

CULTURALLY AND LINGUISTICALLY RESPONSIVE CARE:
AN EXPLORATION OF SPEECH-LANGUAGE PATHOLOGY STUDENTS'
TRAINING AND COMPETENCE

by

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DISSERTATION ABSTRACT

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Title: Culturally and Linguistically Responsive Care: An Exploration of Speech Language Pathology Students' Training and Competence

The American Speech-Language-Hearing Association standards for accreditation require that speech-language pathology (SLP) graduate programs support students' development of culturally and linguistically responsive care (CLRC) skills.

Preprofessional CLRC training should prepare SLP graduate students to serve all individuals, particularly those from growing culturally and linguistically diverse communities. Currently, there is a dearth of research on how students develop CLRC during their preprofessional training and the factors that impact this development.

Therefore, this study aimed to explore students' self-perceived competence in CLRC and the association of individual social structural factors (race/ethnicity, multilingual status, and frequency of cross-cultural experiences) with their CLRC competence at the end of their preprofessional studies. The current study also explored students' perceptions of their CLRC training and the association of their training with CLRC competence.

A cross-sectional exploratory study using a convergent parallel mixed method design was used. A Qualtrics questionnaire elicited anonymous responses from 40 second-year SLP graduate students across three Northwest universities. Of these students, 10 completed semi-structured interviews.

Findings from this study indicate variance in students' CLRC competence that is, in part, attributed to the frequency of their cross-cultural experiences but not their race/ethnicity or multilingual status. Furthermore, this study revealed that CLRC training is evident in the curriculum of the three participating universities. Students shared their perceptions of which elements of their CLRC training impacted their development. While the current study did not confirm an association between SLP students' CLRC competence and the CLRC training, the results of this study may yield insightful information for how SLP programs may address current gaps, meet accreditation regulations by ASHA, and provide CLRC training to ensure that students enter the workforce prepared to provide equitable and inclusive services to mitigate health and educational disparities.

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La Familia Huerta Cortes Velasquez

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In memory of

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And

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CHAPTER I

INTRODUCTION

The national professional and credentialing association for speech-language pathologists, the American Speech-Language-Hearing Association (ASHA), requires that graduate programs in speech-language pathology support students' development of skills in culturally and linguistically responsive care (ASHA, 2017). Culturally and linguistically responsive care (CLRC) refers to the capacity of educational and healthcare providers to provide services with an understanding, appreciation, and respect for the unique cultural and linguistic attributes of the individuals they serve (e.g., Sue, 2001; Leininger, 2002). Preprofessional CLRC training should prepare speech-language pathology students to serve all individuals appropriately, particularly those from growing culturally and linguistically diverse communities. CLRC is critical to mitigate existing health and educational disparities faced by non-mainstream culturally and linguistically diverse communities with communication disorders (Artiles et al., 1998; Laing & Kamhi, 2003; Lidz & Peña, 1996; Saenz & Huer, 2003). CLRC is also critical to meet regulations and guidelines to provide culturally and linguistically responsive speech-language assessment and intervention services (ASHA, n.d.-a; USDHHS-OMH, 2001; DEC, 2010; Hyter & Salas-Provance, 2019; IDEA, 2004; NAEYC, 2005). Yet, there is little research on how speech-language pathology students develop CLRC during their preprofessional training and the factors that impact this development. Foundational research is needed to explore speech-language pathology students' progression toward competence in CLRC to ensure that they enter the workforce prepared to provide equitable and inclusive services.

Furthermore, ascertainment of curricular approaches that are most and least impactful to students' development of CLRC is imperative. This study seeks to address these gaps in the literature.

Culturally and Linguistically Responsive Care

CLRC is a professional's understanding of their personal cultural and linguistic attributes as well as those of the individuals they serve and the effective application of this information to enhance therapeutic services (ASHA, n.d.- b, Balcazar et al., 2009; Burchum, 2002; Kohnert, 2013; Leininger, 2002; Purnell, 2002; Shen, 2015; Sue, 2001; Suh, 2004). Cultural and/or linguistic attributes include behaviors, beliefs, values, lifeways, and methods of communication that are often shared amongst a group of people who convene due to a shared commonality. Some shared commonalities or social structural factors that contribute to an individual's cultural and/or linguistic identity include, but are not limited to, race and ethnicity, prior cross-cultural experiences, language or communication systems, socioeconomic status, region of birth or residence, and religious or spiritual practices (Hyter & Salas-Provance, 2019; Leininger, 2002; Purnell, 2005).

Of particular relevance to speech-language pathology (SLP), language is a socially shared mode of communication which is defined by the rules that govern its form, content, and use (Battle, 2012; Hyter & Salas-Provance, 2019). Individuals learn the rules that govern language or variation of languages within their social communities. Indeed, the culture of the social communities serve as the platform for which language is acquired. The relationship between culture, language, and communication is reciprocal in that we cannot study communication or communication disorders without reference to

culture or language (Battle, 2012; Hyter & Salas-Provance, 2019). Without cultural and linguistic awareness, knowledge or skills, the exchange of communication may result in significant misinterpretations and breakdowns which can be catastrophic. As such, developing culturally and linguistically responsive care is essential for SLP students to recognize the cultural behaviors, beliefs, and values as well as the rules that govern language(s) or variation of language(s), particularly when the community is different from their own cultural or linguistic background. Contemporary scholars identify cultural awareness, cultural knowledge, and cultural skill as the three core constructs of CLRC (Balcazar et al., 2009; Burchum, 2002; Campinha-Bacote, 2002; Chu et al., 2016; Sue, et al., 1982). SLP students must work to cultivate all three constructs if they are to become competent in CLRC (Campinha-Bacote, 2002; Sue, 2001).

Cultural Awareness

Cultural awareness refers to the understanding of the cultural conditioning that shapes an individuals' values, beliefs, and lifeways, and, therefore, impacts how the individual approaches service delivery (Balcazar et al., 2009; Burchum, 2002; Sue et al., 1982). Students develop cultural awareness by engaging in self-exploration of their personal heritage, cultural and linguistic background, and multiple identities. Through self-reflection, students develop an understanding of their personal beliefs that may be biased, prejudicial, and assumptive toward people whose culture and/or language differs from their own (Balcazar et al., 2009; Burchum, 2002; Campinha-Bacote, 2002; Suh, 2004). Cultural awareness is often associated with cultural humility. As students cultivate cultural awareness, they may cultivate cultural humility, which entails being willing to explore and accept different perspectives, being humble or egoless, and engaging in

welcoming interactions with individuals whose identities may be different than their own (Foronda et al., 2016; Tervalon & Murray-Garcia, 1998). Growth in these areas is critical to providing equitable care that supports outcomes.

Enhancing cultural awareness may increase students' sensitivity toward the values, beliefs, lifeways, and practices that do not match those of the student. The culturally aware student may also nurture consideration of others' rights as they see other cultures as equally valuable and legitimate as their personal culture (Sue, 2001). Cultural awareness may enhance the client-clinician relationship to one of mutual empowerment and respect (Foronda et al., 2016; Hyter & Salas-Provance, 2019; Ortega & Coulborn Faller, 2011; Riquelme, 2013). Without cultural awareness, SLP students may view cultural differences as deviant (Sue, 2001). Students may participate in cultural imposition as they force their own beliefs and values onto others (Balcazar et al., 2009; Campinha-Bacote, 2002). Cultural imposition may result in the students' difficulty preserving an authentic working relationship with people who are members of culturally and linguistically diverse (CLD) communities (Balcazar et al., 2009; Campinha-Bacote, 1999; Leininger, 2002). Consequently, there may be a lack of adherence to services offered and a reduction in outcomes for the individual in need.

Cultural Knowledge

Cultural knowledge refers to the acquisition of knowledge related to the cultural and/or linguistic community being served that may impact care. Acquiring cultural knowledge includes learning about the historical, political, social, and economic factors that impact a person's culture (Suh, 2004). Specific to SLP, this entails knowledge of community members' perceptions and beliefs about communication and communication

disorders that may be similar or different from Western or mainstream culture (Campinha-Bacote, 2002; Suh, 2004). Moreover, cultural knowledge is an understanding of the rules that govern linguistic patterns and characteristics unique to the dialect(s) and/or language(s) spoken by a particular individual (ASHA, n.d. - b). Cultural knowledge also includes learning about health and educational disparities, equity of services, institutional barriers, and the incidence and prevalence of communication disorders in CLD communities (Campinha-Bacote, 2002; Hyter & Salas-Provance, 2019; Sue et al., 1982).

As students develop cultural knowledge about the community they are serving, they recognize barriers in the assessment and intervention process that may adversely impact members of these CLD communities. As such, culturally knowledgeable SLP students recognize the adaptations that must be made to invoke a welcoming and accepting environment for the individuals they serve. The knowledgeable SLP provides accessible and culturally relevant care that focuses on communication strengths, assets, and/or true disorders or deficiencies rather than differences based on culture and/or language (Sue, 2001). Furthermore, SLP students use cultural knowledge to make appropriate adaptations to Western theories of assessment and intervention approaches. Neglecting to develop cultural knowledge of the CLD population being served may result in catastrophic consequences. Without knowledge of the CLD individual's world views and lifeways, SLPs may inadvertently focus on communication differences as disabilities (ASHA, n.d. - a; Hammer, 1998; Huerta et al., 2021; IDEA, 2004; NAEYC, 2005; Sue, 2001). Relatedly, SLP students without cultural knowledge risk inappropriate application of Western theories of assessment procedures and treatment approaches that lead to

selecting invalid and inappropriate assessment tools and/or interventions (De Lamo White & Jin, 2011; Huerta et al., 2021; IDEA, 2006). These practices may lead to an unwelcoming environment that is not inclusive or accessible to individuals from CLD populations.

Cultural Skill

Cultural skill refers to the acquisition and implementation of specific skills needed to deliver effective and empathic services (Balcazar, 2009; Sue, 2001). Cultural skill includes the ability to communicate effectively and to provide appropriate assessment and intervention services based on the cultural awareness and knowledge a given individual has obtained (Balcazar, 2009; Sue et al., 1982; Sue, 2001). Upon developing competence in CLRC, the culturally skilled professional will recognize and respect the personal experiences and perspectives of the individuals served while providing SLP services (Balcazar, 2009).

Culturally skilled SLP students comfortably and effectively adapt assessment and intervention procedures to the CLD background of the individual being served (Burchum, 2002). Cultural skill includes the use of culturally appropriate communication modalities such as employing a variety of verbal and nonverbal responses that are both accurate and appropriate for the community served. Providing culturally skilled services also includes effective and appropriate use of interpreters and translators when working with community groups where the language is not shared (Burchum, 2002; Sue et al., 1982; Sue, 2001; Suh, 2004). Moreover, culturally skilled SLP students advocate with and on behalf of CLD communities for appropriate and equal access to health care and education as well as disability services that are inclusive and fair (ASHA, n.d.- b; Sue et al., 1982;

Sue, 2001). Without cultural skills, SLP students may impose treatment approaches that are not in alignment with the CLD individual's values and practices or that are inappropriate, of inferior quality, inaccessible, or discriminatory in nature (Campinha-Bacote, 2002; Sue, 2001). Also, a lack of skills in culturally appropriate communication may significantly hinder the provision of services. When providers exhibit insufficient cultural skills, they risk premature termination of services by the CLD individual (Sue et al., 1982).

Development of CLRC

Building competence in CLRC requires a conscious and continuous process through various stages of personal and professional growth. Theoretical frameworks on CLRC specify levels associated with developing CLRC competence (i.e., cultural destructiveness, cultural proficiency). Each level identifies attitudes, beliefs, and behaviors that influence SLP students' service delivery (Campinha-Bacote, 2002; Cross et al., 1989). Moving SLP students along the continuum to cultivating CLRC, no matter the students' competence upon entry into their graduate program (Balcazar et al., 2009; Burchum, 2002; Campinha-Bacote, 2002; Kohnert, 2013; Leininger, 2002; Purnell, 2002; Stewart & Gonzalez, 2002), may be influenced by two critical factors: the graduate program curriculum and students' individual characteristics.

Graduate Program Curriculum

Within SLP graduate preparation programs, there are three notable curricular areas where students can receive training in CLRC training: academic coursework, clinical educational experiences, and research opportunities. Each area may provide students unique opportunities to develop CLRC, and an intentional focus on CLRC in

each area can support overall growth in cultural awareness, knowledge, and skills. Indeed, conceptual frameworks on CLRC training in SLP graduate programs suggest these three curricular components as an opportunity to develop CLRC specific to SLP prior to entering the field (Cheng et al., 2001; Stewart & Gonzalez, 2002).

Academic Coursework

Academic coursework includes the formal classes where students develop didactic, theoretical knowledge related to their course of study. It is advised that coursework in SLP graduate programs include CLRC training in a single stand-alone course focused on CLRC and/or through the infusion of CLRC content into all other core courses (ASHA, 2019; Stewart & Gonzalez, 2012). Alternative and complementary approaches for incorporating CLRC in academic coursework include elective courses, conferences, and lectures by guest speakers (Hammond et al., 2009; Hernandez & Hadley, 2020; Horton-Ikard & Muñoz, 2010; Stewart & Gonzalez, 2002). While SLP graduate programs generally report that CLRC training is offered in academic courses, the extent of this training varies across programs (Hammond et al., 2009). For example, only 25% of SLP program representatives reported that all core courses in their graduate programs included CLRC training (Horton-Ikard & Muñoz, 2010). While infrequent, program representatives (i.e., SLP program directors, faculty, clinical supervisors) view academic coursework with an emphasis on CLRC as positively impacting students' growth in this area (Hammond et al., 2009; Stewart & Gonzalez, 2002). However, these results contradict studies with practicing SLPs who often report not feeling competent to assess and treat individuals from CLD backgrounds, in part, due to a lack of academic coursework specific to CLRC training (Caesar, 2013; Hammer et al., 2004; Kohnert et

al., 2003; Kritikos, 2003; Roseberry-McKibbin et al., 2005; Stockman et al., 2004).

Students' perceptions of the impact of their academic coursework on personal CLRC development are not well known. A single study by Hernandez and Hadley (2020) found that a foundational SLP course may be more impactful than infusion of CLRC content. However, these authors only investigated students' perceptions of CLRC training in academic coursework. They did not explore students' perception of CLRC training throughout all programmatic areas.

Clinical Educational Experience

Clinical educational experiences include opportunities to develop CLRC while directly working with clients from varied cultural and linguistic backgrounds in on-and off-campus sites, service-learning opportunities, and study abroad programs. Within these clinical experiences, students can integrate and apply theoretical knowledge while closely supervised by clinical faculty. While students engage with clients whose cultural and linguistic backgrounds differ from their own, they can practice applying cultural awareness, knowledge, and skills with the support, guidance, and feedback from clinical supervisors (Campinha-Bacote, 2002; Lopes-Murphy & Murphy, 2016; Sue, 2001).

When conducting assessments, students may gain cultural knowledge and skills in identifying psychometrically flawed or biased assessment measures, conducting ethnographic interviews, and adapting appropriate assessment strategies and materials that do not violate an individual's unique cultural and linguistic values (ASHA; n.d.-a; ASHA, 2017; de Diego-Lazaro, 2018; Green, 2015; Westby et al., 2005). Students may also gain cultural knowledge and skills related to appropriate intervention services and adaptations. Furthermore, students may learn how to work effectively with cultural

brokers and/or interpreters and how to advocate for appropriate and equal access to SLP services.

Clinical educational experiences should prepare students to provide culturally responsive assessment and intervention services (Hammond et al., 2009; Horton-Ikard & Muñoz, 2010; Stewart & Gonzalez, 2002). However, some SLP program representatives report challenges in providing diverse clinical educational experiences due to limited access to CLD communities in certain geographic locations (Hammond et al., 2009; Stewart & Gonzalez, 2002; Stockman et al., 2008). In these cases, students may also gain clinical educational experiences with CLD communities through study abroad. Study abroad programs, particularly those that entail service-learning opportunities for SLP students, have been positively linked to graduate students' development of CLRC development (de Diego-Lazaro, 2018; de Diego et al., 2020; Krishnan et al., 2016). With the exception of these studies specific to study abroad, existing research on the impact of SLP students' clinical educational experiences on their CLRC is limited.

Research Opportunities

Research is the systematic investigation and writing of scientific inquiry of an issue, problem, or question designed to produce generalizable knowledge. Research opportunities for SLP students may include capstone research projects, collaboration with faculty on research studies, and student positions in research labs. Research opportunities specific to supporting CLRC among SLP students may include participation in culturally responsive research related to CLRC training and other multicultural issues (Horton-Ikard & Muñoz, 2010; Ponterotto et al., 1995; Stewart & Gonzalez, 2002). Culturally responsive research recognizes the need to center the research on culturally and

linguistically diverse populations, attempting to find a balance of power between the researcher and the participants in its design, data collection, and data interpretation (Berryman et al., 2013, Hyter & Salas-Provance, 2019). Moreover, research that is culturally responsive is conducted from multiple non-Western theoretical perspectives such as feminism, decolonizing or ethnic methodologies, or African humanism (Berryman et al., 2013; Hyter & Salas-Provance, 2019; Rodriguez et al., 2011).

Studies suggest that faculty productivity in culturally responsive research may broaden students' exposure to CLRC (Constantine et al., 1996; Horton-Ikard & Muñoz, 2010; Ponterotto et al., 1995). While culturally responsive research is considered necessary, only half of SLP graduate programs have faculty whose research focuses on CLRC or related topics (Horton-Ikard & Muñoz, 2010). Furthermore, less than half of SLP programs actively mentor students in culturally responsive research (Horton-Ikard & Muñoz, 2010). Currently, no known studies relevant to the impact of research opportunities on SLP students' CLRC development have been completed. While research opportunities alongside clinical education experiences and academic coursework are likely important to students' CLRC development, individual characteristics, or social structural factors, may also make an important contribution to students' development of CLRC.

Individual Social Structural Factors that Impact CLRC

Individual social structural factors are uniquely individualized and interrelated features that collectively contribute to an individual's cultural and linguistic identity (Leininger, 1996). While no known studies in SLP have investigated the impact of students' individual social structural factors on their CLRC development, studies of

students in other disciplines provide critical insights into the relevance of these variables. Three specific individual factors may be critical in the development of students' CLRC: racial/ethnic identity, multilingualism, and frequency of cross-cultural experiences (Echeverri et al., 2013).

Ethnic/Racial Identity

While used interchangeably, ethnicity and race are distinct. Ethnicity refers to membership in a social group constructed based on shared commonalities such as kinship, rituals, nationalities, celebrations, spiritual practices, and other cultural characteristics that provide a sense of community (Battle, 2012; Hyter & Salas-Provance, 2019). Race refers to biological and anatomical attributes shared by a group of individuals (Battle, 2012; Hyter & Salas-Provance, 2019). Some scholars believe that ethnically/racially diverse students (i.e., in the context of the United States, students who are not White) may demonstrate greater degrees of CLRC competence. Specifically, the ethnic/racial concordance-satisfaction hypothesis contends that ethnically/racially diverse SLP students may possess greater competence in CLRC than their peers who are White (LaVeist & Nuru-Jeter, 2002; Traylor et al., 2010) as they have a greater likelihood of possessing similar cultural beliefs, values, and ways of communicating as the CLD community being served (Cooper-Patrick et al., 1999; Traylor et al., 2010); however, there have been mixed findings on the role of students' ethnicity and/or race on CLRC competence. In healthcare research, some scholars have found that students from ethnically/racially diverse backgrounds from varying academic levels (i.e., first - through fourth - year in pharmacy school or third- through fourth- year in nursing school) demonstrate greater competence in at least one CLRC construct (Echeverri et al., 2013;

Repo et al., 2017). Other studies have found that race/ethnicity does not always predict CLRC competence (Ladson et al., 2006; Okoro et al., 2012). More specifically, when compared to White students, students from ethnically/racially diverse backgrounds may be more likely to believe that CLRC competence is essential when providing health and educational services to the CLD community; yet, students' degree of CLRC competence may not differ based on race (Ladson et al., 2006; Okoro et al., 2012). Thus, it cannot be assumed that students who identify with an ethnically/racially diverse community automatically demonstrate CLRC competence at higher levels than their peers. As such, SLP programs must support all students in cultivating CLRC. Further exploration specifically of the role of ethnicity/racial identity of students in SLP is needed.

Multilingualism

Multilingualism refers to the ability to use more than one language to communicate with fluency and accuracy in most communication interactions in a variety of formal and informal settings (United Nations, 2018). The multilingual individual understands the social language conventions and linguistic, discursive, and pragmatic competencies of all languages they speak proficiently. SLP students who are multilingual can be at a significant advantage over monolingual SLP students in cultivating CLRC during preprofessional training. Similar to the hypotheses about the effect of race/ethnicity, it has been theorized that multilingual SLP students may have greater sensitivity and awareness of the language learning process and the effects of cultural differences on language use that may impact service delivery than monolingual students (Kritikos, 2003). Studies on CLRC of students of varying academic levels in other disciplines have found that students who speak more than one language demonstrate

greater competence in CLRC (Okoro et al., 2012; Pope-Davis et al., 1994; Repo et al., 2017). Moreover, practicing SLPs who identify as multilingual report more confidence in CLRC (Hammer et al., 2004). However, simply being multilingual is not evidence of competence in CLRC. While speaking more than one language may be critical when serving individuals from CLD backgrounds, it is not sufficient for providing culturally and linguistically responsive SLP services (Kritikos, 2003). Direct assessments of how multilingualism relates to CLRC competence among SLP students have not yet been completed. Exploring the association between multilingualism and CLRC competence in SLP is critical in identifying areas where further training on CLRC constructs is necessary.

Frequency of Cross-Cultural Experiences

Cross-cultural experiences are opportunities for SLP students to engage with individuals whose cultural and/or linguistic background differs from their own. Participation in cross-cultural experiences may occur in various ways such as academic settings, travel abroad, service-learning opportunities, community-based engagement, interpersonal interactions, or accessing information about another culture from print/electronic media (Campinha-Bacote, 2002; Hurtado, 2003; Hurtado, 2007; McArthur et al., 2011). Through formal and informal cultural interactions that occur through these experiences, students' cultural awareness, knowledge, and/or skills may be impacted (Lopes-Murphy & Murphy, 2016; Sue, 2001). Cross-cultural experiences may further enhance students' intercultural communication skills and foster respect and positive attitudes towards other cultures (McArthur et al., 2011). In studies from other allied health disciplines, a positive link between students' frequency of cross-cultural

experiences and CLRC competence has been identified (McArthur et al., 2011; Pope-Davis et al., 1994). Specifically, students who report having the most cross-cultural experience appear to have greater competence in CLRC compared to students who report fewer cross-cultural experiences (McArthur et al., 2011).

Limitations of Prior Research

CLRC training in higher education institutions has evolved throughout the last several decades in various education and health and human services disciplines. The effort to address CLRC training in SLP preparation programs is relatively recent. Indeed, the field of SLP has relied on instructional methodologies related to CLRC training conceptualized and applied in other disciplines such as nursing, psychology, education, and social work. However, it is imperative that CLRC training be specific to speech-language pathology as findings from other disciplines may not apply. The foundation of SLP practice centers on the assessment and intervention services of communication skills based on rule-governed and values-based systems associated with individuals' cultural and linguistic identity. As such, understanding how graduate training in SLP is designed to support students' development of CLRC so that professionals in the field accurately identify and appropriately treat true communication disabilities is critical.

SLP graduate educational programs are required to prepare students to provide culturally and linguistically responsive assessment and intervention services. Nevertheless, a well-tested curricular model for teaching CLRC in SLP graduate education programs does not currently exist. Given the various CLRC training methodologies available (Stockman et al., 2008), it is essential to begin to identify which instructional approaches are most and least impactful to students' cultivation of CLRC.

