An Honors Thesis

by

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Abstract

The purpose of this study was to examine the cultural competency levels of students in the Communication Sciences and Disorders (CSD) program at Appalachian State University, located in Boone, NC. Few studies have focused on the cultural competency of CSD students. Lemmon & Jackson-Bowen completed a similar study in South Carolina (2013). Their research found that graduate students perform better on measures of cultural competency than students in the undergraduate program of study, and that multicultural education is beneficial. This research helps confirm their results. The goal of this study is to add to research about cultural competency within the fields of speech-language pathology and audiology. This information may be helpful to CSD students, professors, and clinicians who work with diverse populations.

Defining cultural competence

Cultural competence can be defined as having an awareness of differences between cultures, and involves minimizing one's biases towards other cultures (Torres, 2015). It is important that speech-language-pathologists (SLPs) have cultural competence. In order to effectively treat and communicate with clients, SLPs must have an awareness of the cultural backgrounds of their clients.

To further delve into the definition of cultural competence, one must first define culture. Anthropologists define culture as "a system of shared beliefs, values, customs, behaviors, and artifacts that the members of a society use to cope with their world and one another, and that are transmitted from generation to generation through learning" (Boyle,

Buhr, Daniels, & Hughes, 2016). In other words, culture is the lifestyle that groups live out and the values they pass on to their children.

Issues within the field

The field of speech-language pathology lacks diversity. The majority of SLPs are female, white and monolingual. The American-Speech-Language-Hearing Association (ASHA), the national professional association for speech pathologists and audiologists, provides a membership profile about its members every year. In 2017, only 4.7% of ASHA constituents were male, and only 8.0% of ASHA members, nonmember certificate holders, international affiliates, and associates were members of a racial minority. Additionally, 5.2% identified their ethnicity as Hispanic or Latino (ASHA, 2017). These numbers do not match the demographics of the United States as a whole. According to the 2010 census, 27.6% of the U.S. population identified as members of racial minority, and 16.3% identified as Hispanic or Latino. These numbers continue to grow.

Importance of Cultural Competence in a Clinical Setting

A lack of cultural and dialectal understanding can lead to individuals being overdiagnosed or underdiagnosed with speech and language disorders. Ideally, clinicians would have an awareness of the specific language differences that patients from culturally and linguistically diverse backgrounds may exhibit. Clinicians should also be able to assess patients with alternative measures, rather than relying solely on standardized, norm-referenced tests, because these tests are often biased against people from CLD populations. Using dynamic assessments allows the SLP to differentiate between language disorders and language differences (Crowley, 2015).

Having cultural and linguistic competence enhances clinical practice because when clinicians demonstrate respect for their client's beliefs, it increases the strength of their bond with the client. It also allows for better service delivery, helps eliminate long-standing disparities in the health status of people of diverse racial, ethnic, and cultural backgrounds, and decreases the likelihood of liability/malpractice claims (Scott & Lee, 2003).

Use of African American English (AAE)

In the past, children who use African American English, also known as AAE, were placed in speech therapy to replace a f/th substitution. They might say "baf" instead of bath (Stockman, 2010). Today, children who utilize AAE would not be enrolled in speech therapy. Since AAE is a dialect, children who speak in this dialect do not have a communication disorder or a communication deficit. They are simply speaking the way that their family members speak. Their language does not need to be corrected. SLPs are encouraged to facilitate development of the mother tongue as a social tool. If the children are discouraged from using their home language, it might hinder their communication with family members and other members of their dialectal community.

The American Speech-Language-Hearing-Association states that "no dialectal variety of American English is a disorder. Each dialect is adequate as a functional and effective variety of American English" (ASHA). While this is the official policy statement, if SLPs do not stay educated about dialectal variations, they may attempt to treat a person's dialectal difference as a disorder, or may not provide a patient with the treatment they need. Having differing backgrounds can lead to miscommunication between the clinician and their clients. SLPs need to be aware of the language that they use when speaking to the patient

and their family, to ensure that the patient and their family can understand the message that the SLP or other healthcare professional is trying to convey.

Disability Culture

Boyle, Buhr, Daniels, & Hughes (2016) write about how Disability culture relates to people who stutter and to people with other communication disorders. Disability culture originated in the 1960s with the Disability Rights Movement. People with disabilities take pride in a shared group identity, share common history of oppression and resilience against oppression, and express this pride through art and other mediums of expression. People with certain disabilities may have traditions of communication and behavior that are different than the mainstream. For example, people who stutter may involuntarily repeat sounds or words, and may experience blocks, or involuntary pauses during their speech.

