Gender Diversity Cultural Responsiveness Education in Speech-Language Pathology Graduate Programs: A Pilot Survey

Tara E. Dickinson
Case Western Reserve University, ted42@case.edu

Molly A. Normandin
Case Western Reserve University, molly.normandin@case.edu

Rachel W. Mulheren
Case Western Reserve University, rachel.mulheren@case.edu

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Abstract

Purpose: Gender-affirming voice therapy aims to align a person's voice and communication with their gender identity. Historically, transgender and gender-nonconforming (TGNC) individuals have been marginalized and continue to face significant healthcare disparities. The goal of this research was to examine the self-perceived preparedness of recent speech-language pathology (SLP) graduates for working with TGNC clients. A survey was developed to include both multiple choice and open-ended questions. Topics included graduate-level training on working with TGNC individuals, perceived preparedness to work with this client population, educational resources sought by respondents, and suggested improvements for SLP graduate programs. Thirty recent (since 2016) SLP graduates completed the survey anonymously. Although a majority (83%) of respondents reported that working with TGNC clients was addressed in their graduate education, 66% of respondents felt that instruction time spent on this topic was insufficient or slightly insufficient. Those who had clinical experiences with TGNC clients, or who learned from the perspectives of the TGNC community (e.g., from a guest speaker or video), reported that their graduate education better prepared them to work with TGNC clients. One of the most common recommendations to improve graduate education was to invite TGNC speakers to share their experiences. The majority of respondents identified a need for improvement of gender diversity education in SLP graduate programs. Further research is needed to determine the efficacy of different curricula in increasing the knowledge and skills of SLP graduates specific to TGNC clients to ensure clinical competency and equitable care.

Keywords

gender diversity, education, survey

Cover Page Footnote

Introduction

Gender-affirming communication services aim to align a client's voice and communication with their gender identity. For some transgender and gender-nonconforming (TGNC) individuals, a voice that is incongruent with their gender identity may negatively impact their psychological well-being and quality of life (Oates & Dacakis, 2015). Gender-affirming communication services seek to help a client develop a voice that feels authentic to their identity; some clients may also wish to develop a voice that helps them be perceived by others as their identified gender (Hancock, 2015). Depending on a client's individual goals, gender-affirming communication services may focus on the following domains of communication: pitch, resonance, intonation patterns, voice quality, articulation, speech intensity, semantics, pragmatics, and nonverbal communication (Adler et al., 2018). Although some TGNC individuals may wish to change their voice to better align with their identity or how they are perceived by others, other TGNC individuals may not have these desires or goals. The role of the speech-language pathologist (SLP) in gender-affirming communication services should be to meet the client's individual goals. It is important to note that TGNC clients may also seek services from SLPs for reasons unrelated to their gender expression. For example, SLPs may provide swallowing therapy to a TGNC individual who has had a stroke or articulation therapy to a TGNC child in a school. Therefore, it is vital for all SLPs, regardless of specialty, to learn to provide equitable, respectful, and competent care to TGNC individuals.

The TGNC community has been historically marginalized, and they continue to face significant healthcare disparities. In one survey, 70% of transgender and gender-nonconforming respondents reported discriminatory experiences in a healthcare setting, and 27% reported being denied necessary care due to their gender identity (Lambda Legal, 2010). Transgender and gender-nonconforming respondents who were people of color or low-income were significantly more likely to report discriminatory experiences and denial of care (Kcomt et al., 2020). Studies have shown that fear of stigma and discrimination may prevent this population from accessing medical and mental health services (Kcomt et al., 2020; Mizock & Mueser, 2014; Shipherd et al., 2010). In a national survey of transgender individuals conducted in 2015, 23% of respondents reported avoiding necessary medical care in the past year due to fear of being mistreated (James et al., 2016). Discrimination based on transgender identity has been associated with negative psychological outcomes, including depression and anxiety (Bockting et al., 2013), substance abuse (Keuroghlian et al., 2015), and suicide attempts (Testa et al., 2012). Given these significant disparities, it is crucial for current and future allied healthcare providers to learn how to deliver effective care to TGNC clients.

