A HOMOGENEOUS FIELD IN A DIVERSE NATION:
FOSTERING CULTURAL AWARENESS IN SLP GRADUATE STUDENTS

by

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ABSTRACT

Background

The homogeneity of the field of speech-language pathology is at odds with that of the increasingly diverse United States population served. National efforts to promote the recruitment and retention of a more diverse profession have been relatively unsuccessful. Communication and swallowing disorders are viewed through a person's cultural lens. Speech-language pathologists must develop the skill of cultural awareness to optimally serve their clients and families.

Aims

The aim of this study was to explore what clinical fellows and clinicians understand about cultural awareness, how prepared they feel as a result of graduate studies, influential contexts and experiences, and what was missing from their education.

Method

Two surveys were developed and distributed via the Qualtrics Survey System to alumni from the University of Pittsburgh: clinical fellows (n=36) and clinicians (n=105).

Results

Clinical fellows (n=15) and clinicians (n=21) responded to the surveys. Survey participants were mostly white and female (n=34/36, 94%). Most clinicians shared that at least half of their caseload differs from them, culturally and/or linguistically (n=17/20, 85%). More participants

referred to the differences of others, rather than their own background, when describing what cultural awareness means. More clinical fellows (n=12/13, 92%) than clinicians (n=14/18, 78%) reported they would talk to their client/caregiver if they were unsure how to provide services to a client due to cultural/linguistic differences. Clinical experience was most influential in preparing participants to work with diverse populations. Outside the classroom experiences were more influential than class-based ones in preparation to work with diverse populations.

Conclusion

Fostering cultural awareness in speech-language pathology graduate students requires more than providing students with knowledge of cultural and linguistic differences. Doing so promotes an ethnocentric view of assessing and treating disorders under the guise of making sufficient cultural considerations. Speech-language pathology graduate programs ought to equip students to identify the cultural and linguistic characteristics of others, and equally importantly to examine their own cultural background and its potential influence on their practice. The present study shows that clinical experience and activities occurring outside the classroom are most beneficial for promoting cultural awareness in light of limited diversity in the classroom.

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PREFACE

I have such gratitude for the clinical fellows and clinicians who thoughtfully completed my surveys in their free time. Thank you for supporting Pitt's preparation of SLPs to work with culturally and linguistically diverse clients.

To my Danny – thank you for all the dishes, cooking, and laundry you have done so that I could work on this project. You have been my biggest supporter from the start. I couldn't have done this without you.

To my thesis committee – thank you for all the passion and wisdom you shared with me as I completed this project. Dr. Lundblom – I am thankful for your heart for increasing cultural awareness and diverse representation in Pitt's SLP graduate program. Dr. Leslie – where to begin? Thank you for the hundreds of hours you have poured into working alongside me as I wrote this thesis. You have been endlessly patient with my questions, fears, and excessive comma usage throughout this whole process. I hope this makes you proud.

To my past, present, and future clients from all cultural and linguistic backgrounds – I thank you for your patience with my ignorance and for your willingness to teach me and challenge me on my own cultural biases.

The following nomenclature was adopted from the U.S. Department of the Interior (2018) and used in this thesis to describe racial/ethnic groups:

- American Indian or Alaska Native: A person having origins in any of the original peoples of North and South America (including Central America) and maintaining tribal affiliation or community attachment.

- Asian: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam

- Black or African American ("Black" for shorthand): A person having origins in any of the black racial groups of Africa.

- Native Hawaiian or Other Pacific Islander: A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

- White: A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

- Hispanic or Latino: A person of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, *regardless of race*.

1.0   INTRODUCTION

Let us consider a clinical case. A group of doctors, rehabilitation therapists, social workers, psychologists, and nurses surrounded the frightened and exhausted parents of a previously healthy 11-year old boy. The boy had been diagnosed with a disease that abruptly left him with little motor control in his body – from his legs to his eyes to his mouth. This soccer-playing, rap-loving boy had grossly intact cognition, but no way to express himself or move. The family had moved from Nepal to the United States just five years prior. With highly complex medical needs, it was critical that the parents understand the care plan for their child at this meeting.

While the father of the child was proficient in English, the mother knew very little. A Nepalese interpreter who was largely unfamiliar with medical jargon was hired to interpret each team member's update via video chat on an iPad. The medical team took turns hovering over the iPad in the center of the table, communicating each sensitive piece of information one sentence at a time. The interpreter frequently asked team members to repeat themselves and reword their language in a way that could be more effectively interpreted. The father was often defaulted as the interpreter to the mother. Frequent reminders were required to ensure that continuous interpretation occurred so that this mother could know what was going on with her son. The meeting took well over two hours.

I observed a need for patience, creativity, humility, forgiveness, and flexibility in this single meeting. Both the medical professionals and the family needed to continually exhibit these abstract traits in concrete ways in order to provide the best care for the boy. Medical professionals were later heard pondering: "I don't know what is a cultural difference, and what is actually unsafe and needs to be addressed." "I don't know how much she's understanding, but she seemed to get the gist." They are not alone. The increasingly diverse U.S. population has resulted in situations like this happening regularly during formal and informal interactions. *Best practice* is intrinsically tied to cultural awareness, and professionals must be prepared to navigate its nuances.

1.1   DIVERSITY OF THE U.S. POPULATION

With the arrival of nearly 59 million immigrants over the past 50 years, the increasing diversity of the United States of America (U.S.) is undeniable. In 1965, 5% of the U.S. population was born outside of its borders rising to 14% in 2016. This growth suggests that the trajectory of increasing diversity will continue. There will not be one single racial or ethnic majority in the U.S. by as early as the year 2042 (Cohn & Caumont, 2016). The U.S. Census Bureau (2016) estimated that 61.3% of Americans were White alone and not Hispanic or Latino, with over 38% of them identifying as another race and ethnicity.

The American Community Survey, developed by the U.S. Census Bureau to provide ongoing population and housing data, reports that current racial and ethnic minority groups have the highest incidence of poverty in the U.S (Poverty Demographics, 2017). In 2016, non-metropolitan Blacks had the highest rate of poverty at 33%. Non-metropolitan American Indians

and Alaskan natives have the second highest rate at 32%. In contrast, the poverty rate for non-metropolitan Whites was less than half of both of these groups, at 14% (Poverty Demographics, 2017).

Diversity is not limited to race or ethnicity. Roysircar (2009) explains that multicultural practice and research fails when ethnic minorities are placed into broad categorizations of race or ethnicity without learning characteristics of the individual. Immigrant generation status, gender, language skills, class, religion, and marginalization experiences all impact an individual's daily needs. Cultural differences are reflected in every aspect of daily living: childrearing, social interactions, healthcare practices, and education (American Speech-Language-Hearing Association, 2018b).

1.2   HEALTHCARE NEEDS OF THE U.S. POPULATION

The U.S. does not boast health outcomes that are reflective of its position as one of the wealthiest nations in the world (International Monetary Fund, 2018; Institute of Medicine of the National Academies, 2013). The U.S. holds an advantage in lower cancer death rates and greater control over blood pressure and cholesterol when compared with the averages from "peer" countries. Peer countries include other high-income democracies in Western Europe, as well as Canada, Japan, and Australia. Americans have poorer outcomes in at least nine other health areas: infant mortality and low birth weight, injuries and homicides, adolescent pregnancy and sexually transmitted infections, Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS), drug-related deaths, obesity and diabetes, heart disease, chronic lung disease, and disability (Institute of Medicine of the National Academies, 2013). No

single factor causes these disadvantages. Poorer outcomes likely result from health disparities amongst the poor and uninsured, social and economic conditions, public policies, and even the physical environments in the U.S (Institute of Medicine of the National Academies, 2013).

Health insurance is a means by which Americans cover their health-related expenses. In the U.S., individuals can obtain coverage through private or government programs. Private insurance is typically obtained through the employer. Government programs include Medicare, Medicaid, or the Children's Health Insurance Program (Barnett & Berchick, 2017). The introduction of the Affordable Care Act in March 2010 sought to increase Americans' access to health insurance. The law provided subsidies to lower the cost of health insurance for households between 100% and 400% of the federal poverty level (U.S. Centers for Medicare & Medicaid Services, 2018).

The U.S. Department of Commerce formulated a report that discussed health insurance coverage in the U.S. during 2016. Two surveys distributed by the U.S. Census Bureau shared statistical data: the Current Population Survey Annual Social and Economic Supplement (CPS ASEC) and the American Community Survey (ACS). These statistics show that 91% of people in the U.S. had health insurance coverage in 2016 in some form (Barnett & Berchick, 2017).

Much of healthcare reform focuses on decreasing the number of people who are not insured at all. Underinsurance, the issue of having health insurance that is not adequate for financial security, is another problem in the U.S. Underinsurance can cause people to either 1) spend more than 5% of their household income on health necessities (procedures, medications, office visits) and/or 2) skip or delay nonessential care or medications (i.e. preventative measures) due to their high cost and financial burden (Woolhandler & Himmelstein, 2013). As with general poverty rates, disparities of health insurance coverage in the U.S. are evident when stratified by

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race and ethnicity. Lower income Black and Hispanic populations account for a larger proportion of uninsured and underinsured individuals than do lower income White populations.

1.2.1 Special Considerations for Diverse Populations

Higher poverty rates are correlated with an increased risk of health problems. The increased risk is associated with poor living conditions, food access restrictions, poor health insurance coverage, and lack of healthcare access (Stewart & Gonzalez, 2002). Non-Hispanic Whites have the lowest uninsured rate of U.S. racial/ethnic groups at 6.3%, with the Asian population at 7.6%, and the Black population at 10.5%. Hispanics had the highest uninsured rate (or the lowest percent of coverage) at 16%, which is more than double the uninsured rate of either non-Hispanic White or Asian populations (Barnett & Berchick, 2017). Although the impact of poverty on the health needs of diverse populations is significant and wide-reaching, it is beyond the scope of this study to examine it in its entirety. The need for health-related services is likely to persist until economic and healthcare disparities decrease.

Healthcare disparities are not just an issue of economic access. Dr. Harriet Washington, a former research fellow in Medical Ethics at Harvard Medical School, discusses "Black iatrophobia" as a deep fear and mistrust of medical professionals by African Americans (Washington, 2006). From the era of legalized slavery in the U.S. to the present, damaging research practices have been performed on African Americans without obtaining informed consent. This research has happened as a result of dimorphic beliefs claiming that black bodies do not feel pain the same way, are more primitive, and are more dangerous (Washington, 2006). Historical exploitation and abuse in medical research and practice have caused African

Americans to develop a mistrust of medical professionals. This mistrust has been perpetuated in communities and families through a shared oral history.

1.3   EDUCATIONAL NEEDS OF THE U.S. POPULATION

Education is compulsory in the U.S. until an age that is set by each state, usually around 16 years old (U.S. Department of Education, 2005). Elementary (primary) and secondary education is offered to children through means of public, private, and home schooling. Public schools in the U.S. are funded by taxes and freely offered to students (U.S. Department of Education, 2005). Academic standards are determined by the state to set expectations regarding the content taught to students and the adequate level of performance achieved by students in order to be promoted to the next grade level (U.S. Department of Education, 2005).

The development of content and achievement standards through educational reform in the U.S. is often debated. Recent data comparing international academic achievement has shown that students in the U.S. may be performing lower than students from countries with similar economic backgrounds (Achieve, 2013). The Organization for Economic Co-operation and Development (OECD) is an international organization of countries seeking to stimulate economic progress. A survey by OECD in 2013 investigated adult skills in numeracy, literacy, and technology. Individuals from the U.S. in the 16-24 year age group had the lowest numeracy scores for their age group across all thirty-four OECD membership countries at that time (OECD, 2013). For the same age group, the U.S. individuals scored in the lowest three countries in literacy, as well (OECD, 2013). A different survey linked state scores on the 2011 National Assessment of Educational Progress with the Trends in Mathematics and Science Study.

Massachusetts was the only U.S. state to perform at a "high benchmark" level in mathematics (Achieve, 2013). This data has motivated recent efforts to set goals and legislation that will support students' college and career readiness.

The majority of states have adopted the Common Core State Standards in response to this data with the aim of making U.S. education more internationally competitive. An additional minority of states formed their own alternative College- and Career-Ready (CCR) standards (U.S. Department of Education, 2018; Achieve, 2013). The Common Core State Standards were developed in order to prepare students for post-secondary success in higher education or career paths, without need for English language arts or mathematics remediation (Achieve, 2013). The U.S. is developing goals for higher levels of achievement for all students, but the OECD (2013) found that certain socio-demographic factors make this difficult for those from underprivileged backgrounds. An individual's educational attainment has a strong positive correlation with proficiency in numeracy, literacy, and technology. Immigrants who do not speak a country's native language have significantly lower proficiency across all areas (OECD, 2013).

1.3.1 Special Considerations for Diverse Populations

The U.S. Department of Education's Office for Civil Rights Data Collection is a biennial survey of indicators related to barriers and access to education for children in kindergarten through 12th grade. In the 2013-14 school year, approximately fifty million children were enrolled in public schools in the U.S. Almost half (49.6%) of these children were non-white and 10% were considered English Language Learners and came from non-English speaking homes (2013-14 Estimations for Enrollment, 2014). This means that the number of non-white children enrolled in public schools was just short of the entire population of the state of Texas, and the

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number of English Language Learners was comparable to the population of New York City. The National Center for Education Statistics cites that the number of school-aged children speaking a language other than English at home in the U.S. almost tripled from 4.7 million in 1980 to 11.2 million in 2009 (Jonak, 2013).

A diverse student body warrants consideration of the current barriers to academic success unique to these populations. Despite overall decreases in high school dropout rates in the U.S., disparities in dropout rates by race remain clear. Hispanic and foreign-born students have the highest dropout rates at 13%. Black students are twice as likely (8%) as White students (4%) to drop out of high school. The likelihood of high school dropout is greatly influenced by socioeconomic status where students from low-income families are six times more likely to drop out of school than those in the top 25% of all family incomes (Mahatmya et al, 2016).

Problems also arise when education professionals fail to recognize the cultural and linguistic basis for students' academic needs. As a result, such diverse students often receive delayed access to resources and support (Jonak, 2013). Such students are over-represented in special education services and diagnosed with a disability that is actually a cultural or linguistic difference (Jonak, 2013). The disproportional representation of minority students in special education, including English Language Learners, has been an issue recognized in the U.S. for over forty years (Sullivan, 2011). These children have historically been over-diagnosed with disabilities such as a learning disability or emotional disturbance, and under-represented in gifted programs. Misdiagnosis limits access to educational opportunity and success in the future. Black children are over-represented in programs for children with emotional disturbances and intellectual disabilities (Posny, 2007; Sullivan, 2011). American Indian and Alaskan Native children are almost twice as likely as White children to be diagnosed with specific learning

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disabilities (Jonak, 2013). This disproportional representation reflects a systemic limitation in understanding the needs of students from diverse backgrounds. Misdiagnosis is exacerbated by inconsistent assessment practices for disability and disorder in students with linguistic, dialectal, or cultural differences (Jonak, 2013). For example, directly translating a standardized assessment from English into a child's primary language may appear to be a culturally competent clinical decision. However, this translation would not account for cultural variations in relevance of vocabulary or grammatical items. Targeting a vocabulary word like "snowflake" or "sled" may be in the lexicon of a child in the northeastern U.S., where such weather and associated activities are common. This would not be an expected or relevant vocabulary term for a child from an area where it never snows.

1.4 THE ROLE OF THE SLP IN HEALTHCARE AND EDUCATION OF DIVERSE POPULATIONS

The scope of practice in the field of speech-language pathology includes the assessment and treatment of differences and disorders related to the domains of speech, language, cognition, and swallowing (American Speech-Language-Hearing Association, 2016b). The assessment and treatment of these communication and swallowing disorders occurs in healthcare and educational settings. Clients represent all ages and cultural backgrounds. Speech-language pathologists (SLPs) are encouraged to use the framework provided by the World Health Organization's International Classification of Functioning to evaluate the health of individuals by considering body structure and function, activity limitations, and participation restrictions (American Speech-Language-Hearing Association, 2016b). Effective assessment and treatment of these disorders

requires that SLPs consider personal and environmental factors affecting their clients, which are often greatly influenced by the client's cultural or linguistic background (American Speech-Language-Hearing Association, 2016b).

SLPs are trained to use evidence-based practice (EBP) to guide their clinical decision-making. According to the American Speech-Language Hearing Association (ASHA), EBP integrates 1) clinical expertise and 2) external scientific evidence, with 3) client/patient/caregiver perspectives in order to provide the highest quality services (American Speech-Language-Hearing Association, 2018d). Clinicians must be equipped to learn about their client's worldview and cultural values in order to understand the client and caregiver's perspectives on their communication or swallowing disorders (Roysircar, 2009).

1.5   DEMOGRAPHICS OF SPEECH-LANGUAGE PATHOLOGISTS

An article in the Bloomberg View entitled "The Jobs Most Segregated by Gender and Race" uses the U.S. Bureau of Labor Statistics to cite speech-language pathology as having the highest percentage of female workers of all professions in the U.S., and the fifteenth highest percentage of White workers (Fox, 2017). For comparison, the field of speech-language pathology has more female workers than dental hygiene, cosmetology, and nursing (see Table 1). The most male-dominated field in the U.S. was categorized as "brickmasons, blockmasons, and stonemasons," with 99.5% of workers identifying as male (Fox, 2017). Though gender identity homogeneity of SLPs will not be a primary focus of this study, it is worth noting as one facet of limited diversity.

Occupation	Female Workers (%)
Speech-Language Pathologists	98
Dental Hygienists	97
Hairdressers, Hair stylists, Cosmetologists	92
Registered Nurses	90
Occupational Therapists	89

1.5.1 Demographics of ASHA

ASHA has been aware of the need to prepare SLPs to serve the increasing population of culturally and linguistically diverse clients for decades. In 1992, ASHA published the *Multicultural Action Agenda 2000*. The proposal included a push to advance recruitment efforts for SLP graduate programs in order to increase the national diversity of practicing clinicians (Hegde & Davis, 2009). ASHA set a goal to increase the representation of minorities in the profession to 10% by 2000, yet this goal has still not been met over 25 years later (Stewart & Gonzalez, 2002).

ASHA 2016 demographic data reveals that 92% of certified SLPs in the U.S. identify as White and 95% as not Hispanic or Latino. Less than 8% identify as another race or ethnicity.

These numbers are striking considering that 27.6% of Americans were members of a racial minority in the 2010 Census (American Speech-Language-Hearing Association, 2016a).

1.5.2 Demographics of Speech-Language Pathology Graduate Programs

The development of a centralized application service for SLP graduate programs (CSDCAS) has allowed for the gathering of data to a central body for analysis. The demographics of graduate programs can be studied including applications, admission offers, and acceptance figures. Data gathered from graduate programs that use CSDCAS as an application portal reveals the following information about the demographics of the 2016 class for these programs (see Figure 1).
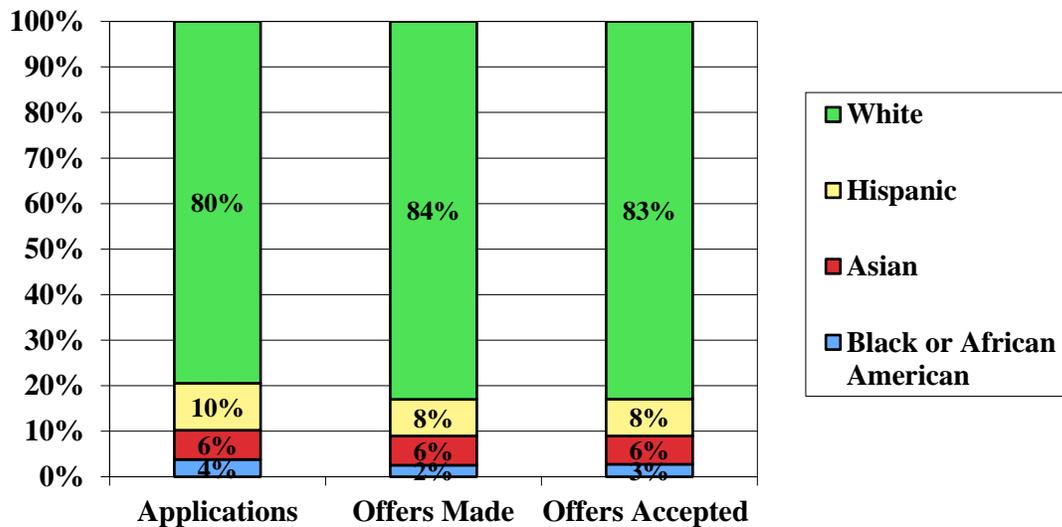
Figure 1: Demographics of 2016 Entering Class of SLP Applicants through CSDCAS by Race/Ethnicity

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With limited diversity in the classrooms, current graduate students and incoming professionals may lack an understanding of other cultures, as well as personal insight regarding the ways their own cultural biases impact their perspectives and values (Franca et al, 2016).

1.5.3 Demographics of the SLP Graduate Program at the University of Pittsburgh

At the University of Pittsburgh, the diversity of applicants and those who ultimately received and accepted an offer in 2016 was more limited than the overall diversity of CSDCAS applicants in that same year (see Figure 2).
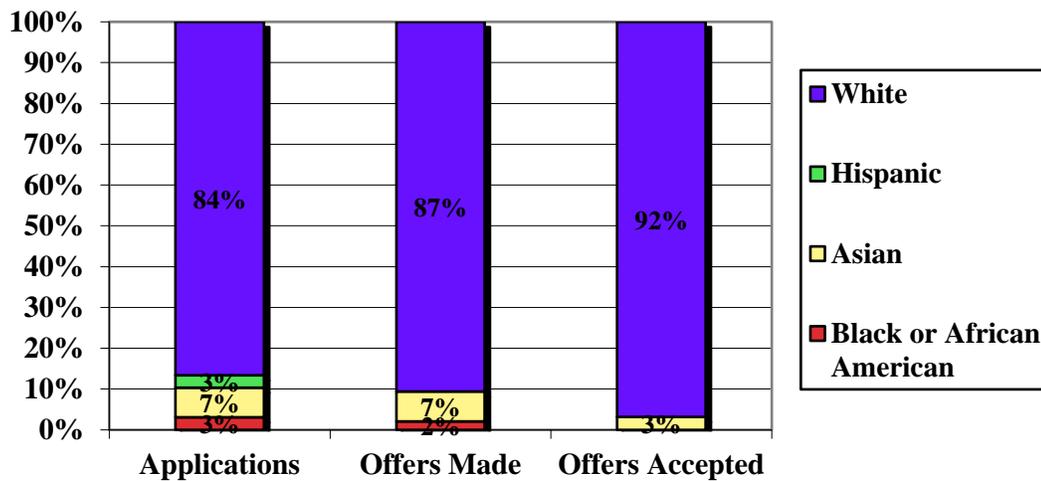
Figure 2: Demographics of 2016 Entering Class of SLP Applicants to University of Pittsburgh by Race/Ethnicity

National efforts by ASHA to recruit a diverse student body, and thus, diverse professionals, have not been fruitful. There is a need for increased research, funding, and

attention directed toward recruitment efforts, especially considering its role in promoting cultural awareness for prospective clinicians (Stewart & Gonzalez, 2002; Franca et al, 2016). Funded by an ASHA Multicultural grant, the University of Pittsburgh is currently investigating the factors impacting diversity of SLP graduate program applicants in their program, as well as identifying the social and institutional barriers that impact recruitment and retention efforts of these students.