People who stutter (PWS) do not always want their stutters to go away. Some people undergo speech therapy to reduce the frequency of their stuttering, but others may opt out of speech therapy. Assuming that people with communication differences such as stuttering or hearing impairments want to change their method of communication is not helpful, and can be offensive. Boyle, Buhr, Daniels, & Hughes (2016) advise avoiding assumptions, making eye contact, and using person-first language when interacting with PWS. Using person-first language helps avoid defining the person by their disability. People who do not stutter are encouraged to refer to someone as a person who stutters, rather than a stutterer or as a stuttering client. Similar rules apply when speaking to or about other individuals with communication disorders. It is extremely important that CSD professionals have an understanding of disability culture. Without an understanding of this culture, professionals

may not be able to effectively communicate and treat individuals who have communication disorders and identify with disability culture, such as PWS.

Deaf Culture

Similarly to PWS, people who identify with Deaf culture have a manner of communication that differs from the mainstream. They may communicate with sign language in addition to or instead of spoken language. Some choose to use hearing aids or cochlear implants, while some choose not to. A journal article by Scott and Lee (2003) explains how clinicians can best serve signing clients. The article suggests that if a clinician is working with someone who identifies with Deaf culture and/or uses sign language, it would be helpful for them to educate themselves about cultural differences between Deaf and Hearing culture, and to learn some signs. Clinicians can also use visual aids when explaining unfamiliar concepts, and may utilize facial expressions and body movements in order to communicate with signing clients.

If the clinician is not fluent in sign and the client uses ASL as their main mode of communication, an interpreter may be used. The clinician should address the signing client directly, and allow the interpreter to convey the information to the client using sign. Scott and Lee's journal article states that it is helpful to position the interpreter next to the clinician and across from the client who signs, allowing the client to see both the interpreter and the professional.

Multicultural Resources

ASHA provides free multicultural resources on their website, www.asha.org. A self-assessment for cultural competence is available. The website also offers a variety of

resources for SLPs who are treating bilingual clients. Practice resources for accent modification and phonemic inventories across languages are also available. SLPs can use the phonemic inventories across languages to see how the phonemic patterns of the individuals first language might influence their production of sounds in English. SLPs should also have an awareness of the cultural norms of the client's home culture, as they may vary drastically from American cultural norms. In order to be as respectful as possible, SLPs should consider who is likely to be considered head of the household, how the client and their family might perceive personal space, and the cultural expectations for children, among other things.

Participants

A total of 100 students from ASU's CSD program were surveyed. The students ranged from freshman and sophomores taking the CSD 2259 course to first and second year graduate students. All of the students were surveyed during their class time, except for the second year graduate students, who were contacted via email. The students were not asked their gender or ethnicity, but the majority of students in the CSD program at ASU are female and Caucasian.

Method Section

All of the students surveyed at Appalachian State University were given an objective quiz. Seeleman, Hermans, Lamkaddem, Suurmond, Stronks, and Essink-Bot (2014) found that students who completed a questionnaire about their cultural competence generally perceived themselves as being more culturally competent than they actually were. There was a weak association between their reflections on their own cultural competence and their

actual scores on a test designed to measure their knowledge of ethnic minority care and culturally competent consultation behavior. Their research demonstrated that it is best to give students an objective test of their cultural competence, rather than relying on subjective self-assessments. The survey given to the students at Appalachian was objective.

This study examines the cultural competency levels of students in the Communication Sciences and Disorders (CSD) undergraduate program at Appalachian as well as students in the graduate program. A survey was created. Questions 1-17 of the survey were from a quiz called "What's Your Multicultural IQ?" by Andrea Moxley, featured on ASHA's website (2003). The quiz was used with permission from the author. Prior to taking the quiz, students answered demographic questions about their level of education, intended career path, whether they have ever lived in a diverse area, and whether they are fluent or proficient in a second language. Each student received a "score" for their survey based on their responses. A perfect score would be twenty-two points. The final questions (18-21) were written by myself. The answers to questions 18-19 can be found in the Boyle, Buhr, Daniels, & Hughes article (2016), and the question 20 was written based on information found in multicultural textbook by Roseberry-Mckibbin (2018).

Results

The data from the surveys was analyzed using SPSS (2001) (Version 11.01). The questionnaires were scored out of twenty-two points. Students in CSD 2259 scored significantly lower than students in both CSD 4850 and the graduate students, $F(97) = 7.37$, $p = .001$, when using an ANOVA test. Tables 7-8 analyze the similarities and differences

between the answers of students in CSD 2259 and students in the graduate program. The differences were found using Chi-Square tests in the SPSS (2001) (Version 11.01).