Gender Diversity Education for Speech-Language Pathologists

Previous studies have examined SLPs' training, knowledge, and attitudes concerning transgender clients. In a 2014 survey of 279 SLPs and SLP graduate students, 47% of respondents indicated that transgender voice and communication was not covered at all in their master's degree curriculum (Hancock & Haskin, 2015). In a 2017 survey of 379 SLPs and SLP graduate students, 54% of respondents reported being comfortable working with transgender clients, but only 20% of respondents had received training in this area. SLPs with more years of experience reported less tolerant attitudes toward providing services to this client population (Matthews et al., 2020). Another survey indicated that only 8% of SLP respondents agreed or strongly agreed that their

education (e.g., college, conferences, and workshops) had prepared them to provide services to a transgender client (Sawyer et al., 2014). It is evident that many SLPs do not feel adequately prepared to work with this client population. Research has also shown that healthcare providers in other professions (e.g., physicians, and medical, dental and nursing students) report a lack of knowledge and inadequate training to provide quality care to TGNC clients (Greene et al., 2018; McPhail et al., 2016; Poteat et al., 2013; Snelgrove et al., 2012).

Transgender communication is within the American Speech-Language-Hearing Association's (ASHA) scope of practice for SLPs (American Speech-Language Hearing Association, 2016). Within both the SLP scope of practice and clinical certification standards, ASHA recognizes the importance of being prepared to provide appropriate, quality care to those from culturally and linguistically diverse backgrounds (American Speech-Language Hearing Association, 2016, 2020), and ASHA's Code of Ethics states that clinicians must not discriminate based on gender identity or gender expression (American Speech-Language Hearing Association, 2023). Therefore, it is important that SLP students learn about providing respectful and competent care to TGNC clients within their graduate education. As of their most recent certification standards for SLPs, ASHA had not yet included a transgender communication or gender diversity competency (American Speech-Language Hearing Association, 2020), or within the standards of accreditation for SLP graduate education programs (Council on Academic Accreditation in Audiology and Speech-Language Pathology, 2023). Although ASHA's Office of Multicultural Affairs offers resources for incorporating multicultural topics into graduate curriculum (https://www.asha.org/practice/multicultural/), these resources do not provide specific guidance for incorporating gender diversity education into SLP curriculum, presenting challenges for faculty wishing to incorporate this topic into their graduate courses. There are, however, online resources on the ASHA website for learning about gender-affirming communication services and inclusive practices for TGNC clients (American Speech-Language-Hearing Association, n.d.-a, n.d.-b). ASHA's Office of Multicultural Affairs shares a guide for integrating multicultural issues into SLP curriculum, which recommends examining personal biases that may influence the provision of clinical services, learning to develop assessment and treatment plans with consideration of the client's culture, understanding that cultural humility is a life-long learning process, and using case studies to develop these skills (Lubinski & Matteliano, 2008).

Jakomin and colleagues (2020) conducted a survey of voice instructors and clinic directors in SLP graduate programs and identified several barriers to addressing transgender communication in graduate curriculum. Many instructors' knowledge on this topic may be limited, with 46% of respondents having participated in a continuing education course on transgender voice and communication and only half of respondents stating that they felt confident providing services to a transgender client. Although most voice instructors included transgender voice and communication in their graduate voice course, the majority reported that they felt insufficient time was spent on this topic for students to learn the skills required to provide gender-affirming communication services. For respondents who did not include this topic in their graduate curriculum, the most common reasons were lack of time and the opinion that the population was too narrow.

Per the available literature, curricular activities on gender diversity or the LGBTQ+ community, more broadly, include lecture instruction, interactive activities (such as self-assessment of biases

