I” to “con” which is a pronoun mainly used by an individual when talking to parents in both the Southern and Northern dialects but only in the Southern dialect is “con” used when talking to grandparents and older adults who approximate the age of the individual’s parents (Pham & Kohnert, 2008). “Cháu” is the pronoun for “I” used in the Northern dialect when talking to grandparent and older adults, but not used when talking to parents. “Con” was the translation choice used by Participant #2 even when Corduroy talked to himself using the pronoun “I”. This is a very common overuse of the “I” pronoun among Vietnamese second language learners since the complex pronoun usage in the Vietnamese language poses a challenge to understand and learn. Thus, many younger Vietnamese-Americans might simply use “con” when they talk to their parents, to address themselves across a variety of communicative partners regardless of age, family roles, and relationships. The results indicated that dialect of a language is a key consideration when it comes to translating children’s storybooks.

In Participant #1’s live translation, approximately 10.1% (59 words) of the translated words exclusively belong to the Southern dialect with 1.7% (10 words) of the words exclusively belonging to the Northern dialect. Finally, 88.2% (514 words) of the translated words are shared by the Northern and Southern dialects. Participant #2’s translation revealed an approximation of 11.2% (102 words) of the words as characteristic of the Northern dialect, 1.5% (14 words) of the words as characteristic of the Southern dialect, and 87.3% (793 words) of the translated words are shared by the Northern and Southern dialects. Participant #2’s use of the Northern dialect in translating the storybook was characteristic of the degree of proficiency in usage of the Northern dialect. Based on these results, the impact of proficiency level

and dialectal differences on each participant’s translation outcome is noted.

Discussion

The current study provides a unique viewpoint on how proficiency level and dialect impact real-time storybook translation. For this study two students were asked to translate Freeman’s (1968) *Corduroy* from the written English text into spoken Vietnamese: (1) an undergraduate student who recently immigrated from Vietnam and (2) a graduate student who is a United States first generation born of immigrant parents from Vietnam. Current scientific studies support the read aloud experience as it often contributes to the richness and complexity of the linguistic exchanges between adults and children (Schwarz et al., 2017; van Kleeck, 2014; Logan et al., 2019).

The results of the study suggest several issues that must be considered when engaging in real time translation of storybooks. Which dialect do parents want their children to be exposed to? What is most functional for students considering their communication environment and community? How do we approach the modified dialect of the Southern Vietnamese dialect used in the U.S. that may be less specific due to language loss (Goldstein, 2000)? Undoubtedly, it is important to take dialectal variation and language dominance into account when reading storybooks with children who are bilingual in Vietnamese and English. As we have discussed, the complicated situation regarding dialectal preference within the American Vietnamese community needs to be considered when translating children’s storybooks into Vietnamese. Engaging in real-time translation requires that an individual have command of the dialect and an awareness of the sociopolitical situation that dictates the dialect of the home language. Ideally, individuals must be aware of the differences in dialects and adapt to changes in vocabulary, tone, and syntax as necessary so that decisions will be based on the most inclusive and in-depth understanding of the bilingual development of the child (Goldstein & Gildersleeve-Neumann, 2015). Furthermore, for sequential bilingual children, the first language plays a critical role in upholding family core values and growing a strong sense of identity (Oh & Fuligni, 2009).

Another consideration is the question as to whether any individual should engage in real-time translations of books. As noted by Stolze (2003), any translation of a book from one language to another is extremely complex and not to be taken lightly. The individual needs to be knowledgeable about the cultural aspects of the story as well as the semantic and syntactic complexity of the book. In order for a

translation to be considered of high quality, many descriptions of the book need to be considered and evaluated. Real-time translation of a book may not allow for these quality indicators to be considered. We recommend that translation of a book occur well before the actual usage of the translated material when reading a children's storybook.

Limitations of the Study

There are three major limitations to this study: (a) small sample size, (b) the conflation of proficiency level and dialect, and (c) the use of only self-rated language proficiency. The current study is a case study. Therefore, the results from our study cannot be generalized. Next, both of the participants had differing Vietnamese and English proficiency levels. In future studies that examine differences only due to dialect, participants will be matched according to proficiency levels.

Another limitation was the fact that we had the participants self-rate their proficiency levels in both Vietnamese and English. In future studies, we will use a combination of standardized norm referenced tests as well as criterion referenced measures (Bachman, 2000).

Future Studies

With such limited studies regarding the Vietnamese language and its influence on English, studies such as the current pre-pilot study need to be expanded and implemented in the future. There are more research studies about how the Vietnamese Southern dialect influences English, but less about how the Northern dialect influences English. This study should be repeated with a larger number of participants, matching Vietnamese proficiency levels, and establishing different groups of Northern, Southern and Central dialect users. In addition, the usage of both standardized norm referenced and criterion-referenced tests to determine Vietnamese proficiency levels should be administered.

Studies regarding the translation of English children's books into other languages (as well as dialects of those languages), are important so that individuals like parents, educators and speech-language pathologists will use that information when deciding to either engage in simultaneous (real-time) translation or to complete the translation before reading the storybook.

Conclusion

According to the Pew Research Center (2020) over 1.6 million Vietnamese Americans resided in the

U.S. Vietnamese is the 6th most spoken language in the U.S. (Burton, 2018). With this information and considering that read alouds are so important for helping children acquire literacy and become independent readers (Anderson et al., 1985), we need to read to children in their home language and dialect. With the limited access to children's story books in Vietnamese, individuals may engage in real time translation of a book written in English. The authors of this study provide some evidence to support the necessity of preparing a translation of materials before engaging in real-time translation. When translating into Vietnamese, individuals such as parents and educators must have knowledge of the various dialects and an awareness of the sociopolitical situation that dictates the dialect of the home language.

In summary, the authors suggest that individuals prepare beforehand when translating, paying particular attention to maintaining vocabulary and syntactic complexity. Also, the language dialect is a key consideration regarding the socio-political historical perspective. It is imperative that preparation is needed before translation of a storybook from one language to another since real-time translation may result in decreased complexity of the text.

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