There was a significant difference (p value ≤ 0.05) between the scores of students who had not taken the Cultural Diversity and Communication Disorders class and students who had taken the class. There was not a significant difference between the scores of students who self- reported being bilingual and the monolingual students. There was not a significant difference between those who self- reported having lived in a diverse area and those who had not lived in a diverse area. These findings may provide evidence that cultural competence can be taught explicitly, rather than absorbed implicitly through learning another language or living in a diverse area.

Discussion

The results of the surveys at Appalachian State University had similar findings to a study by Lemmon & Jackson-Bowen in 2013. Their study examined cultural competence of students in speech-language pathology programs in South Carolina. They gave students Moxley's questionnaire, and the scores of graduate students were higher than the scores of the undergraduate students surveyed.

The questions that were most missed on this questionnaire can be used to examine the CSD curriculum, as they may represent gaps in the CSD curriculum at Appalachian State University. For example, only 8% of students correctly answered a question about what constitutes a variation in Spanish (question 17, table 6). When asked the same question, 6% of the students surveyed in South Carolina answered correctly (Lemmon &

Jackson-Bowen, 2013, pg. 72). This question involved choosing all answers that applied out of four choices, which may have contributed to the poor scores.

Question 10, a question about the prevalence of speech and language disorders among Native Americans, was another one of the most missed questions (see table 6). Only 32% of students surveyed at ASU answered correctly. Similarly, 30% of students surveyed in South Carolina answered correctly (Lemmon & Jackson-Bowen, 2013, pg. 72).

Both undergraduate students and graduate students struggled to answer these questions correctly. These preliminary results imply that there is a need for increased education in these areas. Some students who had taken a class focused on treating diverse clients answered these questions incorrectly. CSD students need to be aware of what constitutes a language difference in order to effectively treat bilingual clients. Students should also have an awareness of how an individual's ethnic heritage may put them at a higher risk for certain kinds of speech, language, and hearing disorders. Individuals who leave the graduate program of study without knowledge about these areas are less able to provide effective treatment than students who are educated about these issues prior to leaving school.

CSD students should be required to take a class devoted to cultural awareness and how it relates to speech pathology and audiology, in order to increase their cultural competence prior to to becoming licensed SLPs or audiologists. Professors within Communication Sciences and Disorders programs at college and universities can help increase the cultural competency levels of students by making their students aware of the multicultural resources that are available, talking about multicultural issues in class, and/or

by bringing in guest speakers. Culturally competent SLPs and audiologists are better equipped to serve the (increasingly) diverse population of the United States.

Limitations

The surveys were presented to the students during their class time (with the exception of the second-year graduate students). It should be taken into account that the students in the intro course (CSD 2259) read an article about cultural competency in the field of speech-language-pathology prior to taking the quiz, while the other students took the quiz without any sort of preparation beforehand. In hindsight, the CSD 2259 class should have been surveyed prior to reading the article.

Question three of the demographic questions asked the students if they had lived in a diverse area. Allowing that question to be subjective and not providing a definition of what constitutes a "diverse area" most likely made that question seem unclear to those surveyed. Some students might have a different idea of what a "diverse area" is than others.

The preliminary results of Lemmon and Jackson-Bowen's 2013 study suggest that "direct instruction may be beneficial in improving the cultural competence of speech-language pathology students." The results of the study at ASU demonstrated similar findings.There is a possibility that students who chose to take an optional elective course about cultural diversity are more interested in diversity issues than students who would chose not to take a cultural diversity class. Students who chose to learn about multicultural issues may have higher levels of cultural competence prior to taking a class about such issues.

The graduate students at Appalachian State University received better scores, on average, than the undergraduate students. It is difficult to tell if the scores of graduate students were higher due to increased knowledge about the subject matter, or simply because test-taking skills improve throughout college. The truth is most likely somewhere in the middle. Graduate students are probably better at taking tests than undergraduate students, but the difference in scores on the cultural competency survey are most likely due to increased levels of knowledge about multicultural issues.

Implications for Future Research

The study conducted at Appalachian State took place in North Carolina, and the study by Lemmon & Jackson-Bowen was conducted in South Carolina. Further research is needed in different regions of the United States. More students need to be surveyed to create a comprehensive picture of the cultural competency of CSD students. Evaluating students before they take a class about cultural competency within the field of speech-language-pathology, and then again after they complete the class, would provide information about how much of their knowledge was gained directly from the course.