Also, there is presently no systematic method for measuring students' CLRC competence to be sure that CLRC training prepares SLP students in the domains of cultural awareness, knowledge, and skills. Indeed, our understanding of CLRC training in SLP graduate programs is largely based on the perceptions of program representatives and practicing SLPs. Very little research in SLP has considered students' perspectives on CLRC, and the research that does exist does not address all programmatic areas of graduate training, students' individual social structural factors, or students' competence across the three CLRC constructs. Indeed, students' perspectives have been deemed critical in other disciplines such as counseling, psychology, and medicine (Constantine et al., 1996; Inman et al., 2004). Notably, practicing SLPs consistently report feeling underprepared to provide culturally and linguistically responsive services (Caesar, 2013; Hammer et al., 2004; Kohnert et al., 2003; Kritikos, 2003; Roseberry-McKibbin et al., 2005; Stockman et al., 2008), making a focus on graduate training and student CLRC at the end of their academic journey especially necessary.

Purpose of Study

This study seeks to address gaps in the existing literature by investigating student perspectives of their CLRC training and exploring the effects of the SLP graduate program curriculum and students' individual social structural factors on SLP graduate students' self-perceived competence in CLRC at the end of their graduate training. Students' perceptions of CLRC training and students' CLRC competence at the end of their graduate preparation studies may inform SLP programs, ASHA, and other stakeholders of students' readiness to provide culturally responsive assessment and intervention services as they enter the global workforce. A focus on students' perceptions

of CLRC training and CLCR competence may also pinpoint individual structural factors that may be critical to students CLRC development, identify constructs that the current curriculum can deliver, ascertain remaining gaps in CLRC training, and lead to implications for SLP Programs to consider to address identified gaps (Constantine et al., 1996; Hammer et al., 2004; Seeleman et al., 2014). The research questions of this exploratory study are as follows:

1. What are SLP graduate students' self-perceived competence in CLRC at the end of their graduate training?
2. What are SLP graduate students' perceptions of their graduate training related to culturally and linguistically responsive care at the end of their graduate training?
3. Is there a relationship between the SLP graduate training program and a) students' perception of training in CLRC, and/or b) their self-perceived competence in CLRC?
4. Are SLP graduate students self-perceived competence in CLRC at the end of their graduate training associated with students' (a) racial/ethnic status (b) frequency of cross-cultural experiences, and/or (c) multilingualism?
5. Are SLP students' self-perceived competence in CLRC at the end of their graduate training associated with their perceptions of their (a) academic coursework, (b) clinical educational experience, and/or (c) research opportunities centered on CLRC?

CHAPTER II

METHODS

The aforementioned research questions were answered through a cross-sectional exploratory study using a convergent parallel mixed method design. A description of the participants, measures, procedures, and analysis plan follows.

Participants

This study involved second-year graduate students from three accredited SLP graduate programs within a single state in the Northwest. Second-year students were chosen because by the end of the second year, graduate students will have completed all of their academic course work and on-site clinical educational experiences. As such, they can provide the most informed perspective related to their CLRC training across the SLP graduate program curriculum. A single state was targeted to control for state demographics that influence the CLD populations to which students have access. The racial and ethnic distribution of the targeted state's ethnic population consists primarily of individuals who are White alone not Hispanic or Latino (75%), Latino/a/x (13%), Asian (5%), multi-racial (4%), African American (2%), American Indian (2%), and Native Hawaiian (.5%; U.S. Census Bureau, n.d.). Moreover, 15% of the population in the targeted state speak a language other than English at home (U.S. Census Bureau, n.d.).

The inclusionary criteria for student participants included: 1) full-time enrollment as a second-year student in an accredited SLP graduate program in the state, and 2) age 18 years or over. Students were excluded from the study if they were on an extended program plan or if they were not enrolled as a full-time student during the 2019-2020 and 2020-2021 academic years. All participating students completed a Qualtrics survey and

some also participated in a semi-structured interview. The Measures section to follow will describe these measures.

A total of 40 SLP graduate students from three universities completed the Qualtrics Survey resulting in a 36% response rate out of the total number of students enrolled in the three SLP graduate programs at the time this study was conducted. Table 1 presents information regarding the participant characteristics from each program. Of the students who participated in this study, 28% were from University 1 ($n = 11$), 28% were from University 2 ($n = 11$), and 44% were from University 3 ($n = 18$). Demographic information was also gathered on all participants across all three programs. Specifically, the average age of the participants was 27 years. Most participants identified as female (90%) while some identified as male (7.5%), or gender non-binary (2.5%). The racial/ethnic distribution among the participants consisted of students who were White (67.5%) and students who were Black, Indigenous, or Person of Color (BIPOC; 32.5%). The BIPOC students self-identified as Asian (12.5%), Hispanic/Latina/o/x (12.5%), and mixed race/ethnicity (7.5%). While the majority of students reported being monolingual (67.5%) others reported being multilingual (32.5%). Up to nine languages other than English were reported to be spoken amongst participants.

Of the 40 participants who completed the Qualtrics survey, 25 agreed to participate in a semi-structured interview, and 10 completed the semi-structured interview. Table 2 presents demographic information about the interviewees. Three participants were enrolled in University 1, 3 participants were enrolled in University 2, and 4 participants were enrolled in University 3. Furthermore, the average age of all of the interviewees was 28 years of age. Eight interviewees identified as female and 2

Table 1*Demographics of Participating Students*

Participant Demographics	University 1				University 2				University 3			
	<i>n</i>	<i>M</i>	<i>SD</i>	%	<i>n</i>	<i>M</i>	<i>SD</i>	%	<i>n</i>	<i>M</i>	<i>SD</i>	%
Age	11	25.3	2.2		11	31.4	6.7		18	25.8	4.9	
Gender Identity												
Female	9			82	10			91	17			94
Male	2			18					1			6
Non-Binary					1			9				
Race/Ethnicity												
Asian	2			18	1			9	1			6
Hispanic or Latina/o/x	4			37	1			9				
Multiethnic/racial	2			18					1			6
White	3			27	9			82	16			88
Born in the United States	11			100	10			91	18			100
Multilingual Status												
Multilingual	4			36	6			55	3			17
Monolingual	7			64	5			45	15			83

identified as male. Participants were evenly divided by race and multilingual status. Specifically, five interviewees identified as BIPOC while 5 identified as White, and 5 identified as monolingual English speakers while 5 identified as multilingual. Further details on the sampling procedures for the interview are found in the Procedure section.

Graduate Programs

Each of the three SLP graduate programs from which students were recruited offer a unique curriculum while meeting the accreditation requirements by the Council of Academic Accreditation by ASHA, including the provision of training in CLRC. A description of each program is provided next.

University 1

University 1's SLP graduate program, classified as a professional university by Carnegie Mellon University (National Center for Education Statistics, 2000), is located

on the edge of a metropolitan area. The curriculum at University 1 is intended to be completed after five consecutive semesters of academic and clinical experiences for full-time students. The course work is sequenced so that academic coursework is offered the

Table 2

Demographics of Interviewees

Interviewee Demographics	University 1				University 2				University 3			
	<i>n</i>	<i>M</i>	<i>SD</i>	%	<i>n</i>	<i>M</i>	<i>SD</i>	%	<i>n</i>	<i>M</i>	<i>SD</i>	%
Age	3	25		30	3	33.3	9.5	30	4	34	3.7	40
Gender Identity												
Female	2			67	3			100	3			75
Male	1			33	0			0	1			25
Race/Ethnicity												
Asian									1			25
Hispanic or Latina/o/x	2			67								
Multiethnic/racial	1			33					1			25
White					3			100	2			50
Born in the US	3			100	3			100	4			100
Multilingual Status												
Multilingual	2			67	2			67	1			25
Monolingual	1			33	1			33	3			75
Cross-Cultural Experience												
Above the Median	2			67	2			67	2			50
Below the Median	1			33	1			33	2			50

first four semesters while community-based clinical educational experiences are offered across all five semesters. University 1 offers one stand-alone CLRC course. Enrollment of the clinical educational experiences the first four semesters is part time (2-3 days/week). A full-time externship is made available for students during their fifth/final term. As far as research opportunities, students enroll in a research methods course and may elect to engage in research opportunities through graduate assistant opportunities if interested. University 1 does not have a bilingual concentration program. The 2020-2021 second-year student body at University 1 consisted of 35 students. At the time of writing, demographic characteristics related to ethnic/racial identify and age were not available.

University 2

University 2's SLP graduate program, classified as a high research activity institution or tier-two public research university by Carnegie Mellon University (National Center for Education Statistics, 2000), is situated in the largest city of the state. The certified graduate program offers on-site clinical educational experiences prior to enrollment in externships and has several research labs. University 2 offers at least two required stand-alone CLRC courses. Additionally, all faculty are encouraged to infuse CLRC training in their respective academic courses. Students enroll in 4 to 5 on-site specialty clinics as part of their clinical educational experiences throughout their academic trajectory. As part of their clinical educational experience, students are enrolled in a weekly clinical seminar with their clinical supervisor. Throughout their academic trajectory, students also participate in rigorous training related to diversity, equity, and inclusion in the form of seminars led by the University 2 faculty and a representative from the university's diversity, equity, and inclusion department. All faculty members from University 2 are also clinical researchers and are available to mentor students who wish to complete a thesis or be involved in one of the eight research labs at University 2. The University 2 SLP graduate program offers a bilingual (Spanish-English) concentration program which offers selected Spanish-speaking SLP graduate students training in Spanish-English assessment and intervention of bilingual individuals. The 2020-2021 second-year student body at University 2 consisted of 40 students. Of these students, 65% identify as White while 35% students identify as BIPOC.

University 3

The SLP graduate program at University 3, classified as a very high research activity institution or tier-one public research university by the Carnegie Mellon University (National Center for Education Statistics, 2000), is located in a small urban city in the targeted state. Though it is a full-time graduate program, courses are offered throughout 7 terms. The University 3 SLP program offers one stand-alone CLRC course, and all faculty are encouraged to infuse training on CLRC in their respective academic courses. Furthermore, on-site clinical educational experiences, before enrollment in externships, and research opportunities are available to all students. Students enroll in one of several specialty clinics and a weekly clinical methods course for 5 of 7 terms. Additionally, students meet with their assigned clinical team weekly throughout their academic trajectory. Research opportunities through the University 3 SLP program are available in one of two labs and via thesis or required evidence-based practice capstone projects. Students enroll in a research methods course that parallel the capstone research project, which are mentored by research and clinical faculty members. At the time of this study, University 3 provided a federally-funded bilingual specialization in which selected students gain specialized training in serving CLRC to young children who are dual language learners with disabilities, particularly those who are Spanish-English speakers. The 2020-2021 second-year student body at the University 3 SLP program consisted of 36 students. Of these students, 18% identify as BIPOC.

Procedure

Upon receiving IRB approval, rolling recruitment of potential student participants began in April 2021 at all 3 programs. A recruitment flyer was distributed to potential

student participants at University 1, University 2, and University 3 via email and social media posts. Data was collected remotely between April and June 2021, when students in the 3 programs reached the end of their graduate training. All participants ($N = 40$) completed a consent form and a Qualtrics survey consisting of the measures described below. At the end of the Qualtrics survey, students were invited to provide their contact information if they were interested in participating in a semi-structured interview. Student participants were compensated with up to \$60 for their participation: \$20 for the Qualtrics survey completion and \$40 for participating in the interview.

The student investigator set out to interview 4 students from each of the 3 SLP graduate programs. To obtain a diverse representation of students with varying personal and professional experiences relevant to CLRC, efforts were made to interview at least one student from each program who represented (a) the BIPOC community, (b) was multilingual, (c) had a frequency of cross-cultural experiences above the median ($Mdn = 18$) based on the total scores of the Participation in Cross-Cultural Experiences Survey (PCCES; See Measures section for details on this survey) for the full sample ($N = 40$), or (d) was White and monolingual. To keep the student investigator blinded to the interviewees' demographic information, a research assistant selected students based on the review of the Qualtrics surveys of all students who expressed interest in being interviewed ($n = 25$) for ethnicity/race and multilingual status (as reported on the demographic survey) and frequency of cross-cultural experiences (as reported on the Participation in Cross-Cultural Experiences Survey). While 13 interested students who fit the aforementioned description were contacted to schedule an interview, 10 students responded and completed the interview via videoconference with the student investigator.

Additional potential interviewees ($n = 9$) were not considered once the maximum of 4 interviews was completed for that program.

Measures

Qualtrics Survey

The Qualtrics survey completed by all participants included the following: (1) a demographic questionnaire, (2) the Culturally and Linguistically Responsive Care Competency Survey, (3) the Participation in Cross-Cultural Experiences Survey, and (4) the Multicultural Competency Checklist. See Table 3 for an overview of all the measures. Measures may also be found in appendices (Appendix A – Appendix F) as noted below. Students were provided with a definition of CLRC and culture after completing the demographic questionnaire and prior to completing the remaining three surveys. Specifically, students were informed that CLRC “refers to the capacity to understand, appreciate, and respect diverse cultural and linguistic attributes of all clients receiving clinical services, especially those from culturally and linguistically diverse backgrounds”. Furthermore, culture was defined as:

The behavior, beliefs, and values of a group of people who convene as a result of a shared commonality. Some shared commonalities include but are not limited to race and ethnicity, language or communication systems, socioeconomic status, regional locations, sexual orientation or identification, age, educational background, religious/spiritual practices, and social status.

Demographic Questionnaire. The demographic questionnaire included 9 questions to confirm eligibility, describe student participants, and provide information on individual social structural factors. The first four questions ask respondents to specify the program of enrollment (University 1, University 2, or University 3), year in the program (first- or second- year), whether they were enrolled part-time or full-time, and age to

confirm eligibility for the study. Once an eligible student gave consent, they were asked 5 additional demographic questions about their gender identity, race/ethnicity, nationality,

Table 3.

Overview of Measures in the Qualtrics Survey

Name	Purpose of Measure	Subscales
Demographic Questionnaire	Confirms eligibility criteria Specification of two individual demographic variables ○ Ethnicity/Race ○ Multilingualism	N/A
Participation in Cross-Cultural Experiences Survey (PCCES)	Specification of third individual demographic variable Frequency of Cross-Cultural Experience	Academic Travel abroad Community-based Interpersonal interactions Accessing information from print/electronic media
Culturally and Linguistically Responsive Care Competency Survey (CLRCCS)	Degree of CLRC competence based on core constructs: cultural awareness cultural knowledge cultural skills	Cross-cultural interactions frequency and attitudes Cultural awareness of self Seeking and sharing knowledge Global and domestic awareness Cross-cultural communication International and multicultural experiences Clinical perspectives Advocacy
The Multicultural Competency Checklist (MCC)	Measures perceptions of CLRC educational training. Programmatic factors include academic coursework clinical educational experience research opportunities	Curriculum issues SLP practice and supervision Research considerations

Note. CLRC = Culturally and Linguistically Responsive Care; N/A = Not Applicable; SLP = speech-language pathology.

multilingual status, and second language acquisition. Individual social structural variables extracted from this survey included student race/ethnicity and multilingual status. For race/ethnicity, students who identified with one or more diverse ethnic/racial identities (i.e., American Indian or Alaska Native, Asian, Black or African-American, Hispanic or Latino/a/x, Native Hawaiians and other Pacific Islander, and/or other) were coded as

Black Indigenous or Person of Color “BIPOC” whereas students who identified as White or Caucasian or Anglo-American or Anglo European only were coded as “White non-Latinx”. Multilingual was defined as the student indicating that they use more than one language to communicate with fluency and accuracy in most required communication interactions. Multilingual participants also specified the language(s) for which they are multilingual and whether they learned the languages simultaneously or sequentially. Participants who reported sequential acquisition of languages spoken were asked to specify the age of acquisition. Participants who answered “no” to the question asking them if they are multilingual, were coded as “monolingual.” See Appendix A for the demographic questionnaire.

Culturally and Linguistically Responsive Care Competency Survey. The Culturally and Linguistically Responsive Care Competency Survey (CLRCCS; Appendix B) is a 77-item self-assessment instrument designed for this study to measure students’ self-perceived competence of CLRC across the 3 core constructs of CLRC. There are 8 subscales, including: (1) cross-cultural interactions frequency and attitudes (cross-cultural experiences with individuals from a background other than their own), (2) cultural awareness of self (self-awareness of cultural identity), (3) seeking and sharing knowledge (behaviors to expand cultural knowledge), (4) global and domestic awareness (attitudes and knowledge related to global and domestic issues), (5) cross-cultural communication (communication skills with cultural groups unlike their own), (6) international and multicultural experiences (attitudes and behaviors on diverse experiences), (7) clinical perspectives (CLRC training and skills towards delivery of SLP services), and (8) advocacy (knowledge and skills to advocate for equitable services). Students respond

using three types of 5-point Likert type scales, measuring agreement (from 1 = Strongly Disagree to 5 = Strongly Agree), frequency of behavior (from 1 = never to 5 = Often; from 1 = never to 5 = always), and comprehension (from 1 = Never Understand to 5 = Always Understand). A total score is calculated by summing the responses on all items. Higher scores on this survey suggest higher degrees of self-perceived competence in CLRC.

The CLRCCS was adapted by the student investigator from two existing self-report questionnaires: The Survey: Cultural Awareness in Communication Sciences and Disorders Students (SCACSDS; Green, 2015), and the Speech-Language Pathology - Cultural Awareness and Competence Scale: Adapted Version (SLP-CACS:AV; de Diego-Lazaro, 2018). Combined, the items on both surveys comprehensively address all core constructs of CLRC included in contemporary theories (i.e., cultural awareness, cultural knowledge, and cultural skills). With permission from the original authors, the measures were modified to better suit the targeted population (i.e., graduate students) and to clarify the response options. Neither of the original questionnaires assess advocacy, which is considered an essential element to culturally and linguistically responsive care (Cross, et al., 1989). Therefore, the student investigator created six questions to address advocacy. A pilot study of the two original questionnaires and the advocacy questions with SLP graduate students supported adaptation of the measures and determined that the adaptations were reliable, valid, and feasible for measuring SLP graduate students' competence in CLRC.

The pilot study included 22 SLP students who completed the SCACSDS, the SLP-CACS: AV, and the pilot questions on advocacy at 3 time points and participated in

a cognitive interview at time points 1 and 3 to further the measures' development. Two audio-recorded cognitive interviews ascertained students' understanding of the intended meaning of questions and features of the question that caused difficulty to support adjustments to the questionnaires (Buers et al., 2014). The recordings and text summaries were analyzed with the Question Appraisal System (QAS; Willis, 2015). The QAS is a coding system used to determine difficulties with answering questions and the frequency of occurrence. The questionnaires were modified between timepoints based on findings from the QAS. Descriptive statistics, test-retest reliability, internal consistency, and a paired sample t-test of the SCACSDS, the SLP-CACS: AV and the advocacy questions were completed to explore reliability, validity, and feasibility of the measures. Both the SCACSDS [$r(22)=.74, p < .01$] and the SLP-CACS:AV [$r(22)=.76, p < .01$] yielded consistent test-retest reliability. Additionally, both measures had a high level of internal consistency at time 1, as determined by a Cronbach's alpha of .731 for the SCACSDS and .892 for the SCACSDS. A paired-samples t- test revealed that there was a statistically significant effect of time on students' scores on the SLP-CACS: AV [$t(16) = 6.317, p < .001$] such that students' scores on timepoint 3 ($M = 200.94$) were higher than timepoint 1 ($M = 150.82$). There was a statistically significant effect of time on students' scores on the SCACSDS [$t(16) = 2.94, p = .01$], such that students' scores on timepoint 3 ($M = 212.35$) were higher than timepoint 1 ($M = 203.88$). The average time to complete the all three measures (SCACSDS, SLP-CACS: AV, and advocacy) combined was 17 minutes. In short, the CLRCCS is comprised of modified versions of the SLP-CACS: AV, the SCACSDS, and questions on advocacy.

Participation in Cross-Cultural Experiences Survey (PCCES). This questionnaire (Appendix C) consists of a list of 26 total cross-cultural experiences that students may have had under 5 categories (i.e., academic, travel abroad, community-based, interpersonal interactions, accessing information from print/electronic media; McArthur et al., 2011). The PCCES was adopted from McArthur et al. (2011), who studied dietetics students' participation in cross-cultural activities and its relationship to students' cultural knowledge and attitudes. McArthur and colleagues (2011) found a significant association between scores on this measure and students' cultural knowledge and attitudes. To date, no additional studies have addressed the psychometric properties of this measure.

Items in the PCCES that duplicated questions in the CLRCCS were replaced while others were modified to meet the population targeted in this study. Respondents indicate “yes” (1 point) to each activity they have experienced and “no” (0 points) for each activity they have not experienced. Additionally, participants were offered the opportunity to write “other” cross-cultural interactions that may be unique to them but are not available in the categories provided. Data submitted in the “other” section were entered in a Word document and reviewed. If there was a clear match between keywords in the response and existing categories on the PCCES, the response was added to that category. Data that did not apply to existing categories on the PCCES yielded the creation of a new category. Specifically, one category was created under Academic Coursework (coursework during study abroad). Three categories were created under Travel Abroad Cross-Cultural Experiences (lived in a different country, traveled to a foreign country as a visitor, volunteered in a foreign country). Responses that were not

relevant to cross-cultural experiences were not included in the analysis. Once the data was reviewed and categorized, the number of “yes” responses was summed to provide an individual total score. Higher scores suggested a greater number of cross-cultural experiences.

The Multicultural Competency Checklist (MCC). The Multicultural Competency Checklist (MCC; Ponterotto et al., 1995) measures students’ perceptions of their educational training related to CLRC. See Appendix D. The measure was developed from an extensive analysis of the literature on multicultural training programs (Ponterotto et al., 1995). Designed to help educational programs assess their development efforts of CLRC training, this checklist was initially created for use in counseling psychology but was adopted by SLP scholars (Constantine et al., 1996; Horton-Ikard & Muñoz, 2010). To date, no known no additional studies have addressed the psychometric properties of this measure.

The student investigator adapted the MCC for this study. First, the MCC was created for counseling psychology. Therefore, several slight adaptations were made for the targeted discipline (i.e., “The program has a required multicultural counseling course” was modified to “My program has a required multicultural speech-language pathology course”) Second, while important, several subscales (i.e., minority representation, student and faculty competency evaluation, and physical environment) were removed because they were deemed irrelevant to research questions being explored in the current study and due to concerns of potential participant fatigue given the length of the survey. The three subscales in this checklist include (a) curriculum issues, (b) SLP practice and supervision, and (c) research considerations. Each subscale is associated with one of the three program

curriculum areas (academic coursework, clinical educational experiences, and research opportunities) that are the focus of this study (Cheng et al., 2001; Horton-Ikard & Muñoz, 2010). The measure consists of 12 items related to CLRC training under the three subscales. Students respond to each item by indicating “yes” or “no” based on whether they believe the statement applies to their SLP graduate program (i.e., the training element relevant to supporting CLRC is evident). For each competency, student responses were assigned a numeric code of 0 (no) or 1 (yes), and a total score was derived. Higher student perceptions of CLRC training, meaning students indicated that there is evidence of more discrete CLRC training elements across programmatic areas, are represented by higher scores on this measure (Constantine et al., 1996; Horton-Ikard & Muñoz, 2010).

Semi-structured interviews. The purpose of the semi-structured interview was twofold: to facilitate a deeper understanding of the training experiences students perceive as relevant to impacting their CLRC development across the graduate program curriculum and to identify areas where students perceive strengths and gaps in their graduate education about CLRC.

The student investigator conducted one 40–60-minute semi-structured interview with each of the 10 students interviewed via Zoom using a semi-structured interview guide (Appendix E). Prior to presenting students with questions related to their perceptions of CLRC training, they were asked to define CLRC in their own words. If limitations in their definition were evident as compared to the previously-described definition of CLRC used by the student investigator for this study (see Measures section

for the definition of CLRC), the student investigator supplemented the interviewee's definition by providing additional information.