If ASHA's efforts are any indication of the prospect of increasing the diversity of SLPs, it would be unwise for the field to wait until the diversity of their professionals is representative of the diverse populations they serve before promoting other avenues to develop cultural awareness. There is a need to foster cultural awareness in prospective SLPs, as the demographics exist right now.

1.6   CULTURAL AWARENESS

Terminology varies in how we provide effective and culturally-sensitive services to individuals from diverse backgrounds across all areas of human services. Cross et al (1989) offers a continuum of cultural competence with the following six possible stages:
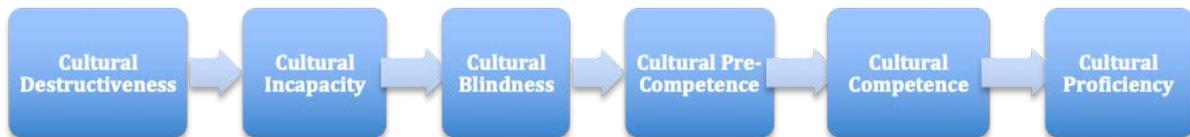
This framework is also promoted by ASHA as a means by which clinicians can gauge their current level of cultural competency and identify room for development (Stewart & Gonzalez, 2002; American Speech-Language-Hearing Association, 2018b). There are limitations

with using the terminology of "cultural competency." Dr. Arthur Kleinman, a professor of medical anthropology and psychiatry at Harvard Medical School, cautions that one problem with the term it that "it suggests culture can be reduced to a technical skill for which clinicians can be trained to develop expertise" (Kleinman & Benson, 2006, p. e294). The continuum of competence (Cross, 1989) should never be used to suggest that clinicians could ultimately meet an acceptable standard of cultural competence by acquiring a certain amount of information, without acknowledging a continual need for growth.

Dr. Frederick Leong, director of The Center for Multicultural Psychology Research at Michigan State University, developed a Cultural Accommodation Model that encouraged therapists to approach their clients in a holistic manner (Leong & Lee, 2006). This model is described in three tiers:

- Tier 1: therapists perceive their client as a member of humanity, sharing traits with all people
- Tier 2: the "group dimension" incorporates the client's ethnicity, race, gender, and class
- Tier 3: paints clients as individuals – separate and distinct from their group

In the field of counseling, Roysircar (2009) describes "cultural awareness competency" as one in which therapists have not only cultural knowledge and understanding of their clients, but of themselves as well.

I will use the terminology of "cultural awareness" to describe the provision of culturally competent services as a process that is never presumed to be complete and that will develop with intentional knowledge seeking, and increased exposure and relationships with diverse populations. Cultural awareness includes cultural understanding of "other" populations and of the self.

Developing cultural awareness is a complex and subtle process requiring a professional to examine and address both explicit and implicit biases. Explicit biases are relatively straightforward to identify, even if not to remedy. Implicit biases are more difficult for individuals to accurately self-report because they are characterized by an inability to consciously recognize personal bias (Franca et al, 2016). Implicit biases shape many of our attitudes and interactions with diverse populations. Many of the current avenues for developing cultural awareness address explicit bias but neglect to address the deeper issue of implicit bias. Addressing the value judgments associated with implicit bias is inherently challenging because it is not the conscious domain.

1.6.1   Cultural Awareness in Healthcare

The decision to see a healthcare provider is influenced by more than a patient's medical complaints. Such a decision is influenced by an individual's cultural understanding of illness, why they are experiencing it, and whose role it is to help them (if help is to be received at all) (Crist, Garcia-Smith, & Phillips, 2006; Koffman, Morgan, Edmonds, Speck, & Higginson, 2008). Anticipated outcomes and attitudes surrounding disease and disability guide the visit. The patient's cultural background and values drive their reaction and response to the consult (Maesschalck, 2011). A clinician who is unaware of the cultural framing of a patient's health and illness may lack knowledge about the medical implications for a patient.

Kagawa-Singer (2011) discusses culture as a "multi-level, multi-dimensional, dynamic, adaptive, and integrative biopsychosocial ecological system in which a population of people exists" (p. S90) and argues that cultural awareness can develop when physicians consider the

healthcare dimensions that are influenced by a patient's cultural background. These dimensions are as follows:

- Health and death are conceptualized at both a physical and spiritual level.

- Responses to pain vary in how they are physically and verbally expressed, based on how they understand pain – as a punishment or a test of faith, in some cases.

- Expressions of emotion during the illness experience are filtered through a cultural lens.

- Values, including autonomy and dependency, can play a significant role in the decision-making process.

- "Rules" of social communication vary by culture. These rules may influence the level and type of information that a patient expects to receive from a healthcare professional.

- Drug metabolism is influenced by genetics on both an individual and cultural demographic level.

Barriers to the assessment of these levels and dimensions of cultural influence persist, even if healthcare professionals seek to be culturally aware in their practices. Many physicians find that time constraints and productivity quotas limit their ability to explore a patient's cultural needs in a thorough way (Smedley et al, 2003). Healthcare providers are cautioned not to allow cultural stereotypes to guide their practices. Different societies establish group demographics in different ways. The U.S. formally classifies individuals by race and ethnicity, but we cannot make judgments about cultural needs merely based on knowledge of these two features (Kagawa-Singer, 2011). An increasing number of medical schools are incorporating "cultural competency" into the training of prospective physicians. One such course occurred at a prominent Northeastern medical school. This course was distinct from previous ones related to cultural competency because it was founded on literature that shows "the culture of the provider

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is as important as the culture of the patient in the delivery of medical care" (Hannah & Carpenter-Song, 2003, p. 315). The program sought to increase physicians' awareness of their conscious or subconscious biases that may be interact with the patient's cultural background. Medical programs are finding that cultural competency training that lacks self-awareness is insufficient in preparing physicians for interactions with their diverse patients.

1.6.2   Cultural Awareness in Education

Restricted educational opportunity and success have been associated with undesirable educational outcomes such as: increased behavioral difficulties, dropout rates, and low academic engagement. There has been increased awareness of the need for educational professionals to better understand the impact of cultural and linguistic background on a child's academic needs (Sullivan, 2011). Improved cultural awareness addresses student achievement gaps, increases the involvement of the family in the child's education, and improves teachers' abilities to meet students' learning needs that are influenced by their cultural backgrounds (Promoting Educators' Cultural Competence, 2008).

Wilson-Brooks (2010) proposed that continuing education opportunities might be an effective means of educating teachers on the unique barriers that exist for their students' various cultural groups. The researcher distributed a survey to teachers from two different school districts before and after an eight-week training program. Teachers reported increased cultural awareness (more positive racial attitudes) following the program. Repeated continuing education programs may serve as a means of improving racial attitudes and the quality of teaching for students from diverse backgrounds (Wilson-Brooks, 2010).

1.6.3   Cultural Awareness in Speech-Language Pathology

Opportunities to develop cultural awareness to speech-language pathology begin in at college/university and should continue throughout the career. The most common education method on service provision to culturally and linguistically diverse populations is an "infusion" model (Hammond et al, 2009; Stewart & Gonzalez, 2002). This model is currently the preferred approach as outlined by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (2017). An infusion approach incorporates multicultural content and clinical thinking into multiple courses in the curriculum. This contrasts with the approach that promotes a single course on bilingualism or culturally competent service provision.

Stewart & Gonzalez (2002) identified several factors that foster the development of cultural awareness in the field of speech-language pathology: 1) increasing the diversity of SLPs, 2) increasing the quantity and quality of research regarding the prevention, assessment, and treatment of communication disorders across diverse populations, and 3) improving academic and clinical preparation in the areas of assessment and treatment of communication disorders and differences in diverse populations. In a study by Franca et al (2016), researchers explored cultural bias of SLPs through self-reported data. The study investigated factors such as attitudes toward language diversity, interactions with diverse populations, and coursework focused on diverse populations. Simply increasing knowledge about diverse populations did not reduce cultural bias. Interacting with diverse populations was the strongest contributor to reducing cultural bias.

The ASHA Council on Academic Accreditation (CAA) provides standards that graduate programs are expected to meet regarding SLP service provision to diverse clients. ASHA first *recommended* that education on multicultural populations be included in SLP and audiology

graduate program curricula in 1985. Nine years later this recommendation became a *requirement* of the academic content in accredited programs: students had to be provided with supervised clinical experiences working with culturally and linguistically diverse populations. This came into being over twenty years after the initial recommendation (Hammond et al, 2009). This requirement increased standards for graduate student clinicians to ensure that they were interacting with diverse clients through clinical experience, and not just learning about cultural differences through coursework.

An organic setting for promoting interaction between diverse populations occurs within the classroom. Structural diversity, meaning the racial and ethnic composition of a class, was identified as a factor that influences students' cultural awareness (Elicker et al, 2010). Structural diversity that promotes greater engagement activities results in positive outcomes in cultural awareness (Chang et al, 2006) Such engagement activities include sustained and meaningful interactions occurring outside of class with individuals from racial or ethnic backgrounds different from their own. Of course, the effectiveness of this method is limited in the field of SLP, where structural diversity is especially limited.

1.7   RESEARCH QUESTIONS

1.7.1   Aim

My aim was to further investigate the current avenues for SLPs to develop cultural awareness during graduate school. The groups of interest are clinical fellows (those who most recently completed the graduate program) and clinicians who graduated two or more years ago.

The experiences in graduate class and clinic, and then beyond when practicing as independent clinicians, influence culturally-aware preparedness. I will study the following questions:

1. What do clinical fellows and certified clinicians understand about the role of cultural awareness and diversity in speech-language pathology?

2. How do clinical fellows and certified clinicians describe their level of preparedness to provide services to diverse populations?

3. What contexts do clinical fellows and certified clinicians identify as most influential in preparing them to work with diverse populations?

4. What topics do clinical fellows and certified clinicians wish they learned more about regarding service provision to diverse populations?

1.7.2 Importance

The need for evaluation of the effectiveness of a graduate program in preparing students for entry-level competency in their professional career is critical. Cultural awareness has been recognized as a necessary standard in many healthcare and education professions. SLPs are integral team members in both the fields of healthcare and education. Graduate programs seeking to prepare entry-level competent SLPs have a responsibility to promote a foundation for cultural awareness. An SLP graduate program should foster a trajectory of increasing cultural awareness that will continue to develop throughout a clinician's career as with all knowledge and skill areas. There is a need for accountability and evaluation of this professional standard. An individual's cultural and linguistic background is intrinsically tied into their communication and swallowing needs (Ndung'u & Kinyua, 2009; Riquelme, 2004). SLPs must be equipped to make

modifications to the assessment or treatment process in order to provide effective and sensitive services to these clients.

Examination of the recent graduate and clinician preparedness to work with diverse populations is especially important when the national demographics of a field are largely homogeneous. We can "zoom in" and see this pattern of homogeneity exists in the demographics of the SLP program of interest at the University of Pittsburgh. The field of speech-language pathology lacks the diversity evident in the clients they serve. We know that structural diversity is often an influential means of developing cultural awareness. We also know that there has been limited success in the recruitment and retention of diverse professionals in the field of SLP. It is imperative that academic and clinical preparation for this homogeneous group of prospective clinicians is effective in promoting the development of cultural awareness.

2.0   METHODS

The purpose of this study was to explore clinical fellows' and certified clinicians' perceived levels of preparedness to work with diverse populations. This included information on which contexts were most influential in preparing them and which topics they wish they had learned more about during graduate school.

The University of Pittsburgh was funded by the ASHA Office of Multicultural Affairs' Projects on Multicultural Activities (2016) for their project entitled: "Professional diversity starts with a diverse student body: social and institutional barriers to recruitment." The participant pool for this study was limited to graduates of the University of Pittsburgh Master's program.

Audiologists are also members of ASHA who have limited diversity in their field and likely a need for cultural awareness development (American Speech-Language Hearing Association, 2016). I limited my work to studying SLPs as the class sizes in audiology have typically been small. By starting with a sample population from a single graduate program, methods and data from this study can be used to explore the preparedness of clinicians from other graduate programs to work with diverse populations. The data from this study specifically can be used to inform SLP graduate program development regarding cultural awareness at the University of Pittsburgh.

2.1   PARTICIPANTS

2.1.1   Clinical Fellows

Participants included the 2018 cohort of graduated students from the Speech-Language Pathology program at the University of Pittsburgh. All 36 members of the cohort were invited to participate in this study. This class most recently experienced the graduate program curriculum and clinical experience in its entirety. They recently began their clinical fellowship and are referred to as clinical fellows ("CFs") in this study. The cohort was surveyed separately from the clinician group because they are not yet considered certified clinicians and are required to have some degree of supervision. Incoming first-year and second-year graduate students had not yet experienced all coursework or clinical practicums in the graduate program, so they were excluded.

2.1.2   Clinicians

Certified clinicians ("clinicians") surveyed in this study were alumni of the University of Pittsburgh SLP graduate program who matriculated between the years 2015 and 2017. There were 105 clinicians invited to participate in the study. In order to be considered a practicing clinician, individuals must have their certificate of clinical competency (CCC). This certification would indicate completion of a master's level program, completion of the clinical fellowship, and a passing score on the PRAXIS exam in Speech-Language Pathology. Inclusion criteria required graduation no later than the year 2017 in order to allow time for the acquisition of CCCs, as well as experience working in the field beyond the graduate program.

2.2   RECRUITMENT

The research team recruited clinical fellow (CF) participants for the study via email communication. An administrator functioned as a gatekeeper and sent an invitation link to all 36 members of the 2018 SLP cohort of graduates via a pre-existing email contact group/distribution list. The survey did not request any identifying information as to protect participant anonymity. Participants were instructed not to inform the gatekeeper whether or not they responded to the survey. The first appeal email was sent on June 17, 2018. A second email was sent on June 29, 2018. A third and final appeal email was sent to the cohort on September 27, 2018. The CF survey was closed on October 18, 2018 to finalize data collection.

Clinician participants were recruited via pre-existing Facebook groups that were created for cohorts graduating between 2015 and 2017. The same administrator functioned as a gatekeeper and emailed a survey link to an administrator-selected representative of each cohort. Representatives were asked to post the survey link in their corresponding cohort's Facebook group twice. The gatekeeper first asked the survey link to be shared in the Facebook group on June 17, 2018. A second request to share the link was completed on June 29, 2018. These Facebook groups were classified as both "closed" and "secret," meaning the groups were exclusive to members of that SLP program cohort and could not be searched and found by non-members. It is possible that a number of individuals do not actively use Facebook or check posts in their cohort's Facebook group. The gatekeeper was asked to send out a third email on July 12, 2018 to 105 individual clinician email addresses in an effort to increase the number of responses from the clinician group. These email addresses were obtained from pre-existing distribution lists in student records. All emails were blind carbon copied so that clinicians could not see who else received the email. The clinician survey was closed on July 25, 2018 to finalize data collection.

2.3   SURVEY DESIGN

The surveys were created using the secure web-based Qualtrics Survey Service. Demographic data was requested, such as age range, gender, race, ethnicity, socioeconomic status, and primary work setting. Additional questions were asked on the topics of experience working with diverse populations and perceived level of preparedness from the SLP graduate program at the University of Pittsburgh.

The surveys included multiple choice, rating scale, and ranked options, which are well suited for data analysis through frequency counts. Rating scale questions asked participants to select a response that best described how they felt about a given topic (e.g. extremely prepared, somewhat prepared, neither prepared nor unprepared, somewhat unprepared, extremely unprepared). Ranked option questions asked participants to order all options by value (e.g. most influential to least influential). Free-text questions were used to allow participants to broaden their input by inviting them to provide examples from their experience. The survey for clinical fellows can be found in Appendix A. The survey for clinicians can be found in Appendix B.

2.3.1   Human Research Protection Office

The Human Research Protection Office (HRPO – previously known as the Institutional Review Board) at the University of Pittsburgh reviewed this study. The survey design is classified under the heading, "Tests, Surveys, Interviews, or Observations," which is considered a minimal risk exempt review under HRPO. The study meant the requirements for an EXEMPT study under section 45 CFR 46.101(b)(2) on May 21, 2018.

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2.4   DATA ANALYSIS

Descriptive data were obtained and analyzed in the form of frequency counts and free-text responses. Braun and Clark (2014) described the importance of qualitative research:

> *Qualitative research offers rich and compelling insights into the real worlds, experiences, and perspectives of patients and health care professionals in ways that are completely different to, but also sometimes complimentary to, the knowledge we can obtain through quantitative methods (p.1).*

Free-text responses were used to better understand clinical fellow and clinician perceptions of preparedness to work with diverse populations. The only way to investigate the experiences and perspectives of people is to ask them. Survey questions corresponding to each research question will be described and numbered in the following subsections. Survey question numbers are labeled with the shorthand (CFQ#) on the Clinical Fellow Survey and (SLPQ#) on the Clinician Survey.

2.4.1   Demographics

Demographic data were collected to characterize the CF and clinician groups who responded to at least one question on their respective surveys. Demographic questions were divided into four subsections: general participant characteristics, graduate education experience, clinician professional characteristics, and CF reflections on graduate program coursework and clinic. The clinician group was not asked the CF reflection questions in an effort to mitigate against possible recall bias since they were farther removed from their experience in the graduate program.

Participants from both groups were asked to answer multiple-choice questions about their primary language(s), race, ethnicity, hometown (for CFs) or current town of residence (for clinicians), age range, gender identity, socioeconomic status, and year of graduation from the SLP Master's program at the University of Pittsburgh. The following questions on the CF Survey corresponded with these topics: CFQ4, CFQ5, CFQ6, CFQ7, CFQ9, CFQ10, CFQ11, CFQ12, and CFQ13. CFs were also asked about their desired future work setting in CFQ17, though the clinician group was asked about their current work setting in the *Clinician Professional Characteristics* subsection. The following questions on the Clinician Survey corresponded with the same CF questions about general participant characteristics: SLPQ5, SLPQ6, SLPQ7, SLPQ8, SLPQ10, SLPQ11, SLPQ12, and SLPQ13.

All participants were asked to reflect on their initial considerations of diversity when selecting a graduate program and the perceived diversity of their graduate program cohort in CFQ15, CFQ16, SLPQ17, and SLPQ18.

The CF group was asked specific questions about their clinical experiences and perceptions of coursework topics during their graduate program. They were asked whether or not they had worked with clients from diverse backgrounds (CFQ19), whether they had modified their assessment or treatment plan to account for a cultural or linguistic difference (CFQ20), to describe an example of such a modification made during clinic (CFQ21), and to rate the depth to which specific topics related to cultural awareness were covered in their coursework (CFQ28).

The clinician group was asked questions about their professional status. Questions of this nature were excluded from the CF Survey because not all CFs would necessarily have started working professionally at the time of survey distribution. Clinicians were asked if they were members of ASHA (SLPQ14) and/or any ASHA Special Interest Groups (SLPQ15), their

primary work setting (SLPQ19) and previous work settings in the past twelve months (SLPQ21), if they knew how to secure a translator (for oral communication) or interpreter (for written communication) (SLPQ33), and if they had attended any continuing education courses related to service provision for diverse populations (SLPQ34). An additional free-text question asked clinicians to describe the topic of any continuing education courses related to cultural awareness that they had attended (SLPQ35).

2.4.2 Research Question 1: Understanding of Cultural Awareness

The following questions were on both the CF and the Clinician Surveys regarding participants' understanding of cultural awareness and implicit bias: CFQ3, CFQ26, SLPQ3, and SLPQ28. Data between groups were then compared. Only the CF group were asked about their understanding of implicit bias *specifically as a result of instruction during the University of Pittsburgh's graduate program* in CFQ27. Clinicians were not asked this question in an effort to mitigate against recall bias due to a greater time removed from the program. Only the clinician group was asked about their understanding of diversity in their current work setting in a free-text question (SLPQ4). Clinicians were also asked to rank how often they modify their services to account for cultural differences on a scale of frequency (never…always) in SLPQ31. Both of these questions were excluded from the CF Survey because not all CFs were yet working at the time of survey administration.

2.4.3   Research Question 2: Level of Preparedness

Participants from both groups were asked to rank their feelings of preparedness, satisfaction with preparedness, confidence, and effectiveness to work with diverse populations on CFQ22, CFQ23, CFQ24, CFQ25, SLPQ23, SLPQ24, SLPQ26, and SLPQ27. Though confidence and effectiveness are not directly related to preparedness, I was interested in exploring participants' responses in light of their perceived preparedness from the University of Pittsburgh. Both groups were also asked what they would do if they were unsure how (or felt unprepared) to assess or treat a client on their caseload due to cultural or linguistic differences (CFQ29, SLPQ36). This question was asked in a multiple-choice format, and participants could select more than one option. Clinicians were additionally asked to describe a time when they felt underprepared and a time when they felt well-prepared to work with a client from a diverse background in SLPQ29 and SLPQ30, respectively. These questions were in a free-text format. The CF group was not asked these questions because not all had started working full-time at the time of survey administration.

2.4.4   Research Question 3: Most Influential Contexts

Both the CF and clinician groups were asked to rank six experiences (e.g. class lectures and assignments, clinic experience with diverse populations) in order from most influential to least influential in preparing them to work with diverse clients (CFQ31, SLPQ38). All participants were asked to describe any additional experiences that were influential in preparing them to work with diverse populations in a free-text format (CFQ32, SLPQ39).

2.4.5 Research Question 4: What Participants Wish They Learned

Both the CF and Clinician participants were asked to select topics related to cultural awareness from a given list (adapted from Stewart & Gonzalez, 2002) that they wished they learned more about during their graduate program (CFQ33, SLPQ40). Stewart & Gonzalez (2002) had asked SLP graduate program directors about the emphasis placed on various topics of diversity. The purpose of adapting these topics for the present study was to investigate how former students perceived the emphasis placed on the similar topics of diversity. This question was in a multiple-choice format, and participants were not limited in the number of topics they could select. All participants were also asked if any other, unlisted topics would have been beneficial to learn more about during the graduate program in a free-text question (CFQ34, SLPQ41).