Replicating this survey with students from other healthcare fields, such as physical or occupational therapy, would provide a comprehensive picture of the cultural competency levels of healthcare students. If this survey were replicated, it would be helpful to use questionnaires geared towards the healthcare students specific program of study, instead of Moxley's "What's Your Multicultural IQ?" quiz (2003). Moxley's quiz has multiple questions about speech and language variations that healthcare workers in fields other than speech-language-pathology would not be expected to know about.

This research utilized Moxley's multicultural quiz. There are a few quizzes that allow clinicians to assess their cultural competency. However, many of those quizzes use language that is overly complicated and unnecessarily confusing, and/or are 10+ years old. More quizzes need to be created, preferably with updated questions.

Appendix A

The surveys given to students were presented as follows. The correct answers are in bold print. The average scores of all students on these questions can be found in Table Six.

1. Cultural diversity is shaped by many different factors including: (circle all that apply)

1. Sexual orientation	**2. Religious beliefs**
3. Socioeconomic levels	**4. Regionalisms**
5. Age-based peer groups	**6. Educational background**
7. Ability/disability	**8. Race/ethnicity**

2. Culturally and linguistically diverse clients should be seen only by those professionals who are of similar cultural/linguistic background.

True **False**

3. Bilingual speech-language pathologists and audiologists earn a different certificate of clinical competence from ASHA than monolingual audiologists and speech-language pathologists.

True **False**

4. A bilingual clinician needs to be fluent in the language spoken by the client, but does not need to understand normal language acquisition in the language spoken.

True **False**

5. If you are working with same-sex parents, it is only important to get the medical information about the biological parents.

True **False**

6. There are universal gestures to indicate agreement, such as nodding the head to indicate "yes."

True False

7. In Hispanic communities, it would be appropriate to initiate an assessment sharing meeting with a personal conversation rather than to immediately provide the results.

True False

8. Monolingual language learners and bilingual language learners should have the same emerging language milestones.

True False

9. The use of African American English is influenced by many different variables including (circle all that apply)

1. Age 2. Race **3. Geographic location** **4. Occupation**

5. Intelligence **6. Income** **7. Education** 8. Religion

10. Speech-language and hearing difficulties are more prevalent among Native Americans.

True False

11. If a family member or friend speaks English as well as the client's native language, and is willing to act as an interpreter, this is the best possible solution.

True False

12. When conducting a language assessment on a client with limited ability to speak English, which one of the following is LEAST useful?

1. An interview with a family member, or other person who knew the client previously, to describe and compare the client's language skills before the insult or injury that may have led to an acquired language disorder
2. Information on the family history of speech/language problems or academic difficulties
3. Competent use of a linguistic/sociolinguistic cultural informant/broker to gain insight into the impact of culture on the client's communication skills
4. Use of language data received from the interpreter/translator
5. **Standard scores from a translated battery of assessments**

13. Cultural and linguistic biases may occur in testing tools and have an impact on an appropriate differential diagnosis between a language disorder and a language difference. Cultural biases do NOT include the following:

1. question types
2. differences in features of language
3. specific response tasks
4. test format

14. An audiologist must be aware of the influences of different races and ethnicities when completing an audiologic evaluation.

True
False

15. Fitting considerations for personal assistive devices may vary across races and ethnicities.

True
False

16. When working with an interpreter, the interpreter makes diagnoses.

True **False**

17. Variations in dialects of the Spanish language are reflected in (circle all that apply)

1. Pronunciation **2. Vocabulary**

3. Grammar 4. Sentence structure

18. It is a good idea to use your personal experiences to understand the actions of others

True **False**

19. When working with individuals with disabilities (individuals who are deaf, people with stutters, etc) it is best to assume that the individual wants "overcome" their disability and that they want their communication style to reflect Mainstream American English.

True **False**

20. All parents of children with special needs want their children to be as independent as possible.

True **False**

21. Which federal law protects students rights to free appropriate public education, regardless of ability?

Individuals with Disabilities Education Act Rehabilitation Act of 1973

Americans with Disabilities Act Higher Education Act

Appendix B

Table 1.

Student Educational Status

Class	Number Surveyed (out of 100 total students)	Mean Score (Standard deviation)
CSD 2259 (Intro) Students	38	11.82 (2.38)
CSD 4850 (Seniors)	29	13.17 (2.00)
Graduate students	33	13.73 (2.04)

Table 2.

Intended career path

Speech-language pathology	Audiology	Other
86	6	8

Table 3.

Self-reported living/lived in a diverse area

	Number Surveyed (out of 100 total students)	Mean Score (Standard Deviation)	Significant Difference (p value $\leq$ 0.05) Y/N
Reported living in a diverse area at some point in their lives	50	12.60 (2.64)	0.299 No
Reported that they had not lived in a diverse area	50	13.08 (1.89)	0.299 No

Table 4.