The 21 open-ended questions included in the interview guide were designed to encourage participants to provide their perceptions of the CLRC training received through their academic coursework, clinical educational experience, and research opportunities of their respective graduate program (Moser & Korstjens, 2018; Museus, 2011). Academic coursework includes all required and elective classes and their associated assignments, case-studies, assigned readings, exams, group discussions, in-class activities, and/or the syllabi. It also includes guest lectures and workshops that are made available to students while enrolled in a class. Academic coursework on culturally and linguistically responsive care may be presented through a required or an elective course on culturally and linguistically responsive care or it may be infused throughout the SLP graduate education curriculum. Clinical educational experiences may consist of on-site clinical experiences or community-based clinical experiences where students have access to continued support by faculty and supervisors from the graduate program while providing care to individuals with communication disorders or individuals who choose to receive SLP elective services. Clinical educational experiences also include externships or clinical experiences where a representative from the program was not directly or consistently involved in students' clinical educational experiences or where students were not enrolled in a clinical methods course that paralleled the clinical educational experience. Research opportunities may include the opportunity for graduate students to complete a thesis or evidence-based research project. It may also include student engagement in research labs through the SLP program. Research opportunities also

include research methods course(s). Spontaneous and scripted probes adapted from several sources (Kritikos, 2013; Stewart & Gonzalez, 2002; Stockman et al., 2008; Sumpter & Carthon, 2011) were used to clarify and/or deepen the understanding of the students' perceptions. The interviews were recorded and transcribed verbatim using Global Marketing Resources Transcription. All identifying information was removed from the transcript prior to analysis. A pilot study of the interview guide was conducted by the student investigator with a SLP graduate student to determine the length of administration and to finalize the questions.

Data Analysis

An overview of all of the analyses conducted by research question can be found in Table 4. All quantitative data were analyzed in SPSS version 27 (IBM, 2020). Qualitative analysis was facilitated by Dedoose (2020), a web-based application to support qualitative coding.

Research Question 1

The first aim of this research study was to explore SLP graduate students' self-perceived competence in CLRC at the end of their graduate-level training. The student investigator completed a descriptive analysis by calculating each student's total scores on the Culturally and Linguistically Responsive Care Competency Survey (CLRCCS) and standard descriptive statistics (means, standard deviations) of total scores across students and programs for the entire sample as well as scores for each subscale on the CLRCCS. As a reminder, higher total scores on this measure represent higher self-perceived competence in CRLC. Additionally, higher subscale scores represent self-perceived competence in CLRC in the respective areas.

Table 4.

Summary of the Research Methods

Research Question	Procedure	Variable(s)		Analysis	
		IV	DV	Quantitative	Qualitative
1. What are SLP graduate students' self-perceived competence in CLRC?	Qualtrics Survey: CLRCCS	Total score (TS) on CLRCCS		Exploratory/Descriptive ~ Student competence in CLRC Means and standard deviation	
2. What are SLP graduate students' perceptions of their academic training related to CLRC at the end of their graduate-level training?	Qualtrics Survey: MCC Semi-Structure Interviews	1 TS on the MCC 2 TS each subscale on MCC Curriculum Issues SLP Practice and Supervision Research Considerations		Exploratory/Descriptive ~ Student perceptions of CLRC training Mean and standard deviation	Directed content Emergent codes
3. Is there a relationship between the program and a) students' perception of training and/or b) self-reported competence in CLRC?	Qualtrics Survey: MCC CLRCCS Semi-Structure Interviews	University 1 University 2 University 3	TS - MCC TS - CLRCCS	One-way between subject multivariate analysis of variance	Directed content analysis Emergent codes
4. Are SLP students self-perceived competence in CLRC associated with individual social structural factors (ethnicity/race, cross-cultural experience, and/or language(s) spoken)?	Qualtrics Survey: Demographic Questionnaire PCCES CLRCCS	Indiv. Factors <i>Race/ethnicity</i> <i>Multilingualism</i> <i>Cross-cultural Experiences</i>	TS - CLRCCS	<i>Race/Ethnicity & Multilingualism</i> Independent t-test Cohen's d <i>Cross-Cultural Experience</i> Pearson's correlation	
5. Are SLP students' self-perceived competence in CLRC associated with their perceptions of (a) academic coursework, (b) clinical educational experience, and/or (c) research opportunities?	Qualtrics Survey: MCC CLRCCS	Subscale scores and TS on MCC TS on CLRCCS		Significant predictor(s): multiple regression for each significant factor	

Note. CLD = Cultural and Linguistic Diverse; CLRC- Cultural and Linguistic Responsive Care; CLRCCS = Culturally and Linguistically Responsive Care Competency Survey; MCC = Multicultural Competency Checklist; PCCES = Participation in Cross-Cultural Experiences Survey; PSU = Portland State University; RQ = Research Question; SLP = Speech-Language Pathology; TS = Total Score; UO = University of Oregon.

Research Question 2

The second aim of this study was to explore students' perceptions of their CLRC training in academic coursework, clinical educational experience, and research opportunities. To this end, qualitative and quantitative analysis were completed in tandem. Students' perceptions of the elements of their curriculum that represented attention to CLRC were determined quantitatively by their total scores on the Multicultural Competency Checklist (MCC) as well as the three MCC subscale scores (i.e., curriculum issues, SLP practice and supervision, and research considerations). Standard descriptive statistics (means, standard deviations) were used to summarize total scores across students and programs for the full sample and each subscale. Higher total scores and sub-scores on this measure represent student perceptions that more elements thought to be important to CLRC training existed in their SLP graduate programs in general and in each program curriculum area, respectively. A frequency count for each response type ("yes" and "no") on the MCC was calculated for each question, and an average of "yes" responses was calculated for each of the three subscales (Curriculum Issues, SLP Practice and Supervision, and Research Consideration).

To complement and contextualize the quantitative analysis, qualitative analysis was completed using student responses to the semi-structured interview ($n = 10$). This analysis focused on students' perceptions of how their academic coursework, clinical educational experience, and research opportunities impacted their CLRC development and their recommendations for enhancing CLRC training in each programmatic area. To complete the qualitative analysis, the student investigator uploaded the deidentified transcripts to Dedoose (2020). Then, the student investigator read each transcript line-by-line and employed direct

content analysis to establish primary and secondary codes (Hsieh & Shannon, 2005). This systematic deductive and inductive approach helped to identify patterns based on the existing theoretical framework that highlighted academic coursework, clinical education experiences, research opportunities and graduate training as relevant to training in CLRC. First, primary pre-identified codes were applied to denote any student responses related to their (a) academic coursework, (b) clinical educational experience, or (c) research opportunities. Secondary and tertiary codes were then developed iteratively using an inductive category development to capture students' perceptions of factors impacting CLRC training specific to any programmatic area or across all three programmatic areas. Secondary codes also identify recommendations students offered to improve CLRC in each area or across program areas. A qualitative analysis code list with operationalized definitions of each code was developed. The code list and its definitions were reviewed by a student assistant unfamiliar with the study and the student investigator's faculty advisor, who has extensive experience with qualitative research and familiarity with the current study. Additionally, the student assistant and the faculty advisor each independently reviewed a transcript line by line and applied predetermined codes that were considered applicable. Each reviewer met with the student investigator to discuss the independent application of codes. Based on feedback from the reviewers, the code list and its definitions were modified for clarity and accuracy. The final code list included 4 parent codes, 27 secondary codes, and 48 tertiary codes (see Appendix F). The student investigator then independently coded all transcripts.

Once all the transcripts were coded, the student investigator completed a thematic analysis to capture patterns and shared themes related to students' perceptions of CLRC training

across the three SLP graduate programs. This was done by reviewing the final codes and grouping them into themes that described most impactful and less impactful elements to cultivating CLRC while enrolled in the SLP graduate program along with student recommendations. Then, the student investigator took several steps to support validity of the thematic analysis. The student investigator conferred with the faculty advisor to discuss themes captured to support the validity of the findings. The student investigator also completed a verification phase by distancing herself from the data for approximately one week. Review of the themes after distancing allowed the student investigator to view the excerpts with a different lens, increasing sensitivity and reducing premature and incomplete data analysis (Vaismoradi et al., 2016). Themes that emerged following distancing confirmed the themes developed with initial review of the data. Finally, the student investigator reviewed all of the excerpts from the themes created alongside information about student program enrollment to confirm that themes were largely representative of students' perceptions across the three graduate programs (although a later analysis of differences in Research Question 3 was conducted as discussed below).

Interrater coding reliability was also determined. Specifically, 25% of randomly selected interview transcript excerpts and the code list were provided to the student investigator's faculty advisor to code independently (Armstrong et al., 1997). Agreement between the codes applied by the faculty advisor and the student investigator was 92%, suggesting high reliability.

Triangulation occurred using an interactive mixed methods approach where there was equal status of the qualitative and quantitative data. In this case, themes that emerged from the interviews on the most and less impactful CLRC training in each program area (qualitative analysis) were reviewed along with students' perception of discrete CLRC training competencies

as measured by the MCC (quantitative analysis) to identify whether results yielded convergent or divergent results (Rossman & Wilson, 1985; Schoonenboom & Johnson, 2017). To achieve this, the student investigator reviewed the list of qualitative themes and matched themes to individual items of the MCC whenever possible. Note: not all themes had a corresponding item on the MCC and vice versa. Then, the student investigator reviewed the frequency of responses of the discrete items on the MCC that matched a given qualitative theme for the percentage of all students ($N = 40$) who endorsed each MCC item compared to the number of interviewees who expressed specific perspectives about that CLRC training element. Convergence occurred when 50% or more students endorsed an item on the MCC, and the majority of interviewees expressed that the corresponding training element was important for their CLRC development. For example, convergence was obtained when 90% of all participants reported at least one required multicultural speech-language pathology course in the curriculum on the MCC, and the majority of interviewees discussed one or more stand-alone CLRC course offerings provided in the SLP graduate program as valuable to their CLRC development. Divergence of results was determined when 50% or more students endorsed an item on the MCC, but the majority of interviewees reported that the corresponding training element was not appropriately supporting their training in CLRC. For example, while results of the quantitative analysis from the MCC revealed that 75% of students reported that infusion of CLRC content occurred throughout all academic coursework, the majority of students interviewed discussed that such infusion was insufficient in supporting their CLRC training or not evident across all content areas.

Research Question 3

Exploring the relationship of the SLP graduate program on students' perception of their CLRC training and self-perceived competence in CLRC was the third aim of the study. The quantitative analysis consisted of a one factor one-way between-subjects multivariate analysis of variance. The predictor variable, SLP graduate programs, includes three categories (University 1, University 2, and University 3). The two dependent variables, students' perceptions of CLRC training and self-perceived competence in CLRC, are represented by the total scores of the Multicultural Competency Checklist (MCC) and the Culturally and Linguistically Responsive Care Competency Scale (CLRCCS), respectively. A post hoc power analysis was also completed.

The results of the qualitative analysis were also used for the third aim of the study to complement and contextualize the quantitative analysis. The coded transcripts were reviewed to determine meaningful differences based on students' SLP graduate program (University 1, University 2, University 3). The student investigator completed a frequency count for each code to check which codes occurred more frequently for each of the three SLP graduate programs. Frequent use of single code may be associated with a single source or student. Therefore, the student investigator identified the matching source of the codes represented by student identification numbers and university affiliation. Once categorized, the student investigator completed a frequency count based on source or student for each university. In addition, the MCC total scores of each program were triangulated with the themes obtained from the qualitative analysis in each of the three SLP graduate programs to identify convergence or divergence of results (Creswell et al., 2003; Rossman & Wilson, 1985; Schoonenboom &

Johnson, 2017). Triangulation occurred using an interactive mixed methods approach with equal status of the quantitative and qualitative data. Therefore, themes that emerged from students' perception of CLRC training competencies as evidenced by the aggregate MCC sub-scores were further compared in the same way that the student investigator addressed this in the research question 2 to themes that emerged from the interviews to identify whether results converged or diverged amongst each of the SLP graduate programs (University 1, University 2, University 3).

Research Question 4

To meet the fourth aim of this study, which was to explore if students' self-perceived competence in CLRC was associated with students' individual social structural factors, the student investigator used information obtained in the demographic questionnaire and students' total scores on the Culturally and Linguistically Responsive Care Competency Scale (CLRCCS). The first predictor variable, race/ethnicity, was coded as a dichotomous variable. Participants who identified as White non-Latinx were categorized as race/ethnicity Group 0 and participants who were Black, Indigenous or Person of Color were categorized as race/ethnicity Group 1. The second predictor variable, multilingualism, was also dichotomous. As such, monolingual participants were categorized as Monolingualism Group 0 and participants who were multilingual were categorized as Multilingualism Group 1. The data collected from the two dichotomous predictor variables, ethnicity/race and multilingualism, were analyzed using an independent samples *t*-test to determine if students' self-perceived CLRC competence (as perceived by the score on the CLRCCS) varied significantly based on their race/ethnicity category or multilingualism status. For the third predictor variable, frequency of cross-cultural experiences, a Pearson's correlation was calculated to determine if a significant association

existed between students' frequency of cross-cultural experiences (as per the total score on the Participation in Cross-Cultural Experiences Survey [PCCES]) and their self-perceived competence in CLRC (as measured by the total score on the CLRCCS). Additionally, a frequency count and average of each "yes" response on the PCCES was calculated for each question in each of the five categories (travel abroad, community-based, interpersonal interactions, accessing information from print/electronic media).

Research Question 5

The final aim of this study was to explore if students' competence in CLRC was associated with their perceptions of the CLRC training in all areas of their graduate educational program (i.e., academic coursework, clinical educational experience, and research opportunities). To explore this association, the student investigator conducted a multiple regression analysis using data from the Multicultural Competency Checklist (MCC; perceptions of CLRC training) and the Culturally and Linguistically Responsive Care Competency Scale (CLRCCS; competence in CLRC). The predictor variables for the multiple regression analysis were the aggregate sub-scores on the MCC (perceptions of CLRC training in each programmatic area) and the frequency of cross-cultural experiences (as this individual social structural factor was found to be associated with CLRC; see Results section). The dependent variable was the total scores on the CLRCCS, representing students' self-perceived level of competence in CLRC. A post hoc power analysis was completed.

CHAPTER III

RESULTS

Research Question 1

The first aim of this research study was to explore SLP graduate students' self-perceived competence in CLRC at the end of their graduate-level training. A descriptive analysis was used to calculate standard descriptive statistics of the total scores of the Culturally and Linguistically Responsive Care Competency Survey (CLRCCS). The mean score on the CLRCCS and thus the mean score of students' overall self-perceived competence in CLRC was 272.10 ($SD = 18.36$) out of a total possible score ranging from 0 to 385. Table 5 provides a summary of the descriptive statistics for the subscales on the CLRCCS for each SLP graduate program and for all programs combined. A total of 34 participating students fall between the 50th and the 75th percentile ranks based on the total possible score of the CLRCCS and the data of this particular sample. The remaining six participants fall above the 75th percentile rank for this measure. Refer to Figure 1 for a visual distribution of students' overall levels of self-perceived CLRC competence based on the possible total score of the CLRCCS.

Research Question 2

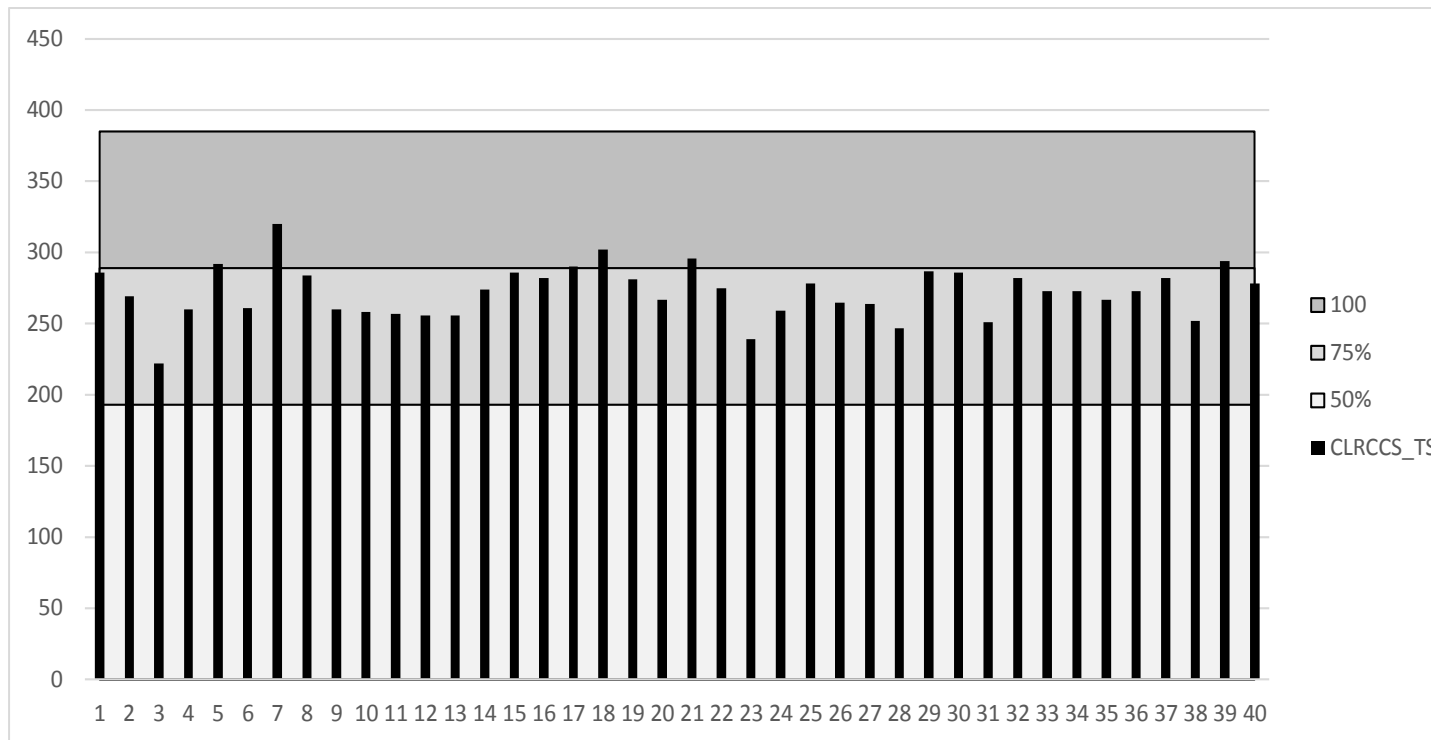
The second aim of this study was to explore students' perceptions of their CLRC training in three programmatic areas: academic coursework, clinical educational experience, and research opportunities. Results from the quantitative analysis of the Multicultural Competency Checklist (MCC) are provided first, followed by findings from the qualitative analysis of the semi-structured interviews.

Table 5.*Descriptive Statistics on Students Self-Perceived Competence in Culturally and Linguistically Responsive Care (N = 40)*

Measure	University 1 (n = 11)		University 2 (n = 11)		University 3 (n = 18)		All Universities (N = 40)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
CLRCCS Total Score	267.55	20.88	271.64	18.33	275.17	17.21	272.10	18.36
Subtests								
Cross-Cultural Interactions Frequency & Attitude	21.73	4.69	21.00	4.43	23.78	6.32	22.45	5.44
Cultural Awareness of Self	16.82	1.60	16.00	1.41	15.28	1.49	15.90	1.60
Seeking & Sharing Knowledge	20.36	3.70	21.64	3.14	20.11	3.14	20.60	3.28
Global and Domestic Awareness	49.27	5.14	51.73	4.47	50.50	5.58	50.50	5.13
Cross-Cultural Communication	32.09	3.21	32.18	2.18	32.28	2.76	32.20	2.70
Intl. and Multicultural Experiences	37.27	5.82	40.09	5.56	38.22	3.83	38.48	4.92
Clinical Perspectives	67.73	6.93	68.36	5.26	71.00	3.73	69.38	5.28
Advocacy	22.27	2.24	20.64	3.75	24.00	2.60	22.60	3.13

Note. CLRCCS = Culturally and Linguistically Responsive Care Competence Scale.

Figure 1.
Distribution of Total Scores on the CLRCCS Across All Students from All Programs



Note. CLRCCS_TS = Culturally and Linguistically Responsive Care Competency Survey; TS = Total

Quantitative Analysis

The mean score on the MCC across participants and thus the mean score of students' overall perceptions of the CLRC training was 8.67 ($SD = 2.53$) out of a total possible score ranging from 0 to 12. Furthermore, descriptive analysis of the aggregate scores for each of the three subscales across all three SLP programs revealed that the mean score in the Curriculum Issues (representing perceptions of academic coursework) was 4.05 ($SD = 1.01$) out of a possible subscale score ranging from 0 to 5. Results in the SLP Practice and Supervision subscale (representing perceptions of clinical educational experience) revealed a mean score of 1.67 ($SD = 1.02$) out of a possible subscale score ranging from 0 to 3. Lastly, the mean score of the Research Consideration subscale (representing perceptions of research opportunities) revealed a mean score of 2.95 ($SD = 1.45$) out of a total possible subscale score ranging from 0 to 4. See Table 6 for descriptive statistics on students' perceptions of CLRC training for each subscale on the MCC. Frequency count and percentages of CLRC training available in each programmatic area as perceived by SLP students are shared in Table 7. In the Curriculum Issues subscale, 90% of all participants across all three SLP graduate programs reported at least one required multicultural speech-language pathology course in the curriculum. Across the three SLP graduate programs, 75% of the students reported that topics related to multicultural issues were infused in all academic coursework and that the syllabi reflect this inclusion. Review of the data from the Practice and Supervision subscale reveals that 53% of the students across all three programs believed that at least 30% of the individuals on their caseload during their clinical educational experiences were from CLD communities. Furthermore, 68% of the students reported that multicultural issues were considered an important clinical supervision component. In the

Table 6.
Descriptive Statistics on All Students Perceptions of CLRC Training

Measure	University 1 (<i>n</i> = 11)		University 2 (<i>n</i> = 11)		University 3 (<i>n</i> = 18)		All Universities (<i>N</i> = 40)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
MCC - Subscales								
Curriculum Issues	3.18	.87	4.55	.93	4.28	.83	4.05	1.01
SLP Practice and Supervision	1.73	1.10	1.91	1.14	1.50	.92	1.67	1.02
Research Consideration	1.00	1.10	3.45	.93	3.83	.38	2.95	1.45
MCC -Total Score	5.91	2.21	9.91	2.12	9.61	1.50	8.67	2.53

Note. SLP = Speech-Language Pathology CLRC = Culturally and Linguistically Responsive Care, MCC = Multicultural Competency Checklist, SLP = Speech Language Pathology

Table 7.
*Frequency Count and Percentages of CLRC Training Available in Each Programmatic Area As Perceived
 by Graduate Students*

	University 1 (<i>n</i> = 11)		University 2 (<i>n</i> = 11)		University 3 (<i>n</i> = 18)		All Universities (<i>N</i> = 40)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Curriculum								
My program has a required multicultural speech-language pathology (SLP) course.	7	64%	11	100%	18	100%	36	90%
My program has one or more additional courses in the area that are required or recommended (e.g., advanced multicultural SLP research seminar, or an advanced clinical issue course).	2	18%	11	100%	11	61%	24	60%
Multicultural issues are integrated into all coursework. All program faculty can specify how this is done in their courses. Furthermore, syllabi clearly reflect multicultural inclusion.	6	55%	8	72%	16	89%	30	75%
A diversity of teaching strategies and procedures are employed in the classroom. For example, both cooperative learning and individual achievement approaches are utilized	9	81%	10	91%	15	83%	34	85%

Table 7. (continued).

	University 1 (<i>n</i> = 11)		University 2 (<i>n</i> = 11)		University 3 (<i>n</i> = 18)		All Universities (<i>N</i> = 40)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Varied assessment methods are used to evaluate student performance and learning. For example, students complete both written assignments and oral presentations	11	100%	10	91%	17	94%	38	95%
SLP Practice and Supervision								
Students are exposed to a multicultural clientele during fieldwork. At least 30% of clients seen by students are non-White.	7	64%	9	82%	5	45%	21	53%
Multicultural issues are considered an important component of clinical supervision whether the supervision is conducted by program faculty or on-site supervisors. My program has a mechanism to monitor the quality of field supervision	7	64%	5	45%	15	83%	27	68%
My program has an active "Multicultural Affairs Committee" composed of faculty and students. The committee provides leadership and support to My program with regard to multicultural issues	5	45%	7	64%	7	39%	19	48%

Table 7. (continued).