or group discussion), guest speakers from the TGNC community, clinical case studies, and clinical experiences with TGNC clients in a university clinic (Kayajian & Pickering, 2017; Lara & Peterson, 2018; Mahendra, 2019; Oates & Dacakis, 2017; Stewart & Kling, 2017). There is limited research   assessing how effectively gender diversity curricula increase SLP students' knowledge and competency for working with TGNC clients. Although the literature is limited, there have been studies in other healthcare professions on the effectiveness of curricula aiming to prepare clinicians to serve LGBTQ+ patients. Morris and colleagues (2019) conducted a systematic review of interventions addressing LGBTQ-related bias among medical, nursing, and dental students or providers. Bias-focused interventions were found to increase students' knowledge of LGBTQ+ healthcare issues. These interventions included a wide range of curricular activities including lectures, readings, presentations from LGBTQ+ individuals, and group discussions. Topics included LGBTQ+ terminology, discrimination and prejudice, healthcare disparities, transgender healthcare, and myths and stereotypes about LGBTQ+ individuals. Experiential learning interventions—which included group discussion and/or case study exercises—were effective for increasing comfort levels for serving LGBTQ+ patients. The authors emphasize the importance of establishing motivation for change in order to successfully address implicit biases; this may be accomplished by educating on healthcare disparities or fostering group discussion on the role of healthcare provider bias (Morris et al., 2019). The World Professional Association for Transgender Health recommends that voice and communication specialists providing gender-affirming services should be competent in conducting appropriate assessments and interventions; have a basic understanding of transgender health, including gender-affirming medical procedures and trans-specific psychosocial issues; and have knowledge to create a clinic that is welcoming to TGNC individuals (Coleman et al., 2022). Further, it is recommended that education in TGNC healthcare should help clinicians to develop self-awareness, cultural humility, and cultural responsiveness, and that training should be developed and presented in collaboration with TGNC individuals with lived experience of participating in communication services (Coleman et al., 2022).

The Present Study

The goal of this study was to examine the following research questions:
1. How prepared do recent SLP graduates feel to provide care to TGNC clients?
2. How well do recent SLP graduates feel that their graduate programs prepared them to work with this client population?
3. From what sources have recent SLP graduates learned about working with this client population?
4. How could SLP graduate programs improve their education on providing care to TGNC clients?

Some previous studies examining whether working with transgender clients was included in respondents' education and how confident respondents felt providing services to this client population included large numbers of students who had not yet finished their SLP education (Hancock & Haskin, 2015; Matthews et al., 2020; Wolosek, 2020). This study focuses on recent graduates of SLP master's programs, with graduation dates between Fall 2016 and Summer 2021. This study examined how sufficient recent SLP graduates felt that the instruction time spent on this topic was and how much respondents' graduate education addressed more specific topics (such as using correct personal pronouns or counseling skills for gender-affirming communication

services). The survey asked respondents if their graduate curriculum provided perspectives from members of the TGNC community through guest speakers, videos, or written material.

Previous surveys of SLPs and SLP students indicated that between 20 and 56% received training in working with transgender clients during their graduate education (Chalom, 2020; Hancock & Haskin, 2015; Matthews et al., 2020; Sawyer et al., 2014; Wolosek, 2020). However, this percentage may be higher for recent SLP graduates, as one study in 2020 indicated that 88% of 23-38 year old respondents received some education on transgender communication during their graduate program (Chalom, 2020). We hypothesized that most respondents would feel that the instruction time spent on learning to work with this client population was not sufficient. Additionally, we hypothesized that those who have pursued further education opportunities would report higher confidence for working with TGNC clients than those who had not. Although previous studies have examined general preparedness for working with TGNC clients, this survey included open-ended questions on what curricular elements were helpful for respondents and how graduate programs could improve their gender diversity education. The present study also examines whether respondents learned directly from TGNC individuals, through speakers or other media. While research questions 1 and 2 seek to confirm established findings, research questions 3 and 4 are novel and seek to establish a basis for development and assessment of future gender diversity curricula.

Methods

Institutional Review Board approval was obtained prior to initiation of the study. Participants were recruited from ASHA Special Interest Groups 3 and 14 and the following Facebook groups: LGBTQ+ Speech Language Pathologists, Speech Language Pathologist New Grads & Students, Speech Pathologists at Large, L'GASP: GLBTQ Caucus of Audiologists and Speech Language Pathologists, Medical SLP Forum, Gender Spectrum Voice & Communication, Gender Voice Mastermind, and SLPs for Evidence Based Practice. Eligible participants self-reported to have graduated from a speech-language pathology master's program between Fall 2016 and Summer 2021.