3.0   RESULTS

Two surveys were initially distributed in June of 2018 to the group of 36 clinical fellows (CFs) and the group of 105 clinicians. A total of 15 CFs opened and answered at least one question on the survey. Each question's total responses does not add up to participant number as not everyone answered every question. The number of non-responders are shown for each question.

This study examined four main questions. Closed-ended question responses (e.g. multiple choice, yes/no) are primarily displayed in a pie chart or stacked column chart to compare results between the CF and clinician groups. Free-text responses are shared in an italicized list format. Data analysis is divided into five categories: demographics and reflections, research question 1, research question 2, research question 3, and research question 4.

1. What do clinical fellows and certified clinicians understand about the role of cultural awareness and diversity in speech-language pathology? (referred to as *understanding of cultural awareness*)

2. How do clinical fellows and certified clinicians describe their level of preparedness to provide services to diverse populations? (referred to as *level of preparedness*)

3. What contexts do clinical fellows and certified clinicians identify as most influential in preparing them to work with diverse populations? (referred to as *most influential contexts*)

4. What topics do clinical fellows and certified clinicians wish they learned more about regarding service provision to diverse populations? (referred to as *what participants wish they learned*)

3.1   **DEMOGRAPHICS AND REFLECTIONS**

Most CFs and certified clinicians were White, female, primary language English, currently residing in an "urban cluster," and aged between 22-26 years (See Table 2). Questions related to primary language, racial category, and gender provided a free-text option to allow participants to self-identify outside of category constraints. Participant responses provided using the free-text option are denoted by quotation marks.

Table 2: General Participant Demographic Data

	CF (n=15)	Clinician (n=21)
Primary Language (CFQ4, SLPQ5)	English: 14 Bilingual: 1 -"Vietnamese And English" 1	English: 19 Bilingual: 2 -"English and Spanish" 1 -"English and Russian" 1
Racial Category (CFQ5, SLPQ6)	White: 14 Asian: 1	White: 20 Black: 1
Ethnicity (CFQ6, SLPQ7)	Not Hispanic/Latino: 15	Not Hispanic/Latino: 20 Hispanic/Latino: 1
Hometown (CFQ7) or Current Town of Residence (SLPQ8) (Ratcliffe, Burd, Holder, & Fields, 2016) *Urbanized Area: more than 50,000 people* *Urban Cluster: between 2,500 and 50,000 people* *Rural: all territories not classified as "urban"*	Urbanized Area: 2 Urban Cluster: 11 Rural: 2	Urbanized Area: 18 Urban Cluster: 3
Current Age Range (CFQ9, SLPQ10)	24-26 years: 12 27-29 years: 2 30-39 years: 1	24-26 years: 13 27-29 years: 6 30-39 years: 2
Gender Identity (CFQ10, SLPQ11)	Female: 14 Not Listed: 1 -"Non-Binary" 1	Female: 20 Male: 1
SES Statements (CFQ11)	High School – Reduced Lunch: 5 Public Assistance: 0 Low College Attendance: 0 ESL: 1 None Apply: 9 NR: 1	N/A
Income Growing Up (Less Than Given Figures) (CFQ12, SLPQ12)	No: 13 Yes: 2	No: 20 Yes: 1
Year Of Graduation From Pitt (CFQ13, SLPQ13)	2018: 15	2017: 2 2016: 11 2015: 6 2014: 1 NR: 1
Desired Future Work Setting (CFQ17)	School - Special Needs: 4 Private Practice: 1 Pediatric Outpatient: 1 Adult Rehab: 3 SNF: 1 Adult Acute: 3 Specialized Clinic: 1 School: 1	N/A

3.1.1 Graduate Program Reflections

Data for the CF and clinician participant responses to "How important to you was diversity in the following forms as a factor in selecting a graduate program?" are shown in Figure 3 (CFQ15, SLPQ17). Considerations of diversity for each group are listed below. Abbreviations used in the chart follow in parentheses. *CF* stands for clinical fellow and *SLP* stands for clinician. Ranked descriptors of importance are shown on the legend. Every CF participant provided a response to describe importance for each consideration of diversity. Nineteen out of twenty-one clinicians provided a response to this question.

- Having faculty from diverse populations (CF Div Faculty)

- *Note: SLP Diverse Faculty was unintentionally omitted on the Clinician Survey*

- Learning how to assess and treat diverse populations (CF Learn How, SLP Learn How)

- Working with diverse populations in a clinical setting (CF Div Clinic, SLP Div Clinic)

- Attending a program in a city with high diversity (CF Div City, SLP Div City)

- Having classmates from diverse backgrounds (CF Div Class, SLP Div Class)
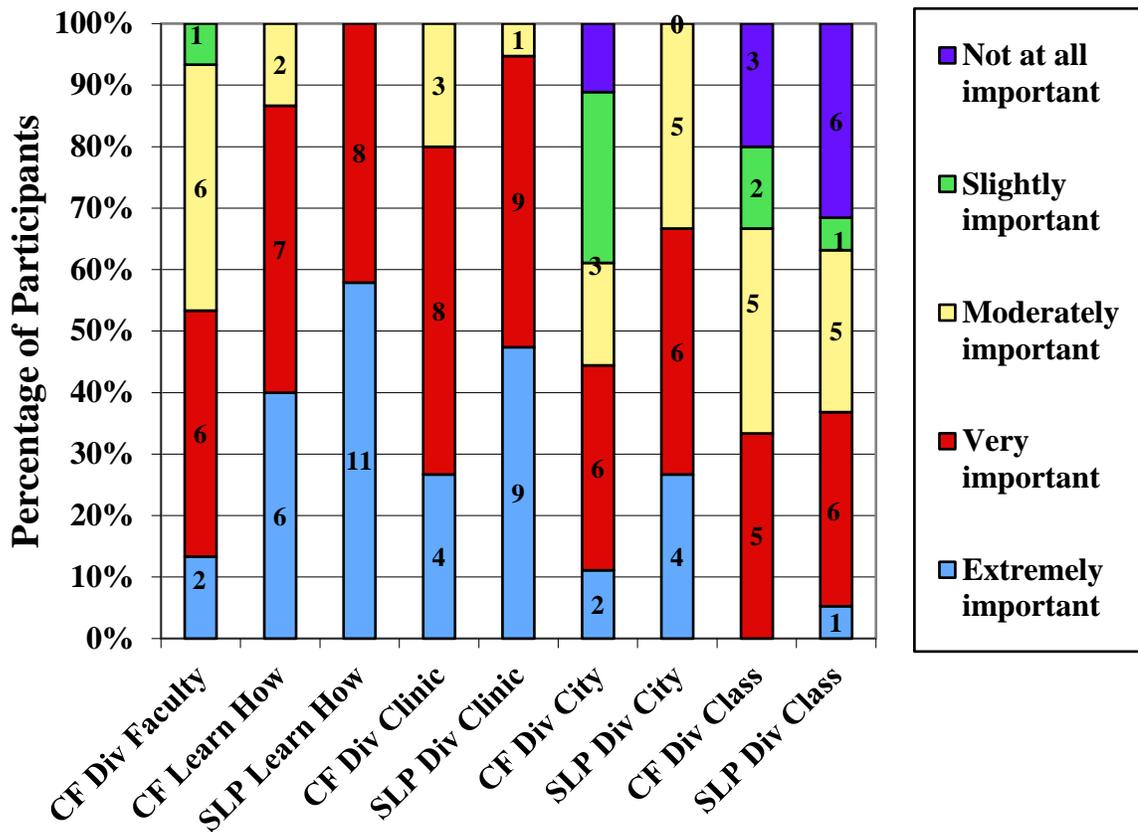
Figure 3: Considerations of Diversity When Selecting Graduate Program (CF n=15, SLP n=19)

Both groups placed the *highest* importance (selected "extremely important" or "very important" most often) on learning how to assess and treat diverse populations. All 19 clinicians and 13/15 CFs ranked "learning how to assess and treat diverse populations" as "very important" or "extremely important." Both groups placed the second-highest overall importance on "working with diverse populations in a clinical setting". Both groups placed the *lowest* importance (selected "extremely important" or "very important" least often) on having classmates from diverse backgrounds: 5/15 CFs and 7/19 clinicians.

Data for the CF and clinician participant responses to "How would you describe the diversity of your graduate program cohort?" are shown in Figure 4 below (CFQ16, SLPQ18). All CFs and 20/21 clinicians responded to this question. Participants could only select one option for this question.
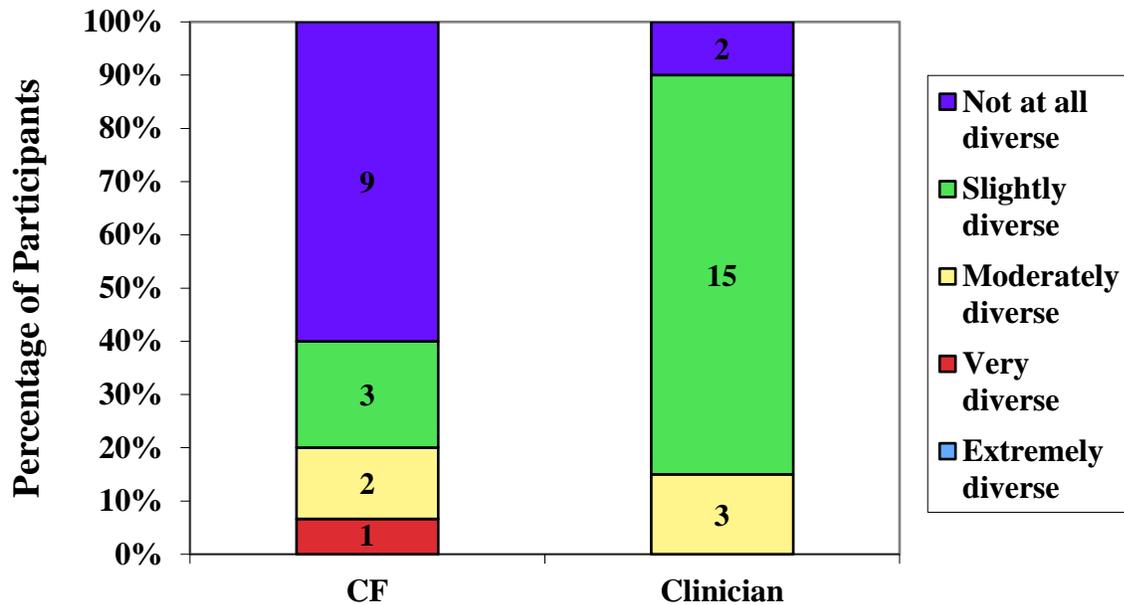
Figure 4: Perception of Cohort Diversity (CF n=15; SLP n=20)

The majority of CFs described their cohort as "not at all diverse" or "slightly diverse." No CFs described their cohort as "extremely diverse" and one participant selected "very diverse". The data show that 17 out of 20 clinicians (85%) described their cohort as "slightly diverse" or "not at all diverse." No clinicians described their cohort as "extremely diverse" or "very diverse."

3.1.2 CF Experience with Clinic and Coursework

The CF group was asked about their experience working with diverse populations during clinic placements in graduate school. Clinicians were not asked specific questions about their clinic and coursework experiences in efforts to mitigate against recall bias of their responses. Their responses to yes/no questions related to clinic and diverse populations are displayed in Table 3.

Table 3: CF Yes/No Responses about Clinic Experience with Diverse Clients (n=14)

Worked with Diverse Clients in Clinic? (CFQ19)	Yes: 13 No: 1 NR: 1
Modified Services to Account for Cultural Difference in Clinic? (CFQ20)	Yes: 11 No: 3 NR: 1

Most CFs reported having the opportunity to work with clients from diverse backgrounds during their graduate program clinical experience (n=13/14). It is worth noting that one participant did not report having had this experience. Thirteen CFs reported working with diverse clients in clinic but only eleven reported modifying their services to account for a cultural difference.

CFs were asked to provide examples of modifications they made during clinic to account for a client's cultural or linguistic differences in a follow-up free-text question (CFQ21) and 9/15 responded. A sample of these responses is displayed below. All free-text responses can be viewed in Appendix C (for CFs) and Appendix D (for clinicians). Many CFs described

experiences evaluating or treating articulation disorders in patients who spoke a language or dialect different from their own:

"I have modified results of a standardized test to account for dialectal differences that were not considered a speech sound error and would have placed the child under the category of having a speech sound disorder if it wasn't modified." - CF

"Being aware that certain differences in articulation were cultural and not a disorder. For example not treating f/th. Or allowing a bilingual child with a TBI to work on naming in both English and Spanish to increase success" [sic] - CF

"I had to use all informal assessments instead of formal assessments because I didn't have any tests normed for Portuguese children. I also had to learn age appropriate substitutions for the Portuguese language to see if she had or did not have a language/speech disorder" - CF

CFs were asked to consider their experience of coursework topics related to cultural and linguistic diversity during their graduate program and to rate their perceived depth of coverage for each given topic (CFQ28). The level of depth could be rated as either "not addressed," "rarely/barely addressed," or "regularly addressed." The given topics are listed below, followed by their chart abbreviations in parentheses:

- Bilingualism/Multiculturalism (Bilingualism)

- Characteristics of linguistic variations (Char of ling var)

- Assessment of diverse populations (Ax)

- Cultural characteristics (Cult char)

- Identification of diverse clients (ID)

- Intervention for language differences (Tx for lang diff)

- Intervention for disorders in diverse populations (Tx for disorders)

- Second language acquisition (2nd lang acquisition)

- Service delivery for diverse populations (Service delivery)

- Relevant documents and laws pertaining to diverse population (Docs and laws)

- The influence of cultural bias (Cult bias)

CF participants' ratings of depth of topics during their graduate program coursework are displayed in Figure 5. The number of CFs selecting each depth rating is displayed on each bar and 13/15 responded to this question.
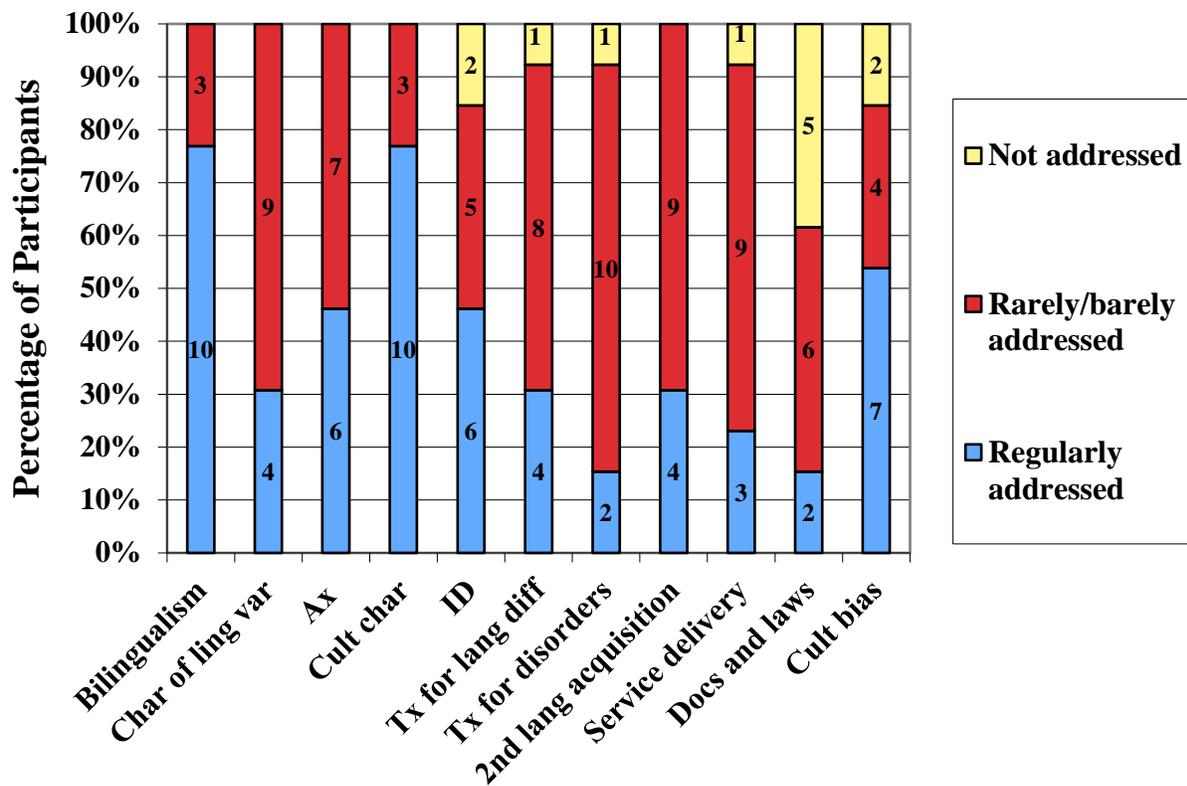
Figure 5: Depth of Coverage Ratings for Coursework Topics in Diversity (n=13)

The majority of participants shared that all given topics were covered to some degree ("rarely/barely addressed" or "regularly addressed") during their coursework. CFs most often reported regular topic coverage of bilingualism/multiculturalism and cultural characteristics

(n=10 for each). The following topics were rated as "not addressed" by at least one individual (not the same individual for each topic): the influence of cultural bias, relevant documents and laws pertaining to diverse populations, service delivery for diverse populations, intervention for disorders in diverse populations, intervention for language differences, and identification of diverse clients. Of these topics, CFs most frequently reported that relevant documents and laws pertaining to diverse populations were "not addressed" during graduate school (n=5).

3.1.3   Clinician Professional Characteristics

Most clinicians were members of ASHA but not members of Special Interest Groups. The most-frequently-reported primary work setting was school. The majority (n=17) of clinicians reported that "about half," "most," or "all" of their caseload differs from them, culturally and/or linguistically. All participants reported that their caseload differs from them to some degree. Most clinicians (n=15) reported knowing how to secure a translator/interpreter. Approximately half of participants (n=9) reported attending a continuing education program related to diversity. See Table 4.

Table 4: Clinician Professional Characteristics (n=21)

ASHA Membership (SLPQ14)	Members: 20 Non-members: 1
ASHA SIG Members (SLPQ15) *Note: participants could select more than one response for this question if members of more than one SIG.*	Not a SIG member: 15 2 – Neurogenic Communication Disorders: 1 3 – Voice and Voice Disorders: 1 13 – Swallowing and Swallowing Disorders: 3 14 – Cultural and Linguistic Diversity: 1 NR: 2
Primary Work Setting (SLPQ19)	Early Intervention: 2 School: 9 Pediatric Outpatient: 2 Adult Acute Care: 1 Adult Rehab: 3 SNF: 1 Specialized Clinic: 1 Home Health: 1 NR: 1
Previous Work Setting in Past Twelve Months (SLPQ20) **Note: participants could select more than one response for this question**	Early Intervention: 5 School: 5 School – Special Needs: 1 Pediatric Outpatient: 2 Adult Acute Care: 3 Adult Rehab: 2 SNF: 3 Home Health: 1 Private Practice: 2 Other: Telepractice 1 NR: 4
Perceived Diversity of Caseload (SLPQ21) *How much of your caseload do you perceive differs from you - culturally and/or linguistically?*	All: 1 Most: 6 About half: 10 Somewhat: 3 Not at all: 0 NR: 1
Know How to Secure Translator/Interpreter? (SLPQ33)	Yes: 15 No: 3 NR: 3
Attended a Continuing Education Program Related to Diverse Populations? (SLPQ34)	Yes: 9 No: 9 NR: 3

An additional free-text question followed up on SLPQ34 asked about the topics of continuing education program related to diversity (SLPQ35) with 8/9 responses. Over half of the reported programs (n=5) related to bilingualism, such as:

"English Language Learners (ELL)" - Clinician

"Providing dynamic assessment to bilingual children" - Clinician

"Supporting bilingual families in early intervention to support primary and secondary language acquisition" - Clinician

Other reported topics related to poverty (n=1), general cultural competency (n=1), and gender (n=1).

3.2 RESEARCH QUESTION 1

What do clinical fellows and certified clinicians understand about the role of cultural awareness and diversity in speech-language pathology?

3.2.1 CF and Clinician Data

Both groups were asked the following free-text question: "What does 'cultural awareness' mean to you in the field of speech-language pathology?" (CFQ3, SLPQ3). Twenty-one out of thirty-four total participants from both groups mentioned "differences" or "different" in their response.

"Cultural awareness, put simple, is an understanding that every pt we see has different beliefs of what is appropriate/not appropriate to them on a inter/interpersonal level. Do we have to agree with it? No. Do we have to put in the effort to understand it and respect it? YES…" [sic] - Clinician

Eight out of thirty-four total participants described a need for awareness of aspects of one's own culture, as well as awareness of the culture of others.

"Being cognizant of your culture and the culture of those around you. Not treating people differently or in a way that would undermine their culture. Treating people with respect and being open and accepting of who they are, their culture, language, etc." – CF

"Being aware of your culture and your patient's cultures and how this many influence treatment and patient-clinician interactions. Acknowledging gaps in your own knowledge regarding culture. Being mindful of linguistic and cultural variations in assessment and treatment of communication disorders." - CF

"Cultural awareness - understanding the differences between others and yourself and the ways that those differences have an impact on social dynamics between the two parties (self and other)." - Clinician

Participants included a variation of "respect" (n=10), "knowledge" (n=6), "sensitivity" (n=3), and "acceptance" (n=5) in their definitions of cultural awareness. Sample responses that included these concepts are as follows:

"Knowing about other cultures/ know how to go about learning about other cultures and making sure that we are providing care that is respectful and understanding of our clients culture, regardless if it is the same or different from our own" – CF

"Being knowledgeable and sensitive about cultures other than your own so that you can provide treatment respectfully." – CF

"Being accepting and knowledgeable of differences between cultures" - Clinician

Five clinicians and one CF mentioned the importance of recognizing a culturally appropriate difference, as opposed to a disorder, when it comes to determining disorders of speech, language, cognition, and swallowing.