	University 1 (<i>n</i> = 11)		University 2 (<i>n</i> = 11)		University 3 (<i>n</i> = 18)		All Universities (<i>N</i> = 40)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Research Consideration								
My program has a faculty member whose primary research interest is in multicultural issues.	2	18%	9	82%	18	100%	29	73%
There is a clear faculty research productivity in multicultural issues. This is evidenced by faculty journal publications and conference presentations on multicultural issues	1	9%	9	82%	18	70%	28	70%
Students are actively mentored in multicultural research. This is evidenced by student-faculty coauthored work on multicultural issues and completed dissertations on these issues	1	9%	10	91%	15	83%	26	65%
Diverse research methodologies are apparent in faculty and student research. Both quantitative and qualitative research methods are utilized	7	64%	10	91%	18	100%	35	88%

Research Consideration subscale, findings revealed that 73% of the students across all programs believed that there was at least one faculty member whose primary research focused on multicultural issues. Seventy percent of the students believed there was evidence of faculty journal publications and conference presentations on multicultural topics. Lastly, 65% of the students believe there was evidence of student-faculty co-authored research on multicultural topics.

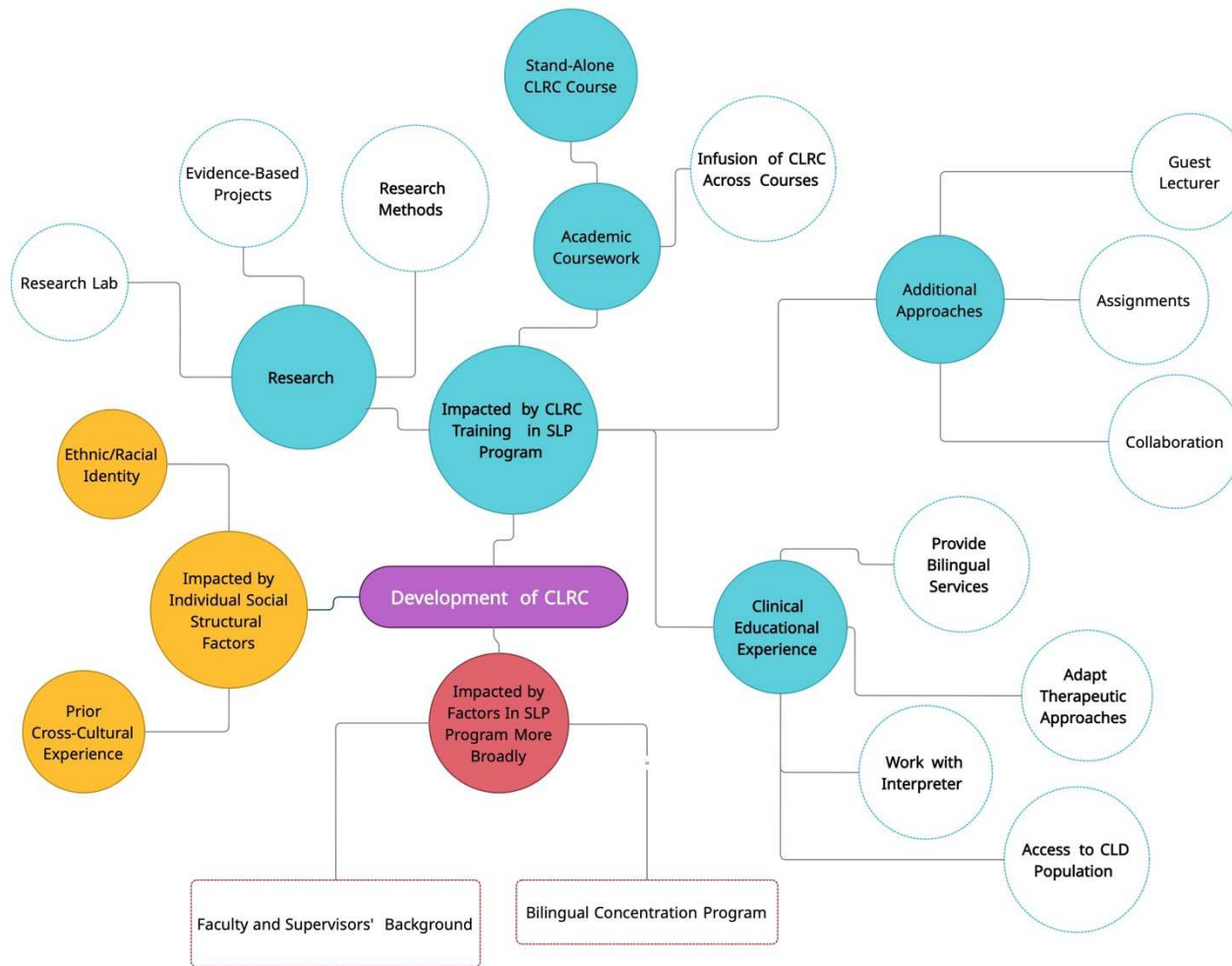
Qualitative Analysis

Thematic analysis of students' responses to the semi-structured interview questions identified several themes related to students' perceptions of the CLRC training in their SLP graduate programs. Predominant themes encapsulating student perceptions in academic coursework, clinical educational experience, and research opportunities are presented next. Additionally, overriding themes that capture students' perceptions of organizational factors as well as individual social structural factors that they perceived as significant to their CLRC training across academic, clinical, and research areas are shared after. As a reminder, the excerpts for all themes were reviewed to confirm representativeness of the theme across universities. Note that University 3 had 1 additional participant than University 1 and 2, which naturally lead to an increased number of excerpts. Figure 2 illustrates themes that appeared to impact CLRC.

The student investigator also reviewed the quantitative data to determine to what degree the students interviewed held perceptions of their training and skills in CLRC that were representative of all of the students who completed the Qualtrics survey. A descriptive analysis was used to calculate standard descriptive statistics of students' perception of CLRC training (as

Figure 2.

Overview of More and Less Impactful Themes that Support Cultivation of CLRC as Perceived by SLP Graduate Students



Note. Themes in solid /colored frames had a positive impact on CLRC development. Themes in dotted frames were perceived by students to have mixed qualities. Specifically, while these themes were considered essential by students, they were perceived as either insufficiently available or not evident in some cases; CLD - Culturally and linguistically Diverse; CLRC = Culturally and Linguistically Responsive Services; SLP = Speech-Language Pathology.

represented by total scores on the MCC) and students' CLRC competence (as represented by the total scores on the CLRCCS) across all students, potential interviewees, and students interviewed across all three programs. Visual analysis of these data of students' perception of CLRC training (as measured via the MCC) and students' CLRC competence (as measured via the CLRCCS) across all students and students interviewed across all three programs suggested that the data from the students interviewed appeared to be representative of the data of the students who completed the Qualtrics survey in both their perceptions of CLRC training and their CLRC competence overall. Table 8 provides a summary of the results for this descriptive analysis.

Perceptions of SLP Graduate Program Curriculum

CLRC Training in Academic Coursework. In the programmatic area of academic coursework, two predominant themes represented students' perceptions of their CLRC training. These themes centered on students' perceptions of more impactful and less impactful elements of CLRC training through stand-alone CLRC courses and infusion in required SLP core courses. A summary of both themes and recommendations follows.

Stand-Alone CLRC Coursework. In alignment with the quantitative results from the MCC, students mentioned one or more stand-alone CLRC course offerings provided in their respective SLP graduate program. Students consistently reported that such coursework positively impacted the cultivation of CLRC. This is supported by the following statement from a student:

I really feel like, academically, [name of stand-alone CLRC course], taught by [faculty member from SLP program] was really helpful. It provided a strong framework for my culturally responsive journey and framework in working with individuals with an unprivileged background...I think that course was substantial in my growth in being a culturally and linguistically responsive clinician (Student in University 3).

Table 8.

Descriptive Statistics of Perceptions of CLRC Training and CLRC Competence Across All Students, Potential Interviewees, and Students Interviewed Across All Three Programs

	All Students (<i>N</i> = 40)		Potential Interviewees (<i>n</i> = 25)		Students Interviewed (<i>n</i> = 10)	
	M	SD	M	SD	M	SD
MCC-Total Score	8.67	2.53	8.52	2.47	8.10	2.47
CLRCCS-Total Score	272.10	18.36	272.32	17.88	274.50	12.77

Note. CLRCCS = Culturally and Linguistically Responsive Care Competence Scale; MCC = Multicultural Competency Checklist; SLP = Speech Language Pathology

In this example, the student suggested that the stand-alone course provided underlying foundational knowledge crucial to engaging in the ongoing process of CLRC.

Students' belief that stand-alone CLRC courses were critical to CLRC were frequently reinforced by students' descriptions of course content, which frequently addressed all three core constructs (cultural awareness, cultural knowledge, and cultural skills) of CLRC. For example, one student described learning about collaborating with interpreters and assessment and intervention approaches when providing CLRC:

And our [stand-alone CLRC course] was really great. We focused a lot on working with interpreters and different considerations for assessment and intervention. And I feel like that was definitely a great resource for working with linguistically diverse populations specifically (Student in University 2).

Other examples of the benefit of stand-alone courses to students' CLRC development included expanding students' knowledge on distinguishing dialects from disorders within a dialect, and understanding diverse beliefs about communication and communication disorders, and learning about inequities to qualifying individuals for SLP services.

Students were also introduced to alternative assessment procedures. These and similar responses suggest that students value stand-alone CLRC courses because the knowledge and skills gained were perceived as relevant to working with diverse communities. While students believed stand-alone CLRC courses positively impacted their development in CLRC, they also disclosed their perceptions of how CLRC training infused in SLP core courses impacted their development.

Infusion of CLRC Across Academic Coursework. Similar to their perceptions of the stand-alone CLRC courses, students also valued infusion of CLRC content in SLP core courses as they indicated that infusing CLRC content across the curriculum supported their learning of culturally and linguistically responsive care specific to

communication disorders. While quantitative results from the MCC indicate that most students believe CLRC content is integrated in all academic coursework, several students interviewed perceived infusion of CLRC content in SLP core courses to be insufficient or not evident. They believed this was a hinderance to their development of CLRC.

More specifically, students believed sufficient attention to CLRC was infused in several core courses such as voice disorders, clinical methods, child language disorders, and speech sound disorders. Pediatric courses in general were perceived as giving the most attention to CLRC training. This was captured in the following statement by a student, who was discussing a pediatric SLP core course:

I felt like the courses that talked about [SLP core course] and [SLP core course], I felt like those classes really incorporated culture and diversity really well into those classes, for the most part. It felt like there was a good underlying current of we were kind of always like, we learn something new, and then we talk about how that plays out differently with different cultures and different languages, and it was just kind of always this twofold of, “Okay, we’re gonna talk about something new in kind of the general, generalized concept,” and then we’re gonna talk about it in a sense of, “Okay, now how are we gonna adapt this for different populations?” (Student in University 3)

This student reflected on how they perceived faculty structured the course to include CLRC content in their SLP core courses. Another student noted a similar approach of the infusion of CLRC content in SLP courses:

I felt like the [SLP core courses], even though they weren’t specifically developed for addressing culturally responsive care, it was usually incorporated throughout the other classes, even though those were more kind of clinically-oriented. I felt like there was always a little bit of an underlying current of, “Everything that we’re learning clinically is a foundation, but there needs to be these considerations and adaptations for what you do clinically, depending on who you’re working with” (Student in University 3).

It is evident through these statements that SLP students favor how faculty structure the coursework to infuse CLRC training in SLP courses. Indeed, students believed this

approach positively impacted their CLRC development, and in some cases favored infusion over stand-alone courses on CLRC. For example, one student stated:

We had a class specifically geared towards working with cultural and linguistically diverse populations. But I think what was more valuable was the information sprinkled in along the way. Though I wish every single class had that kind of information in there (Student in University 3).

As evident in this quote, not all SLP core courses infused CLRC training. Specifically, it was perceived that infusion of CLRC content was less evident in courses centered on adults, acquired language disorders, and medically based populations. Indeed, one student stated:

I think more broadly, I felt an absence in the more medically-oriented classes to actually address the way culture is kind of incorporated in a medical setting. Especially as someone who wants to and is going to be working in a hospital, that was really important to me (Student in University 3).

This student expressed their desire for more content on CLRC to meet their professional goals and obligations. Similarly, some students addressed the lack of depth and breadth of CLRC training in SLP core courses. Another student recalled, “I think maybe there was a chapter in a book, maybe, about [CLRC], or a paragraph, or one slide about [CLRC]. It didn’t really go into very much depth” (Student in University 2). These examples illuminate the limitations of infusing CLRC training in SLP core courses as perceived by students. This concern is linked to students’ recommendations for improving CLRC training in the programmatic area of academic coursework.

Recommendations: CLRC Training Through Academic Coursework.

When asked to provide recommendations related to CLRC training through academic coursework, students consistently suggested that infusion of CLRC occur across all academic coursework. One student said:

And I kind of want that mentality to be brought to the academic world of, ‘This is always gonna be something that you’re going to use’. It just needs to be part of your clinical mind. It just always needs to be at the forefront of, ‘How can I make what I’m doing honor my patients, honor their values, honor their beliefs and respect them as a human being?’ And I just want that to be more incorporated throughout all of the classes, not just the classes that are specifically addressing language disorders or specifically talking about speech sound disorders. I wanna see it in discussions on dysarthria and apraxia and aphasia and just all of it. It needs to be everywhere. You know, it’s like, having one course to really dig into it and really dig into the research and the history and all that is great, but there needs to be more. It needs to be throughout because we’re going to experience culture throughout our clinical experiences, throughout our work. It’s not gonna be limited to one instance or one patient or one client or one setting. It’s never gonna go away (Student in University 3).

The statement made above exemplifies students’ perceptions of the importance of CLRC training. Specifically, the student emphasizes two main points. First, they believe that CLRC must be considered throughout all academic coursework as a future SLP. Second, while a stand-alone CLRC course is essential, they believe CLRC training should be incorporated in all SLP courses by all faculty across the curriculum. Students also shared their perspectives on CLRC training obtained through clinical their clinical experiences.

CLRC Training in Clinical Educational Experiences (CEE). Students completed their clinical educational experiences in an on-site/community-based clinic or off-site clinics/externship. Although perceived to be limited in depth and breadth, opportunities to serve culturally and linguistically diverse individuals was the prevailing theme that embodied students’ perceptions of CLRC training through clinical educational experiences. Indeed, students perceived these experiences were positively impactful to learning to provide culturally and linguistically responsive SLP services when they were available and direct CLR training was offered. Subthemes that students perceived as critical to cultivating CLRC in clinical education experiences included working with interpreters, providing bilingual services, and learning to adapt therapeutic services.

Access to CLD Populations. Whether during on-site or off-site clinical experiences, students stated that they provided mentored SLP services to at least 1 individual considered culturally and linguistically diverse during their 2-year training program. Students favored experiences working with individuals from diverse backgrounds as they believed such opportunities enhanced their cultural knowledge and skills. This sentiment was shared by a student who believed they had access to CLD populations throughout their CEEs:

I think that as a program, the clinical side of our graduate program, I think that they are pretty well set up to take on culturally and linguistically diverse clients, which I like...But I feel like I, even with just within the first few terms of onsite clinical work, I feel that I got the opportunity to work with people who are different than me in age, taking into consideration family practices and then making recommendations for that. Working with keeping transgender voice clients, working with— Also, getting the opportunity to work with a client who primarily only spoke Spanish, and using an interpreter when needed (Student in University 3).

This student perceived their clinical experience to be rich with opportunities to work with various CLD populations; however, this sentiment was not shared by all students interviewed. Similar to the results from the MCC, which revealed that only half of the students believed they had a diverse caseload, several students interviewed believed their opportunities to work with individuals from varied CLD communities were insufficient or not available. The reasons given by students varied. As evident by the following statement, one student believed that the reduced rate of clients from CLD populations served in the on-site clinic adversely impacted the cultivation of CLRC:

To be perfectly honest, I don't know that I feel like it [on-site clinical experience] prepared me at all. I was not fortunate enough to have very many opportunities to work with a variety of different backgrounds through my kind of clinical education. Most of my clients were European descendants, English-speaking individuals, and even when they weren't, I didn't feel like I had the skills to navigate our cultural differences particularly well. And I didn't feel like it was

something that was really addressed in our big [clinical] group meetings very much (Student in University 3).

This student believed that their on-site clinical experience did not prepare them for the workforce. The student attributes this to a lack of clinical educational experiences with diverse clients as well as a lack of direct training and support related to cultivating cultural knowledge and skills related to SLP. While the student in the preceding statement refers to an absence of CLRC training in their clinical group meetings another student reported similar sentiment about direct supervision:

Oh, it was the [name of clinic], so a client who (had a communication disorder), who spoke [foreign language], too. There wasn't a lot of direct instruction about how to provide those services in a different way to him. I wish that there would have been a little bit more (Student in University 2).

While this student acknowledged that the individual's cultural and linguistic background should be considered, they felt they did not receive sufficient training to do so. Moreover, similar to what was noted in academic coursework, students reported that the clinical experiences where diverse populations and CLRC training were most evident were in school-based settings and with the pediatric population. In other cases, students report that access to individuals from diverse backgrounds was dependent on the geographic location. Indeed, students who completed CEEs, in person or through teletherapy, in a different location (either different town, state, or country) reported that the location had a significant positive impact as there was more exposure to individuals from various cultural, linguistic, spiritual/religious backgrounds and gender identities. One student reported:

As well as the skilled nursing facilities here in [another city, state] where I feel the population's a little more diverse. And I was able to work with all different types of demographics, whether there was different sexual orientations, whether it was different languages, different cultures... We had Vietnamese, Thai, all these

different – from different cultures, different places. And I think using that was very beneficial (Student in University 1).

The sentiment about CEE opportunities in the regions where the SLP programs were located was different. Students from all three programs acknowledged the homogeneity of the general population's ethnic/racial and linguistic background in the state where SLP programs are located. One student stated:

And for those two [on-site clinics], my clients were from White middle-class English-speaking backgrounds. So, it just kind of wasn't the factor, and it [CLRC] wasn't really addressed necessarily. And I think part of that is being in [name of city], which is a very White city as well. Our client population to draw from is perhaps not the most culturally and linguistically diverse (Student in University 2).

As this student reported, the geographic location may have adversely impacted exposure to diverse communities. During those occasions that students did work with individuals from diverse populations, they may have provided services to an individual who was not a native English speaker. As such, they may have had the opportunity to work with interpreters.

Work with an Interpreter. Working with an interpreter falls under the CLRC core construct of cultural skill as it is needed to deliver effective and empathic services as an SLP. Students described occasions where clinical services were rendered to individuals who spoke limited or no English. On such occasions, this may yield collaboration with an interpreter, which students believed positively impacted CLRC development. One student shared their perceptions about working with an interpreter:

And then, yeah, with that parent too, worked with an interpreter...So, I was working with an interpreter and speaking to a family whose primary language I'm not fluent in. But that was, I think, a really good experience just to have a little bit of practice – just navigating all of that...It felt good to have that experience (Student in University 3).

As noted, this student perceived their collaboration with an interpreter to be a fruitful experience in developing this particular cultural skill. However, not all students received training to work with interpreters or how to use interpreting devices effectively. One student reported taking the initiative to use an alternative approach to serving individuals who spoke a language different from their own when interpreting services were not available. The student shared the following reflection regarding their uncertainties of the effectiveness of using an interpreting device:

I think what I didn't mention was the use of a translating device during conversations with patients, for example, that spoke Russian. We had Vietnamese, Thai, all these different – from different cultures, different places. And I think using that was very beneficial. It was a learning curve to, okay, this is how I can communicate. This will be functional. How much service can I really provide using this? And where am I gonna be limited? And how I can adjust to that? Which I feel like was an area that wasn't directly taught to me. That wasn't something that we ever talked about in class. But it was definitely a barrier I had to face and make decisions in the moment (Student in University 1).

Not having a mechanism to communicate with individuals who speak a different language was perceived as a general barrier to effective SLP services. While this student attempted to use an electronic device, the student shared several uncertainties about its effectiveness in providing SLP services. This student, and several others, reported that training to work with an interpreter was a missing element in their CLRC training.

Provide bilingual services. Several multilingual students spoke of providing therapy services to bilingual or non-English speaking individuals as an experience that enhanced their CLRC development. In the following example, one student spoke of preparing materials for a literacy-based activity rendered to bilingual students:

And then every week we had two language development circles. So, one was for kids whose primary language was English and then we had ones for kids who – that was in both Spanish and English. So, it was good to get that experience of trying to think about ways of finding materials that are bilingual. So, we would

usually read a story. So, I would look for the storybook in Spanish and then the book in English and then look for resources on Teachers Pay Teachers or on Boom Cards or whatever it was, that was in Spanish and English...Yeah, so it was interesting (Student in University 3).

The student's explanation of how they gathered and created materials in all of the children's languages in preparation for bilingual SLP services, exemplifies how this clinical experience helped to build cultural knowledge and skills in providing CLRC services in two languages to a dual language community. Furthermore, students supervised by bilingual SLPs described how these CEEs were more impactful to their CLRC development. One student expressed this sentiment:

Oh, I think that something that was really helpful for me is getting to see the beliefs that a practicing clinician has related to cultural-linguistic diversity and how they apply it. For a specific example, my first externship, I had a supervisor who was very focused on how to best assess and treat linguistically diverse clients. That was her interest, and so that impacted a lot of the ways that I treated clients on her caseload that fell into that category (Student in University 3).

This student reports that their bilingual supervisors' attention to CLRC while providing therapeutic services impacted their approach to providing SLP services. Through experiential learning and with the support from clinical supervisors, students may practice making appropriate and necessary adaptations to SLP assessment and intervention services.

Adapt Therapeutic Approaches. Because most assessment and intervention services are normed or created to support mainstream culture, CLRC requires that SLPs make necessary adaptations when serving individuals from CLD communities. Students who took part in making adaptations to their therapeutic approach reported that such experience furthered their understanding of CLRC services. One student shared their experience:

Yeah, so being a part of an early intervention clinic for the Latinx community. I think...had the biggest impact. Getting to work with a mom whose primary language was Spanish and her son was two, between two and three, and had an expressive language delay. And just getting to do that coaching with her, the parent coaching, was really informative. I had to just think about the differences in parenting styles between I guess the majority, or the White majority view on parenting, and then the differences in Spanish-speaking families from Mexico (Student in University 3).

For this student who worked with a family in early intervention, consideration of cultural differences in parenting styles was critical to the parent coaching provided. For another student, working with an adult patient from a different country required consideration of cultural differences when providing services centered on cognitive rehabilitation.

We had to adjust, for example, we had a patient who was [a native of foreign country] where the concept of time is kind of a little different. So, when working on cognition, that wasn't really something we were too concerned about. We had to take that into consideration of, okay, there's no point in asking the month, the year, when that's not culturally relevant. So, you know. Then deciding, okay, is this person cognitively impaired or is this just a cultural difference? (Student in University 1).

Along with identifying cultural differences that may impact an individual's response to tasks, this student reflected on a critical consideration (i.e., attention to dialect versus disorder within a dialect) essential to the core constructs of CLRC in SLP. Students' perceptions about CLRC training through CEE overall demonstrate recognition of the value of integrating and applying theoretical while practicing to apply the core constructs related to CLRC. As they shared their experiences of CLRC training through CEE, they also provided recommendations.

Recommendations: CLRC Training Through Clinical Educational Experiences. Similar to academic coursework, students consistently suggested that SLP programs infuse CLRC training in all CEE and require that all students take part in, at minimum, one CLRC-focused clinical externship or internship to expand their cultural

knowledge and cultural skills through practice and with supervisory support. Students also recommended that SLP programs provide more opportunities to provide services to individuals from diverse communities. Students would also like to receive more training to work with interpreters.

Indeed, students recommend that CLRC training through CEE be expanded in-depth and breadth. Expansion may include offering more clinical opportunities to work with individuals from diverse backgrounds.