The online survey was created on Qualtrics and distributed via an anonymous link. Data were collected between September 7 and October 7, 2021. The survey included both multiple choice and open-ended questions about how participants' graduate education in speech-language pathology addressed working with TGNC individuals, how prepared participants felt to work with this client population, educational resources participants had sought for working with this population, and recommendations for curriculum in graduate programs. The survey is included in the Appendix.

The results of multiple-choice questions were assessed descriptively by frequency of response. To evaluate the hypothesis that those who pursued further education in this area would report higher confidence levels for working with TGNC clients, statistical tests were conducted in Minitab software. The sample size and skew of the sample distributions did not meet criteria for parametric analyses. Therefore, medians, interquartile range, and Kruskal–Wallis one-way analyses of variance (ANOVAs) were used to assess how respondents' reported learning experiences impacted their confidence and preparedness for working with TGNC clients. The first author coded

qualitative data from the open-ended responses to reflect themes in respondents' learning experiences and their recommendations for graduate programs. Prior to looking at the data, the first author was trained by the senior author, who has formal training in qualitative data analysis. The first and senior authors discussed a priori that the open-ended responses would be analyzed for common themes in a data-driven, inductive manner.

Results

Thirty-five participants initiated the survey. Five participants did not complete questions past the consent form and graduation year and were excluded from the analysis. Therefore, responses from thirty participants were included in these analyses, and one of these respondents only responded to five of fifteen questions. Of the thirty respondents, 3% graduated in 2016, 17% graduated in 2017, 3% graduated in 2018, 20% graduated in 2019, 17% graduated in 2020, and 40% graduated in 2021. The subgroups by graduation year were too small to effectively analyze differences in educational content, levels of preparedness, or further education based on graduation year.

Twenty-five of thirty respondents (83%) reported that working with TGNC clients was addressed in their graduate education. However, when examining specific topics that are important for this education (Figure 1), such as LGBTQ+ terminology or using correct personal pronouns, many respondents did not have these topics addressed in their graduate program. Nine respondents (30%) reported that using an individual's correct personal pronouns was not at all addressed in their graduate education, and 14 (47%) reported that discrimination and/or healthcare disparities among TGNC individuals were not at all addressed. The most common topics that were addressed to some degree were LGBTQ+ terminology (n = 26, 87%) and domains of communication that gender-affirming communication services may target (n = 25, 83%).

The most commonly-reported course for learning about working with TGNC clients was a voice class (n = 23/30, 77%). Seven respondents (23%) learned about this in a multicultural class, and two respondents learned in a counseling class. Eight of thirty respondents (27%) had clinical experiences with TGNC clients during their graduate program. Out of the five respondents (17%) that selected another learning source, four (13%) reported self-study—through means such as a thesis focused on this topic and discussions with experienced clinicians in the area of gender-affirming communication services—and one respondent (0.03%) reported a workshop sponsored by the National Student Speech Language Hearing Association. Eleven respondents (37%) reported learning from perspectives of members of the TGNC community within their graduate education. Four of these respondents (13%) heard directly from an in-class speaker who was a member of the community. The other seven respondents (23%) learned from videos, written material from those in the community, or from experiences shared by guest lecturers who specialize in gender-affirming communication services (but who were not necessarily members of the community themselves).