Number of languages spoken

	Number Surveyed (out of 100 total students)	Mean Score (Standard Deviation)	Significant Difference (p value ≤ 0.05) Y/N
Two (bilingual students)	19	12.63 (2.09)	0.663 No
One (monolingual students)	81	12.89 (3.11)	0.663 No

Table 5.

Had completed the Cultural Diversity and Communication Disorders Class

	Number Surveyed	Mean Score (Standard Deviation)	Significant Difference (SD) (p value $\leq$ 0.05) Y/N
Had taken Cultural Diversity Class	35	13.7 (2.30)	0.005 Yes
Had not taken Cultural Diversity Class	65	12.37 (2.05)	0.005 Yes

Table 6.

Average Scores of All Students on Survey Questions

Question	Type of Question	Percent Correct
1. Cultural diversity is shaped by many different factors including	CAA (Choose All that Apply)	63%
2. Culturally and linguistically diverse clients should be seen only by those professionals who are of similar cultural/linguistic background.	T/F (True/ False)	94%
3. Bilingual speech-language pathologists and audiologists earn a different certificate of clinical competence from ASHA than monolingual audiologists and speech-language pathologists.	T/F	53%
4. A bilingual clinician needs to be fluent in the language spoken by the client, but does not need to understand normal language acquisition in the language.	T/F	94%
5. If you are working with same-sex parents, it is only important to get the medical information about the biological parents.	T/F	83%
6. There are universal gestures to indicate agreement, such as nodding the head to indicate "yes."	T/F	30%
7. In Hispanic communities, it would be appropriate to initiate an assessment sharing meeting with a personal conversation rather than to immediately provide the results.	T/F	76%
8. Monolingual language learners and bilingual language learners should have the same emerging language milestones.	T/F	49%
9. The use of African American English is influenced by many different variables including:	CAA	9%
10. Speech-language and hearing difficulties are more prevalent among Native Americans.	T/F	32%

11. If a family member or friend speaks English as well as the client's native language, and is willing to act as an interpreter, this is the best possible solution.	T/F	37%
12. When conducting a language assessment on a client with limited ability to speak English, which one of the following is LEAST useful?	CAA	54%
13. Cultural and linguistic biases may occur in testing tools and have an impact on an appropriate differential diagnosis between a language disorder and a language difference. Cultural biases do NOT include the following:	MC (Multiple Choice)	23%
14. An audiologist must be aware of the influences of different races and ethnicities when completing an audiologic evaluation.	T/F	93%
15. Fitting considerations for personal assistive devices may vary across races and ethnicities.	T/F	94%
16. When working with an interpreter, the interpreter makes diagnoses.	T/F	93%
17. Variations in dialects of the Spanish language are reflected in:	CAA	8%
18. It is a good idea to use your personal experiences to understand the actions of others	T/F	60%
19. When working with individuals with disabilities (individuals who are deaf, people with stutters, etc) it is best to assume that the individual wants "overcome" their disability and that they want their communication style to reflect Mainstream American English.	T/F	93%
20. All parents of children with special needs want their children to be as independent as possible.	T/F	69%
21. Which federal law protects students rights to free appropriate public education, regardless of ability?	MC	76%

Appendix C

Tables 7-8 analyze the similarities and differences between the answers of students in CSD 2259 and students in the graduate program. The differences were found using Chi-Square tests in the SPSS (2001) (Version 11.01).

Table 7.

Questionnaire Answers with the highest levels of difference between classes (consult pages 11- 14 for questions and answer choices)

Question	SD	CSD 2259 % Correct	Grad Students
3. Bilingual speech-language pathologists and audiologists earn a different certificate of clinical competence from ASHA than monolingual audiologists and speech-language pathologists.	0.015	53%	94%
4. A bilingual clinician needs to be fluent in the language spoken by the client, but does not need to understand normal language acquisition in the language.	0.024	84%	97%
7. In Hispanic communities, it would be appropriate to initiate an assessment sharing meeting with a personal conversation rather than to immediately provide the results.	0.007	66%	94%

Table 8.

Questions with the lowest level of difference between classes (no significant difference)

Question	SD	CSD 2259 % Correct	Grad Students % Correct
2. Culturally and linguistically diverse clients should be seen only by those professionals who are of similar cultural/linguistic background.	0.962	92%	94%
12. When conducting a language assessment on a client with limited ability to speak English, which one of the following is LEAST useful?	0.780	50%	55%
20. All parents of children with special needs want their children to be as independent as possible.	0.931	73%	70%

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