I really think we need to do a better job of recruiting more diverse clients; diverse in every sense of the word. It's astounding to me that most of our clientele are White, most are middle class individuals, and I really do believe that we're doing a disservice to our students, my fellow peers, and myself when most of our clients are of a certain mold. Not only are we doing a bad job of preparing the graduate student clinicians, we're doing a bad job of serving the community. There are definitely individuals from culturally and linguistically diverse backgrounds that have disabilities because, as we know, disability does not discriminate (Student in University 3).

The student expressed significant concerns about the lack of diversity amongst clients served by SLP programs. The student also shared their perceptions of the significant lack of measures to prepare students for the global workforce. This student's perceptions present potential concerns with SLP programs' ability to meet ASHA's accreditation requirements stipulating that SLP programs support students' development of skills in culturally and linguistically responsive care. Whether through on-site/community-based clinics or off-site clinics/externships, students would like to expand their clinical education with more individuals from diverse populations with communication disorders. Students also expressed care about the quality of work they provide to all individuals with communication disorders, including those whose language differs from their own.

As such, students recommended that SLP programs provide training on how to work with interpreters.

But I think it would have been really great to have had some sort of, even if it was simulated, just trainings on how we can evaluate with an interpreter and still make a good quality of work. Just the things to consider when interpreting the results of an evaluation and how to adapt that when the person comes from a linguistic background that you don't have or really have access to, because it does happen (Student in University 1).

As evidenced by this statement, along with working with interpreters, students are interested in CLRC training specifically related to making appropriate adaptations to the assessment and intervention processes when serving individuals whose linguistic background is unfamiliar.

CLRC Training through Research Opportunities. The theme that captured students' perceptions about CLRC training through research centered on accessibility to research opportunities. Students who participated in research opportunities believed this experience enhanced their cultural knowledge and skills of CLRC. In these cases, subthemes included access to research through research labs, evidence-based projects and academics. For those students who did not participate in research, students spoke of hardships with accessing research opportunities. A summary of these subthemes along with recommendations given by students follows.

Access to Research Opportunities.

Research labs. Students spoke favorably about working as research assistants in research labs that focus on language development as well as other communication skills and disorders within CLD communities. As research assistants, tasks such as processing language samples, interviewing participants, and working directly with families during

the data collection process, were perceived as positively impactful to cultivating CLRC.

One student explained:

I felt like it's been absolutely great in being able to participate in research... I was able to learn so much from not only my peers but supervisors, the work we were doing. For instance, being able to do language samples (in the research lab). I really felt like I have such a good, fundamental grasp of how to do a language sample in both English and Spanish. And as we know language samples are great for individuals who are not represented in our norm reference language assessments. That's one assessment method that's absolutely crucial if we are to provide culturally and linguistically responsive care. And I really felt it's opened my eyes to what research is and what it looks like, and really understanding the world of research and how we can implement what we're studying into the clinical setting (Student in University 3).

This student's experience led to positive perceptions about completing language samples and understanding of its importance as it relates to the provision of culturally and linguistically responsive assessment processes. Other research opportunities that enhanced students' growth in CLRC were evidence-based projects.

Evidence-Based Projects. Whether a “special project” or a capstone evidenced-based project, students report that research assignments on a preferred topic supported their interest, and continued development in CLRC. It also prepared them for the workforce. One student stated, “I feel like I have a source of data I can look back on when working with a population that I think is similar” (Student in University 3). This student anticipates using their evidence-based project as a resource to support their future clinical practice. Students also believed that completing a project that centers on CLRC exposes them to contemporary evidence-based research. One student articulated:

Well, my special project is on culturally responsive intervention for Spanish speakers for fluency disorders. So, there was a lot of research, like reading evidence-based practice articles about what's already out there on different attitudes and perceptions of stuttering and stuttering intervention in the Spanish-speaking community (Student in University 2).

The student shared two skills that they acquired as a result of their research project. First, this student learned to access culturally responsive research. Second, the student cultivated knowledge on the intersectionality of culture and fluency disorder within a particular CLD community. Students also spoke of access to research through academic coursework.

Academic Coursework. While completing academic coursework, students perceived CLRC training that was more impactful occurred when faculty incorporated relevant research. The following example illustrates a student's perception of the research presented by faculty in a stand-alone CLRC course:

I feel like the [stand-alone CLRC course]. It was [faculty name] who led it and she was wonderful. She brought in this really wonderful research on...not just research but information in general on just kind of reminding us like not everyone has had the same experience...She really brought in the idea of cultural humility, which I really was grateful for (Student in University 1).

This student reflects on how incorporation of current research on CLRC in academic coursework helped them cultivate cultural awareness. Additionally, as exemplified by this statement, exposure to culturally responsive research was evident predominantly in stand-alone CLRC courses. In cases where culturally responsive research was not incorporated in SLP core courses, students took the initiative to independently seek evidence-based research on a CLRC topic of interest when completing course assignments.

I think my research methods class because it helped me navigate how to find literature and how to read them and interpret the result from the study...[the instructor] also gave us an opportunity for us to pick three articles that we wanted to focus on to implement some of these skills in, but then I took that step to make those bilingual-focused (Student in University 1).

In this example, it was perceived that culturally responsive research was not specifically addressed in the research methods course; however, the professor instructed students on the methodology for identifying scholarly work. This student used the strategies learned to select the articles centered on bilingual SLP for a course assignment. While several students reported being actively involved in learning about CLRC through research, others reported that such opportunities were difficult to access.

Lack of Access to Research Opportunities. Some students perceived difficulties accessing research opportunities due to personal conflicts or lack of support and/or guidance from faculty/supervisors. In several cases, while students were aware of research opportunities (i.e., completing a thesis when optional, research labs), personal conflicts and a lack of understanding adversely impacted their involvement in optional scholarly activities. Personal conflicts reported included having a hefty academic course load and having employment outside of the university. In both cases, students reported not having time to be involved in research when such an opportunity was optional. Another personal conflict reported was a lack of understanding of how research may impact students' growth as an SLP. One student explained:

I was not very involved in research in my program. I think going into it, I never really understood much about research, and now that I'm towards to the end of my program looking back, I think it's partly because I am a first-generation college student, and I've never really been exposed to anything with research until grad school. And I would hear classmates talk about oh, you should join this lab. You should join this lab, but it wasn't required to join a lab, and I didn't know much about why I should join a lab, or what a lab's gonna [do] for me, or anything like that (Student in University 2).

This student explained that as a first-generation college student, their exposure to research was limited. As such, while they heard peers speak about various research endeavors through their program, they were uncertain about its importance or relevance

to their growth as an SLP. A lack of understanding of the importance of research may be attributed to instruction or support from faculty/supervisors. As noted by others, students perceive that minimal to no instructions were provided by faculty/supervisors on how to conduct research related to CLRC. One student stated:

And I feel like my graduate program has definitely instilled in me the importance of culturally responsive care as a whole and saying like – well, this person is from a background that’s different from myself. So, I do need to do research into their culture. And I do need to be mindful of that. But when it came down to actually doing research into their culture, I was like – I don’t know anything about their culture. And I need more information about how to find that out (Student in University 2).

Similar to this student’s perception of not being taught how to identify scholarly work related to CLD populations and cultural differences, others specified such absences in their research methods course. One student stated, “Our research methods course I don’t think really talked about cultural and linguistic diversity at all. I can’t recall ever talking about it in our research methods course” (Student in University 2). These statements illustrate students’ perception about the accessibility to engage in research in SLP graduate programs. Students also shared several recommendations related to engaging in research.

Recommendations: Research Opportunities. Students provided several recommendations for exposing students to culturally responsive research. For example, students recommended that SLP programs identify mechanisms to inform students of the various research endeavors taking place in labs and the available opportunities to get involved. A student suggested:

Maybe at the beginning of the program giving more explanation of what research opportunities there are within the program. I don’t think I ever really heard anything about that in my program of someone listing here are options for

research as a grad student so maybe just offering what's available and how that could be helpful in someone's grad program (Student in University 2).

Along with introducing students to the research opportunities, students suggested that SLP programs explicitly specify the benefits of being involved in research. Another student who advocated for more exposure to the labs recommended a lecture series focusing on current research studies being conducted. The student stated:

Like a lecture series or something where all the different research labs every, maybe not every quarter, but maybe every other quarter or something present and summarize what their research labs have – what they have been doing and the progress that they've been making. That could be interesting to just have the opportunity to learn more about, yeah, the work that they're doing (Student in University 3).

This student was intrigued by the scholarly work conducted in the various research labs through SLP programs. It is evident through these examples, that students are intrigued with research being conducted by faculty in SLP programs.

Additional Instructional Approaches Across Programmatic Areas. Students addressed several elements of CLRC training that were evident across more than one programmatic area. These additional instructional approaches, as perceived by the SLP graduate students, included infusion of guest lectures, case scenarios/simulations and other assignments, and collaboration with peers and others. These generally were described when students discussed academic coursework and clinical education experiences.

Guest Lecturers. Students stated that guest lecturers invited to speak in academic courses (SLP core courses and core CLRC courses), luncheon seminars sponsored by their respective SLP program, and/or during CEE (i.e., clinical meetings) were essential to cultivating CLRC competence. According to students, guest lecturers who shared

information that supported CLRC development included practicing clinicians who provide therapeutic services (i.e., adaptation of assessment processes of dual language learners), individuals from diverse communities (i.e., transgender community) who access SLP services, and faculty/professionals (i.e., program representative from the division of diversity, equity, and inclusion in the university) who specialize on topics related diversity, equity, and inclusion and other multicultural topics. Students who spoke of guest lecturers mentioned positive impacts from this type of CLRC training. One student stated:

I felt like that guest lecture made it very personal of, these are people that we're working with, and these are their lives that we're interacting with, and these are things that we can do to make whatever things that they're going through, whatever process that they are in the middle of, be it working on their voice or working on trying to rehabilitate their swallow, regardless of what they're working on, culture needs to be considered through all of it. And I feel like that guest lecture and some of the other guest lectures that we had throughout our other coursework really just kind of solidified how important culture is clinically (Student in University 3).

The guest lecturer in this statement profoundly impacted this student's understanding of the importance of an individual's cultural background when providing personalized SLP services. Another student reported that the guest lecturer helped them think of culture in the field of SLP less abstractly. The student reported: "I think it (guest lecture presentation) just really helped me start to think clinically about culture instead of more abstractly" (Student from University 3). It is evident through this student's statement that the guest lecturer was instrumental in supporting this student's cultivation of cultural knowledge, specifically as it relates to the field of SLP. Along with perceptions of the positive impact of guest lecturers, students favored assignments or infusion of case scenarios/simulation activities that supported CLRC training.

Case Scenarios and Assignments. Students spoke of extra readings, client profiling, case scenarios, simulated cases, and class presentations centered on multicultural topics in SLP. Students perceived incorporation of these activities across programmatic areas had a positive impact on their learning about CLRC. In the following example, one student spoke of creating a client profile:

There was one assignment where we got to make up our own client profile, and so, I think that that is helpful when you choose to think of them as a person different from yourself. Then you can apply that [CLRC] thinking (Student from University 3).

This student favored the opportunity to create their own client. According to the student, choosing a client that differs from themselves provides further growth in CLRC development as they apply concepts learned about CLRC when completing the assignment. Other students recognized case scenarios/simulation tasks in which faculty/clinical supervisors infused multicultural topics such as cultural and linguistic diversity as positively impactful. As noted by one student whose case scenario depicted an individual from a diverse background, “We worked through client profile, and two assessments, and a treatment plan for them, and things that I think that could be useful as a practicing clinician. So, in general, activities like that...were really helpful for me” (Student in University 3). This student found that incorporating a case study positively impacted their self-perceived level of preparation for the workforce. Notably, the implementation of CLRC was evident in both the assessment and therapeutic processes of the course assignment. Class presentations were also an effective approach to providing CLRC training. One student shared:

I feel like [name of university] does a pretty good job with the overall training. In the (core CLRC course), we were all required to give presentations about a specific topic and everyone choose really interesting different topics. And so,

even after 10 weeks of learning about all these different [CLRC] categories, then we could learn even more from each student on their presentation and more in depth (Student from University 2).

This student shared how course presentations provided an opportunity for students to learn from each other. Certainly, collaborative efforts in which students confer with others related to CLRC topics were found to positively impact students' growth in CLRC.

Collaboration with Others. Collaborative efforts amongst peers in SLP cohorts as well as with colleagues from other disciplines in clinical education experiences, were favored by students. Peer to peer collaboration was welcomed by students as it yielded diverse perspectives on addressing CLRC. For example, one student shared:

So, with the Simucase, you have to have the pre-brief, and then you do the Simucases, and then you do a debrief. And during the debrief, we talked a lot about how we didn't agree with some of the answers that they gave on Simucase because they didn't seem to be accounting for African-American English in the assessment. So, that was interesting to be able to be able to talk about that, talk that through, whether we agreed or disagreed, and why, and noticing how someone else choose answers that we wouldn't have chosen for an assessment (Student from University 2).

This student spoke of a simulation activity conducted in one course where the potential for dialectal differences based on the simulated client's cultural background was discussed. The debrief was perceived to be educational as it provided a platform to learn about different perspectives and approaches to the assessment process. In some cases, students collaborated with peers and others to gain further understanding of a CLD community that was less familiar to them. In the following example, the student speaks of collaborative efforts with others to cultivate cultural knowledge of the military community:

The school was a wonderful community, and so the resource team in particular, I was able to kind of meet with them after school and be like, “Okay, I’m encountering certain situations with certain kids that I don’t have the background knowledge to understand because I’ve never worked with military families before, and I’m not a military family. Can you help me navigate this?” And they were very open to doing that, and so I think that, just the support system in allowing me to explore cultural responsiveness within the different setting (Student from University 3).

In this statement, the student recognized the importance of CLRC in that they perceived situations they were encountering with students in the school might be attributed to the culture of the community. As such, the student sought the support of colleagues who may be more familiar with the culture in their clinical placement to enhance their understanding of the community. As perceived by students, these additional approaches certainly yield robust opportunities to continue evolving in acquiring awareness, knowledge, and skills to provide culturally and linguistically responsive services.

Recommendations: Additional Approaches. Given students' positive perceptions of the additional approaches mentioned above, students reported that they would like them infused throughout the curriculum. For example, students expressed continued interest in guest lecturers, especially in situations where faculty may not feel confident facilitating discussions related to CLRC. One student specified, "I think if a professor maybe doesn't feel comfortable talking about that specific area (CLRC) in a required lecture class maybe bringing in someone who is" (Student in University 1). Other students recommended guest lecturers in courses related to medically-based or adult SLP services. For example, one student shared,

I think my number 1 recommendation is having more guest lecturers, guest speakers who are actively working clinically, who work in hospitals, who are working, who have experience with navigating some of these different dynamics that we may encounter with regards to culturally responsive care (Student from University 3).

This student would like guest lecturers who can speak to the provision of CLRC in various clinical settings, particularly in medically-based SLP environments. Students also expressed continued interest in embedding CLRC in client profiles, simulation activities, and other assignments. In short, students appreciate the various instructional approaches faculty/supervisors are implementing across programmatic areas to support their CLRC development. Students are interested in experiencing these approaches consistently throughout all programmatic areas and by all faculty/supervisors.

Other Impactful Themes Related to CLRC Development. Consideration of other themes that may influence the cultivation of CLRC in the field of SLP must be recognized. One theme at the individual level encompasses students' exposure to diversity (ethnic, racial and cultural diversity of students, concordance, prior cross-cultural experiences). At the programmatic level, two themes include faculty/supervisors' cultural and linguistic background and the bilingual concentration program.

Students' Exposure to Diversity. Students spoke of various experiences they have encountered that positively impacted the development of core constructs related to CLRC. These experiences include engaging with other students from diverse backgrounds, experiencing concordance with clients served in clinical practice, and previous cross-cultural experiences.

Ethnic, Racial and Cultural Diversity of Students. Students addressed the importance of ethnic, racial, and/or cultural representation within the student body for cultivating CLRC. In the example that follows, one student shares their perspective on this topic:

I think the conversations with classmates was probably the main form that I was able to learn more about how to provide services for different culturally and linguistically different populations. Our cohort was known for being probably the most diverse that the school has ever had where the majority of the cohort was a minority in some form. And I think through conversations...it was really nice to hear and learn about from the person's personal experience as well as their family experience and stories (Student from University 1).

In this statement, the student recognized the diversity within their cohort. The student appreciated opportunities to hear their peers' learned experiences and share funds of knowledge. Indeed, through these conversations, the student believed they cultivated knowledge about the provision of CLRC. This student's testimony on how their peers influenced their CLRC development was supported by another student who also viewed their peers as resources for a different reason: "I also now have colleagues who are from different racial, ethnic, and linguistic backgrounds, so I at least have access to different insights than I do because my own perspective isn't inclusive" (Student in University 1). In this statement, the student demonstrates cultural awareness as they reflect on their self-perceptions of inclusivity. The student also demonstrates cultivation of cultural humility in that they welcome interactions and diverse perspectives. Viewing their peers who represent diverse backgrounds and perspectives as resources to further their cultivation of CLRC is paramount to cultivating cultural awareness and thus providing equitable care as a practicing clinician. Through these students' voices, we learn that experiences with peers not only exposes students to diverse perspectives but also provides a pathway for students to share their learned experiences and funds of knowledge. While engagement with diverse peers is essential, students also emphasized the importance of ethnic, racial, and cultural concordance when working with individuals with communication disorders.

Concordance. Students who worked with individuals from similar cultural and/or linguistic backgrounds believed they were more prepared and comfortable to work with these individuals, in part, because of ethnic/racial/cultural concordance. For example, a student who worked in the gender communication clinic of their respective SLP program reported that they felt most comfortable and prepared to work with individuals who access gender affirmation services because they identify as a member of the community: “I identify as a part of the queer community. So, I know a lot about that community already and terminology and background” (Student in University 2). The student reported that sharing the same language and background makes them most prepared to serve the queer and transgender population. Ethnic, racial, and cultural distribution in the student body provided opportunities to collaborate with peers as well as provide clinical services to CLD individuals. Along with the diversity amongst students, interviewees also shared how their prior cross-cultural experiences supported CLRC development.

Prior Cross-Cultural Experience. Students report that their prior cross-cultural experiences were helpful to their CLRC development. Prior experiences include providing behavioral therapy to children with autism from low-income Mexican families, teaching English as a Second Language, living in various countries over several years, and taking a foreign language course. Students who shared these experiences reported being most comfortable working with the CLD populations for which they have the most experience or knowledge culturally and/or linguistically. Students reported that infusing previous experiences with what was learned in their SLP graduate program has prepared them to serve individuals whose culture and linguistic background is different from the standardized norm. In the following example the student specifies the patient population

they are most comfortable with and how they modified a stuttering assessment with an international student:

I would say populations whose first language is not English and those from different cultural backgrounds. And that's more because my experience that I have prior to going to grad school but then learning about those populations in grad school adding onto the experience that I already have...I would ask if they understood the meaning of the question or if they wanted more clarification. And I would say maybe one fourth to one third of the questions, they wanted more clarification. For me, that was really easy because it was a population that I was very used to working with from when I taught ESL. And I was used to explaining something in a simpler way. So, it felt very natural to me to do that (Student from University 1).

This statement is evidence of how previous experiences may be influential to providing culturally and linguistically sensitive therapeutic services in SLP. This perception was voiced by another student who worked with low SES Mexican families in their previous occupation. The student believed the cultural knowledge and skills acquired from the previous experience helped them when working with someone of Mexican descent during their CEE in an adult rehabilitation setting.

But personally, I feel just as prepared for a Spanish speaking – most likely Mexican. So, that tends to be an area where I feel comfortable, personally, which has to do kind of with more previous experience prior to grad school...So, prior to grad school, I did behavioral therapy. Understanding culture through this home-health modality where I had to quickly adapt to all their customs at home. And I learned a lot of things prior to grad school that allowed me to find that success later on.... Understanding especially how culture works in regards to food. For example, we had a patient who was – she had dementia and she was hallucinating a lot. And she wasn't eating. And she thought that her family was in the room with her. And she was trying to, "No, give that to my dad. He's over there. And give this to my kids. And no, I won't eat." And understanding the culture of the matriarch of the house sometimes has to sit out from meals. And you make sure that everyone else eats before she does. So, taking into account and playing into that hallucination. And be like, "Okay. I will bring the food for your dad. I will bring the food. Everyone's eating. But this is your food, okay?" (Student from University 1)

This students' approach demonstrated critical elements to providing CLRC. This student utilized learned experiences and cultural knowledge acquired about the Mexican community to adapt their therapeutic approach recognizing that doing so may result in patient compliance. While students did not provide recommendations related to individual social structural factors, it is important to acknowledge students' perspectives of how these themes positively impacted their CLR development during their academic journey. Along with exposure to diversity through peers and previous cross-cultural experiences, students reflected on the diversity amongst faculty and supervisors as positively or negatively impactful to the CLRC education received.

Faculty/Supervisors' Cultural and Linguistic Background. Students value the CLRC training provided by faculty and clinical supervisors in their respective SLP graduate programs. In relation to CLRC training, students attributed the faculty/supervisor's cultural and linguistic background to be essential to development of the core constructs. One student stated:

but having what I would like to think of is a pretty diverse faculty team in terms of language, culture, and sexuality those kinds of things, I think, makes me feel comfortable – made me feel more comfortable about talking about those areas [CLRC topics] in courses... Yeah, I think that when you yourself don't feel comfortable about a certain area of culturally and linguistically responsive work because you don't fall into that category or it's different from you. I think talking about it with someone who identifies with a certain specific category of people. It's just helpful to have open conversations. I wouldn't say if they aren't, then it isn't a valuable conversation, but it just helps (Student from University 3).

This student perceived faculty/supervisors' diverse cultural and linguistic backgrounds to be critical to engaging in conversations related CLRC. Having faculty who represent diverse backgrounds felt supportive in discussing topics that may otherwise be

uncomfortable. Interestingly, students believed that there were faculty who were less comfortable discussing CLRC. One student commented:

Sometimes, I felt like it felt a bit brushed on and it just kind of felt like it was a bit – how do I say it – they knew it [CRLC topics] had to be talked about, but it maybe wasn't fully a comfortable area. So, they were like, this is what it is, but now we're going to go onto this area. It wasn't in-depth, and I feel like it should be looked at. Not a required, like I have to address this also, but really take the extra leap to really understand that it has to be talked about, not just embedded somehow (Student from University 1).

In this last statement, the student's remarks center around a lack of attention to CLRC content in the course because of what they perceived to be the instructor's comfort level.

Similar sentiments were expressed about CLRC training through CEEs. One student remarked:

I think an area where we didn't have as much support was maybe working with people who spoke other languages. Because I think all of the faculty were monolingual English speakers. They couldn't really provide in-depth answers for working with bilingual populations and other different languages (Student from University 1).

This student attributes not receiving CLRC training to the lack of diversity amongst faculty. Another student also perceived faculty's linguistic background adversely impacted their interest in becoming a bilingual SLP as they stated: "So, the faculty is mostly made up of monolingual English speakers. So, in terms of teaching how to work as a bilingual SLP, there was very, very little training" (Student in University 1). This student attributed the lack of CLRC training specifically as it relates to the provision of bilingual SLP services of a lack of bilingual representation amongst the faculty. Students who shared their perspective on how faculty/supervisors' background, also shared recommendations.

Recommendations: Faculty/Supervisors. Students recommended that SLP programs recruit faculty who from CLD communities and/or who can provide CLRC training. For example, one student said:

I think having a faculty member who is bilingual, who is representative of some other demographic outside of the White, monolingual, English speaking demographic who could provide a little more first-hand experiences and anecdotes that could further our learning into working with those populations (Student in University 2).

The student expresses an interest in obtaining perspectives from faculty who have clinical experience working with diverse populations. This student believes faculty who are bilingual and/or who represent the CLD community would be more equipped to do so. While this statement was expressed about instructional faculty, the same sentiment was shared about supervisors in CEEs:

I would say that if there is a way for students to request a supervisor who has an interest in culturally responsive care or there's a supervisor questionnaire or a student questionnaire that talks about what the student is interested in, I think that might make for better student-supervisor matches in the externship world.