Figure 1

To what extent did your graduate education address the following topics?
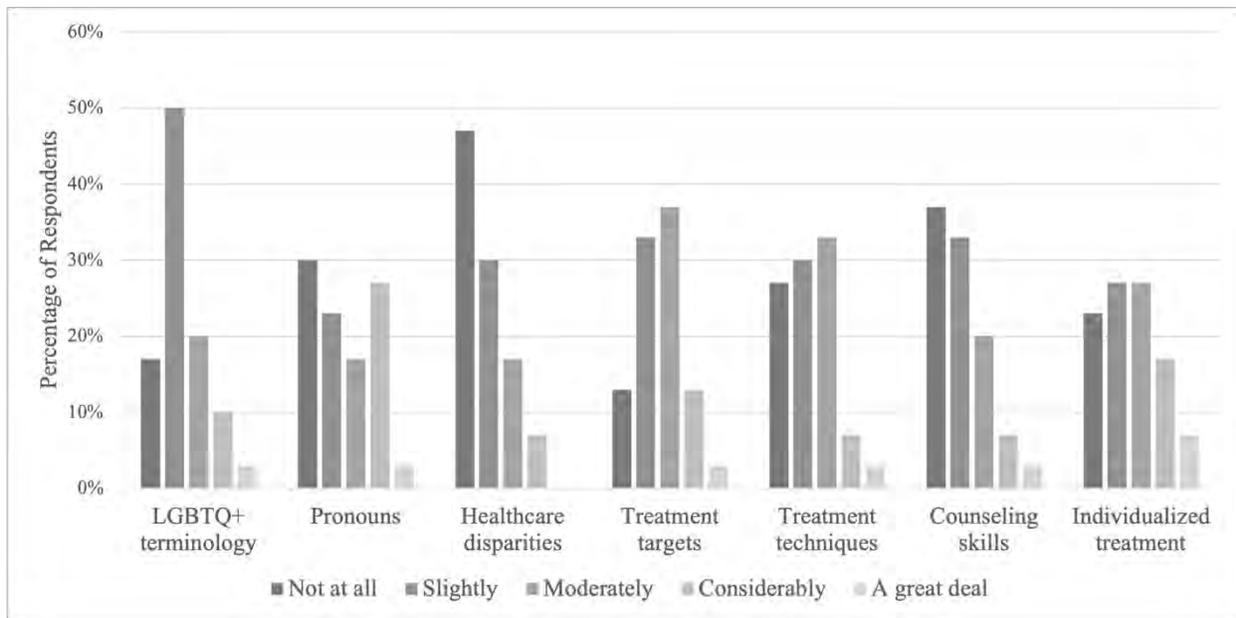
When asked how sufficient the instruction time spent on learning how to work with TGNC clients was in their graduate education (Figure 2), over half of the respondents answered "insufficient" (n = 15/29, 52%) and only one respondent (0.03%) answered "sufficient." When asked how well their graduate education prepared them for working with TGNC clients (Figure 3), fifteen of the respondents (52%) said that their graduate education prepared them to a small degree.

Significant differences were found for reported preparedness between those who had clinical experiences with TGNC clients during their graduate program and those who did not ($H(1) = 5.26$, $p = .022$), with those who had clinical experiences reporting that their graduate education better prepared them to work with a TGNC client. Those who had heard from TGNC perspectives reported that their graduate program better prepared them than those who had not ($H(1) = 3.91$, $p = .048$). The remaining questions asked about respondents' confidence in serving this client population, without specific reference to their graduate education, and about further education they have pursued. When asked how confident they would feel working with TGNC clients in their clinical practice moving forward (Figure 4), the most respondents (n = 12, 41%) answered "slightly confident," with the other responses fairly evenly distributed across the remaining confidence levels. When asked if they knew where to find more information to improve their clinical care with TGNC individuals, twelve respondents (41%) strongly agreed and eleven respondents (38%) somewhat agreed. Twenty respondents (69%) reported having pursued further education opportunities on working with TGNC clients (Figure 5). Among these respondents, the most commonly utilized sources of continuing education were social media groups, pages, and posts (*n* = 15, 52%), followed by seeking information from members of the TGNC community (*n* = 13, 45%). "Other" continuing education sources included books (*n* = 3, 10%) and being informed by the respondent's own experiences as part of the TGNC community (*n* = 2, 7%). Those who had

sought continuing education reported higher confidence levels for working with TGNC in the future ($H(1) = 5.23$, $p = .022$).