"Being sensitive to differences and how they are observed and regarded in various cultures. The difference between difference versus disorder, and how and when to discuss your versus familial concerns regarding true disorder."
[sic] - CF

"Being respectful of cultural differences and differentiating between a cultural difference and a disorder." –
Clinician

"It means that we need to be aware that "norms" will vary across cultures in regard to communication. What may be typical social communication in one culture, may not be acceptable in the other. It is important to tease out differences from a communication disorder." - Clinician

All participants were asked, "To what extent do you feel you understand your own implicit biases may or may not affect your practice?" (CFQ26, SLPQ28). Thirteen out of fifteen CFs and seventeen out of twenty-one clinicians responded to this question (see Figure 6).
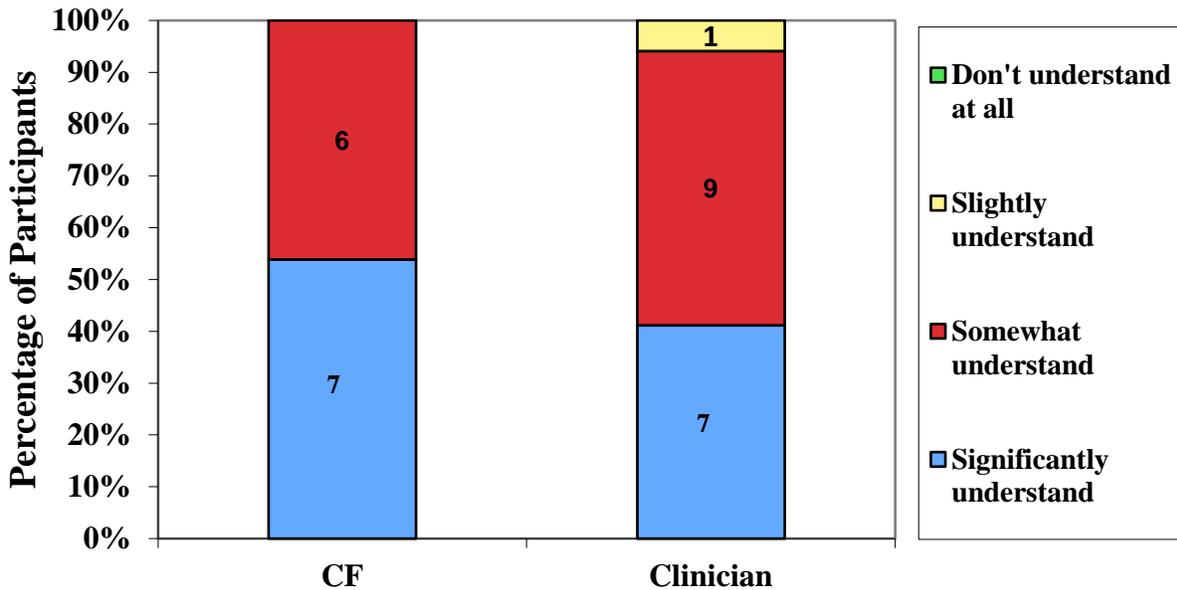
Figure 6: Understanding of Impact of Implicit Biases on Practice (CF n=13; SLP n=17)

Both groups' results for this question expressed some level of understanding of the potential impact of their own biases on their practice. All CFs conveyed that they "significantly understand" (n=7) or "somewhat understand" (n=6) the potential influence of their biases. The majority of clinicians reported that they "significantly understand" (n=7) or "somewhat understand" (n=9) the potential impact of implicit bias on their practice. Only one clinician reported they "slightly understand" the impact, which was the lowest level of understanding reported in either group. No participants in either group reported that they "do not understand [the impact of implicit bias] at all."

3.2.2 Additional CF Data

CF participants were asked, "To what extent did your graduate program at Pitt contribute to your understanding that your own implicit biases may or may not affect your practice?" (CFQ27) and 13/15 responded (see Figure 7). Clinicians were not asked this question to mitigate against recall bias since joining the workforce.
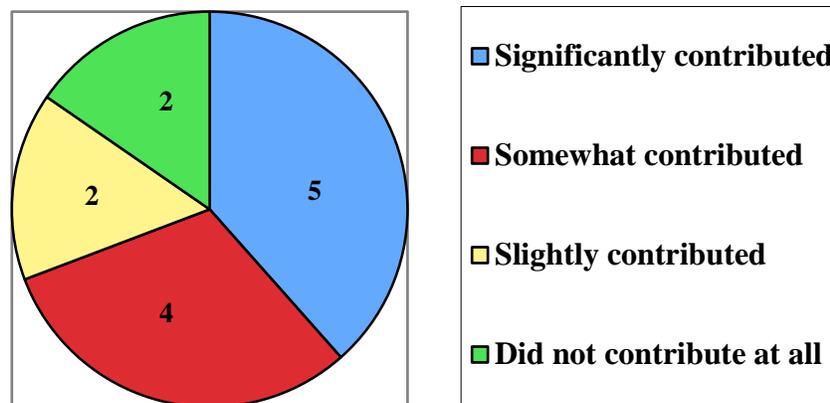
Figure 7: Extent of Pitt's Contribution to CF Understanding of Implicit Bias (n=13)

Most CFs (n=9/13) reported that their education at the University of Pittsburgh "significantly contributed" or "somewhat contributed" to their understanding of implicit bias.

3.2.3 Additional Clinician Data

Twenty out of twenty-one clinician participants responded to the free-text question, "What does 'diversity' mean to you in your current work setting?" (SLPQ4). CFs were not asked

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this question as not all CFs were working at the time of survey administration. The majority of clinicians referred to the diversity of the clients on their caseload; however, four participants mentioned the diversity (or lack thereof) of staff members.

"Diversity means having team members from various backgrounds that may not be one's own (cultural, socioeconomic, religious, racial, orientation). Having an unwavering respect for those backgrounds by staying informed." – Clinician

"The staff I work with is not very diverse, but the patient population is, and it requires me to adjust my treatment methods at times." – Clinician

Many clinicians described specific facets of diversity in their responses. Half (n=10) of responding participants mentioned "race" or "ethnicity" in their responses. Other frequently-mentioned facets of diversity included: "socio-economic status" (n=7), "culture" (n=6), "religion" (n=6), "gender" or "sex" (n=6), "language" (n=5), and "disorder" or "diagnosis" (n=5).

"I currently work in an acute care hospital serving an adult population. Diversity for me come in may forms, including but not limited to age, diagnosis, medical status, health literacy, culture, religion, gender, race, language, SES, and support system." [sic] - Clinician

"In my current work setting, I am privileged to work with a majority of bilingual families from lower socioeconomic status backgrounds. Many of my families embody a diverse background of ethnicities, cultural experiences, and language exposure. I think it is important to respect the diversity of each patient as unique." - Clinician

"Currently, I work with families from a variety of backgrounds, languages, religions, and socioeconomic statuses. Because I am in an early intervention program, it is critical for me to be aware of the different backgrounds and beliefs for each of my families."- Clinician

Clinicians were asked, "When you have clients from diverse backgrounds, how often do you modify clinical services to account for cultural or linguistic differences?" (SLPQ31). This question sought to explore clinicians' self-rated frequency of service modification to

accommodate these differences. Seventeen out of twenty-one clinicians responded to this question. See Figure 8.
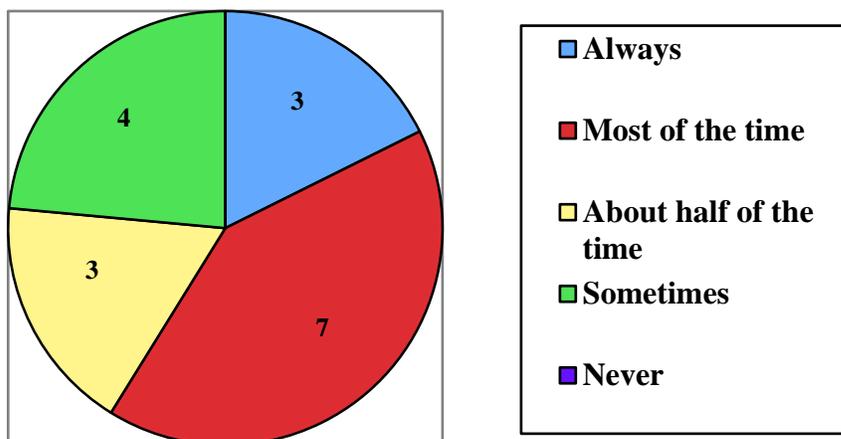
Figure 8: Clinician Frequency of Service Modification for Diverse Clients (n=17)

Clinicians most often reported modifying their services "most of the time" (n=7). Three participants reported "always" modifying their clinical services to account for cultural or linguistic differences. No participants reported "never" making modifications to their services.

Clinicians were also asked, "In which ways have you modified your practice to account for cultural or linguistic differences?" (SLPQ32) and 18/21 responded (see Figure 9). *Dynamic assessment procedures* refer to a preferred alternative or supplemental approach to speech and language assessment with culturally and linguistically diverse clients. The goal of this procedure is to teach a client a concept that may not be familiar in their language or culture and assess how quickly and effectively they can apply the new skill (Guitieerrez-Clellan & Penna, 2001). SLPQ32 was written in a multiple-choice format, and participants could select more than one

option. Modifications are listed below with their abbreviation for the chart written in parentheses.

- Tested in primary language (Ax in prim lang)

- Selected appropriate assessment materials and tools (Approp ax materials)

- Used dynamic assessment procedures (Dynamic ax)

- Used official interpreter in assessment (Official interp – ax)

- Used informal (family member or other) interpreter in assessment (Informal interp – ax)

- Performed therapy in primary language (Tx in prim lang)

- Used official interpreter in therapy (Official interp – tx)

- Used informal interpreter in therapy (Informal interp – tx)

- Other: *free text option given*
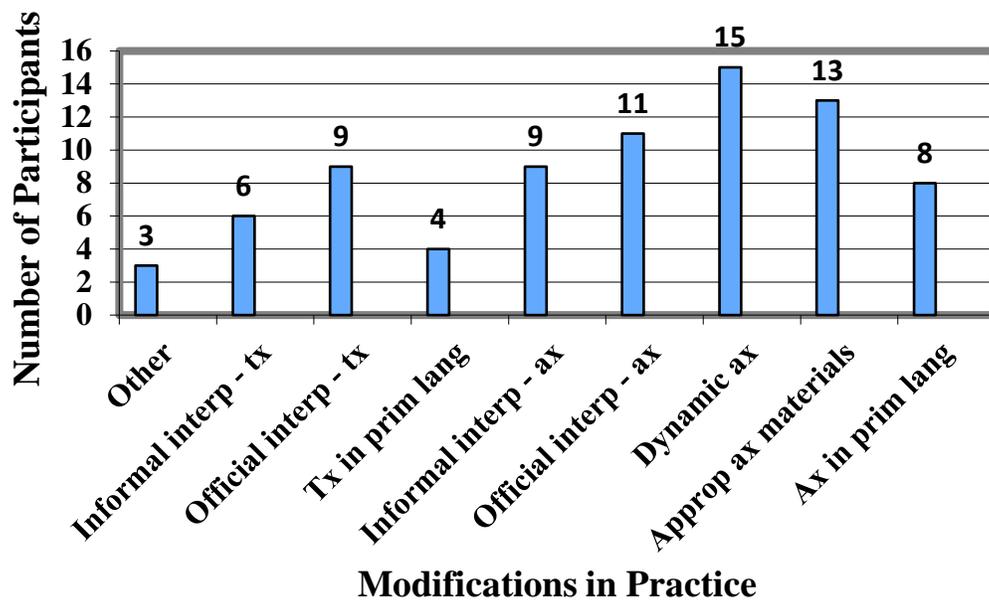
Figure 9: Clinician Modifications to Practice for Cultural/Linguistic Differences (n=18)

Three clinicians shared responses in the free-text "Other" option. Clinicians described reasons for use of an informal interpreter, as well as accommodations available in their facilities. These are listed below:

"English pts primary language but occasionally stated utterances in native language that family members have filled in" [sic] - Clinician

"I am fortunate that my work setting allows for official interpreter requests for appointments" - Clinician

"Consult with the second language assessment team in my district" - Clinician

All modifications were selected by participants to some degree. The most frequently-reported modification was used dynamic assessment procedures (n=15). The least commonly-reported modification was performed therapy in primary language (n=4). Clinicians more often reported performing assessments in a client's primary language (n=8) than performing treatment in a client's primary language (n=4).

3.3   RESEARCH QUESTION 2

How do clinical fellows and certified clinicians describe their level of preparedness to provide services to diverse populations?

3.3.1   Comparison of CF and Clinician Data

Both groups were asked, "Overall, how well do you think Pitt's program prepared you to work with diverse populations?" (CFQ22, SLPQ23). Thirteen out of fifteen CFs and eighteen out of twenty-one clinicians responded to this question. See Figure 10.
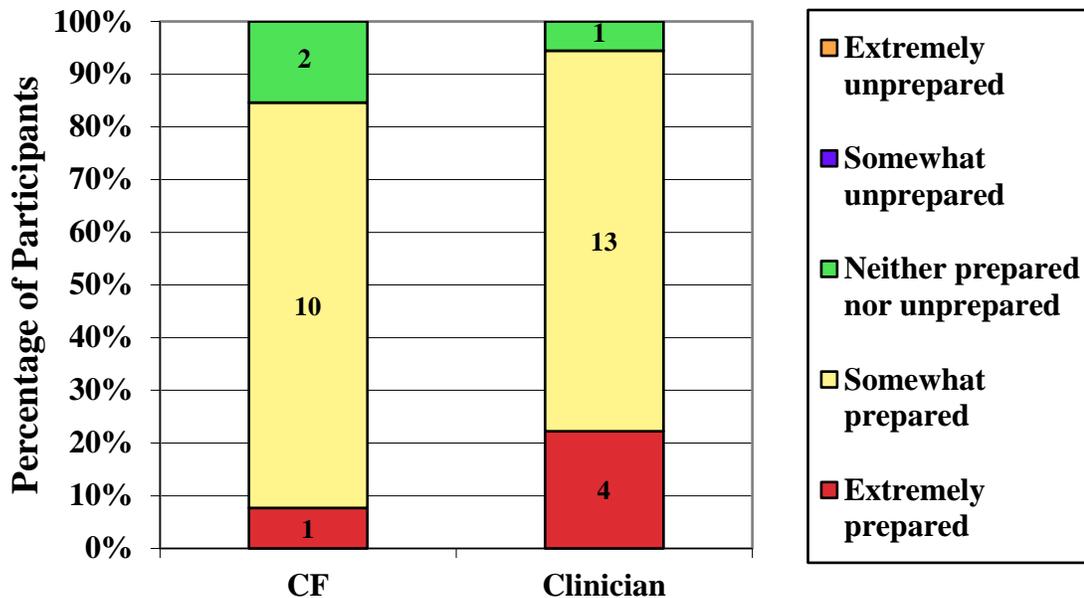
Figure 10: Preparedness to Work with Diverse Populations (CF n=13; SLP n=18)

The pattern of responses for this question was similar in both groups. The majority of CFs (67%, n=10) and clinicians (62%, n=13) responded that they felt "somewhat prepared" to work with diverse clients as a result of Pitt's graduate program. No CFs or clinicians reported feeling "somewhat unprepared" or "extremely unprepared."

All participants were asked "How satisfied are you with how Pitt's program prepared you to work with diverse populations?" (CFQ23, SLPQ24). Thirteen out of fifteen CFs and eighteen out of twenty-one clinicians responded to this question. See Figure 11.
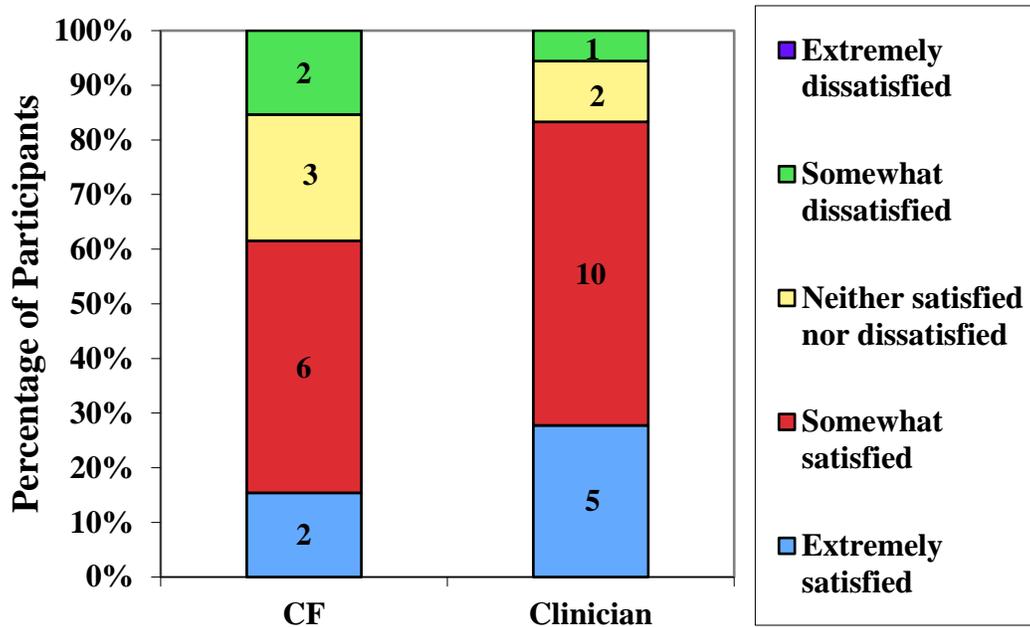
Figure 11: Satisfaction with Preparedness from Pitt to Work with Diverse Clients (CF n=13; SLP n=18)

Many CFs (n=8), reported feeling "somewhat satisfied" or "extremely satisfied" with the preparation they received from Pitt. Most clinicians (n=10) reported feeling "somewhat satisfied." A higher percentage of clinicians (n=15/18, 83%) selected a positive satisfaction response than did CFs (n=8/13, 62%).

Both groups were asked, "Currently, how confident do you feel in your ability to provide SLP services to clients from diverse backgrounds?" (CFQ24, SLPQ26). Thirteen out of fifteen CFs and eighteen out of twenty-one clinicians responded to this question. See Figure 12.
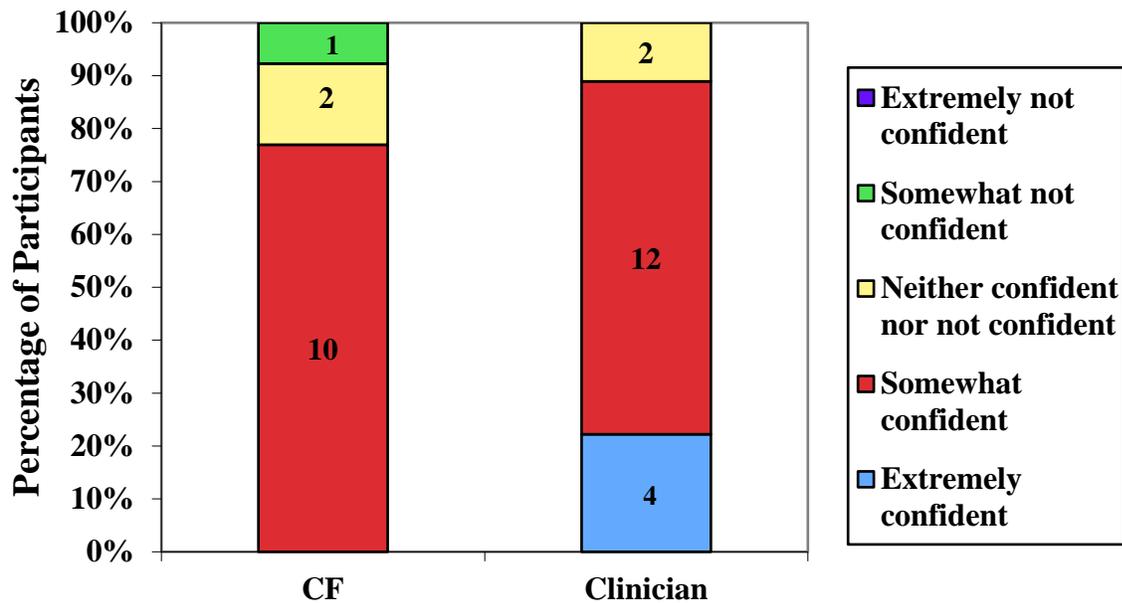
Figure 12: Confidence in Providing Services to Diverse Clients (CF n=13; SLP n=18)

The majority of CFs (n=10/13, 77%) and clinicians (n=12/18, 67%) reported feeling "somewhat confident" to work with diverse populations. A higher proportion of clinicians reported feeling "extremely confident" in their service provision (n=4), as compared with no CFs. No clinicians reported feeling "somewhat not confident" or "extremely not confident" in their ability to provide services to these clients.

All participants were asked, "Currently, how effective do you feel your service provision to clients for diverse populations is?" (CFQ25, SLPQ27). Thirteen out fifteen CFs and eighteen out of twenty-one clinicians responded to this question. See Figure 13.
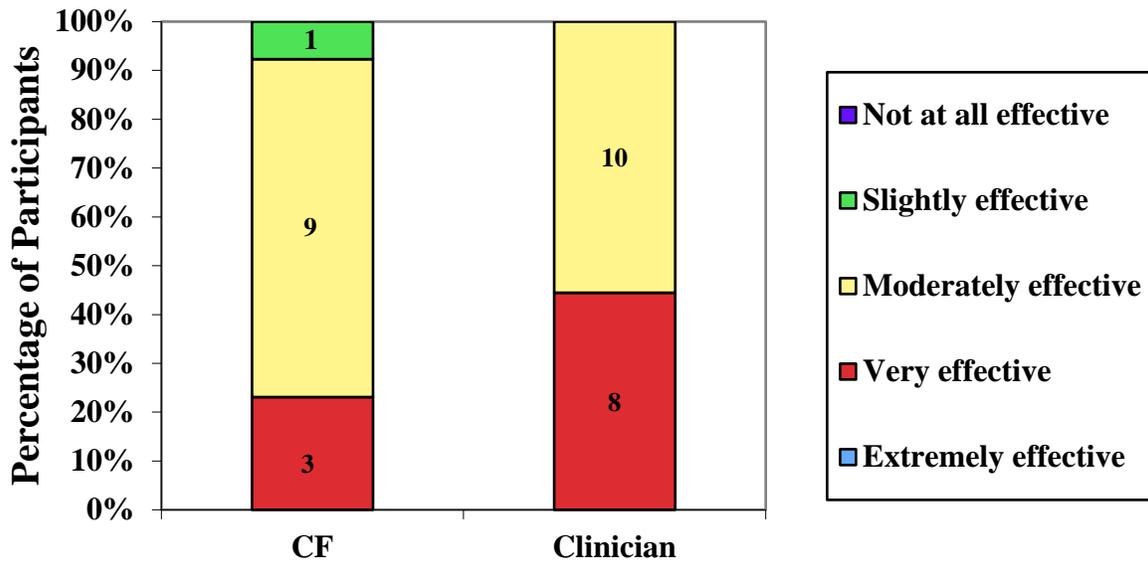
Figure 13: Effectiveness of Service Provision to Diverse Clients (CF n=13; SLP n=18)

Most CFs selected the mid-range option, "moderately effective," to describe the effectiveness of their service provision to diverse clients. Three CFs reported that their services were "very effective," and one reported their service provision was "slightly effective." All clinicians reported feeling that their service provision to diverse clients was "very effective" (n=8) or "moderately effective" (n=10). There was an increase in effectiveness reported by the clinician group, as compared with the CF group. A higher number of clinicians (n=8/18, 44%) reported feeling "very effective" in service provision, compared with the number of CFs (n=3/13, 23%) who selected this option.