This student requested a mechanism for the SLP program to match clinical supervisors with students. This approach would provide opportunities for students to be trained by practicing clinicians who intentionally incorporate CLRC in their practice. Likewise, clinical supervisors will be able to mentor students who have a similar interest in CLRC. In some cases, students obtain further CLRC training through bilingual concentration programs within the SLP graduate school.

Bilingual Concentration Program. Several students addressed the impact of a bilingual concentration program on their CLRC development. Students who reported being formally enrolled in the bilingual concentration program or taking stand-alone CLRC courses affiliated with the bilingual concentration program as electives stated that

enrolling in this program was significant to their CLRC development. For example, when asked to describe the aspect(s) of the SLP graduate program that best prepare students to provide culturally and linguistically responsive care to individuals with communication disorders one student responded:

Yeah, the first things that pop into mind were being part of a bilingual concentration SLP graduate program and then having some of the extra coursework in providing appropriate assessments to children from bilingual backgrounds and the importance of adapting our assessments... And then just having some of the resources. So, with a bilingual concentration SLP graduate program we got a lot of different textbooks about culturally and linguistically diverse populations and how to best work with them. It [bilingual concentration program] just had that little bit of extra information or emphasis on working with those populations. That's why I wanted to be a part of that program was just to have some focused coursework and time to be more informed and have conversations. And then also to be exposed to other professionals that are working with culturally and linguistically diverse populations, so the students [from a different preprofessional graduate program]. It was really nice to have that interprofessional collaboration and the opportunity to work together. Yeah, and just too knowing that I have resources, too. Like, people to reach out to after I graduate if I have some questions or just want to know the best place to go to look for information. There is someone I can reach out to as a new professional (Student from University 3).

The student believed enrollment in the bilingual concentration program further enhanced their CLRC development. The student provided elements (i.e., additional coursework, textbooks/materials, fruitful conversations) of the bilingual concentration program that positively impacted their preparation for the global workforce. Additionally, through interprofessional collaboration, the bilingual concentration program yielded a professional network of colleagues. Students not enrolled in the program believed they were at a disadvantage in cultivating CLRC. One student perceived that the lack of a bilingual concentration focus in their SLP graduate program required that they advocate for CEE opportunities that incorporated CLRC training. The student stated:

I knew that because University 1 didn't have a bilingual focus in their program I knew that I was going to be more limited in perhaps the clinical experiences I would have to develop those skills. I made it pretty clear that I wanted my clinical practicums and workshops to be as much as possible with areas that mostly serve culturally and linguistically diverse students (Student from University 1).

Another student perceived that lack of enrollment in the bilingual concentration program placed them at a disadvantage in working with CLD populations in their CEE. This student stated:

I know that students who are in the bilingual concentration are able to work with a lot of Spanish-speaking clients. And that is something that because I don't speak Spanish and because I'm not in the bilingual concentration, I kind of feel like – oh, it's a bummer that I missed out on working on that diversity of clients. And it doesn't have to be just Spanish speaking. There's many other, like Vietnamese or Russian-speaking communities in the [x city] area (Student from University 2).

Notably, this student perceived opportunities to work with CLD clients, specifically Spanish-speaking, are available only to students in the bilingual concentration program and who are bilingual in Spanish.

Research Question 3

The third aim of this research study was to explore if there was a relationship between the 3 SLP graduate training programs and (a) students' perception of CLRC training and/or (b) their self-perceived competence in CLRC. To do this, the student investigator completed a quantitative analysis of the Multicultural Competency Checklist (MCC) in tandem with a qualitative analysis of the semi-structured interviews to explore students' perceptions of their CLRC training. Additionally, the investigator completed a quantitative analysis Cultural and Linguistic Responsive Care Competence Scale (CLRCCS) to explore students' perceptions of their CLRC competence. Responses on the

MCC, the CLRCCS, and semi-structured interviews were further analyzed for differences across programs.

Quantitative Analysis

To address the first part of this research question, a one-way analysis of variance (ANOVA) was conducted to determine if students' perceptions of the CLRC training, as represented by the total score on the MCC, was different for students from the three different SLP graduate programs, University 1 ($n = 11$), University 2 ($n = 11$), and University 3 ($n = 18$). There were five outliers, as assessed by visual inspection of a boxplot. Yet, there were no appreciable differences in the results when the student investigator ran the ANOVA with and without the five outliers found. As such, all data points were kept in the analysis. Data was normally distributed for University 2 and University 3 but not for University 1, as assessed by Shapiro-Wilk's test ($p > .05$). There was homogeneity of variances as assessed by Levene's test of homogeneity of variances ($p = .428$). Nonparametric analysis using Kruskal-Wallis H revealed similar results to the results found in ANOVA. As such, results of the ANOVA are presented.

Results of this analysis reveal that there was a statistically significant relationship between SLP graduate programs and students' perceptions of CLRC training [$F(2, 37) = .16.341, p = < .001, \eta^2 = .469$]. Observed power for this analysis was .999 which is far above the recommended power of .80. For perceptions of the CLRC training in their respective SLP graduate program, students from University 1 obtained a mean of 5.91 ($SD = 2.21$), whereas students from University 3 obtained a mean of 9.61 ($SD = 1.50$), and students from University 2 obtained a mean of 9.91 ($SD = 2.12$) in that order. Tukey post hoc analysis revealed that the mean difference from University 1 students to University 3

students (3.702, 95% CI [-1.94, 5.47]) was statistically significant ($p = < .001$), as well as the mean difference from University 1 students to University 2 students (4.0, 95% CI [2.03, 5.97], $p = < .001$); however, the mean difference from University 2 and University 3 were not statistically significant. In other words, students' perceptions of their CLRC training differed based on SLP program. Specifically, perceptions of CLRC training in University 2 (tier-2 research university) and University 3 (tier-1 research university) were higher than students in University 1 (professional university). This was especially true in academic coursework and research opportunities as revealed by on the aggregate sub-scores on the MCC (Table 7).

To address the second part of this research question, a one-way ANOVA was conducted to determine self-perceived competence in CLRC as measured by the total score on the CLRCCS was different for SLP graduate students from the three different SLP graduate programs. There was one outlier, as assessed by visual inspection of a boxplot. Yet, there were no appreciable differences in the results when the student investigator ran the ANOVA with and without the one outlier found. Therefore, it was determined to keep all data points in the analysis. Also, data was normally distributed for each group, as assessed by Shapiro-Wilk test ($p = .120$), and there was homogeneity of variances as assessed by Levene's test of homogeneity of variances ($p = .778$).

Nonparametric analysis using Kruskal-Wallis H revealed similar results as the ANOVA. As such, results of the ANOVA are presented. The difference in self-perceived competence in CLRC amongst students from the three SLP graduate programs was not statistically significant [$F(2, 37) = .580, p = .565, \eta^2 = .03$]. Observed power for this analysis was .139 which is far below the recommended power of .80]. That is to say,

students' perceptions of their levels of competence in providing culturally and linguistically responsive care prior to entering the workforce was found to be similar across training programs despite the aforementioned finding that some graduate programs did differ substantially from one another in programmatic offerings related to CLRC. However, this null finding may be impacted by the insufficient sample size.

Qualitative Analysis

A review of the thematic analysis of semi-structured interviews by the SLP graduate program revealed minimal meaningful differences in themes. Given the small sample size of students from each program who participated in the interview and the difference in Carnegie classification, which specifies that University 2 and University 3 are classified as high and very high research activity institutions compared to University 1, the results should be interpreted with caution. Differences in CLRC training were evident in students' perceptions of guest lecturers, geographic location, and participation in research activities. Only the qualitative results related to research opportunities were triangulated with the results of the sub-scores on the MCC as no other themes (e.g., guest lecturers and geographic location) were addressed in this measure.

In relation to guest lecturers, more students from University 1 and 2 spoke of guest lecturers who support CLRC development than students in University 3. For example, several students in University 2 reported having a guest lecturer "almost every week" in one of the stand-alone CLRC courses. Likewise, students in University 1 reported multiple guest lecturers throughout the program. Only one student in University 3 reported the presence of one guest lecturer in an SLP core course.

Results further reveal that more participants in University 3, located in a small urban city, than any other SLP program reported that geographic location adversely impacted the opportunity to work with CLD populations. One student in each of the other participating universities reported similar perceptions about their respective SLP program.

The most profound difference amongst the SLP programs was in relation to research. All students from University 3 reported that research opportunities that address CLRC were available. Only one student from University 2 and no student from University 1 reported the same. More students from University 3 than any other two universities spoke about participating in research activities that specifically addressed CLRC outside of the required academic coursework assignments. Only one student from each remaining university participated in research focusing on CLRC. While all students in University 3 (100%) reported a faculty member whose primary research interest is on CLRC, most students in University 2 (82%) and few students in University 1 (18%) reported the same. Also, most students in University 2 (91%) and University 3 (83%) believed students are actively mentored in CLRC related research. Only 9% of University 1 reported this to be true in their SLP graduate program. As noted above, the research productivity of the respective universities per their Carnegie classification, may contribute to these findings. Students from University 1, a professional university, may not have as many opportunities to engage in research when compared to University 2 and 3 which are tier-2 and tier-1 research universities respectively.

Research Question 4

The fourth aim of this research study was to explore the association between students' self-perceived competence in CLRC and students' individual social structural factors of (a) racial/ethnic status, (b) multilingual status, and (c) frequency of cross-cultural experiences. Preliminary analyses for students' self-perceived CLRC competence and race/ethnicity or multilingual status revealed presence of outliers in the data, as assessed by inspection of the boxplot. There were no appreciable differences in the results when the student investigator ran the independent samples t - test with and without the outliers found. It was determined to keep all data points for analysis. Self-perceived competence in CLRC for each level of race/ethnicity (BIPOC; White) and for each level of multilingual status (monolingual; multilingual) were normally distributed as assessed by Shapiro-Wilk's test ($p > .05$). There was homogeneity of variances for self-perceived competence scores for BIPOC and Whites ($p = .648$) and for monolingual and multilingual ($p = .780$) as assessed by Levene's test for equality of variances. For CLRC competence and race/ethnicity or multilingual status, nonparametric analysis using Mann-Whitney U test revealed similar results to those found in the independent sample t – test. As such, results of the independent sample t – test are presented.

Results of the preliminary analysis of assumptions of CLRC competence and cross-cultural experiences indicate the relationship to be linear. Additionally, one outlier was identified. The student investigator determined that the outlier was genuinely unusual and not due to data entry errors nor measurement errors. There were no appreciable differences in the results when the student investigator ran Pearson's correlation with and without the outlier. As such, it was determined to keep all data points, including the

extreme outlier noted initially. Lastly, both variables were normally distributed as assessed by Shapiro-Wilk's test ($p > .05$). The results of Pearson's product-moment correlation are reported below.

Results of the statistical analysis indicated that students' self-perceived competency in CLRC (as measured by total scores on the CLRCCS) was not statistically significant different for students who were BIPOC and White [$t(33) = .531, p = .599$] nor was there a statistically significant difference for students who were monolingual vs. multilingual [$t(38) = .662, p = .512$]. According to the Pearson's product-moment correlation, there was a statistically significant and strong positive correlation between cross-cultural experience and self-perceived competence [$r(38) = .62, p < .001$] such that a greater number of reported cross-cultural experiences was associated with higher self-reported level of competence in culturally and linguistically responsive care. These results indicate that greater frequency of cross-cultural experiences, and not ethnicity/race nor multilingual status, is associated with increased level of CLRC competence. This aligns with students' perceptions that cross-cultural experiences prior to and during their graduate programs were impactful for the development of CLRC, as previously described.

Research Question 5

The final aim of this study was to explore the association of students' self-perceived competence in CLRC with their perceptions of the CLRC training in all programmatic areas of their graduate educational program. A multiple regression was completed to determine the relationship between CLRC competence (as reflected by the total score on the CLRCCS) and CLRC training (as reflected by the sub-scores and total

scores on the MCC) while accounting for the frequency of students' cross-cultural experiences (as reflected by the total score on the PCCES). There was linearity as assessed by partial regression plots and a plot of studentized residuals against the predicted values and there was independence of residuals, as assessed by a Durbin-Watson statistic of 2.023. Additionally, there was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values and there was no evidence of multicollinearity, as assessed by tolerance values greater than 0.1. While there was one studentized deleted residual greater than ± 3 standard deviations, and four leverage values greater than 0.2, and no values for Cook's distance above 1, a decision was made to keep all data points including the extreme outlier and leverage point noted initially. Lastly, the assumption of normality was met, as assessed by a Q-Q Plot.

The multiple regression model statistically significantly predicted CLRC competence, $F(4, 35) = 6.545, p < .001, \text{adj. } R^2 = .36$. However, the coefficients of academic coursework, clinical educational experience, and research opportunities were not significant and thus they did not contribute to the model (only frequency of cross-cultural experience did). Furthermore, the observed post hoc power analysis was .386 for curriculum, .069 for practice and supervision, .077 for research, and .994 for cross-cultural experience. All but the frequency of cross-cultural experiences were far below the recommended power of .80. Therefore, when accounting for the influence of students' cross-cultural experiences, the programmatic areas of the graduate program curriculum were not related to students self-reported level of competence in CLRC at the

end of their training. However, this null finding could be related to the limited sample size. Table 9 provides a summary of the results of the multiple regression for CLRC competence.

Table 9.*Multiple Regression Results for Culturally and Linguistically Responsive Care Competence*

CLRC Competence	<i>B</i>	95% CI for <i>B</i>		<i>SE B</i>	β	r_s	Power	<i>VIF</i>	R^2	ΔR^2
		<i>LL</i>	<i>UL</i>							
Model									.43	.36
Constant	198.40*	167.69	229.11	15.13						
MCC - Curriculum	4.58	-1.20	10.35	2.845	.252	.206	.386	.206		
MCC – Practice and Supervision	-.917	-5.70	3.87	-.917	-.051	-.050	.069	-.050		
MCC - Research	-.920	-4.97	3.13	-.920	-.073	-.059	.077	-.059		
TS - PCCES	3.35*	1.76	4.94	.784	.582	.547	.994	.547		

Note. *B* = unstandardized regression coefficient; CI = confidence interval; LL lower limit; UL = upper limit; *SE B* = standard error of the coefficient; β = standardized coefficient; R^2 = coefficient of determination; ΔR^2 = adjusted R^2 ; MCC = Multicultural Competency Checklist; TS-PCCES = Total Score - Participation in Cross-Cultural Experiences Survey

* $p < .001$

CHAPTER IV

DISCUSSION

This study aimed to explore SLP graduate students' self-perceived competence in CLRC and the association of individual social structural factors with their CLRC competence before entering the profession of speech-language pathology. The current study also explored students' perceptions of their preprofessional CLRC training and the association of their training with CLRC competence. Findings from this study indicate variance in students' CLRC competence at the end of their academic trajectory that is, in part, attributed to the frequency of their cross-cultural experiences but not their race/ethnicity or multilingual status. Furthermore, exploration of students' perceptions of their CLRC training revealed that CLRC training is evident in the curriculum of the three participating universities with minimal differences across SLP programs that appear to have a minimal meaningful impact on student outcomes. While students shared their perceptions of which elements of their CLRC training impacted their development, the current study did not confirm the association between SLP students' CLRC competence and the CLRC training elements assessed through qualitative measures. Each of these findings, as well as limitations and future directions, will be discussed below.

Students' Self-Perceived CLRC Competence

It was hypothesized that at the end of the preprofessional graduate-level SLP program, students would present with self-reported high degrees of competence in CLRC overall and that students who identified as BIPOC, were multilingual, and/or had more frequent cross-cultural experiences would demonstrate higher perceptions of self-reported CLRC competence than their counterparts. This hypothesis was only partially supported

in that results of the current study found that overall, SLP graduate students vary in their self-reported levels of CLRC competence. This variation in CLRC competence may be a result of individual differences in cross-cultural experiences, variance in responding behaviors, and/or variance of students' level of CLRC competence.

Individual Variation in CLRC Competence

This study revealed that CLRC competence across students was attributed to the frequency of their cross-cultural experiences. This is consistent with several previous studies in other disciplines (Campinha-Bacote, 2002; Lopes-Murphy & Murphy, 2016; Sue, 2001). Students who reported a higher number of prior cross-cultural experiences, such as through academic experiences, interpersonal interactions, as well print/electronic media also had higher scores on a measure of CLRC competence overall. Increased cross-cultural experiences may be linked to increased CLRC competence because such opportunities empower students to become active agents of their own learning. As such, students become motivated for the knowledge and skills they cultivate through cross-cultural experiences (Goldberg et al., 2006; Kim & Garcia, 2019; Lopes-Murphy & Murphy, 2016). Furthermore, cross-cultural experiences may foster the application of learned theoretical knowledge related to CLRC and yield opportunities for reflective and critical thinking beyond memorizing concepts and away from students being passive receivers of teachers' knowledge (Kim & Garcia, 2019). By exploring and engaging in problem-solving and decision-making skills through cross-cultural experiences, students continue the iterative process of cultivating CLRC (Goldberg et al., 2006; Kim & Garcia, 2019; Lopes-Murphy & Murphy, 2016). Indeed, interviewees in this study perceived opportunities where cross-cultural experiences (i.e., create client profiles, work directly

with CLD clients in clinic, process language samples in the research lab) were infused in all three programmatic areas to impact their CLRC development positively. Another form of cross-cultural experiences, interacting with peers and faculty/supervisors from diverse cultural and linguistic backgrounds, were also thought to be valuable. This leads to important implications for SLP graduate training programs.

SLP programs working to foster students' CLRC training should seek to increase the number of cross-cultural experiences students have while enrolled. Programs may identify instructional approaches where intentional cross-cultural experiences can be incorporated in all three programmatic areas. Based on responses from students in this study and recommendations from prior research, examples of instructional approaches that can offer cross-cultural experiences may include the use of simulated case scenarios or cultural groups (Kratzke & Bertolo, 2013; Perry et al., 2015), guest lecturers who identify as individuals from CLD communities and/or who have knowledge and skills related to CLRC, and incorporation of evidence-based culturally responsive research (Horton-Ikard & Muñoz, 2010; Hyter & Salas-Provance, 2019). Furthermore, cross-cultural experiences may occur amongst faculty and the student body. As such, efforts to hire faculty from diverse backgrounds and/or who have expertise in CLRC training along with recruitment/retention of diverse students may enhance cross-cultural engagement at the programmatic level. Given the results related to cross-cultural experiences attributed to the variation in CLRC competence, further investigation of precise cross-cultural experiences that are most impactful while enrolled in an SLP graduate program is essential.

Variation of CLRC Competence as a result of Survey Responding Behaviors

The diversity of survey responding behaviors may also contribute to the variability in students' assessment of their CLRC competence. As noted by de Diego-Lazaro et al. (2020), there appears to be a continuum in which some students may underestimate their CLRC competence (i.e., imposter syndrome), some may have an accurate perception of their CLRC competence, and yet others may overestimate their CLRC competence (i.e., Dunning-Kruger effect). More specifically, the imposter phenomenon, coined by Clance and Imes (1978), occurs when students underestimate their level of competence despite a high level of accomplishments and experience. Individuals who experience imposter syndrome may underestimate their knowledge and skills related to CLRC. As such, their self-ratings on the scale may be deflated. Students may also potentially overestimate their CLRC competence. Given the sensitivity of CLRC in SLP for some students, social desirability effects in which students' responses may reflect what participants desire to believe and/or do as opposed to what they believe and/or do may contribute to the variance in CLRC competence (Pope & Mueller, 2005; Stockman et al., 2008). Another potential impact may be the Dunning-Kruger effect, in which students may overestimate their self-perceived knowledge and skills. In the current study, students may present themselves with significant confidence in their ability to provide CLRC without truly being competent in the awareness, knowledge, and skills of CLRC services specific to SLP (Unrau & Beck, 2004).

Given the potential for these responding behaviors to impact students' CLRC competence level, SLP graduate programs may consider incorporating multimethod and multisource measures that are less subjective in assessing students' readiness to provide

CLRC in the workforce (Allison et al., 1996; de Diego-Lazaro et al., 2020). de Diego-Lazaro and colleagues (2020) used a multisource approach as way to obtain perceptions of CLRC competence from both students and supervisors. Specifically, the authors expanded an existing measure supervisors use to rate students' clinical skills to include questions about students' CLRC competence. Moreover, the authors included several of the same questions (although edited for supervisors) from an existing tool to measure students' self-perceived CLRC competence. As such, areas in which supervisors assess students' CLRC competence are congruent with CLRC competence areas that students measure about themselves. At present, there is no known single objective measure that has been well validated to assess students' CLRC. Indeed, SLP programs may consider developing a measure that fits their unique program.

Variation of CLRC Competence as Evidence of Students' Level of CLRC Competence

As noted in the literature review, CLRC competence occurs through an iterative process that requires lifelong learning as well as professional and personal growth. Scholars contend that some students' competence may be at a level where intentional biases and prejudicial provision of care (cultural destructiveness) is evident or at a level where there is no awareness that they lack CLRC competence in their delivery of care (unconscious incompetence; Cross et al., 1989; Purnell, 2005). Other students may be at a stage where they accept and respect differences but recognize their limitations when providing services to the CLD population (Cross et al., 1989). Given the variation of students' scores at the end of their academic trajectory, students' CLRC competence may fall within these two extremes. As such, it may be critical to ascertain students' CLRC competence upon entering the graduate program. Having students' CLRC competence

levels upon entering and exiting the SLP program may provide insight into students' self-perceived growth in CLRC over time and may further inform SLP programs of the CLRC training effectiveness.

While the variation in CLRC competence across students was found to correlate with cross-cultural experiences, the same was not true for the other two individual social structural factors, race/ethnicity or multilingualism. These results align with prior research which found that these social structural factors do not always predict CLRC competence (Kritikos, 2003; Ladson et al., 2006; Okoro et al., 2012). Potential reasons for this may include the demographics of participating students, and/or social structural factors alone may not be an indicator of CLRC competence. The student population for this study consisted mostly of individuals who identified as White (68%) and monolingual (68%), meaning the sample size of students who were not White and who were multilingual may not have been of sufficient power to detect effects. Results might look different if there was greater diversity amongst participants (Echeverri et al., 2013).

CLRC Training Across Programmatic Areas

This study also explored students' perceptions of the CLRC training during their SLP graduate education across the areas of academic coursework, clinical education experiences, and research. A hypothesis was not generated due to the exploratory nature of this research aim. To start, themes generated from the current study revealed that students believe CLRC training positively impacts personal and professional growth in cultivating awareness, knowledge and skills when educational experiences occur at the curricular level (i.e., programmatic areas), the organizational level (i.e., Bilingual Concentration Programs, Faculty/Supervisors), and in the broader community (i.e.,

clinical educational experiences). This outcome aligns with theoretical frameworks suggesting that evidence of CLRC across all levels of an institution and CLRC growth occurs across core constructs demonstrates a high regard for diversity such that advocacy for attitudes, policies, and practice of care is sensitive and respectful of all individuals, particularly those from CLD communities (Campinha-Bacote, 2002; Cross et al., 1989; Sue, 2001).

While the findings revealed that students perceived critical foundational components of CLRC training to be evident in their preprofessional SLP educational programs, the breadth and depth of instruction to cultivate CLRC appears to be lacking in all three programmatic areas regardless of the specific university attended by the student. Furthermore, minimal meaningful differences were noted in students' perceptions of CLRC training based on their respective SLP graduate program even though students scored University 1 as having fewer CLRC training elements than University 2 and University 3. This suggests commonalities in perceptions of strengths and gaps in CLRC training when examining graduate programs that may be somewhat diverse in their curricular approaches. A discussion of the strengths and gaps in CLRC training as perceived by SLP graduate students as well as discussion about differences in SLP graduate programs, whenever applicable, follow.

Strengths of CLRC Training as Perceived by SLP Graduate Students. In the current study, students from the three SLP programs perceived both the stand-alone CLRC course and infusion of CLRC training in core SLP courses to be valuable. This aligns with previous studies which have found benefits to both approaches (Hammer et al., 2004; Hammond et al., 2009, Roseberry-McKibben et al., 2005, Stewart & Gonzalez,

2002). In clinical educational experiences, SLP students across all three programs favored to work with individuals from CLD populations. Furthermore, students perceived experiential learning focused on working with interpreters, learning to adapt therapeutic services, and providing bilingual services supported their development in CLRC.