Figure 2

In your graduate education, how sufficient was the instruction time spent on learning how to work with transgender and gender diverse clients?
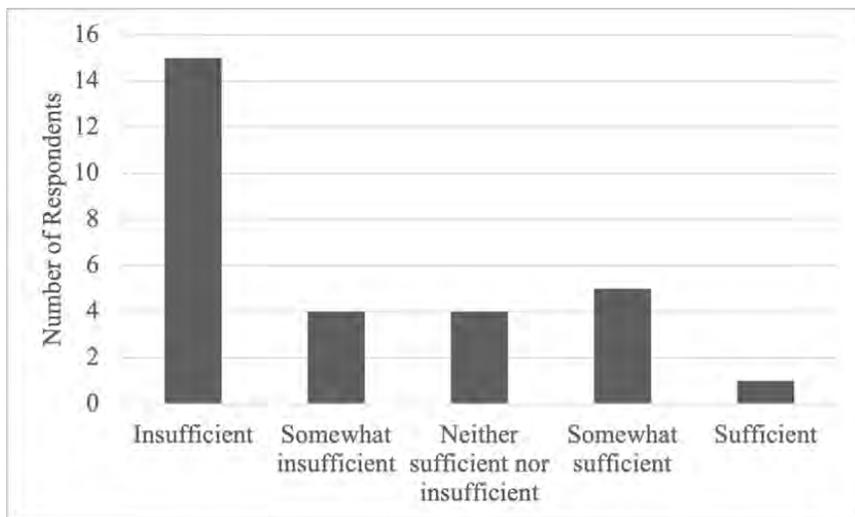

Figure 3

How well did your graduate education prepare you for working with a transgender or gender diverse client?
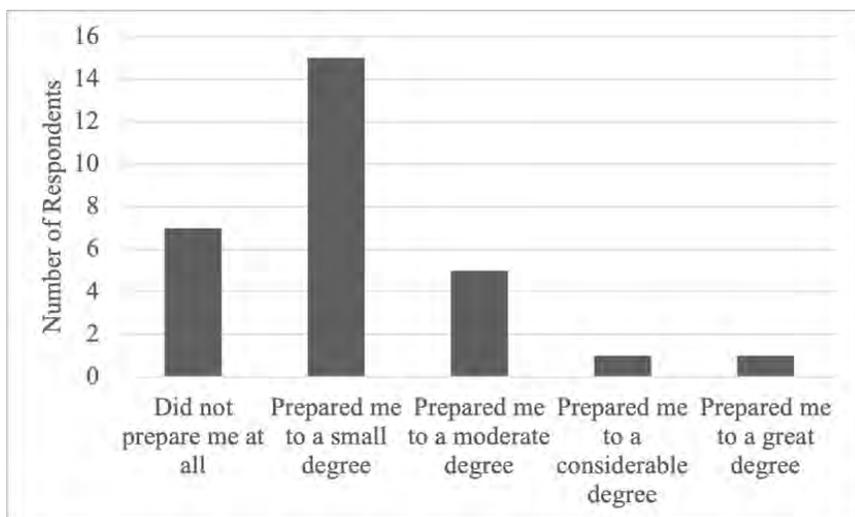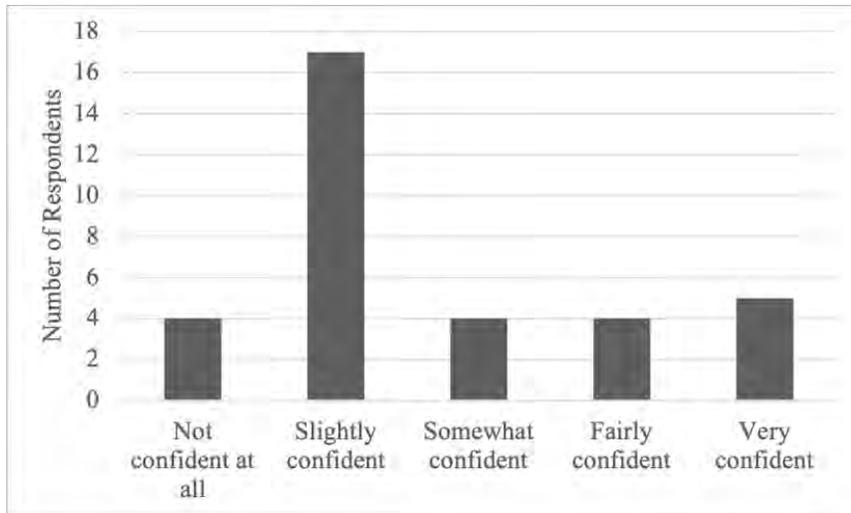
Figure 4

How confident do you feel treating transgender and gender diverse clients in your clinical practice moving forward?