All participants were asked, "If you were unsure how to provide services to a client on your caseload due to cultural or linguistic differences, how would you go about learning what to do?" (CFQ29, SLPQ36). The number of responses for each group was higher than the number of

participants because participants could select multiple options for this question. Thirteen out of fifteen CFs and eighteen out of twenty-one clinicians responded (see Table 5). Blue boxes represent the top choice(s) for each group. Purple boxes represent choices that more than 70% of participants in a group selected. Red boxes represent the least common choices.

Table 5: Preferred Learning Methods When Questions Arise Working with Diverse Clients, Ordered by Frequency (CF n=13, SLP n=18)

Learning Method	Number and Percentage of CFs Selecting Method	Number and Percentage of Clinicians Selecting Method
Talk with the client and their caregiver	12 (92%)	14 (78%)
Google or online search	10 (77%)	16 (89%)
Locate ASHA resources (i.e. Practice Portal)	10 (77%)	16 (89%)
Talk to another SLP professional	10 (77%)	13 (72%)
Locate relevant research literature	8 (62%)	11 (61%)
Use my organization's resources	8 (62%)	15 (83%)
Talk to other professionals	7 (54%)	13 (72%)
Refer them to another SLP	4 (31%)	4 (22%)
Consult with local organization's resources	3 (23%)	3 (17%)
No modification to practice	0 (0%)	0 (0%)

3.3.2 Additional Clinician Data

Clinicians were prompted to "Describe a time when you felt under-prepared or under-equipped to work with a client from a diverse background" (SLPQ29). Fourteen out of fifteen clinicians provided a response to this free-text question. Most participants described feeling under-prepared in situations where they were working with individuals who spoke a language or dialect different from their own. Some clinicians described difficulty or discomfort using a translator or interpreter in a session.

"I had a patient with global aphasia who only spoke Arabic. I had to use pictures and the language line (interpreting telephone service) to communicate with him. The language difference in addition to the language disorder made for a complicated treatment plan! I had to do my best with the interpretation services." - Clinician

"During my CF, I worked in an underprivileged, predominantly African American, special ed school and something that I struggled with greatly was how to approach dialectical differences vs disorders with parents in IEPs." [sic] - Clinician

Other clinicians described difficulty navigating cultural beliefs and values different from their own:

"There are many Nepali patients in the hospital I work at, and it is such a foreign culture that I am unfamiliar with, and their custom is to help their sick one always, so it was difficult to tell the family members to step away during therapy because it was in their culture to be there always. It was also difficult to find translated educational SLP materials in their language to provide to the patient's family." [sic] - Clinician

Another clinician described feeling under-prepared to work with diverse populations as a result of limited experience to do so at their setting:

I think I will continue to feel under-prepared until I am continually interacting with those "different" from the typical patient population. Working in a specialty clinic I am often working around those with the resources and access to

specialty medicine. Knowing facts about a population is not in itself enough to feel confident. It's the posture of self and regular interaction that things settle in and feel comfortable. - Clinician

An additional free-text question prompted clinicians: "Describe a time when you felt well prepared to work with a client from a diverse background" (SLPQ30). Thirteen clinicians provided a response to this question. Some participants attributed their feelings of preparedness to coursework during their graduate program and others attributed them to increased experience at their work setting.

"I was in an African American home full of extended family. Though we had discussed in school about managing extended families, understanding each person's role and crowd control/group managed was something I learned on the job." [sic] - Clinician

"I was working with a pt with a TBI from Africa and I could NOT get her to partake in tx tasks for the life of me but I knew she was capable. After exhausting all efforts and debating DC, I had a little snap back to a guest speaker we had in Dr. Leslie's class that spoke about African Americans phobias to medical professionals and I then instructed the family members on how to perform the exercises with the pt and I stepped out of sight from the pt and waalaa she could do them." [sic] - Clinician

Some participants attributed their increased sense of preparedness to having support of team members who specialize in working with another culture or language:

I have several Spanish speaking students on my caseload at my school. For all of these cases, I consult with a bilingual therapist to help determine appropriate courses of treatment. I am the main person on their cases, but I fee more at ease having someone to talk with who is more comfortable with handling dialectal differences." [sic] – Clinician

3.4   RESEARCH QUESTION 3

What contexts do clinical fellows and certified clinicians identify as most influential in preparing

them to work with diverse populations?

3.4.1   Comparison of CF and Clinician Data

All participants were prompted to "[place] the following factors in order from most influential (1) to least influential (6) in preparing you to work as a SLP with diverse populations" (CFQ31, SLPQ38). Fourteen out of fifteen CFs and eighteen out of twenty-one clinicians responded. The following components of the graduate program were offered as options to rank. Abbreviations used in Figure 14 are shown in parentheses.

- Class lectures and assignments (CF-Class, SLP-Class)

- Discussions with classmates (CF-Classmates, SLP-Classmates)

- Guest lectures or videos (CF-Guest Lectures, SLP-Guest Lectures)

- Non-graduate program related activities (CF-Non-grad Act, SLP-Non-grad Act)

- Discussions with family/friends/individuals outside of the program (CF-Fam/Friends, SLP-Fam/Friends)

- Clinic experience with diverse populations (CF-Clinic, SLP-Clinic)
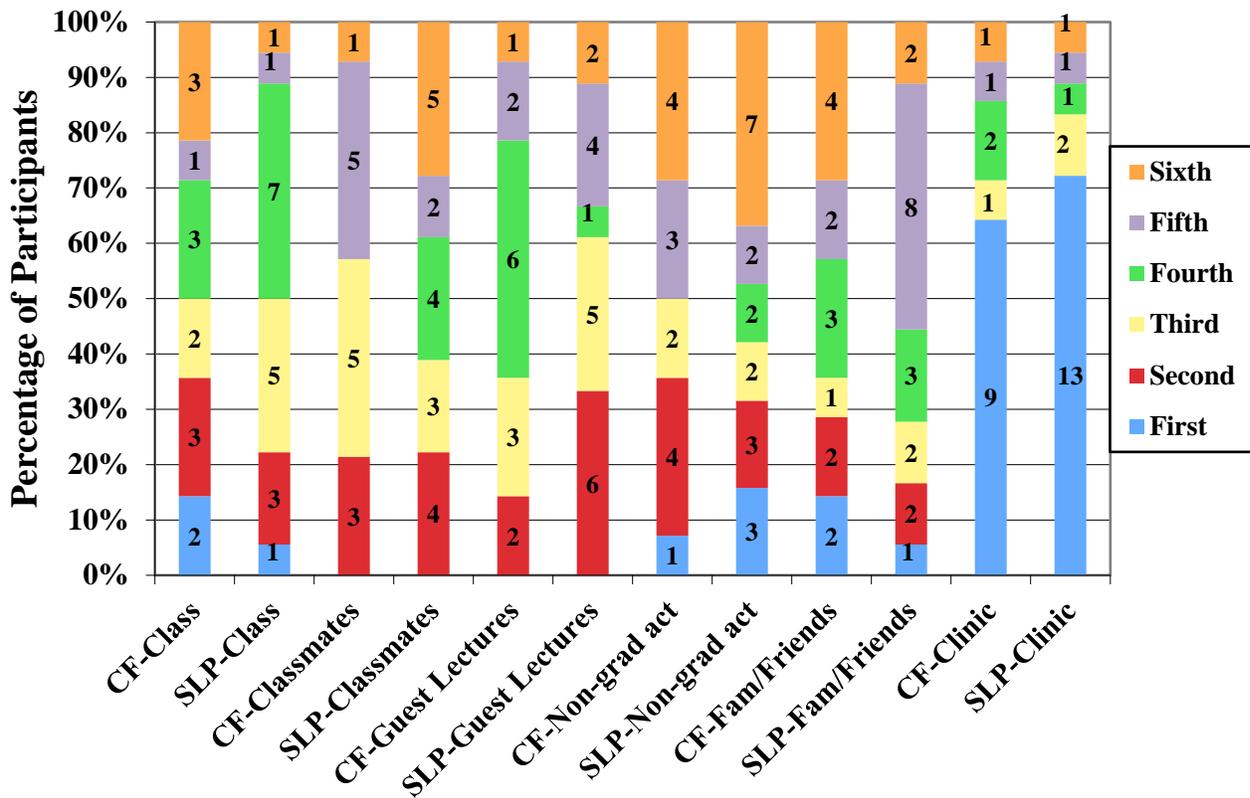
Figure 14: Rankings of Most Influential Factors in Preparing Them to Work with Diverse Clients (First = Most Influential, Sixth = Least Influential) (CF n=14, SLP n=18)

The most common influential factor for both groups was clinic experience with diverse populations (CF n=9/14; SLP n=13/18). Three of the factors are classified as classroom-based activities (guest lectures or videos, discussions with classmates, and class lectures and assignments). The three other given factors were classified as activities occurring outside of the classroom (clinic experience, discussions with [individuals] outside of the program, and non-graduate program related activities). Most CFs (n=12/14, 86%) and clinicians (n=17/18, 94%)

identified activities occurring outside of the classroom as the most influential factors in preparing them to work with diverse populations.

All participants were asked, "Were any other factors not listed influential in preparing you to work with diverse populations? If so, describe" (CFQ32, SLPQ39). This question was in a free-text format and sought to provide participants with the opportunity to identify additional influential factors that were not previously listed in CFQ31 or SLPQ38. One CF participant and six clinicians responded to this question. All responses corroborated the observation that experiences outside of the classroom are influential in preparing SLPs to work with diverse populations:

"Personal life experiences, experiences prior to grad school"- CF

"I worked multiple part time jobs in which I had to opportunity to work with many people from diverse backgrounds. Those experiences played a large part in preparing me to work with diverse populations." - Clinician

"Previous work experience with families and children with diverse backgrounds" - Clinician

"My previous work in a diverse city before entering graduate program" - Clinician

"Traveling abroad was very helpful in increasing my cultural awareness." - Clinician

These responses could be categorized as "non-graduate program related activities," a given factor in the previous ranked-order question. They reinforce the suggested impact of experiences occurring outside of the classroom on preparing graduate students to work with diverse populations.

What topics do clinical fellows and certified clinicians wish they learned more about regarding service provision to diverse populations?

3.5.1   Comparison of CF and Clinician Data

Both groups were asked, "In your graduate program: what do you wish you learned, or learned more about, when working with clients from diverse backgrounds?" (CFQ33, SLPQ40). This question was in a multiple-choice format. Participants were not limited to only one response for this question. Fourteen out of fifteen CFs and eighteen out of twenty-one clinicians responded. The given topics were similar to those offered in CFQ28. Topics included:

- Bilingualism/Multiculturalism (Bilingualism)

- Characteristics of linguistic variations (Char of ling var)

- Assessment of diverse populations (Ax)

- Cultural characteristics (Cult char)

- Identification of diverse clients (ID)

- Intervention for language differences (Tx for lang diff)

- Intervention for disorders in diverse populations (Tx for disorders)

- Second language acquisition (2nd lang acquisition)

- Service delivery for diverse populations (Service delivery)

- Relevant documents and laws pertaining to diverse population (Docs and laws)

- Other (describe)

No participants elected to use the "other" option. The frequency counts of participants selecting each topic are displayed in Figure 15.
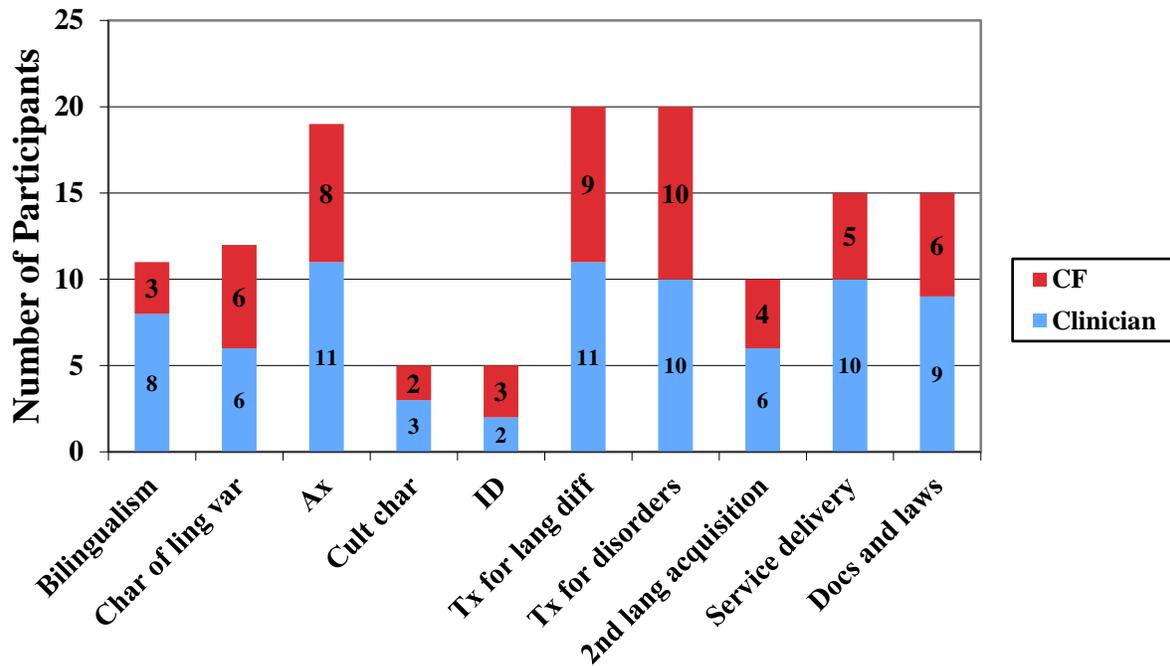
Figure 15: What Participants Wished They Learned More About (CF n=14; SLP n=18)

All topics were selected by members in each group to some degree. Many CFs and clinicians identified intervention for language disorders in diverse populations, intervention for language differences, and assessment of diverse populations as areas of need for increased knowledge. More clinicians than CFs identified service delivery for diverse populations, relevant documents and laws pertaining to diverse populations, and bilingualism/multiculturalism as topics for increased coverage during graduate school. Both CFs and clinicians less frequently selected cultural characteristics.

The final question for all participants was in a free-text format question and asked, "In your graduate program: what else would have been helpful to have learned, or learned more about, when working with clients from diverse backgrounds?" (CFQ34, SLPQ41). Only a small number of participants responded: three CFs and six clinicians. Responses varied. CFs expressed wanting to know more about working with an interpreter, the impact of implicit and explicit biases, and how to determine the nature of a language difference or disorder. Two clinicians described wanting to learn more about cultural beliefs about disability:

"Educating families in a tactful manner regarding disabilities and developmental milestones. Some of my families have come from cultures that do view any abnormality or atypicality as a huge negative. It has been difficult to discuss goals in either a realistic way or in a positive manner based off of what the child CAN do." - Clinician

"The viewpoints/understanding of family members from different cultures regarding different diagnoses/disorders, I.e. how Latino families view strokes/disabilities. I wish there also could have been offered a bilingual SLP certificate to allow students to be certified in being able to treat bilingual clients." [sic] - Clinician

4.0 DISCUSSION

This is the first study to explore the preparedness of both clinical fellows and certified clinicians to work with culturally and linguistically diverse clients. The novel findings of this study can be used to inform curricular development related to cultural awareness at the University of Pittsburgh and beyond. Commonalities and differences between the two participant groups offer insight into 1) how graduate programs not only can, *but also have a responsibility to*, refine the ways we foster cultural awareness in our SLP graduate students and 2) how clinicians also have a responsibility to develop cultural awareness throughout their careers.

4.1 DEMOGRAPHICS AND REFLECTIONS

The demographics of participants in this study reflect the homogeneity observed in the field of speech-language pathology. The vast majority of all participants (94%, n=34) identified as White and female. Very few participants reported speaking a language other than English (8%, n=3). Most participants in both groups (CF n=12/15, SLP n=17/20) noted the limited diversity by reporting that their cohort was "not at all diverse" or "slightly diverse." Yet participants still showed variation in their responses (see Figure 4). This variation is likely a result of how participants perceive diversity. Some aspects of diversity (e.g. race, primary

language/dialect) are more visible than others (e.g. religion, socioeconomic status, sexual orientation). All aspects of diversity influence an individual's cultural perspective.

The demographics of CFs and clinicians starkly contrast with the reported demographics of clinicians' caseloads. Data from this study affirmed that the majority (85%, n=17/20) of clinicians report perceiving that at least half of the clients on their caseload differ from them culturally and/or linguistically (SLPQ21). These findings corroborate the need for improved recruitment and retention processes to promote diversity in the field that is more reflective of the population served. Homogeneous groups of SLP graduate students must be equipped with the self-reflective skills necessary to reduce their own implicit biases until until the professional field achieves representative diversity.

In CFQ15 and SLPQ17, participants were asked to rank the importance they placed on various facets of diversity when selecting a graduate program. The apparently lower importance that all participants placed on structural classroom diversity could be for a variety of reasons. Participants could have been aware of limited diversity in SLP when applying and thus recognized that they were not likely to experience classroom diversity during a graduate program. However, participants also placed lower value on attending a program in a diverse city. It is possible that participants mistakenly prioritized obtaining knowledge of diverse populations over establishing relationships with diverse individuals as a more effective way of developing their cultural awareness as SLPs. Participants may not have been aware that structural diversity is actually more influential than knowledge acquisition in developing cultural awareness (Chang et al, 2006).

CFQ19 asked CFs whether or not they had worked with diverse clients during clinical experiences in their graduate program. This question did not ask participants to reflect on the

quantity or quality of their experience working with diverse clients. It is possible that by responding "yes," participants had as little as one experience working with a diverse client during their various clinical experiences in graduate school. A lower percentage of CFs reported modifying their services during clinic to account for cultural or linguistic differences (78%, n=11/14) than those who reported having experience working with diverse clients (93%, n=13/14) (see Table 3). Cross et al (1989) identified the ability to provide accommodations or modifications to account for cultural differences as a critical feature of cultural competency. Graduate students would benefit from clinical experience modifying their services for diverse clients so that they are better prepared to do this when working as future clinicians.

4.2   RESEARCH QUESTION 1: UNDERSTANDING OF CULTURAL AWARENESS

What do clinical fellows and certified clinicians understand about the role of cultural awareness and diversity in speech-language pathology?

Both groups more highly emphasized observing the differences of others over reflecting on their own biases and beliefs when asked to describe the role of cultural awareness in speech-language pathology (CFQ3, SLPQ3). Nearly all participants mentioned that cultural awareness was about understanding *other* cultures. A much lower percentage of participants from both groups (22%) discussed the importance of understanding one's own culture. Franca et al (2016) claimed that multicultural instruction in speech-language pathology often trains students to recognize the cultural differences of others, but less so encourages students to understand their own culture and beliefs. This other-centered approach is arguably easier and more comfortable to

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teach and learn, but it sets up students to view the world through an ethnocentric lens. Their own culture is only further established as a standard against which any "differences" are to be compared. The common saying, "difference versus disorder", was echoed by many participants in the free-text responses of this study. This precept is well-intentioned, but only reinforces such ethnocentrism. The findings of this study corroborate the claim that SLPs may not be fully recognizing the worldview that they are bringing to any client-clinician interaction.

Both groups were asked about their understanding of the impact that implicit biases could have on their practice. All responding participants reported some degree of understanding, which was a positive finding. CFQ27 served as a follow-up to this question to explore how much of CFs' understanding of implicit bias they attributed to their education at the University of Pittsburgh. The varied results for this question suggest that while the graduate program at Pitt was significant in contributing to CF's understanding, other contexts were also influential in understanding implicit bias. This possibility was further explored in Research Question 3.

The ability to modify services to account for cultural differences is an essential skill for clinicians. It was a positive finding that no clinicians reported "never" modifying their services in SLPQ31. This may be because clinicians were subject to response bias and perceived a "right" answer to this question. The frequency of service modification for diverse clients varied greatly across responses (see Figure 8). This lack of consistency begs the question: what makes an SLP decide to modify their services? What cultural or linguistic differences are clinicians more likely, or more comfortable, making modifications for? These results are especially interesting when combined with the finding that not all CFs reported having experience making modifications for cultural differences during clinical experiences in graduate school. Graduate programs have an

opportunity to equip their students to make these modifications. The results of this survey show that graduate students are not currently being held accountable for demonstrating this skill.

Clinicians more often reported performing assessment procedures in a client's primary language than performing treatment in a client's primary language (see Figure 9). This may suggest that clinicians are more likely to accommodate linguistic differences at the beginning of the intervention process, but that these accommodations become less likely to occur as treatment progresses. We know that our clients come from a multitude of linguistic backgrounds. The national demographics of SLPs show that there is a need for increased bilingual service providers. Only 6% of ASHA SLPs identified as bilingual service providers in 2017 (American Speech-Language-Hearing Association, 2018c). Even bilingual service providers are often only competent in two languages. Clinicians ought to be equipped to accommodate their clients' linguistic needs throughout the treatment process, regardless of their own proficiency in a given language.

4.3   RESEARCH QUESTION 2: LEVEL OF PREPAREDNESS

How do clinical fellows and certified clinicians describe their level of preparedness to provide services to diverse populations?

Most participants reported feeling at least "somewhat prepared" and "somewhat satisfied" with their ability to work with diverse clients as a result of the University of Pittsburgh's graduate program (see Figure 10, Figure 11). No participants reported feeling "unprepared" in any degree. There were a small number of participants who reported feeling

"somewhat dissatisfied" with their preparation from the University of Pittsburgh (CF n=2/13; SLP n=1/18).

Confidence and effectiveness are distinct from preparedness. Clinicians more frequently selected higher ratings of current confidence and effectiveness. This was expected since the group held more experience in the field. More interactions with culturally and linguistically diverse clients may increase reported confidence and effectiveness.