Regarding research opportunities, the current study elucidates the increase in CLRC training through research compared to what has been previously reported (Horton-Ikard & Muñoz, 2010). This study is the first known study to focus on how research conducted in SLP graduate programs impacts students' CLRC development. SLP graduate students specified that opportunities to work in research labs that center on various CLRC topics positively impacted the cultivation of CLRC. Indeed, students report positive outcomes related to CLRC as a result of their experience as research assistants or through completion of an evidenced based research project. Certainly, the acquisition of knowledge through research may support students in optimizing care provided to individuals they serve. It is critical to recognize that programmatic efforts toward developing CLRC, theoretical models of CLRC in SLP, and measurement of CLRC through research experiences makes important contributions to students' CLRC development. Nevertheless, considerations should be made for diverse research experiences students may have across SLP programs based on the research classification of the SLP program. Professional universities such as those similar to University 1 may consider infusing culturally responsive research in the research methods course and across all SLP core courses within the curriculum.

Gaps in CLRC Training as Perceived by SLP Graduate Students. While students perceive CLRC training to be evident in all three programmatic areas, the

breadth and depth of instruction related to CLRC were perceived to be lacking in all three programmatic areas (academic coursework, clinical educational experience, and research).

Curriculum. Notably, students perceive infusion of CLRC content in SLP core courses, CEEs, and research materialized predominantly in pediatric, school-based, early-intervention courses and clinical settings and rarely in courses and settings that focus on medically-based, acquired language disorders, or adult populations. These results are similar to findings from a study by Stockman et al. (2008), which ranked speech and language development, developmental language disorder, and articulation/phonological disorders courses, as perceived by SLP educational program representatives (i.e., SLP program directors, instructors, clinical supervisors), to be more relevant to infusing CLRC training than courses related to the acquired neurogenic disorder, dysphagia, and research methods. The authors reported that the ranking was reflective of the SLP program representatives' preference for where CLRC content should be infused (Stockman et al., 2008). In the current study, students recommended that CLRC content be infused in all curricular areas. A comparison of these recommendations with the program representatives' preferences, as depicted by Stockman et al. (2008), is noteworthy. It demonstrates a gap in how faculty and students differ in their perspective of where CLRC content should be infused. SLP programs may need to explore these varying perceptions. This is essential in meeting ASHA's accreditation requirements which specify that preprofessional CLRC training prepare students to provide CLRC to all individuals with communication disorders.

During clinical educational experiences, students' perceptions of the extent to which opportunities to serve individuals from CLD populations were available are similar to prior studies that obtained perspectives from SLP program representatives. Specifically, in the current study, 53% of the students across all three SLP programs believed 30% of student-clinicians' caseloads during CEEs were from culturally and linguistically diverse populations. Likewise, Horton-Ikard & Muñoz (2010)'s study revealed that 58% of SLP graduate program representatives reported similar findings. The amount of exposure to CLD populations during CEEs may not be sufficient for cultivating CLRC. Moreover, similar to prior studies, students in the current study attribute the lack of CLRC training during CEE, in part, to geographic location (Hammond et al., 2009; Stewart & Gonzalez, 2002; Stockman et al., 2008). Indeed, given the homogeneity of the population in the region in which this study was conducted, this factor continues to be of concern for providing CLRC training in SLP programs. Therefore, preprofessional programs may consider other experiential learning options which may contribute to students' progress in cultivating CLRC effectively.

In the absence of direct clinical practice, SLP programs may consider various instructional approaches (i.e., guest lectures, simulated case scenarios, collaborative efforts). Non-curricular activities may also be an option for SLP programs to explore. Examples of non-curricular activities may include study abroad programs (de Diego-Lazaro et al., 2020), research labs, and mentorship programs with practicing clinicians who provide CLRC. Educational seminars or workshops on multicultural topics, service-learning opportunities (Goldberg et al., 2006), and other activities to cultivate CLRC may also be considered. The use of teleconferencing platforms (Arbour et al., 2014) to connect

with individuals from CLD communities who may otherwise be difficult to reach in person may be an effective option for experiential learning. Indeed, teleconferencing platforms may be a viable approach for SLP graduate programs, like those who participated in the current study where the geographic location adversely impacts access to CLD populations and opportunities to obtain CLRC training. The use of social media may also boost access to professional social network sites and discussion forums that center on evidence-based practice in SLP (Arbour et al., 201; McArthur et al., 2011). Faculty may also intentionally infuse evidence-based culturally responsive research and/or other instructional materials centered on CLRC specific to SLP and create spaces to discuss material infused (Hyter & Salas-Provance, 2019 Stewart & Gonzalez, 2002).

The quantitative analysis revealed that minimal differences existed in students' perceptions of the CLRC training based on SLP graduate program affiliation. Further review of students' perceptions of CLRC training in each programmatic area as represented by subscales on the MCC and qualitative analysis, revealed notable differences in perception of CLRC training through research. Given the significant positive impact reported by interviewees, SLP programs may want to be more intentional with infusing CLRC training through research opportunities.

Faculty and Supervisor Support. Faculty and supervisor support was perceived to be critical to students' cultivation of CLRC. As such, students perceived CLRC content infused in all three programmatic areas depends on faculty/supervisor's cultural and linguistic background, level of comfort related to the provision of CLRC in the field, and sufficient time to cover in content-heavy courses. Similar to some of the students' perceptions in this study, a study by Stockman et al. (2008) found that while faculty,

clinical supervisors, and administrators in SLP programs were committed to CLRC training, instructional practices for how CLRC training is infused varied. The authors posited that inadequate CLRC training reported by faculty might explain why infusion of CLRC training may occur insufficiently or not at all (Stockman et al., 2008).

Furthermore, a recurrent concern noted by the authors is the challenge of structuring course content when consideration of infusing CLRC training is perceived as an addition to what is currently taught in SLP core courses (Stockman et al., 2008). Indeed, some instructional strategies may need to be modified to incorporate CLRC content in a way that the integral infusion of CLRC content neither adds nor replaces existing course content. Instead, integral infusion reframes existing content to identify how CLRC relates to current theoretical frameworks, clinical practices, and research (Stockman et al., 2008). Furthermore, successful infusion CLRC training is most successful when CLRC training is perceived by all SLP graduate program representatives (i.e., university and departmental administrators, faculty, supervisors, clinical and clerical staff, research scientists) as integral and fundamental components necessary throughout the entire SLP program (Horton-Ikard & Muñoz, 2010).

While students perceived the strengths and gaps of their programs as influencing their CLRC, it is unclear why the quantitative findings did not bear out this relationship. Potential reasons may include those described above (i.e., lack of diversity in participants), sample size, and minimal differences in students' perceptions of CLRC training across SLP graduate programs.

Limitations and Future Directions

This study addressed a number of gaps in the existing literature. However, some limitations must be noted. First, while a sample size of 40 second-year students representing 3 SLP programs from a single state in the Northwest is comparable to prior research on this topic, not all students from all programs participated in this study. Those who did participate were likely interested in the topic. Indeed, students who were interviewed may have represented particular perspectives and prior experiences, as informed by the point at which they completed the study (i.e., just prior to graduation during a global pandemic). Moreover, power analyses suggested that a larger sample size than was obtained in this study is necessary to examine some of the research questions posed here. Therefore, future studies should include a larger number of students with diverse interests and experiences in CLRC from various SLP graduate programs across the country at varied timepoints in their educational trajectories to determine the representativeness and the generalizability of the current findings.

Second, centering this current study on students' perspectives on CLRC training and their CLRC competence as they enter the workforce was critical given the scant research in the field of SLP and the importance of preservice training. While having students' perspective illuminates the strengths and gaps of CLRC training, it is not sufficient to make informed decisions about how to best prepare students to provide CLRC. Indeed, some of the current findings did not align with prior research conducted with program representatives. Future studies may further consider triangulation of additional data, including reviewing pedagogical records from participating SLP graduate programs (e.g., course syllabi) and obtaining perspectives from other stakeholders such as

program directors, faculty, clinical supervisors, alumni from the participating pre-professional SLP programs, and representatives of local CLD populations.

Third, this study used a cross-sectional research design as it compared students from three different universities at a single time point. It may be beneficial to complete a longitudinal research design to measure students' self-perceived competence in CLRC and the effect of CLRC training over time. A longitudinal research design that measures students' CLRC competence before the commencement of their program, at the conclusion of their SLP graduate program, and after they have entered the workforce may better inform SLP programs of factors that contribute to students' growth while enrolled in their institution of higher education and the application of learned concepts related to CLRC training when they enter the workforce. A longitudinal study may also inform SLP programs of various experiential learning opportunities that positively impact students CLRC over the course of their academic trajectory.

Finally, the measures used in the current study consisted of self-report measures. As previously discussed, this approach has risks of varying responding behaviors (i.e., imposter syndrome, social desirability Dunning-Kruger effect). An objective approach that encompasses multiple methods and sources for measuring CLRC competence should be explored further in order to overcome the limitations of students' abilities to perceive their skills and what may be necessary for their training.

Conclusion

This study revealed that students are entering the workforce with varying levels of self-perceived CLRC competence, which are significantly associated with students' cross-cultural experiences. Furthermore, this study found that CLRC training is evident

across all programmatic areas; however, the breadth and depth of CLRC training lack in all three areas. Obtaining students' perceptions on CLRC training provided insightful information on what is perceived to be most and less impactful to their growth as future speech-language pathologists. This information may inform SLP programs how to address current gaps in meeting accreditation regulations by ASHA and how to provide CLRC training to ensure that students enter the workforce prepared to provide equitable and inclusive services to mitigate health and educational disparities.

APPENDIX A

DEMOGRAPHIC INFORMATION

Please answer the following questions about yourself.

Questions Focusing on Eligibility to Participate in the Study:

1. Specify the SLP graduate program you are enrolled in:
 - Name of University 1 SLP Graduate Program
 - Name of University 2 SLP Graduate Program
 - Name of University 3 SLP Graduate Program

2. Specify if you are in your first or second year as a SLP graduate student.
 - First-year
 - Second-year

3. Specify your enrollment status.
 - Part-time
 - Full-time
 - On an extended program plan

4. What is your age in years? _____

If the potential participant **does not** meet the inclusionary criteria (full-time student, second-year, and over 18 years of age) based on responses provided in Q1-Q4, they will receive the following message: *“Thank you for your interest in participating in this study. Based on your response to the questions above, you are not eligible to participate in this study. Have a great day!”*

If the potential participant meets all of the inclusionary criteria (full-time student, second-year, and over 18 years of age) based on responses provided in Q1-Q4, they will receive the following message: *“Thank you for your interest in participating in this study. Based on your response to the questions above, you are eligible to participate in this study. Please review the consent form and sign if you give consent. Once signed, you will be directed to the survey. Thank you.”*

1. What is your gender identity?
 - Female
 - Male
 - Non-Binary
 - Other (please specify):_____

2. Which of these describes your race/ethnicity? You may choose more than one.

- American Indian or Alaska Native
- Asian
- Black or African American
- Hispanic or Latino/a/x
- Native Hawaiian and Other Pacific Islander.
- White or Caucasian or Anglo-American or Anglo-European
- Two or more races (*please specify*):
- Other (*please specify*): _____

3. Were you born in the United States mainland?

- Yes
- No
- I prefer not to answer

4. Are you multilingual? By multilingual, we mean that you can use more than one language to communicate with fluency and accuracy in most required communication interactions in a variety of formal and informal settings. In addition, the multilingual individual understands the social language conventions and linguistic, discursive, and pragmatic competencies of all languages they are proficient in.

- No
- Yes. Please select your languages: _____

English

Tagalog

German

Yiddish

Spanish

Vietnamese

Russian

Chinese
(specify:____)

Italian

Polish

French

Portuguese

Other: _____

(If participant responded “NO” to Q 4 will be skipped and they will move on to the next survey)

5. Did you learn the languages simultaneously (learned both languages since birth) or sequentially (learned the other language(s) after being exposed to the first language for some time)?

Simultaneously

Sequentially:

- I learned my second language between the following ages: 0-5 years
- 5-9 years
- 10 -14 years
- 15 – 19 years
- 20 - 24 years
- 25 – 30 years
- 30 years or over

APPENDIX B

CULTURALLY AND LINGUISTICALLY RESPONSIVE CARE COMPETENCY SURVEY

As you respond to the questions, consider "culture" to be about the behavior, beliefs, and values of a group of people who convene as a result of a shared commonality. Some shared commonalities include but are not limited to race and ethnicity, language or communication systems, socioeconomic status, regional locations, sexual orientation or identification, age, educational background, religious/spiritual practices, and social status. Culture serves as the lens through which one perceives and interprets the world. Individuals may identify with more than one culture.

INSTRUCTIONS: The questions below ask you about different aspects of culturally and linguistically responsive care (CLRC). CLRC refers to the capacity to understand, appreciate, and respect diverse cultural and linguistic attributes of all clients receiving clinical services, especially those from culturally and linguistically diverse backgrounds (Battle, 2012; Hyter & Salas-Provance, 2019). You are invited to consider current and past experiences with individuals from cultural and linguistic backgrounds other than your own (e.g., current or past employment, social engagements, clubs/organizations, volunteer). Click on the response measuring agreement (1 = Strongly Disagree to 5 = Strongly Agree), frequency (1 = never to 5 = always; 1=never to 5 = often), or comprehension (1 = Never Understand to 5 = Always Understand) that best describes your opinion of and belief about the statements. Optional: If you would like to expand on your response, please do so in the “comment” section which is made available at the end of each section

Cross-Cultural Interactions Frequency & Attitudes		Never	Someti mes	Neut ral	Usual ly,	Often	
1	I interact with people from economic backgrounds different from my own.						
2	I interact with people whose primary language is different from my own native language.						
3	I interact with people whose nationality is different from my own.						
4	I interact with people from racial/ethnic groups different from my own.						

5	I interact with people whose religious beliefs are different from my own.						
6	I interact with people whose sexual orientation is different from my own.						
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
7	I would describe my hometown as ethnically/racially diverse (hometown = <i>the town of one's birth or early life or of one's permanent residence when not on campus/university</i>)						
Comments:							
Cultural Awareness of Self		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
8	I consider myself as being part of a particular culture.						
9	My culture identity does not influence how I perceive the world and how I behave.						
10	I view others as more cultural than myself.						
11	I strongly identify with my cultural background.						
12	I have been in situations where I felt like a cultural outsider.						
Comments:							

Seeking and Sharing Knowledge		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
13	I discuss issues related to diversity with friends.						
14	I attend groups or events that deal with diversity (e.g., student clubs, multicultural speakers).						
15	I avoid using language that reinforces negative stereotypes.						
16	I make efforts to get to know people from different cultures as individuals.						
17	I make an extra effort to educate myself about other cultures.						
Comments:							
Global and Domestic Awareness		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	No Opportunity
18	I think it is important to remain current on international affairs.						
19	I think it is important to remain current on domestic affairs of the U.S.						
20	My own background (in terms race, ethnicity, etc.) often influences how I view myself and others.						
21	I communicate effectively with others from backgrounds different from my own.						
22	Discrimination is a problem in the area in which I was raised.						
23	I would feel comfortable serving as an advocate for someone from a different cultural or linguistic background						

24	I am knowledgeable about race and ethnic relations in the United States.						
25	I am knowledgeable about issues related to sexual orientation (e.g., bi- hetero- homo- sexuality).						
26	I am knowledgeable about international/global issues.						
27	I am knowledgeable about religious or spiritual practices that are different from my own.						
28	I am knowledgeable of issues related to social class and economic status (SES)						
29	I am knowledgeable about factors that contribute to socioeconomic status.						
		Never Understand	Rarely Understand	Occasionally Understand	Often Understand	Always Understand	
30	I understand diverse cultural attitudes about disability.						
	Cross-Cultural Communication	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	No Opportunity
31	I am comfortable talking with people from other cultural groups.						
32	To be an effective speech-language pathologist, it is essential to learn about the cultural background of my clients.						
33	I have been misunderstood because of cultural differences.						

34	My cultural identity does not really impact how I communicate with most other people.						
35	I adjust my communication styles depending on whom I am talking to.						
36	I am effective at using an interpreter when providing services to clients.						
		Never Understand	Rarely Understand	Occasionally Understand	Often Understand	Always Understand	
37	I understand the role and responsibilities of an interpreter.						
38	I understand cultural differences in rules regarding social interaction (e.g., eye contact, personal space, touch, forms of address, expectations about male–female and same-gender interactions).						
Comments:							
	International and Multicultural Experiences	Never	Rarely or 1 time	Occasionally or 2-3 times	Frequently or 4+ times	Always or Every Year	
39	I have traveled outside the continental United States,						
40	I have engaged in hands-on activities within an international community (i.e., socially, academically, politically, spiritually) either in the U.S. or abroad.						
41	I have participated in a study abroad experience.						

42	I have participated in a study abroad experience directly linked to the field of communication disorders (CDS).						
43	I have participated in an international service-learning course or program.						
44	I have participated in an international service-learning course or program that is directly related to the field of CDS.						
45	I have participated in a service-learning course or program that largely involved serving individuals from diverse backgrounds.						
46	I have maintained friendships with people who are other from other nationalities.						
47	I am involved in community activities that give me the opportunity to work with people from different cultural and linguistic backgrounds.						
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	No opportunity
48	My international experiences can contribute to my ability to work with culturally and linguistically diverse populations.						
49	I expect to have a diverse case load as a professional in a field of CDS.						
50	I am interested in working with diverse populations as a professional in the field of CDS.						
51	I believe I would benefit from more exposure to diverse clients.						
Comments:							

Clinical Perspectives		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
52	I received training in my graduate (academic or clinical) program as to how to assess clients from diverse backgrounds.						
53	I received training in my undergraduate (academic or clinical) program as to how to assess clients from diverse backgrounds.						
54	I have observed assessment or treatment sessions in communication disorders in which the client is from a culturally or linguistically diverse population.						
55	I have worked as a student clinician in cases involving clients from culturally and/or linguistically diverse populations.						
56	I find it challenging to work with clients from diverse backgrounds.						
57	Issues of culture are typically exclusive to certain types of therapy.						
58	Therapists in the field of communication disorders require specific training beyond the classroom to work with diverse populations.						
59	I believe my cultural identity will impact assessment and treatment of clients with CDS.						
60	Culture of the client should not play a role in a client's assessment or treatment.						
61	I would prefer to work with clients from a cultural or linguistic background identical to my own.						
62	English should be the language of choice when assessing or treating all clients.						

63	I think CDS Programs should require all students to take a course in multicultural issues.							
64	I use appropriate ethnographic interviewing techniques to obtain sensitive but crucial information.							
65	I have knowledge about and resources for selecting or creating assessments and intervention materials that are culturally and linguistically sensitive.							
66	I am able to recognize if a test is psychometrically flawed, translated and not adapted, culturally biased, and/or linguistically biased.							
67	I am able to identify/adapt appropriate assessment strategies and materials that do not violate culturally and linguistically diverse clients' unique values and/or create a chasm between the clinician and client and her/his/their community (e.g., <i>reword or provide additional test instructions other than those allowed when presenting trial items; introduce culturally relevant picture stimuli</i>).							
68	I am able to identify/adapt appropriate intervention strategies and materials that do not violate culturally and linguistically diverse clients' unique values and/or create a chasm between the clinician and client and her/his/their community (e.g., <i>provide materials in clients' native language, provide family-centered approach</i>)							
69	I am able to integrate culturally and linguistically diverse clients' attitudes, values, beliefs, or language(s) toward approaches to communication when those approaches are incorporated into treatment (e.g., <i>augmentative and alternative</i>							

	<i>communication, sign language, and assistive listening devices)</i>						
70	I recognize when it is necessary to consult with other service providers who have cultural and linguistic proficiency relevant to the client, including the use of a cultural informant or broker.						
71	I seek additional resources and education to develop cultural competence via coursework, education, volunteering, networking with community members, etc.						
Comments:							
Advocacy		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	No Opportunity
72	I have knowledge of federal and state guidelines and regulations (e.g., Individuals with Disabilities Education Act, American Speech-Language Hearing Association, Oregon Department of Education) related to serving the culturally and linguistically diverse (CLD) community						
73	I have skills to advocate for appropriate and equal access to speech-language therapy services for the CLD community.						
74	I have skills to advocate for valid and reliable measures to assess communication disorders for the CLD community.						
75	I have skills to advocate for culturally appropriate intervention services for individuals from the CLD community.						
76	I have skills to reach out to other agencies (e.g., civil rights, human rights or human relation						

	groups) that provide support for the CLD community.						
77	I have skills to be effective at using cultural brokers (A person knowledgeable about the client's/patient's culture, speech-language community, language and/or sociolinguistic norms) when providing services to the CLD community						
Comments:							

APPENDIX C

PARTICIPATION IN CROSS-CULTURAL EXPERIENCES SURVEY

Instructions:

Cross-cultural experience refers to engagement with individuals from different backgrounds.

Please indicate “Y” or “Yes” next to each experience you have had and “N” or No for each experience you have NOT yet had.

Academic

- Attended lectures or taken a college course about another culture
- Studied with a student from another culture
- Taken an undergraduate or graduate course with a teacher from another culture
- Participated in a group project with a classmate from another culture
- Participated in a study abroad program

Travel abroad

- Held a job in another country
- Completed an internship in another country
- Lived in a different country
- Traveled to a foreign country as a visitor
- Volunteered in a foreign country

Community-based

- Eaten food from another culture
 - Attended a social event or festival important to another culture
 - Attended a concert featuring the music from another culture
 - Participated in an athletic event with teammates from another culture
 - Attended a craft show/market featuring items from various cultures
 - Attend educational events, not related to a specific academic course, that focus on another culture
 - Participate cultural and/or linguistic organizations
 - **Other** (*Describe any other community-based cross-cultural interactions you have engaged in that may not be listed above*):
-

Interpersonal interactions

- Received treatment from a health care provider from another culture
- Had a friend/roommate from another cultural/ethnic group
- Talked with a person from another culture about health and education
- Worked with a supervisor or co-worker from another culture

- Shared a meal with a friend from another culture in his/her home
 - **Other** (*Describe any other cross-cultural interactions specific to interpersonal interactions you have engaged in that may not be listed above*):
-

Accessing information from print/electronic media

- Watched a film or documentary about another culture
 - Read a book written by an author from another culture
 - Follow an individual from a different culture on social media
 - Enrolled as a member of a group that focuses on cultural and linguistic diversity on social media.
 - **Other** (*specify any other cross-cultural interactions through media you have engaged in that may not be listed above*):
-

APPENDIX D

MULTICULTURAL COMPETENCY CHECKLIST

Instructions:

Please read each statement carefully. You are encouraged to consider “multicultural” as being similar to culturally and linguistically responsive care. Culturally and linguistically responsive care refers to the capacity to understand, appreciate, and respect the various cultural and linguistic identities of all clients receiving clinical services, especially those from culturally and linguistically diverse backgrounds.

Indicate “Yes” if you believe the statement applies to your speech-language pathology graduate program. Indicate “No” if you believe the statement does not apply to your speech-language pathology graduate program.

Curriculum Issues

1. My program has a required multicultural speech-language pathology (SLP) course
 Yes
 No
2. My program has one or more additional courses in the area that are required or recommended (e.g., advanced multicultural SLP research seminar, or an advanced clinical issue course)
 Yes
 No
3. Multicultural issues are integrated into all coursework. All program faculty can specify how this is done in their courses. Furthermore, syllabi clearly reflect multicultural inclusion
 Yes
 No
4. A diversity of teaching strategies and procedures are employed in the classroom. For example, both cooperative learning and individual achievement approaches are utilized
 Yes
 No
5. Varied assessment methods are used to evaluate student performance and learning. For example, students complete both written assignments and oral presentations
 Yes
 No

SLP Practice and Supervision

6. Students are exposed to a multicultural clientele during fieldwork. At least 30% of clients seen by students are non-White.
 Yes

No

7. Multicultural issues are considered an important component of clinical supervision whether the supervision is conducted by program faculty or on-site supervisors. My program has a mechanism to monitor the quality of field supervision

Yes

No

8. My program has an active "Multicultural Affairs Committee" composed of faculty and students. The committee provides leadership and support to My program with regard to multicultural issues

Yes

No

Research Considerations

9. My program has a faculty member whose primary research interest is in multicultural issues

Yes

No

10. There is a clear faculty research productivity in multicultural issues. This is evidenced by faculty journal publications and conference presentations on multicultural issues

Yes

No

11. Students are actively mentored in multicultural research. This is evidenced by student-faculty coauthored work on multicultural issues and completed dissertations on these issues

Yes

No

12. Diverse research methodologies are apparent in faculty and student research. Both quantitative and qualitative research methods are utilized

Yes

No

Help us learn more! Are you interested in participating in a brief remote interview about your experiences with culturally and linguistically responsive care? The interview will take 30-60 minutes of your time and can be scheduled over Zoom at a time that is convenient to you. You will be compensated with a \$40.00 Amazon or Target gift card.

APPENDIX E

INTERVIEW GUIDE SCRIPT

Interviewer: Thank you for participating in today's interview. Before we begin, I would like share the consent form. You signed it when you completed the survey. I am sharing it with you to confirm you are in agreement with the procedures related to the interview.

[The interviewer will begin the semi-structured interview by briefly describing the purpose of the study]

Interviewer: The purpose of the study is to obtain students' perceptions of training on culturally and linguistically responsive care through your speech-language pathology graduate program. I would like to confirm that I have your permission to record this interview as it will help me recall what you say later.

[If interviewee **does not consent**, recording and interview will be discontinued]

[If the interview **consents**, interviewer will **start recording**,

[make sure recorder is on]

Interviewer: Today is **(state the date)**. This interview is being conducted with **(state the participant ID)**.

[After, the interviewer will ask an open-ended question related to culturally and linguistically responsive care]

Interviewer: I would like to start by asking you to share your definition of culturally and linguistically responsive care. You may also know this as cultural and/or linguistic responsiveness or competency. What do you think of when I say, 'culturally and linguistically responsive care'?

[Interviewer will check main points of the definition that the interviewee describes]

- Effective application of learned knowledge and acquired skills about individuals' cultural and linguistic backgrounds when providing SLP services to all individuals, particularly those from culturally and linguistically diverse backgrounds.
- Diverse backgrounds may include race and ethnicity, language or communication systems, socioeconomic status, regional locations, sexual orientation or identification, age, educational background, religious/spiritual practices, and social status.
- Occurs when SLP students learn, understand, appreciate, and respect differences that may be evident from an individual's cultural or linguistic background.

- SLP students consider the individual’s cultural and linguistic backgrounds related to communication development, skills, and/or communication disorder when providing SLP services.

[If the interviewee’s response is significantly different from the intent of the interview, I will provide them with any of the missing elements. Also, if “diversity” is not mentioned or if the description of “diversity” is limited to ethnicity/race when the interviewee defines CLRC, I will provide a broader description for the interviewee to keep in mind.]

- **Interviewer:** Thank you for defining the terms. When I think of culturally and linguistically responsive care, I also think of... [INSERT MISSING ELEMENT FROM STUDENT’S DEFINITION HERE].

Interviewer: I’d like you to keep these definitions in mind as I ask you additional questions about your training in this area. Do you have any questions before we move forward?

[The interviewer will give the participant an opportunity to ask questions. The interviewer will answer any clarifying questions about culturally and linguistically responsive care and then present questions about their culturally and linguistically responsive care training more broadly.]

[check recorder]

Broad Question:

Interviewer: Think back on all of your experiences as a graduate student, what aspect or aspects of your SLP graduate program do you feel prepared you to provide culturally and linguistically responsive care to individuals with communication disorders?

[Next, the interviewer will ask questions about culturally and linguistically responsive care training in each programmatic factor. The interviewer will provide a working definition for each programmatic factor before asking relevant questions.]

Thank you for answering that question. I will now ask you several questions regarding your academic experience. I will ask you questions about CLRC training in three main areas related to your program. The first set of questions will focus on the academic coursework. The second set of questions focus on your clinical educational experiences. The third set of questions will focus on research opportunities. I will describe each area before presenting the questions.

Academic Coursework (AC)

1. **Interviewer:** The following questions are specific to your academic coursework in your SLP graduate program. Academic coursework includes all required and elective classes and their associated assignments, guest speakers, case-studies workshops, assigned readings, exams, group discussions, in-class activities, and/or the syllabi. Academic coursework on culturally and linguistically responsive care may be presented through a required or an elective course

on culturally and linguistically responsive care or it may be infused throughout the SLP graduate education curriculum.

2. **Interviewer:** How do you feel your graduate academic coursework prepared you to provide culturally and linguistically responsive care to individuals with communication disorders?
3. **Interviewer:** What academic coursework do you feel had the *most* impact on your development in culturally and linguistically responsive care and why?
4. **Interviewer:** What academic coursework do you feel had the *least* impact on your development in culturally and linguistically responsive care and why?
5. **Interviewer:** What specific recommendations, if any, would you offer to improve the culturally and linguistically responsive care training in the academic coursework offered across your graduate program?

[check recorder]

Clinical Educational Experiences (CEE)

Interviewer:

Next, we're going to talk about clinical educational experiences. Clinical educational experiences may consist of on-site clinical experiences or community-based clinical experiences where students have access to continued support by faculty and supervisors from the graduate program while providing care to individuals with CD.

Examples of your clinical educational experience include the assessment and/or intervention process, planning for the session, writing the report, use of an interpreter/cultural broker, adaptations made to support the individual's cultural and/or linguistic background.

For the first set of questions about your clinical educational experiences, I only want you to consider those clinical educational experiences for which you received direct clinical supervision by the faculty and supervisors from the graduate program.

This does not include externships or clinical experiences where a representative from the program was not involved in your clinical educational experiences or where you were not enrolled in a clinical methods course that paralleled your clinical educational experience. I will ask about these experiences separately.

CEE – On-Site Clinical Experiences Questions:

1. **Interviewer:** How do you feel your clinical educational experience or experiences prepared you to provide culturally and linguistically responsive care to individuals with communication disorders?
2. **Interviewer:** Which clinical educational experience or experiences do you feel had the *most* impact on your development in culturally and linguistically responsive care and why?

3. **Interviewer:** Which clinical educational experience or experiences do you feel had the *least* impact on your development in culturally and linguistically responsive care and why?
4. **Interviewer:** In general, can you speak about the opportunities you had to work with culturally and linguistically diverse individuals with communication disorders during your clinical educational experience?
5. **Interviewer:** What specific recommendations, if any, would you offer to improve the culturally and linguistically responsive care training in clinical educational experience(s) offered by your graduate program?

Interviewer: Now I'm going to ask you questions about your **externships** or clinical experiences where a representative from the program was not directly or consistently involved in your clinical educational experiences or where you were not enrolled in a clinical methods course that paralleled your clinical educational experience.

CEE – Externship Questions:

1. **Interviewer:** How do you feel your clinical externship prepared you to provide culturally and linguistically responsive care to individuals with communication disorders?
2. **Interviewer:** Which clinical externship experience or experiences do you feel had the *most* impact on your development in culturally and linguistically responsive care and why?
3. **Interviewer:** Which clinical externship experience or experiences do you feel had the *least* impact on your development in culturally and linguistically responsive care and why?
4. **Interviewer:** In general, can you speak about the opportunities to work with culturally and linguistically diverse individuals with communication disorders that you experienced during your clinical externship?
5. **Interviewer:** What specific recommendations, if any, would you offer to improve the CLRC training in clinical externship(s) offered by your graduate program?

[check recorder]

Research Opportunities (RO)

Interviewer: Next, we're going to talk about research opportunities. Research opportunities may include the opportunity for graduate students to complete a thesis or evidence-based research project. It may also include student engagement in research labs through the SLP program. Research opportunities also include research methods course(s).

RO Questions:

1. **Interviewer:** How do you feel the research opportunities in your program prepared you to provide culturally and linguistically responsive care to individuals with communication disorders?

2. **Interviewer:** Which research opportunities do you feel had the *most* impact on your development in culturally and linguistically responsive care and why?
3. **Interviewer:** Which research opportunities do you feel had the *least* impact on your development in culturally and linguistically responsive care and why?
4. **Interviewer:** What specific recommendations, if any, would you offer to improve the culturally and linguistically responsive care training as it relates to research opportunities offered across your graduate program?

Final Broad Question:

Interviewer: What diverse populations do you feel most comfortable providing CLRC services? What diverse populations do you feel least comfortable providing CLRC services?

[If students are not able to recall what diverse populations may be considered, I will remind them of the description provided above - Diverse backgrounds may include race and ethnicity, language or communication systems, socioeconomic status, regional locations, sexual orientation or identification, age, educational background, religious/spiritual practices, and social status.]

Interviewer: Is there anything else you would like to share about the culturally and linguistically responsive care training you received in your graduate program?

Interviewer: We have completed the interview. Thank you for your time and for answering all of the questions so candidly. I will be sending your gift card after our meeting. Can you please confirm your email address?

[Turn off recorder]

[send monetary compensation]

APPENDIX F

QUALITATIVE ANALYSIS CODE LIST

Parent Code	Subcode 1	Subcode 1a	Definition
Academic Coursework	Academic Coursework - nonspecific	CLRC Training in academic coursework <i>IS evident</i>	Participants describe general components of academic coursework that prepared them to provide CLRC in SLP. These comments are about academic coursework more broadly and not specific to “infused in SLP courses” nor addressed to “dedicated/stand-alone course”
		CLRC Training in academic coursework was <i>NOT sufficient</i>	Participants describe general components of academic coursework where they believe CLRC training was addressed but not sufficiently. These comments are about academic coursework more broadly and not specific to “infused in SLP courses” nor addressed to “dedicated/stand-alone course” Participants may report receiving CLRC training and include a “but” statement which specifies areas of CLRC training that were still missing or not provided sufficiently
		CLRC Training in academic coursework is perceived <i>as missing</i>	Participants describe components of CLRC Training through academic coursework that they believe are important but were not addressed at all. These comments are about academic coursework more broadly and not

			specific to “infused in SLP courses” nor addressed to “dedicated/stand-alone course”
Infused in SLP courses	CLRC Training infused in SLP courses <i>IS evident</i>		Participants describe how infusing CLRC content in SLP courses (excludes dedicated/stand-alone courses) prepared them to provide CLRC in SLP
	CLRC Training infused in SLP courses <i>is NOT sufficient</i>		Participants describe how infusing CLRC content in SLP courses (excludes dedicated/stand-alone SLP courses) which helped prepare them to provide CLRC was evident but not sufficiently. And/or Participants may report receiving CLRC training and include a “but” statement which specifies areas of CLRC training that were still missing or not provided sufficiently"
	CLRC Training infused in SLP courses <i>is NOT evident</i>		Participants describe how infusing CLRC content in SLP courses (excludes dedicated/stand-alone courses) was not evident in their SLP program
Dedicated/stand-alone CLRC courses	CLRC Training through dedicated/stand-alone CLRC courses <i>support CLRC development</i>		Participants specify dedicated/stand-alone courses specific to CLRC that were beneficial to developing CLRC in speech-language pathology.
	Opportunity to take dedicated/stand-alone CLRC courses as electives is valued		Participant speaks about the value of taking dedicated/stand-alone CLRC courses as electives to enhance her development in CLRC

	Recommendations ~ Academic Coursework	Have more elective courses related to CLRC Training	Provide more elective opportunities for students to continue to cultivate CLRC through elective courses.
		Require dedicated courses on CLRC.	Participants recommend requiring all students to take dedicated/stand-alone courses on CLRC
Clinical Educational Experience	CEE - On-Site Clinic/Community Based and Externship	CLRC training during CEE supports CLRC Development	Participants report that CLRC training occurred during their CEE. Such experiences may occur in the on-site clinic or community-based settings where students are supervised by a clinical faculty from the SLP program. These CEE may also occur in an externship where students are supervised by an SLP who is not a clinical faculty member of the SLP program.
		CLRC training during CEE did not sufficiently support CLRC Development	Participants describe components of CEE where they believe CLRC training was provided but not sufficiently. For example, a student may report that opportunities to work with CLD populations supported CLRC development but they didn't receive direct training by faculty/supervisors on how to adapt the therapeutic approach. Participants may report receiving CLRC training and include a "but" statement which specifies areas of CLRC training that were still missing. This includes statements in which students report that while CLRC was available, it was not available for all students who were interested.

		CLRC Training was NOT evident during CEE	Participants report that CLRC training did not occur during their CEE. CEE occur in the on-site clinic or community-based settings where students are supervised by a clinical faculty from the SLP program. CEE may also occur in an externship where students are supervised by an SLP who is not a clinical faculty member of the SLP program.
Geographic location		Positively impacts development of CLRC	Participants state that the location (i.e., city/state) where their CEE (on-site clinic or externship) took place <i>positively impacted CLRC development</i>
		Adversely impacts development of CLRC	Participants state that the location (i.e., city/state) where their CEE (on-site clinic or externship) took place <i>adversely impacted CLRC development</i>
Ethnic/racial and linguistic concordance supports CLRC development			Participants identify ethnic/racial and/or linguistic concordance with clients served as being impactful to participants' CLRC development during CEE
Recommendations ~ CEE		Require Clinical Experience that includes CLRC Training	Participants recommend that ALL students be required to complete a clinical experience that includes a CLRC training
		Locate More CLRC-Focused Training Opportunities	Participants recommend having more CLRC training options in on-site clinics and externships. This includes: increasing the programs' active role in identifying externships where the clinical supervisor can provide direct CLRC training (i.e., supervision in CLRC-centered SLP

			services), increasing the number of opportunities available, and increasing the diversity of CLD populations served and CLRC training available.
		Expand current CLRC training in CEE	Participants recommend that CLRC training currently available on-site and in externships be expanded by increasing time spent orientating, observing, practicing, and adapting to CLRC training This may include: An orientation for student clinicians or other mechanism to orient students of policies or procedures related to CLRC in externships, opportunities for students to observe supervisors/clinical faculty model CLRC when providing assessment and interventions services, and/or more time to make adaptations to assessment and/or intervention (i.e. create materials, assess in both languages, using an interpreter)
Research Opportunities	Participation in Culturally Responsive Research Activities	Student participated in research activities that focused on CLRC	Participants reports that they engaged in research activities (i.e., work in lab, EBP, capstone projects, research methods course) that supported CLRC development while in their respective SLP graduate program

		Student Did Not Participated in CRR Activities	Participants reports that they did not engage in research activities (i.e., work in lab, EBP, capstone projects, research methods course) that supported CLRC development while in their respective SLP graduate program
	Research Activities that Support CLRC Development	Research activities that support students' CLRC development are available	Participants perceive research activities in their respective program that support cultivation of CLRC are available. Research activities include some of the following examples: *work in lab, EBP, capstone projects, research methods course. Research introduced in academic coursework (introduced by faculty in lecture/class discussions, class assignment, etc.).
		Research activities that support students' CLRC development are insufficiently available	Participants perceive research activities in their respective program that support cultivation of CLRC as being available but not sufficiently. In such cases, participants report coursework and/or CEE in which CRR is offered but report desiring more and/or report other situations where it is not sufficiently available. Research activities include some of the following examples: Work in lab, EBP, capstone projects, research methods course, research introduced in academic coursework (introduced by faculty in lecture/class discussions, class assignment, etc.)

		Research activities that support students' CLRC development are not available	Participants perceive research activities in their respective program did not support cultivation of CLRC. Research activities include some of the following examples: Work in lab, EBP, capstone projects, research methods course, research introduced in academic coursework (introduced by faculty in lecture/class discussions, class assignment, etc.)
	Recommendations ~ Research	Expose students to (more) culturally responsive research	This may include having more opportunities to engage in culturally responsive research - such as infusion of culturally responsive research focused on SLP-related topics in class and/or CEE, and/or other scholarly activities where students are exposed to culturally responsive research. This may also include challenging students to think critically about how research studies (that do not include CLRC) can be applied to CLRC (i.e., work in lab, EBP, capstone projects, research methods course). It may also include its applicability to clinical practice
CLR Training Overall	Advocacy for CLRC training/support is Necessary		Participants express recognition for the need to advocate for CLRC training and/or Participants share experiences in which they advocated for CLRC training and support.
	Assignments/Case Scenarios	Assignment/Case Scenarios Assigned	Participants speak of assignments, readings, and case scenarios/simulations (in academic

	Support CLRC Development	coursework, CEE, and/or research) that support CLRC development
	Assignment/Case Scenario Do Not Support CLRC Development	Participants speak of assignments, readings, and case scenarios (in academic coursework, CEE, and/or in research) that did not support CLRC development
Bilingual Concentration Program (BCP)	Lack of Enrollment in BCP Adversely Impacts CLRC Development	Participants state that not being enrolled in the bilingual concentration program (BCP) adversely impact their CLRC Training
	Enrollment in BCP Supports CLRC Development	Participants state that their enrollment in the bilingual concentration of the SLP program was most impactful to their CLRC development
COVID Impact on CLRC Development		Participants state that their CLRC Training (coursework, CEE, and/or research opportunity) was impacted by COVID/global pandemic
Discussions and other Collaborative efforts	that occurred with Others (who are not peers or faculty/supervisors) support CLRC development	Participants state that opportunities to engage in fruitful discussions and/or collaborate with others (i.e., individuals from other disciplines such as OT and PT, other staff in CEE, parents or EI students in academic coursework,) about CLRC support CLRC development.
	that occurred with Peers/Classmates from the same cohort or SLP program support CLRC Development	Participants state that opportunities to engage in fruitful discussions and/or collaborate with classmates/ peers from the same cohort or SLP graduate program about CLRC support CLRC development.

		Did not occur with others and/or peers/classmates di	Participants report that opportunities to engage in discussions and/or collaborate with others or peers/classmates did not occur
	SLP program as an institution/organization	Perceptions of SLP Program as not Welcoming or Supportive of CLRC Training	Participants state that they perceive their SLP program as an institution that does not welcome CLRC Training nor strives to address diversity, equity, and inclusivity in the field of SLP
		Perceptions of SLP Program as Welcoming and Supportive of CLRC Training	Participants state that they perceive their SLP program as an institution that welcomes CLRC Training and strives to address diversity, equity, and inclusivity in the field of SLP. Evidence of this may include: Participants perceive SLP programs value CLRC enough that they are intentional about including CLRC training (i.e., dedicated/stand-alone CLRC courses) in the curriculum., holistic admission process and thus recognition of diverse student body, and SLP Program is supportive in identifying and/or enhancing opportunities for students to cultivate CLRC
	Diversity amongst students and/or faculty/supervisors is critical to CLRC development		Participants report that cultural and linguistic diversity amongst colleagues/peers is favored as it exposes them to diverse perspectives, lived experiences and insights on topics presented in class. Likewise, participants report that cultural and linguistic diversity amongst faculty and/or supervisors is critical to developing CLRC.

Faculty/Supervisors' Role in CLRC Training	Faculty/supervisors were influential to cultivating CLRC	Participants discuss how their instructor, clinical faculty and/or supervisors were influential to their (students') CLRC development. Participants may perceive faculty/supervisors as interested, comfortable, experienced and/or knowledgeable about CLRC in SLP. As such, CLRC training by faculty/supervisor was provided
	Faculty/supervisors were NOT influential to cultivating CLRC	Participants perceived faculty/supervisors as not interested, comfortable, and/or knowledgeable about CLRC. As such, little to no CLRC training by faculty/supervisor was provided
Guest Speakers	Supports CLRC Development	Participants state guest speakers who represent the CLD community, work with CLD individuals with CDIS and provide CLRC supported their preparation to provide CLRC
	Do Not Support CLRC Development Sufficiently	Participants report that guest speakers who represent the CLD community, work with CLD individuals with CDIS and provide CLRC were very informative but did not specifically address CLRC as it relates to SLP
Core Constructs of CLRC learned		Participants provide examples of the core constructs (cultural awareness, humility, cultural and linguistic knowledge) that they acquired during CLRC training
Less Impactful CLRC Training		Participants share the elements of their program they believed were the less

			impactful training (coursework, CEE and/or research) they received in developing CLRC
	Most Impactful CLRC training		Participants share the elements of their program they believed were the most impactful training (coursework, CEE and/or research) they received in developing CLRC
	Level of Preparedness to Provide CLRC	Participants feel prepared to provide CLRC	Participants' state that they feel prepared to provide CLRC as a result of the training received in their respective SLP program (through coursework, CEE, research, and/or something else related to the curriculum)
		Overall Prepared but with a but not sufficiently	While participants feels that the SLP program prepared to provide CLRC overall there are a few caveats (i.e., encounter CLRC clinical experience in which student did not feel they were prepared to address)
	CLD Populations Prepared/Not Prepared to Work With	CLD populations more prepared to work with	Participants specified SLP population they feel the most prepared to provide assessment and intervention service to
		CLD populations less prepared to work with	Participants specified SLP population they feel the least prepared to provide SLP services to.
	CLRC Resources Provided	CLRC Resources made available by faculty/supervisors are favored	Participants favor the resources made available by faculty, clinical site, supervisors, etc. Resources can include: textbooks addressing CLRC in academic coursework; app or device for interpreting services in CEE; therapy materials in different languages in CEE .

		CLRC Resources are limited or nonexistent.	Participants report that resources necessary for CLRC are limited or non-existent. Resources can include: textbooks addressing CLRC in academic coursework; app or device for interpreting services in CEE; therapy materials in different languages in CEE .
	Student's background and/or prior experience(s) are instrumental to CLRC training		Participants report that their background and/or experience prior to entering their graduate program have been helpful to their CLRC development
	Recommendations - CLRC Training Overall	Provide materials and resources that are appropriate for provision of CLRC and/or CLRC Training	Participants would like resources and/or materials available to provide CLRC Training in courses or CLRC Services in CEE. This is especially desired in academic coursework and CEE. Academic Coursework: Materials in this case, refer to textbooks, research articles, videos, podcasts, etc. used in academic courses to supplement course topics related to CLRC training. CEE: Materials may include clinical paperwork and/or any material(s) used for patient/client-care and intervention - particularly materials that are available in the language(s) spoken by the patient(s) and /or are from a different culture.
		Assignments/case scenarios that address CLRC	Give students assignments/case scenarios that include clients from CLD populations and/or that incorporate CLRC.

		CLRC Topics that Should be Covered	Participants provide examples of topics they wish their SLP programs would cover as it relates to CLRC training. These topics are either not covered at this time or are not covered sufficiently
		Discuss CLRC in clinical (1:1 &/or team) meetings and/or class	Clinical faculty/supervisors should address CLRC during meetings (i.e., team and/or supervisor/supervisee meetings) and/or introduce CLRC topics to encourage group discussions in class
		More Guest speakers	Participants state that it would be beneficial to have (more) guest speakers who have experience working with CLD population, provide CLRC, and/or represent the CLD community
		Faculty/Supervisors who can provide CLRC training	Participants state that there should be more faculty who are knowledgeable and skilled at providing CLRC Training in SLP. This may include: Recruit faculty who are CLD and/or focus on CLRC and/or CRR: Participants feel there is a significant need for SLP programs to have faculty who are CLD and/or who focus on CLRC and/or CRR Faculty/supervisors should enhance their knowledge and skills related to CLRC: Participants feel faculty and supervisors should expand their knowledge and skills to provide CLRC Training
		Cross-Disciplinary Collaboration	Participants recommend establishing collaborative efforts with others from diverse disciplines who may be more

			knowledgeable about CLRC may be beneficial
		SLP programs should be more welcoming to CLRC Training	Participants state that SLP programs should welcome discussions related to CLRC
		Infuse CLRC training throughout the SLP Program	Participants recommend infusing CLRC training throughout the SLP program (Academic Coursework, CEE, and Research) would be important Infuse CLRC in Core SLP courses Infuse Culturally Responsive Research in class, discussions, etc.

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