More CFs (92%, n=12/13) than clinicians (78%, n=14/18) reported that they would talk to the client or caregiver if they were unsure how to best provide services to a diverse client. This suggests that CFs left their graduate program with an understanding of the value of client-centered care in practice. Clinicians most frequently reported that they would use an online search method or locate ASHA resources (such as the online Practice Portal) if they were unsure. The high use of these resources suggests that the Internet is being used to fill in gaps in cultural knowledge. This could be a reflection of high productivity requirements and less time spent talking with patients to inform clinicians of their cultural and linguistic needs. While the Internet can be valuable in instantly increasing access to knowledge, it does not necessarily provide participants with the face-to-face interactions that have been shown to promote cultural awareness (Chang et al, 2006; Franca et al, 2016). The use of Internet resources rather than talking with the client or caregiver about their cultural needs may result in the clinician unintentionally stereotyping that individual.

When asked for examples of under-preparedness to work with diverse clients, clinicians most commonly shared examples when the client spoke a language or dialect different from the SLP (86% of free-text responses). This finding was consistent with Guiberson & Atkins (2012), where SLPs reported less confidence working with linguistically-diverse clients rather than those

who differed solely in their cultural beliefs. A language barrier can make any interaction more challenging. This is especially the case when the professionals are expected to be the experts on communication. It is critical that a SLP master's program prepares students for this reality. This difficulty also reinforces the need for increased recruitment and retention of bilingual SLP service providers.

4.4 RESEARCH QUESTION 3: MOST INFLUENTIAL CONTEXTS

What contexts do clinical fellows and certified clinicians identify as most influential in preparing them to work with diverse populations?

Both CFs (64%, n=9/14) and clinicians (72%, n=13/18) most commonly identified clinical experience as the most influential factor in preparing them to work with diverse populations. Activities occurring outside of the classroom (clinical experience, non-graduate program related activities, discussions with individuals outside of the program) were rated as the most influential factor for 86% of clinicians and 94% of CFs. These findings reinforce the value of face-to-face interactions in preparing SLPs to work with clients from diverse backgrounds. It would be wise for academic programs to consider and prioritize these findings during curricular design.

The Council on Academic Accreditation standards were most recently updated in October 2017. "Cultural Competency" is listed as a "professional practice competency" in section 3.1.1A. Graduate programs are required to provide "content and opportunities" so that students can develop and demonstrate these professional competencies (Council on Academic

Accreditation in Audiology and Speech-Language Pathology, 2017). Other professional practice competencies include:

- Accountability

- Integrity

- Effective Communication Skills ("to ensure the highest quality of care that is delivered in a **culturally competent manner**")

- Clinical Reasoning

- Evidence-Based Practice

- Concern for Individuals Served

- Professional Duty

- Collaborative Practice

The CAA also outlines several specific standards regarding cultural competency that programs must demonstrate in order to receive accreditation. These standards and their corresponding evidence requirements are defined in Table 6.

Table 6: CAA Cultural Competency Standards and Requirements

CAA Standard	Requirement for Review
3.4B An effective speech-language pathology program is organized and delivered in such a manner that the diversity of society is reflected in the program.	The program must provide evidence that issues related to diversity are infused throughout the academic and clinical program.
3.6B The clinical education component of an effective entry-level speech-language pathology program is planned for each student so that there is access to a base of individuals who may be served that is sufficient to achieve the program's stated mission and goals and includes a variety of clinical settings, populations, and age groups. The comprehensive clinical experiences must include direct contact with individuals seeking service, consultation, recordkeeping, and administrative duties relevant to professional service delivery in speech-language pathology.	The program must demonstrate that it has mechanisms to develop comprehensive plans of clinical educational experiences so that each student has an opportunity to … obtain experiences with diverse populations
4.2 The program makes reasonable adaptations in curriculum, policies, and procedures to accommodate differences among individual students.	The program must provide evidence that its curriculum and program policies and procedures for admission, internal and external clinical placements, and retention of students reflect a respect for and understanding of cultural, linguistic, and individual diversity.

The CAA standards are very open-ended in their requirements for students obtaining clinical experience with diverse populations. They are non-prescriptive in order to encourage individual programs' flexibility and innovation in implementing the standards (Council on Academic Accreditation in Audiology and Speech-Language Pathology, 2017). Hammond et al (2009) showed that 40% of SLP graduate program directors surveyed reported difficulty having a sufficient number of clients from diverse backgrounds for students to work with in clinical experiences. The CAA cultural competency requirements were difficult for them to meet because there was less diversity in their region. In these cases graduate programs have the responsibility to facilitate outside of the classroom interactions and experiences with diverse individuals in order to develop cultural awareness. In light of the field's structural homogeneity, SLP graduate students may benefit from increased accountability for these diverse clinical experiences to occur or at least deeper reflection of their clinical experiences with diverse clients.

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4.5   RESEARCH QUESTION 4: WHAT PARTICIPANTS WISH THEY LEARNED

What topics do clinical fellows and certified clinicians wish they learned more about regarding

service provision to diverse populations?

In CFQ33 and SLPQ40, participants were prompted to select diversity-related topics they wished they had learned more about during their graduate program. Topics were adapted from Stewart & Gonzalez (2002), where they asked SLP graduate program directors about the emphasis placed on various topics of diversity. Program directors most commonly identified bilingualism/multiculturalism and characteristics of linguistic variations as topics receiving the *most* emphasis in their programs (Stewart & Gonzalez, 2002). They did not survey graduate students to obtain their perspectives on topic emphases.

Participants in the present study identified all topics as warranting increased coverage to some degree, which reflects a general need for increased depth on topics related to diverse populations. CFs and clinicians in this study commonly identified intervention for language disorders in diverse populations, intervention for language differences, and assessment of diverse populations as areas of need for increased knowledge (see Figure 15). Intervention for language *differences* was ambiguous since SLPs typically seek to differentiate between disorders and differences in order to discern whether or not a client needs treatment. Stewart & Gonzalez (2002) described this topic as "provision of appropriate intervention strategies for clients from diverse backgrounds without disorders who elect treatment" (p. 209). Regardless, most participants in this study reported wishing they learned more about assessment and treatment for diverse clients.

Both groups less commonly chose identification of diverse clients and cultural characteristics as topics for increased coverage (see Figure 15). Many CFs (n=10/13) reported that cultural characteristics were "regularly addressed" during graduate school (see Figure 5). These findings suggest that participants felt these topics were adequately covered during the University of Pittsburgh's SLP graduate program.

In the present study, a higher percentage of clinicians (44%, n=8/18) selected bilingualism/multiculturalism as a topic they wished they learned more about than did CFs (21%, n=3/14). This could suggest that clinicians are encountering bilingualism in their professional careers and see value in increasing the amount of focus placed on this topic in graduate school. CFs interestingly identified bilingualism/multiculturalism as a topic "regularly covered" in coursework (see Figure 5). This may suggest that the content provided via coursework is insufficient in equipping clinicians to work with bilingual or multicultural clients in practice. Future graduate students will benefit from increased exposure and interactions with diverse clients.

4.6   IMPLICATIONS FOR GRADUATE PROGRAMS

I recognize that graduate programs cannot hold full responsibility for the cultural awareness of their students. Program leads do have a responsibility to be intentional about tracking the ways they address cultural awareness with their students. The approach taken by a department influences the perceived preparedness of clinicians and clinical fellows to work with diverse clients. The infusion model can foster the integration of cultural and linguistic considerations across all disorder courses when organized and coordinated effectively in a

graduate program. It may also promote generalization of these considerations outside of coursework (Hammond et al, 2009).

The infusion model does makes standardization and tracking of the CAA cultural competencies difficult. Content may be fragmented or uneven if it is not coordinated well in an academic program. Hammond et al (2009) recommends that graduate programs continually perform self-evaluation of their curricula in order to effectively coordinate their content with considerations for diverse populations. I interviewed Dr. Erin Lundblom, the clinical coordinator for the SLP graduate program at the University of Pittsburgh, about the program's current model of multicultural content delivery.

Q) Describe how and where issues of diversity are addressed across the program.

Diversity is addressed in the curriculum through an infusion model. Across the curriculum, a collection of courses specifically covers content and incorporate assignments and activities focusing on increasing students' knowledge and skills for professional practice in a diverse society. For example, during the first term of the program in the Articulation & Phonological Disorders (CSD 2070) course, students develop reference sheets that describe speech sound and language variations found in target dialect/2nd languages. Another example is addressing how racial ethnicity impacts the incidence of cranio-facial anomalies and genetic syndromes, which is covered in Cleft Palate (CSD 2074) in term 3.

Q) Describe how students obtain clinical experiences with diverse populations.

Clinical procedures (including screening, assessment and treatment) are examined when working with diverse patient populations. Students learn to seek out resources so that they can interpret assessment data in a valid manner and develop appropriate treatment recommendations when working with diverse populations. This content is introduced in academic coursework in the first term and applied in clinic practicum as appropriate each term. In clinical education experiences some clients come from diverse backgrounds, such as families coming from Russia and Somalia, or individuals with African American or Orthodox Jewish backgrounds. Our students also have a chance occasionally to work with children from Amish communities. Some students have experience working with English as a second language speakers, and may work with translators in this process. Data about each student's

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As evident in Dr. Lundblom's comments, the infusion model requires a lot of effort and coordination. Uncoordinated management of the infusion model may result in everyone thinking they are covering relevant cultural and linguistic considerations, and yet no one is held accountable for ensuring successful cultural awareness outcomes.

Banks (1993) described four levels that can be used to integrate multicultural content into curricula: 1) contributions, 2) additive, 3) transformational, and 4) social action. The contributions approach is the easiest to implement and has the least impact on the current curriculum. Cultural differences are viewed as non-essential additions that are not critical for understanding the disorder type. The additive approach is slightly more involved than the contributions approach, but content is still ethnocentric in that it is presented from the perspective of the dominant culture. It fails to address inequalities or oppression experienced by various cultural groups. The transformative approach requires dramatic revisions to the curriculum. It is difficult to teach and requires that multiple perspectives are shared on a given topic. The social action approach takes the transformative approach one step farther and challenges students to be advocates of change for culturally and linguistically diverse populations. A caveat to any approach is that it is easier to address explicit bias than implicit bias. The difficulty of addressing implicit bias may be compounded by an ethnocentric approach to viewing communication and swallowing differences. It is possible that graduate students would benefit from an entire course on cultural awareness that would address implicit bias and ethnocentric approaches to assessment and treatment of communication and swallowing

disorders. This course could bridge gaps in knowledge and experience that occur as a result of an inadequately coordinated infusion model.

4.7   **IMPLICATIONS FOR CLINICIANS**

A graduate program only prepares clinicians for entry-level competency in the field of speech-language pathology. SLPs have a responsibility to continually develop their own cultural awareness, skills, and knowledge beyond completion of their graduate program. ASHA primarily provides opportunities for clinicians to further develop cultural awareness through a special interest group. Special Interest Group (SIG) 14, Cultural and Linguistic Diversity, functions as a resource advocating for the advancement of knowledge regarding the influence of cultural and linguistic diversity on communication. SIG 14 reportedly seeks ways to infuse this knowledge into research, education, and clinical practice (American Speech-Language-Hearing Association, 2018a). SIG 14 produces an online publication, sponsors live online chats about multicultural issues, and provides opportunities for networking and continued education courses for affiliate members of the SIG. Only one clinician in this survey reported being a member of SIG 14. Barriers to membership could be a lack of awareness or prioritization. The financial cost of SIG membership, though minimal, could also inhibit clinician participation in this group.

Clinicians should be informed of the linguistic and cultural needs of their caseload and seek out continuing education opportunities accordingly. It was encouraging that half (n=9/18) of clinicians reported attending a continuing education program related to diversity.

4.8   RECOMMENDATIONS FOR FUTURE STUDY

Future studies would benefit from increased sample sizes in order to further explore the validity and generalization of observations made in this study. This could be done by using the same surveys and encouraging increased participation from University of Pittsburgh alumni. Future studies could also expand the survey demographics to include clinicians who are graduates of other SLP graduate programs. Inclusion of clinicians from other graduate programs could explore the impact of a university's geographic location on perceived preparedness to work with diverse clients. It would be worthwhile to survey or interview non-White and/or bilingual SLPs to find out how the field could better serve and equip diverse professionals. Surveying culturally and linguistically diverse clients about the perceptions of the care they receive from SLPs would also provide valuable insight.

It is still of critical importance that future research seeks ways to improve the recruitment and retention of culturally and linguistically diverse graduate students. This may include exploring why the field of speech-language pathology is so homogeneous in the first place. Studies could investigate the SLP graduate program application process to shift or expand the kind of experiences valued in applicants.

4.9   **LIMITATIONS**

No research is spared from critical appraisal regarding the validity and generalizability of its results. Survey research seeks to collect data representative of a population and generalize

findings about the larger population. The sample sizes in both groups may be small but the novel results serve as a start in informing participants' preparedness to work with diverse populations.

The response rates for the CF and clinician groups in this study were 42% and 20%, respectively. Participation in this study was voluntary and no monetary incentives were offered. Though response rates are often regarded as data quality indicators, several studies have disputed the validity and reliability of using response rates as a measure of nonresponse bias. Groves (2006) showed that there was high variability in nonresponse bias, despite equivalent response rates on surveys. Meterko et al (2015) write that "results from 'low' response-rate surveys should be considered on their merits, as they may accurately represent attitudes of the population" (p. 131).

All surveys are susceptible to response bias (Leong et al, 2016). Participants in this study may represent those with "extreme" opinions. Participants may have felt strongly (in a positive or negative way) about how the University of Pittsburgh prepared them to work with diverse populations and developed cultural awareness. Participants could have selected responses that they thought were the "right" answer due to unintentional bias in the language used on the surveys. The number of responses on free-text questions decreased on both surveys toward the end, possibly reflecting survey fatigue.

Some questions and responses were inconsistent in their wording. For example, SLPQ17 unintentionally omitted an option for clinicians to rate the importance they placed on having a diverse faculty when selecting a graduate program. This option was included on the CF Survey. This resulted in an inconsistency of parallel analysis of results on the two surveys. It is possible that there was variability in participants' interpretations of "diversity," despite a universal definition given within the survey. The free-text responses discussed throughout the survey were

only a portion of the responses received and do not claim to represent all thoughts and ideas shared by participants. The goal of sharing these responses was to highlight or supplement themes observed. Complete transcripts of CF and clinician free-text responses are available in Appendix C and Appendix D.

5.0   CONCLUSION

Best practice in speech-language pathology requires that clinicians continually develop cultural awareness in order to serve their diverse clients. This is a challenge considering that structural diversity is so limited in the field. Recruitment and retention of a more diverse student body is critical, but we must act *now* to intentionally foster cultural awareness in our currently homogeneous graduate student body. Waiting to do so will result in an entire generation of SLPs missing an essential skill for best practice.

Learning about and recognizing the cultural and linguistic differences of others is a step on the continuum of cultural awareness, but it cannot be where this process ends. It is a responsibility of SLP graduate programs to equip students to examine their own cultural background and its potential influence on their practice. A strong foundation of self-reflection is essential in fostering cultural awareness. Beyond graduate school, it is the responsibility of clinicians to make decisions to actively pursue cultural awareness.

The experience of practicing clinicians is valuable input for informing the curricular design of graduate program. They are the ones doing the work that programs seek to train their students to do. Clinicians (and CFs) have revealed that outside of the classroom experiences with diverse individuals are especially beneficial in developing cultural awareness. Graduate programs would benefit from incorporating these experiences into their curricula. Clinical education is a valuable experience because knowledge of cultural differences obtained in the

classroom can be integrated with face-to-face interactions with diverse clients. SLP graduate programs have the responsibility to uphold the CAA cultural competency standards in a way that honors the wide variety of clients served by SLPs.

APPENDIX A: CLINICAL FELLOW SURVEY

Start of Block: Introduction

CFQ1 The following information and your responses are anonymous. Your responses will be private and secure. There is no identifying information in your responses that can be linked to you, your university, or your personal records. The responses from these surveys will be combined to create a group data set. Information from this study will be used to help us review and develop our admissions process and curriculum.

Start of Block: Personal Experience

CFQ2 The following questions will ask you for your demographic information, as well as some reflective questions about your personal experience with diversity in your graduate program at Pitt.

CFQ3 What does "cultural awareness" mean to you in the field of Speech-Language Pathology?

_____

CFQ4 Is English your primary language?

o   Yes (1)

o   No   (If   no,   what   is   your   primary   language?)   (2)

_____

o   I am bilingual (list both): (3) _____

o   I   am   multilingual   (list   all):   (4)

_____

CFQ5 Select your racial category:

o   American Native or Alaskan Native (1)

o   Asian (2)

o   Black or African American (3)

o   Native Hawaiian or Other Pacific Islander (4)

o   White (5)

o   More   than   one: If   so,   please   list   (6)

_____

CFQ6 What is your ethnicity?

o   Hispanic or Latino (1)

o   Not Hispanic or Latino (2)

CFQ7 How would you describe your hometown?

o   Urbanized Area (greater than 50,000 people) - e.g. Philadelphia, PA; Pittsburgh, PA;

Allentown, PA; Harrisburg, PA; Bloomsburg, PA; Gettysburg, PA; Altoona, PA (1)

o   Urban Cluster (between 2,500 and 50,000 people) - e.g. Indiana, PA; Shippensburg, PA;

Slippery Rock, PA; Lock Haven, PA; Butler, PA (2)

o   Rural (less than 2,500 people) - encompasses all territories not classified as an urban area

(3)

CFQ8 By completing this survey, I confirm that I am 18 years of age or older.

o   Yes (1)

o   No (2)

CFQ9 Please select your current age range.

o   18-20 (1)

o   21-23 (2)

o   24-26 (3)

o   27-29 (4)

o   30-39 (5)

o   40-49 (6)

o   50-59 (7)

o   60-65 (8)

o   66+ (9)

CFQ10 What is your gender?

o   Male (1)

o   Female (2)

o   Transgender Male (3)

o   Transgender Female (4)

o   Gender Variant / Non-conforming (5)

o   Prefer not to answer (6)

o   Not listed: (7) _____

CFQ11 Select all statements that apply to you.

☐   I graduated from a high school where many of the enrolled students are eligible for free or reduced price lunches. (1)

☐   I am an individual who receives public assistance or I'm from a family that receives public assistance (e.g. food stamps, Medicaid, public housing). (2)

☐   I am from a school district where 50% or less of graduates go to college or where college education is not encouraged. (3)

☐   English is not my primary language. (4)

☐   None of these statements apply to me. (5)

CFQ12 Considering the number of people in your household and total income growing up, was it approximately less than these corresponding figures?

1-2 people: $16,240

3 people: $20,420

4 people: $24,600

5 people: $28,780

6 people: $32,960

o   Yes (1)

o   No (2)

CFQ13 What year do you anticipate graduating from the SLP graduate program at Pitt?

o   2018 (1)

o   2019 (2)

o   2020 (3)

o   2021 (4)

CFQ14 Diversity refers to the variety and influence of:

race, ethnicity, religion, gender identity, age, national origin, sexual orientation, disability, socioeconomic status

ON

language, thoughts, communications, actions, customs, beliefs, values

Please answer the following questions with this definition in mind.

CFQ15 How important to you was diversity in the following forms as a factor in selecting a graduate program?

     Extremely important (1)   Very important (2)   Moderately   important   (3)

     Slightly important (4) Not at all important (5)

Having classmates from diverse backgrounds (1)   o   o   o

        o   o

Attending a program in a city with high diversity (2)   o   o   o

        o   o

Working with diverse populations in a clinical setting (3) o   o   o

        o   o

Learning how to assess and treat diverse populations (4) o   o   o

        o   o

Having faculty from diverse populations (5) o   o   o   o

        o

CFQ16 How would you describe the diversity of your graduate program cohort?

        Extremely diverse (1) Very diverse (2)   Moderately diverse (3)   Slightly

diverse (4)   Not at all diverse (5)

Diversity of Cohort (1)   o   o   o   o   o

CFQ17 What kind of setting do you hope to work in following graduation?

o   Early Intervention (1)

o   School (2)

o   School for children with special needs (3)

o   Pediatric inpatient (4)

o   Pediatric outpatient (5)

o   Adult acute care (6)

o   Adult rehab (7)

o   SNF (8)

o   Specialized clinic (9)

o   Home health (10)

o   Private practice (11)

o   Academic (12)

o   Other (describe): (13) _____

Start of Block: Preparedness

CFQ18 The next set of questions will ask you about how Pitt has prepared you to work with diverse populations.

CFQ19 Have you had the opportunity to work with any patients/clients from diverse backgrounds during your graduate program clinical experience?

o   Yes (1)

o   No (2)

o   Unknown (3)

CFQ20 Have you had any clinical experience in your graduate program that required you to modify your assessment or treatment plan in order to account for a client's cultural and linguistic differences?

o   Yes (1)

o   No (2)

o   Unknown (3)

Skip To: CFQ21 If Have you had any clinical experience in your graduate program that required you to modify your as... = Yes

Skip To: CFQ22 If Have you had any clinical experience in your graduate program that required you to modify your as... = No

Skip To: CFQ22 If Have you had any clinical experience in your graduate program that required you to modify your as... = Unknown

CFQ21 Please describe an example of a service provision modification you have made in order to account for any cultural and linguistic differences of a client during a graduate school clinical experience.

_____

CFQ22 Overall, how well do you think Pitt's program prepared you to work with diverse populations?

        Extremely prepared (1)   Somewhat prepared (2)   Neither   prepared   nor unprepared (3) Somewhat unprepared (4)   Extremely unprepared (5)

Preparedness (1)   o   o   o   o   o

CFQ23 Overall, how satisfied are you with how Pitt's program prepared you to work with diverse populations?

Extremely satisfied (1)   Somewhat satisfied (2)   Neither   satisfied   nor

dissatisfied (3)Somewhat dissatisfied (4)   Extremely dissatisfied (5)

Satisfaction (1)   o   o   o   o   o

CFQ24 Currently, how confident do you feel in your ability to provide speech-language

pathology services to clients from diverse backgrounds?

Extremely confident (1)   Somewhat confident (2)   Neither confident nor not

confident (3)   Somewhat not confident (4)   Extremely not confident (5)

Confidence (1)   o   o   o   o   o

CFQ25 Currently, how effective do feel your service provision to clients from diverse

populations is?

Extremely effective (1)   Very effective (2)   Moderately   effective   (3)

Slightly effective (4)   Not effective at all (5)

Effectiveness (1)   o   o   o   o   o

CFQ26 To what extent do you understand how your own biases may or may not affect your

practice?

Significantly understand (1) Somewhat understand (2)   Slightly   understand   (3)

Don't understand at all (4)

Understanding of Implicit Bias (1)   o   o   o   o

CFQ27 To what extent did your graduate program at Pitt contribute to your understanding that your own biases may or may not affect your practice?

Significantly contributed (1) Somewhat contributed (2) Slightly contributed (3)

Did not contribute at all (4)

Understanding of Implicit Bias (1)   o   o   o   o

CFQ28 For each topic, please rate the depth with which it was/was not addressed during graduate school coursework.

Not addressed (1)   Rarely/barely addressed (2)   Regularly addressed (3)

Bilingualism/Multiculturalism (1)   o   o   o

Characteristics of linguistic variations (2)   o   o   o

Assessment of diverse populations (3)   o   o   o

Cultural characteristics (4)   o   o   o

Identification of diverse clients (5)   o   o   o

Intervention for language differences (6)   o   o   o

Intervention for disorders in diverse populations (7) o   o   o

Second language acquisition (8)   o   o   o

Service delivery for diverse populations (9) o   o   o

Relevant documents and laws pertaining to diverse populations (10)   o   o

o

The influence of cultural bias (11)   o   o   o

CFQ29 If you were unsure how to provide services to a client on your caseload due to cultural or linguistic differences, how would you go about learning what to do? Select all that apply, and add explanation, if relevant.

☐ Google or online search (1) _____

☐ Locate relevant research literature (2)

_____

☐ Locate ASHA resources (i.e. Practice Portal) (3)

_____

☐ Consult with local organization with diversity expertise (4)

_____

☐ Use my organization's resources (5)

_____

☐ Talk with the client and their caregivers (6)

_____

☐ Refer them to another SLP (7)

_____

☐ Talk to another SLP professional (8)

_____

☐ Talk to other professionals (9)

_____

☐ No modification to practice (10)

_____

Start of Block: Recommendations and Preferences

CFQ30 Finally, these questions will ask you about what methods of engaging with diverse populations were most influential in preparing you for work beyond graduate school.

CFQ31 Click and drag the numbers to rank the following factors in order from most influential (1) to least influential (6) in preparing you to work as a speech-language pathologist with diverse populations.

_____ Class lectures and assignments (1)

_____ Discussions with classmates (2)

_____ Guest lectures or videos (3)

_____ Non-graduate program related activities (4)

_____ Discussions with friends/family/individuals outside of the program (5)

_____ Clinic experience with diverse populations (6)

CFQ32 Were any other factors not listed influential in preparing you to work with diverse populations? If so, describe.

_____

CFQ33 In your graduate program: what do you wish you learned, or learned more about, when working with clients from diverse backgrounds? Select all that apply.

☐ Bilingualism/Multiculturalism (1)

☐ Characteristics of linguistic variations (2)

☐   Assessment of diverse populations (3)

☐   Cultural characteristics (4)

☐   Identification of diverse clients (5)

☐   Intervention for language differences (6)

☐   Intervention for disorders in diverse populations (7)

☐   Second language acquisition (8)

☐   Service delivery for diverse populations (9)

☐   Relevant documents and laws pertaining to diverse populations (10)

☐   Other (describe): (11) _____

CFQ34 In your graduate program: what else would have been helpful to have learned, or learned more about, when working with clients from diverse backgrounds?

_____

CFQ35 You are about to complete the survey. Please go back if you wish to change anything.

Thank you very much for your time.

Start of Block: Introduction

SLPQ1 The following information and your responses are anonymous. Your responses will be private and secure. There is no identifying information in your responses that can be linked to you, your university, or your personal records. The responses from these surveys will be combined to create a group data set. Information from this study will be used to help us review and develop our admissions process and curriculum.

Start of Block: Personal Experience

SLPQ2 The following questions will ask you for your demographic information, as well as some reflective questions about your personal experience with diversity in your graduate program at Pitt.

SLPQ3 What does "cultural awareness" mean to you in the field of Speech-Language Pathology?

_____

SLPQ4 What does "diversity" mean to you in your current work setting?

_____

SLPQ5 Is English your primary language?

o   Yes (1)

o   No   (If   no,   what   is   your   primary   language?)   (2)

_____

o   I am bilingual (list both): (3) _____

o   I   am   multilingual   (list   all):   (4)

_____

SLPQ6 Select your racial category:

o   American Native or Alaskan Native (1)

o   Asian (2)

o   Black or African American (3)

o   Native Hawaiian or Other Pacific Islander (4)

o   White (5)

o   More   than   one: If   so,   please   list   (6)

_____

SLPQ7 What is your ethnicity?

o   Hispanic or Latino (1)

o   Not Hispanic or Latino (2)

SLPQ8 How would you describe your current town of residence?

o   Urbanized Area (greater than 50,000 people) - e.g. Philadelphia, PA; Pittsburgh, PA; Allentown, PA; Harrisburg, PA; Bloomsburg, PA; Gettysburg, PA; Altoona, PA (1)

o   Urban Cluster (between 2,500 and 50,000 people) - e.g. Indiana, PA; Shippensburg, PA; Slippery Rock, PA; Lock Haven, PA; Butler, PA (2)

o   Rural (less than 2,500 people) - encompasses all territories not classified as an urban area (3)

SLPQ9 By completing this survey, I confirm that I am 18 years of age or older.

o   Yes (1)

o   No (2)

SLPQ10 Please select your current age range.

o   18-20 (1)

o   21-23 (2)

o   24-26 (3)

o   27-29 (4)

o   30-39 (5)

o   40-49 (6)

o   50-59 (7)

o   60-65 (8)

o   66+ (9)

SLPQ11 What is your gender?

o   Male (1)

o   Female (2)

o   Transgender Male (3)

o   Transgender Female (4)

o   Gender Variant / Non-conforming (5)

o   Prefer not to answer (6)

o   Other (7) _____

SLPQ12 Considering the number of people in your household and total income growing up, was

it approximately less than these corresponding figures?

1-2 people: $16,240

3 people: $20,420

4 people: $24,600

5 people: $28,780

6 people: $32,960

o   Yes (1)

o   No (2)

SLPQ13 What year did you graduate from the SLP graduate program at Pitt?

o   2012 (1)

o   2013 (2)

o   2014 (3)

o   2015 (4)

o   2016 (5)

o   2017 (6)

SLPQ14 Are you a member of ASHA?

o   Yes (1)

o   No (2)

Skip To: Q15 If Are you a member of ASHA? = Yes

SLPQ15 Which if any of the following ASHA Special Interest Groups are you a member of?

☐   1: Language Learning and Education (1)

☐   2: Neurogenic Communication Disorders (2)

☐   3: Voice and Voice Disorders (3)

☐   4: Fluency and Fluency Disorders (4)

☐   5: Craniofacial and Velopharyngeal Disorders (5)

☐   6: Hearing and Hearing Disorders: Research and Diagnostics (6)

☐   7: Aural Rehabilitation and Its Instrumentation (7)

☐   8: Audiology and Public Health (8)

☐   9: Hearing and Hearing Disorders in Childhood (9)

☐   10: Issues in Higher Education (10)

☐   11: Administration and Supervision (11)

☐   12: Augmentative and Alternative Communication (12)

☐   13: Swallowing and Swallowing Disorders (Dysphagia) (13)

☐   14: Cultural and Linguistic Diversity (14)

☐   15: Gerontology (15)

☐   16: School-Based Issues (16)

☐   17: Global Issues in Communication Sciences and Related Disorders (17)

☐   18: Telepractice (18)

☐   19: Speech Science (19)

☐   I am not a member of any ASHA SIGs (20)

SLPQ16 Diversity refers to the variety and influence of:

race, ethnicity, religion, gender identity, age, national origin, sexual orientation, disability, socioeconomic status

ON

language, thoughts, communications, actions, customs, beliefs, values

Please answer the following questions with this definition in mind.

SLPQ17 How important to you was diversity in the following forms as a factor in selecting a graduate program?

Extremely Important (1)   Very important (2)   Moderately   important   (3)

Slightly important (4) Not at all important (5)

Having classmates from diverse backgrounds (1)   o   o   o

        o   o

Attending a program in a city with high diversity (2)   o   o   o

        o   o

Working with diverse populations in a clinical setting (3)   o   o   o

        o   o

Learning how to assess and treat diverse populations (4)   o   o   o

        o   o

SLPQ18 Looking back, how would you describe the diversity of your graduate program cohort?

        Extremely diverse (1) Very diverse (2)   Moderately diverse (3)   Slightly

diverse (4)   Not at all diverse (5)

Diversity of Cohort (1)   o   o   o   o   o

SLPQ19 What is your primary work setting?

o   Early Intervention (1)

o   School (2)

o   School for children with special needs (3)

o   Pediatric inpatient (4)

o   Pediatric outpatient (5)

o   Adult acute care (6)

o   Adult Rehab (7)

o   SNF (8)

o　　　　Specialized clinic (9)

o　　　　Home Health (10)

o　　　　Private practice (11)

o　　　　Academia (12)

SLPQ20 What other settings have you worked in over the past 12 months?

☐　　　　Early Intervention (1)

☐　　　　School (2)

☐　　　　School for children with special needs (3)

☐　　　　Pediatric inpatient (4)

☐　　　　Pediatric outpatient (5)

☐　　　　Adult acute care (6)

☐　　　　Adult Rehab (7)

☐　　　　SNF (8)

☐　　　　Specialized clinic (9)

☐　　　　Home Health (10)

☐　　　　Private practice (11)

☐　　　　Academic (12)

☐　　　　Other (describe): (13) _____

SLPQ21 Consider your own cultural and linguistic background. How much of your caseload do

you perceive differs from you - culturally and/or linguistically?

Not at all (1)   Somewhat (2) About half (3) Most of my caseload (4)   All   of   my caseload (5)

Perceived diversity of caseload (1)   o   o   o   o

o

Start of Block: Preparedness

SLPQ22 The next set of questions will ask you about how the SLP graduate program at Pitt prepared you to work with diverse populations in your current practice.

SLPQ23 Overall, how well do you think Pitt's program prepared you to work with diverse populations?

Extremely Prepared (1)   Somewhat Prepared (2)   Neither   prepared   nor unprepared (3)   Somewhat Unprepared (4)   Extremely Unprepared (5)

Preparedness (1)   o   o   o   o   o

SLPQ24 Overall, how satisfied are you with how Pitt's program prepared you to work with diverse populations?

Extremely satisfied (1)   Somewhat satisfied (2)   Neither   satisfied   nor dissatisfied (3)   Somewhat dissatisfied (4)   Extremely dissatisfied (5)

Satisfaction (1)   o   o   o   o   o

SLPQ25 The next set of questions refers to your clinical practice.

SLPQ26 Currently, how confident do you feel in your ability to provide speech-language pathology services to clients from diverse populations?

     Extremely confident (1)   Somewhat confident (2)   Neither confident nor not confident (3)   Somewhat not confident (4)   Extremely not confident (5)

Confidence (1)   o   o   o   o   o

SLPQ27 Currently, how effective do feel your service provision to clients from diverse populations is?

     Extremely effective (1)   Very effective (2)   Moderately   effective   (3)

     Slightly effective (4)   Not effective at all (5)

Effectiveness (1)   o   o   o   o   o

SLPQ28 To what extent do you feel you understand how your own biases may or may not affect your practice?

     Significantly understand (1) Somewhat understand (2)   Slightly   understand   (3)

     Don't understand at all (4)

Understanding of Implicit Bias (1)   o   o   o   o

SLPQ29 Describe a time when you felt under-prepared or under-equipped to work with a client from a diverse background.

_____

SLPQ30 Describe a time when you felt well-prepared to work with a client from a diverse background.

_____

SLPQ31 When you have clients from diverse backgrounds, how often do you modify clinical services to account for cultural or linguistic differences?

      Never (1)   Sometimes (2) About half the time (3)   Most of the time (4)

      Always (5)

Frequency of Modification (1)   o   o   o   o

     o

SLPQ32 In which ways have you modified your practice to account for cultural or linguistic differences?

☐   Tested in primary language (1)

☐   Selected appropriate assessment materials and tools (2)

☐   Used dynamic assessment procedures (3)

☐   Used an official interpreter in assessment (4)

☐   Used an informal (family member or other) interpreter in assessment (5)

☐   Performed therapy in primary language (6)

☐   Used a official interpreter in therapy (7)

☐   Used informal interpreter in therapy (8)

☐   Other (9) _____

SLPQ33 Do you know how to secure a translator / interpreter, if necessary?

o   Yes (1)

o   No (2)

SLPQ34 Have you attended any continuing education lectures, courses, or programs regarding service provision to diverse populations?

o   Yes (1)

o   No (2)

Skip To: SLPQ35 If Have you attended any continuing education lectures, courses, or programs regarding service provi... = Yes

Skip To: SLPQ36 If Have you attended any continuing education lectures, courses, or programs regarding service provi... = No

SLPQ35 What was the topic(s) of any continued education programs regarding service provision to diverse populations that you have attended?

_____

SLPQ36 If you were unsure how to provide services to a client on your caseload due to cultural or linguistic differences, how would you go about learning what to do? Select all that apply, and add explanation, if relevant.

☐   Google or online search (1) _____

☐   Locate   relevant   research   literature   (2)

_____

☐   Locate   ASHA   resources   (i.e.   Practice   Portal)   (3)

_____

☐   Consult   with   local   organization   with   diversity   expertise   (4)

_____

☐   Use   my   organization's   resources   (5)

_____

☐   Talk   with   the   client   and   their   caregivers   (6)

_____

☐   Refer   them   to   another   SLP   (7)

_____

☐   Talk   to   another   SLP   professional   (8)

_____

☐   Talk   to   other   professionals   (9)

_____

☐   No   modification   to   practice   (10)

_____

Start of Block: Recommendations and Preferences

SLPQ37 Finally, these questions will ask you about what methods of engaging with diverse populations were most effective in preparing you for work beyond graduate school.

SLPQ38 Click and drag the numbers to rank the following experiences in order from most influential (1) to least influential (6) in preparing you to work as a speech-language pathologist with diverse populations.

_____ Class lectures and assignments (1)

_____ Discussions with classmates (2)

_____ Guest lectures or videos (3)

_____ Non-graduate program related activities (4)

_____ Discussions with friends/family/individuals outside of the program (5)

_____ Clinic experience with diverse populations (6)

SLPQ39 Were any other factors not listed influential in preparing you to work with diverse populations? If so, describe.

_____

SLPQ40 In your graduate program: what do you wish you learned, or learned more about, when working with clients from diverse backgrounds? Select all that apply.

☐　　　Bilingualism/Multiculturalism　(1)

☐　　　Characteristics of linguistic variations　(2)

☐　　　Assessment of diverse populations　(3)

☐　　　Cultural characteristics　(4)

☐　　　Identification of diverse clients　(5)

☐　　　Intervention for language differences　(6)

☐   Intervention for disorders in diverse populations (7)

☐   Second language acquisition (8)

☐   Service delivery for diverse populations (9)

☐   Relevant documents and laws pertaining to diverse populations (10)

☐   Other (describe): (11) _____

SLPQ41 In your graduate program: what else would have been helpful to have learned, or learned more about, when working with clients from diverse backgrounds?

_____

SLPQ42

You are about to complete the survey. Please go back if you wish to change anything.

Thank you very much for your time.

APPENDIX C: CLINICAL FELLOW FREE RESPONSE DATA

CFQ3:

"Understanding other cultures"

"Being sensitive to differences and how they are observed and regarded in various cultures. The difference between difference versus disorder, and how and when to discuss your versus familial concerns regarding true disorder."

"Awareness of the aspects and values of different cultures in order to understand what is typical in each culture and how they differ from each other"

"Being cognizant of your culture and the culture of those around you. Not treating people differently or in a way that would undermine their culture. Treating people with respect and being open and accepting of who they are, their culture, language, etc."

"Being knowledgeable and sensitive about cultures other than your own so that you can provide treatment respectfully."

"A person understands and is aware of differences from different cultures and ethnicities (ex. Religious, preferences, traits, etc.)"

"Cultural awareness means to be aware and accepting of other people's culture as a whole, even though those aspects may be different than your own culture."

"Basically the knowledge that other cultures have different sets of "rules" for appropriate behavior and your ability to tactfully navigate and be aware of the fact that others participate in a culture different than yours"

"Being aware of your culture and your patient's cultures and how this many influence treatment and patient-clinician interactions. Acknowledging gaps in your own knowledge regarding culture. Being mindful of linguistic and cultural variations in assessment and treatment of communication disorders."

"Knowing about other cultures/ know how to go about learning about other cultures and making sure that we are providing care that is respectful and understanding of our clients culture, regardless if it is the same or different from our own"

"Aware of some of the important aspects of a culture. This goes deeper than reading articles or books, but involves engagement with that culture, and an commitment to on-going education."

"Being aware of other individuals' values, beliefs, and traditions and respecting them when evaluating and treating in our field."

"Being aware of my own culture(s), the culture(s) of my clients, and how those might be playing on each other. Cultural awareness is a process that needs routine active engagement. It's not as good as cultural tolerance or cultural acceptance (the ideal)"

"Respecting/acknowledging and be prepared to work w patients w cultures that are not my own"

CFQ21:

I have used an interpreter with a patient in the hospital setting and had to modify the activity we were doing based on the speed and time needed for the interpreter to translate

Being aware that certain differences in articulation were cultural and not a disorder. For example not treating f/th. Or allowing a bilingual child with a TBI to work on naming in both English and Spanish to increase success.

I have used a translator to conduct assessments and treatment. I have also used gestures and other nonverbal communication forms to work with children who do not speak English.

I have modified results of a standardized test to account for dialectal differences that were not considered a speech sound error and would have placed the child under the category of having a speech sound disorder if it wasn't modified.

I had to use all informal assessments instead of formal assessments because I didn't have any tests normed for Portuguese children. I also had to learn age appropriate substitutions for the Portuguese language to see if she had or did not have a language/speech disorder

Working with bilingual English/Spanish pediatric pt s/p stroke with aphasia. Modified assessment plan to include assessment in both areas. Considered linguistic differences that may be 2/2 bilingualism vs. aphasia.

Modifying interview questions

On occasion I've had to consider the phonology of non-english languages spoken in the home and/or with the client and how that could manifest in what I am observing/treating, and where the line is between difference and disorder. Overall, the clients I engaged with through graduate clinical experiences were not very diverse. There was a level of diversity, sure, but it wasn't very wide.

pt parents who did not hand shake

CFQ32:

"Personal life experiences, experiences prior to grad school"

CFQ34:

"More on the specifics of disorder vs. difference and how to assess, treat and talk to other professionals about this"

"Skills when working with an interpreter"

"More on impact of implicit vs. explicit biases and how to identify/mitigate"

APPENDIX D: CLINICIAN FREE RESPONSE DATA

SLPQ3:

"Having an understanding and awareness of different cultures of patient's you might work with and/or encounter (shaking hands with an orthodox Jewish man, dysphagia with a patient that is Kosher/Muslim, language barrier) and respecting their cultural identities, traditions, goals, and customs."

"Understanding the concept of differences vs disorders as it applies to dialects, regional vocabulary, etc."

"Cultural awareness as an SLP has multiple facets. In the lager picture of anyone who works with people, cultural awareness means having an awareness that each person you work with (a patient, a client, a family member, a coworker, etc.) has a unique set of beliefs, values, and experiences that shape who that person is, and using the knowledge to treat that person with dignity and respect. Additionally, within SLP practice it is important to have cultural awareness in both evaluation and treatment, because speech and language are developed within a person's culture. An SLP must make an appropriate diagnosis (especial in the respect of a cultural difference vs a disorder), and subsequently make appropriate goals for treatment."

"Being accepting and knowledgeable of differences between cultures"

"It means that we need to be aware that "norms" will vary across cultures in regard to communication. What may be typical social communication in one culture, may not be acceptable in the other. It is important to tease out differences from a communication disorder."

"Being respectful of cultural differences and differentiating between a cultural difference and a disorder."

"Cultural awareness means staying informed of others culture's practices and beliefs and how it relates to their view of medicine, diagnoses, treatment, and expectations."

"It means being aware of the differences between different cultural groups, being sensitive to these differences, and not developing bias toward certain a cultural group."

"Being open to the different backgrounds of the clients we interact with. Understanding how to act (ask questions, etc.) when you are not familiar with a specific culture and unsure how to appropriately interact."

"Awareness of others backgrounds and cultures in which they may identify, how those cultures differ or may be similar to standard American culture, and what the clinical implications may be based on those differences"

"Cultural awareness - understanding the differences between others and yourself and the ways that those differences have an impact on social dynamics between the two parties (self and other)."

"Having respect for others individual ways of living"

"'Cultural awareness' involves the idea that each client comes from a background of various ideas, beliefs, and personal practices that can impact what their goals may be and what treatment may work best."

"Cultural awareness, put simple, is an understanding that every pt we see has different beliefs of what is appropriate/not appropriate to them on a inter/interpersonal level. Do we have to agree with it? No. Do we have to put in the effort to understand it and respect it? YES. Working in the home health setting as a novice clinician, has brought "cultural awareness" to a whole new extreme for me. I have stepped out of my comfort zone multiple times in my current position (from going into trailers in rural areas with no cellphone/GPS reception for miles to going into inner city projects). I have worked with immigrants that have recently moved to the US and don't quite believe/understand the medical practices and I have worked with pts who haven't gone to the doctor in 30+ years until their most recent episode d/t their own cultural beliefs and personal biases. That said, understanding cultural differences and adapting my behaviors accordingly has been the single most influential factor in establishing rapport with my pts. Without it, my tx (no matter how great it may be) is useless."

"Being aware of your own and your patients/their families' traditions, beliefs, customs, religions, views, etc. And how these views affect my clinical interactions."

"Cultural awareness to me means having an open mind toward cultural differences. In the SLP field, I feel that cultural awareness indicates we have a duty to respect the dialectical, behavioral, and social expectations and constructs of other cultures when considering language and speech disorders, impairments, or delays. A difference that is culturally appreciate does not directly indicate the presence of a delay/disorder."

"Being aware of specific speech/language differences and customs inherent to your patient's culture in order to determine treatment necessity and/or individualized treatment."

"Considering contextual factors of a patients background and setting in identifying pathology and determining appropriate treatment, and adapting professional presentation with these factors in mind to optimize patient / clinician relationship"

"Being aware of the different ways culture can impact language, including dialectical differences, semantic differences, etc., and adjusting practice to account for those differences."

"Clinicians should be aware of other cultures in order to treat the patient with respect and in a way that help establish trust and rapport."

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SLPQ4:

"Varied caseload (types of medical diagnosis (CVA, TKR, acute encephalopathy, etc.), speech disorders (motor speech, dysphagia, aphasia, etc.), and age of population"

"I work with children and families from a variety of cultures and backgrounds, in a rural setting that is significantly different from the environment I grew up in. The observable differences in these environments and types of people define diversity for my current job."

"I currently work in an acute care hospital serving an adult population. Diversity for me come in may forms, including but not limited to age, diagnosis, medical status, health literacy, culture, religion, gender, race, language, SES, and support system."

"Working with people of different cultures, being aware of differences and accepting of their differences. Helping others to understand that everybody is different."

"I have the great fortune of working in a setting where the majority of the students are English Language Learners (ELLs). For me, diversity in regard to languages, ideas, traditions, and physical appearance are common in my everyday. What I love the most about my job is that I am constantly learning, thanks to the diverse environment that I work in. It pushes me to expand my knowledge in regard to both speech-language pathology, and the world in general."

"Many different things...diversity could refer to staff members or patients/clients/students. Diversity can refer to differences in skin color, ethnicities, religion, sexuality, gender, physical and mental abilities, economic status, etc."

"Diversity means having team members from various backgrounds that may not be one's own (cultural, socioeconomic, religious, racial, orientation). Having an unwavering respect for those backgrounds by staying informed."

"In my current EI work setting, diversity means the variations between and within different groups based on race, gender, sex, ethnicity, socio-economic status, education, etc."

"Diversity not only in the age, culture, and background of the clients but also in the various professions that we encounter in our field. You can have a diverse work environment with everyone of similar culture, but it is still diverse because of the multi-disciplines. On the contrary, you can work with solely SLPs but have an extremely diverse population of different disorders, ages, ethnicity, backgrounds, culture, etc."

"Variations in family/home background, cultural background, race, ethnicity, etc."

"Diversity of sex, gender identity, race, ethnicity, cultural dynamics, neurodiversity, sexual orientation, religion, socioeconomic status. Regularly interacting with these levels in my current work setting."

"Coming from various racial/cultural/ethnic/religious groups"

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"Currently, I work with families from a variety of backgrounds, languages, religions, and socioeconomic statuses. Because I am in an early intervention program, it is critical for me to be aware of the different backgrounds and beliefs for each of my families."

"Diverse caseload; diverse socioeconomic status; diverse cultures"

"Having exposure to patients who speak a variety of languages, come from a variety of socioeconomic statuses, people who come from a variety of different cultures, religions, neighborhoods."

"In my current work setting, I am privileged to work with a majority of bilingual families from lower socioeconomic status backgrounds. Many of my families embody a diverse background of ethnicities, cultural experiences, and language exposure. I think it is important to respect the diversity of each patient as unique."

"Working with people with multiple diverse backgrounds and respecting their differences."

"Variation in age, gender, race, religion, independence, home income and communication impairment."

"The staff I work with is not very diverse, but the patient population is, and it requires me to adjust my treatment methods at times."

"Diversity means different sexes, genders, races, religious/ethnic beliefs, etc."

SLPQ29:

Spanish patient with cognitive deficits and dysphagia...family assisted with translation, however did not fully grasp the concept of prognosis and/or goal of therapy.

I had a patient who was a black male in his 40s who was in the ICU at the time I was consulted to evaluate swallowing and make recommendations for safest diet (if any). The patient was extremely agitated about his current situation and spent over 20 minutes yelling about how everyone in the hospital is racist and the medical team handling his care were not his doctors. The patient had low health literacy, and was resistant to all attempts to explain my recommendations, despite use of relatable terms. I was unsure of how to get across my recommendations in a way that the patient would understand the health implications of choosing to go against the recommendations.

I went into a home to see a child for early intervention. The family did not speak English and there was an interpreter. I had never had an experience with a family who required an interpreter. I had to learn to look at the family when speaking and not the interpreter and to adjust how I was communicating to the parent and child.

I have a hard time convincing other staff why students who use aave shouldn't qualify for speech

It is difficult to work with clients whom do not speak the same language as myself. I've had multiple patients who solely speak a different language where I've been asked to provide treatment for a disorder that they have. Although I did have a telephone interpreter, it was still very difficult. I felt I was under-equipped in this situation and a in person interpreter would have been best.

Most difficulties have been with communicating with the parents effectively, more due to lack of support from the school district. One parent signed a form to have all documents translated, which I didn't know the protocol for and the special ed office did not give me much information on how to get things translated, making it difficult.

I think I will continue to feel under-prepared until I am continually interacting with those "different" from the typical patient population. Working in a specialty clinic I am often working around those with the resources and access to specialty medicine. Knowing facts about a population is not in itself enough to feel confident. It's the posture of self and regular interaction that things settle in and feel comfortable.

Working with an individual who spoke hardly any English

I feel under-equipped when there are not the necessary resources available within the community or when they are unreliable such as interpreters not showing to appointments when the family does not speak English and the plan states that services must be held with an interpreter.

During my CF, I worked in an underprivileged, predominantly African American, special ed school and something that I struggled with greatly was how to approach dialectical differences vs disorders with parents in IEPs.

There are many Nepali patients in the hospital I work at, and it is such a foreign culture that I am unfamiliar with, and their custom is to help their sick one always, so it was difficult to tell the family members to step away during therapy because it was in their culture to be there always. It was also difficult to find translated educational SLP materials in their language to provide to the patient's family.

I have often found that working with bilingual families or families who have a primary language that is different from my own to be a challenge and growing experience. One time in particular I felt under-equipped to work with a family was conducting a fluency/stuttering evaluation on a 4yo child who only spoke Vietnamese. It was a challenge to use phone interpretation services provided through my work setting to assess his language abilities. I found that my evaluation relied heavily on parent report, however interpreted with caution in case of mistranslation.

I had a patient with global aphasia who only spoke Arabic. I had to use pictures and the language line (interpreting telephone service) to communicate with him. The language difference in addition to the language disorder made for a complicated treatment plan! I had to do my best with the interpretation services.

I was attending an IEP in which a guardian of the student was higher political and economic status than the school based professionals, and the guardian wanted To use their position of power to gain more advantageous supports

for their student. In school we studied and practiced ways to make ourselves better understood to people with less advantages but we rarely practiced situations in which the power was reversed.

SLPQ30:

Had a Spanish patient with dysphagia. Pt did not like to eat the SNF food, at risk of malnutrition, and had oral motor weakness (and pharyngeal weakness). Sessions were completed in Spanish (basic) and trials consisted of Spanish food patient had consumed prior to CVA (Spanish rice, plantains, etc.)

I had a patient who was deaf a had to communicate using an interpreter, I felt prepared in knowing the appropriate way to interact with the patient (i.e. directing all communication towards the patient and allowing the interpreter time to communicate the messages and then giving the pt time to respond).

I went into a home to see a child through early intervention. The family lived in a low social-economic status area. The family had no toys for the child to play with. Based on what I learned in language development courses, I very quickly adapted my therapy based on what the family had available.

I feel like when I speak to bilingual families I'm able to explain why they should keep speaking their native language at home if they're embarrassed or unsure about it

I was in an African American home full of extended family. Though we had discussed in school about managing extended families, understanding each person's role and crowd control/group managed was something I learned on the job.

It's common that I feel well-prepared because I've learned how to approach all patients in a neutral manner and then learn from them about how is best to interact.

In the few times I have worked with patients from linguistic/culturally hispanic backgrounds I have felt that I was immediately able to connect with and provide excellent care to as a result of my personal/professional experience.

I worked closely with a Nepali family with an interpreter last year who felt comfortable including me in their holiday practices. They were able to communicate their goals and we worked through treatment strategies for their son that would be practical in their own routine.

I was working with a pt with a TBI from Africa and I could NOT get her to partake in tx tasks for the life of me but I knew she was capable. After exhausting all efforts and debating DC, I had a little snap back to a guest speaker we had in Dr. Leslie's class that spoke about African Americans phobias to medical professionals and I then instructed the family members on how to perform the exercises with the pt and I stepped out of sight from the pt and waalaa she could do them.

I speak Spanish, and I felt very prepared to work with my Spanish speaking patient in the hospital - because I was familiar with his culture, I was able to assess him and provide therapy in his native language, explain difficult topics

to his family who were very uneducated re: trachs, feeding tubes, etc. I had a lot of educational materials translated in Spanish that I provided to his family

I have become increasingly well-prepared to work with bilingual families who are Spanish/English speaking and have increased my knowledge greatly of the cultural and linguistic differences these children may exhibit.

I have several Spanish speaking students on my caseload at my school. For all of these cases, I consult with a bilingual therapist to help determine appropriate courses of treatment. I am the main person on their cases, but I fee more at ease having someone to talk with who is more comfortable with handling dialectal differences.

Prepared with visuals / graphs of Spanish and English language skills and phoneme development to describe differences between a language disorder and second language learning

SLPQ35:

English Language Learners (ELL)

Assessment in bilingual populations

children and poverty

Working with low income patients - gender and sexual identity diverse patients

I have viewed presentations of developing cultural competency and awareness of cultural diversity.

Providing dynamic assessment to bilingual children

Supporting bilingual families in early intervention to support primary and secondary language acquisition

Recognizing implicit bias , asha tell training on second language assessment , language classes in Spanish and English

SLPQ39:

"I worked multiple part time jobs in which I had to opportunity to work with many people from diverse backgrounds. Those experiences played a large part in preparing me to work with diverse populations."

"Life experience"

"Previous work experience with families and children with diverse backgrounds"

"My previous work in a diverse city before entering graduate program"

"Traveling abroad was very helpful in increasing my cultural awareness."

"Work with LEND center"

SLPQ41:

"A class in basic (Spanish, Polish, ASL, etc.) medical language could be beneficial"

"It would have been helpful to learn how to respectfully deal with situations where a person/client is biased against the clinician due to cultural factors."

"Teaching two languages when a child has a delay or disorder"

"Educating families in a tactful manner regarding disabilities and developmental milestones. Some of my families have come from cultures that do view any abnormality or atypicality as a huge negative. It has been difficult to discuss goals in either a realistic way or in a positive manner based off of what the child CAN do."

"The viewpoints/understanding of family members from different cultures regarding different diagnoses/disorders, I.e. how Latino families view strokes/disabilities. I wish there also could have been offered a bilingual SLP certificate to allow students to be certified in being able to treat bilingual clients."

"Client perspective -- retell from patients about good / bad experiences (may be not in best interest of clients to retell these experiences first hand)"

BIBLIOGRAPHY

2013-14 Estimations for Enrollment. (2014). Retrieved April 11, 2018, from
    https://ocrdata.ed.gov/StateNationalEstimations/Estimations_2013_14

Achieve. (2013, November). *Closing the Expectations Gap: 2013 Annual Report*(Rep.).
    Retrieved https://www.achieve.org/files/2013ClosingtheExpectationsGapReport.pdf

American Speech-Language-Hearing Association (2016a). *Highlights and Trends: Member and
    Affiliate Counts, Year-End 2016*. Retrieved from
    https://www.asha.org/uploadedFiles/Year-End-2007-2016.pdf.

American Speech-Language-Hearing Association (2016b). Scope of Practice in Speech-
    Language Pathology [Scope of Practice]. Available from www.asha.org/policy.

American Speech-Language-Hearing Association (2018a). About Special Interest Group 14,
    Cultural and Linguistic Diversity. Retrieved from https://www.asha.org/SIG/14/About-
    SIG-14/

American Speech-Language-Hearing Association (2018b). Cultural Competence: Key Issues.
    Retrieved March 27, 2018, from
    https://www.asha.org/PRPSpecificTopic.aspx?folderid=8589935230§ion=Key_Issues

American Speech-Language-Hearing Association (2018c). *Demographic Profile of ASHA
    Members Providing Bilingual Services, Year-End 2017*. Retrieved from
    https://www.asha.org/uploadedFiles/Demographic-Profile-Bilingual-Spanish-Service-
    Members.pdf

American Speech-Language-Hearing Association (2018d). Evidence-Based Practice (EBP).
    Retrieved April 11, 2018, from https://www.asha.org/Research/EBP

Banks, J. A. (1993). Multicultural Education: Historical Development, Dimensions, and
    Practice. Review of Research in Education,19, 23. doi:10.2307/1167339

Barnett, J. C., & Berchick, E. R. (2017, September 12). *Health Insurance Coverage in the United
    States: 2016*(Rep. No. P60-260). Retrieved from
    https://www.census.gov/content/dam/Census/library/publications/2017/demo/p60-
    260.pdf

Braun, V., & Clark, V. (2014). What can "thematic analysis" offer health and wellbeing researchers? *International Journal of Qualitative Studies on Health and Well-Being,9*. doi:10.3402/qhw.v9.26152

Crist, J. D., Garcia-Smith, D., & Phillips, L. R. (2006). Accommodating the stranger en casa: how Mexican American elders and caregivers decide to use formal care. *Res Theory Nurs Pract, 20*(2), 109-126.

Cross, T., Bazron, B., Dennis, K., & Isaacs, M. (1989). *Towards a culturally competent system of care, Volume I.* Washington, DC: CAASP Technical Assistance Center, Georgetown University Child Development Center.

Chang, M. J., Denson, N., Saenz, V., & Misa, K. (2006). The Educational Benefits of Sustaining Cross-Racial Interaction among Undergraduates. *The Journal of Higher Education,77*(3), 430-455. doi:10.1353/jhe.2006.0018

Cohn, D., & Caumont, A. (2016, March 31). 10 demographic trends that are shaping the U.S. and the world. Retrieved March 27, 2018, from http://www.pewresearch.org/fact-tank/2016/03/31/10-demographic-trends-that-are-shaping-the-u-s-and-the-world/

Council on Academic Accreditation in Audiology and Speech-Language Pathology. (2017). Standards for accreditation of graduate education programs in audiology and speech-language pathology (2017). Retrieved November 9, 2018, from http://caa.asha.org/wpcontent/uploads/Accreditation-Standards-for-Graduate-Programs.pdf

Elicker, J. D., Snell, A. F., & Omalley, A. L. (2009). Do Student Perceptions of Diversity Emphasis Relate to Perceived Learning of Psychology? *Teaching of Psychology,37*(1), 36-40. doi:10.1080/00986280903425706

Farrugia-Bernard, A. M. (2018). Speech-language pathologists as determiners of the human right to diversity in communication for school children in the US, International Journal of Speech-Language Pathology, 20(1), 170-173. doi:10.1080/17549507.2018.1406002

Fox, J. (2017, August 16). The Jobs Most Segregated by Gender and Race. *Bloomberg View*. Retrieved from https://www.bloomberg.com/view/articles/2017-08-16/the-jobs-most-segregated-by-gender-and-race

Franca, M. C., Smith, L. M., Nichols, J. L., & Balan, D. S. (2016). Culturally diverse attitudes and beliefs of students majoring in speech-language pathology. *CoDAS,28*(5), 533-545. doi:10.1590/2317-1782/20162015245

Groves, R. M. (2006). Nonresponse Rates and Nonresponse Bias in Household Surveys. *Public Opinion Quarterly,70*(5), 646-675. doi:10.1093/poq/nfl033

Guiberson, M., & Atkins, J. (2012). Speech-Language Pathologists' Preparation, Practices, and Perspectives on Serving Culturally and Linguistically Diverse Children. *Communication Disorders Quarterly,33*(3), 169-180. doi:10.1177/1525740110384132

Guitieerrez-Clellan, V.F., & Penna, E. (2001). Dynamic assessment of diverse children: A tutorial. *Language, Speech, and Hearing Services in Schools, 32*, 212-224. doi:10.1044/0161-1461(2001/019)

Hammond, C., Mitchell, P., & Johnson, M. (2009). Academic and Clinical Preparation for Cultural and Linguistic Diversity in Speech-Language Pathology: Program Director Perspectives. *Contemporary Issues in Communication Science and Disorders,36*, 63-76.

Hannah, S. D., & Carpenter-Song, E. (2013). Patrolling Your Blind Spots: Introspection and Public Catharsis in a Medical School Faculty Development Course to Reduce Unconscious Bias in Medicine. *Culture, Medicine, and Psychiatry,37*(2), 314-339. doi:10.1007/s11013-013-9320-4

Hegde, M. N., & Davis, D. (2009). *Clinical Methods and Practicum in Speech-Language Pathology*. Cengage Learning.

International Monetary Fund. (2018). GDP per capita, current prices. Retrieved from http://www.imf.org/external/datamapper/PPPPC@WEO/OEMDC/ADVEC/WEOWORLD/USA?year=2018

Jonak, J. (2014). Perspectives regarding disproportionate representation of culturally and linguistically diverse students in high-incidence special education programs in the United States. Health Psychology Report, 1(1), 42-51. https://doi.org/10.5114/hpr.2013.40468

Kagawa-Singer, M., PhD, RN. (2011). Impact of Culture on Health Outcomes. *Journal of Pediatric Hematology/Oncology,33*(Suppl 2), S90-S95. doi:10.1097/MPH.0b013e318230dadb

Kleinman, A., & Benson, P. (2006). Anthropology in the Clinic: The Problem of Cultural Competency and How to Fix It. *PLoS Medicine,3*(10). doi:10.1371/journal.pmed.0030294

Koffman, J., Morgan, M., Edmonds, P., Speck, P., & Higginson, I. (2008). Cultural meanings of pain: a qualitative study of Black Caribbean and White British patients with advanced cancer. *Palliative Medicine, 22*(4), 350-359. doi:22/4/350 [pii]10.1177/0269216308090168

Leong, F. T., Bartram, D., Cheung, F. M., Geisinger, K. F., & Iliescu, D. (2016). Response Biases. In *The ITC international handbook of testing and assessment*(pp. 349-363). New York: Oxford University Press.

Leong, F. T. L., & Lee, S. H. (2006). A cultural accommodation model for cross-cultural psychotherapy: Illustrated with the case of Asian Americans. Psychotherapy: Theory, Research, Practice, Training, 43, 410-423.

Maesschalck, S. D., Deveugele, M., & Willems, S. (2011). Language, culture and emotions: Exploring ethnic minority patients' emotional expressions in primary healthcare

consultations. *Patient Education and Counseling,84*(3), 406-412. doi:10.1016/j.pec.2011.04.021

Mahatmya, D., Lohman, B. J., Brown, E. L., & Conway-Turner, J. (2016). The role of race and teachers' cultural awareness in predicting low-income, Black and Hispanic students' perceptions of educational attainment. *Social Psychology of Education,19*(2), 427-449. doi:10.1007/s11218-016-9334-1

Meterko, M., Restuccia, J. D., Stolzmann, K., Mohr, D., Brennan, C., Glasgow, J., & Kaboli, P. (2015). Response Rates, Nonresponse Bias, and Data Quality. *Public Opinion Quarterly,79*(1), 130-144. doi:10.1093/poq/nfu052

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook.* Thousand Oaks: Sage Publications.

Ndungu, R., & Kinyua, M. (2009). Cultural Perspectives in Language and Speech Disorders. *Disability Studies Quarterly,29*(4). doi:10.18061/dsq.v29i4.986

OECD (2013), OECD Skills Outlook 2013: First Results from the Survey of Adult Skills, OECD Publishing. http://dx.doi.org/10.1787/9789264204256-en

Posny, A. (2007, April 24). *Disproportionality of Racial and Ethnic Groups in Special Education*(Memorandum). Retrieved https://www2.ed.gov/policy/speced/guid/idea/memosdcltrs/osep07-09disproportionalityofracialandethnicgroupsinspecialeducation.pdf

Poverty Demographics. (2017, October 25). Retrieved March 27, 2018, from https://www.ers.usda.gov/topics/rural-economy-population/rural-poverty-well-being.aspx

Promoting Educators' Cultural Competence To Better Serve Culturally Diverse Students (Issue brief No. PB13). (2008). Retrieved http://www.nea.org/assets/docs/PB13_CulturalCompetence08.pdf

Ratcliffe, M., Burd, C., Holder, K., & Fields, A. (2016, December). *Defining Rural at the U.S. Census Bureau*(Issue brief No. ACSGEO-1). Retrieved https://www2.census.gov/geo/pdfs/reference/ua/Defining_Rural.pdf

Riquelme, L. F. (2004). Cultural Competence in Dysphagia. *ASHA Leader,9*(7), 8. doi:10.1044/leader.ftr5.09072004.8

Roysircar, G. (2009). Evidence-Based Practice and Its Implications for Culturally Sensitive Treatment. *Journal of Multicultural Counseling and Development,37*(2), 66-82. doi:10.1002/j.2161-1912.2009.tb00092.x

Smedley, B. D., Stith, A. Y., & Nelson, A. R. (2003). *Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare*. Washington, D.C.: National Academies Press.

Stewart, S. R., EdD, & Gonzalez, L. S., PhD. (2002). Quality Indicators for Professional Service Programs in Audiology and Speech-Language Pathology. *Journal of Allied Health,31*(4), 204-216. doi:10.1044/policy.st2005-00186

Sullivan, A. L. (2011). Disproportionality in Special Education Identification and Placement of English Language Learners. *Exceptional Children,77*(3), 317-334. doi:10.1177/001440291107700304

United States Census Bureau. (2016). Retrieved March 26, 2018, from https://www.census.gov/quickfacts/fact/table/US/PST045216

U.S. Centers for Medicare & Medicaid Services. (2018). Affordable Care Act. Retrieved from https://www.healthcare.gov/glossary/affordable-care-act/

U.S. Department of Education (2005). Education in the United States: A Brief Overview. Retrieved from https://www2.ed.gov/about/offices/list/ous/international/usnei/us/generalinfo.doc

U.S. Department of Education. (2018). College- and Career-Ready Standards. Retrieved May 5, 2018, from https://www.ed.gov/k-12reforms/standards

U.S. Department of the Interior. (2018). Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity. Retrieved February 15, 2019, from https://www.doi.gov/pmb/eeo/directives/race-data

Institute of Medicine of the National Academies. (2013). *U.S. Health in International Perspective: Shorter Lives, Poorer Health*(Issue brief). Retrieved http://www.nationalacademies.org/hmd/~/media/Files/Report Files/2013/US-Health-International-Perspective/USHealth_Intl_PerspectiveRB.pdf

Washington, H. A. (2006). *Medical apartheid: The dark history of medical experimentation on Black Americans from colonial times to the present*. New York: Doubleday.

Wilson-Brooks, M. (2010). *Effects of Professional Development on Teachers' Cultural Awareness*(Unpublished master's thesis). Lindenwood University. Retrieved from http://pitt.idm.oclc.org/login?url=https://search-proquest-docview/193249854?accountid=14709com.pitt.idm.oclc.org/

Woolhandler, S., & Himmelstein, D. U. (2013). Life or Debt: Underinsurance in America. *Journal of General Internal Medicine,28*(9), 1122-1124. doi:10.1007/s11606-013-2460-y