Figure 5

If you have pursued further education opportunities about working with transgender and gender diverse clients, what sources have you sought?
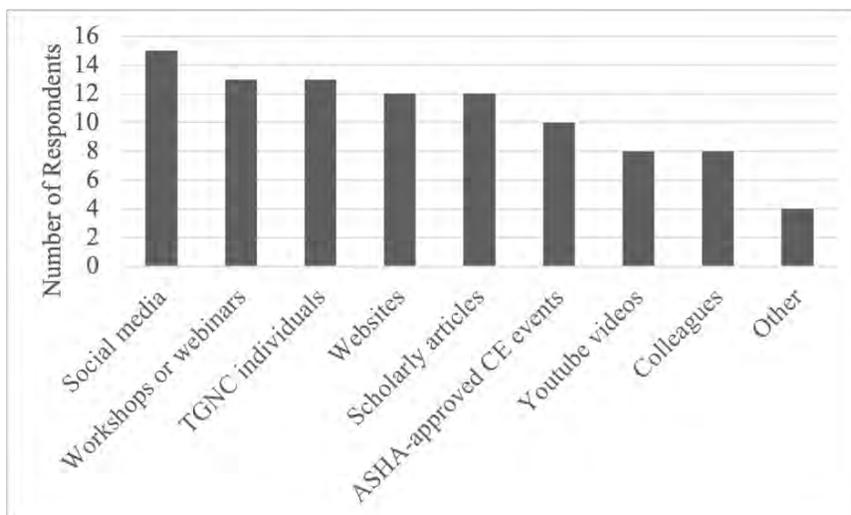
When asked to share learning experiences from their graduate education that were particularly helpful for preparing respondents to work with transgender and gender diverse clients, the most commonly reported theme was delivering or observing therapy for TGNC clients (n = 10/20, 50%). Other common themes included independent learning and research during their graduate program (n = 4, 20%), group work and discussions (n = 3, 15%), and learning that was informed by TGNC perspectives, including guest speakers (n = 3, 15%). Four respondents only mentioned unhelpful

experiences, reporting no helpful experiences or instructors seeming uncomfortable with the material.

When asked how graduate programs could improve their education about working with TGNC clients, the most common response theme was hearing experiences directly from members of the TGNC community (n = 12/22, 54%). Four of these responses (18%) noted the importance of paid opportunities for these guest speakers. Six respondents (27%) suggested more instruction time or for this topic to be covered in more courses. Five respondents (23%) spoke to education that teaches broader cultural competency for serving TGNC clients, such as the role of an SLP as an advocate for gender inclusivity in their workplace, working with TGNC clients beyond gender-affirming communication services, and creating inclusive clinical materials. Additional themes included learning from clinicians who specialize in LGBTQ+ healthcare (n = 2, 9%), the importance of professors being knowledgeable about current research in gender-affirming communication services (n = 2, 9%), and clinical education with TGNC clients (n = 1, 5%). Other suggested topics included psychosocial considerations and the SLP's role as a counselor (n = 2, 9%), techniques and protocol for gender-affirming communication services (n = 1, 5%), and more information about communication services for transmasculine clients (n = 1, 5%).

Discussion

The primary aim of this study was to examine recent SLP graduates' self-perceived preparedness for working with TGNC clients and their opinion of how well graduate programs had prepared them to work with this client population. Furthermore, the study examined what resources survey respondents used to learn about this client population and their recommendations for improving gender diversity education in SLP graduate programs. Although the majority of survey respondents learned about this topic in their graduate education, most respondents reported that their graduate program did not prepare them at all or only prepared them to a small degree to work with TGNC clients.

Most respondents reported learning about this topic in a graduate-level voice course. Fewer respondents reported that they learned about this topic in a multicultural class or a counseling class. The context of this learning appears to have affected the topics covered; few respondents reported having learned about counseling skills for gender-affirming communication services or discrimination and healthcare disparities among TGNC individuals in their graduate education. Several respondents said that graduate programs could improve their education by incorporating this topic across multiple courses. Given the wide expanse of communication areas that may be included in gender-affirming communication services and the culturally responsive considerations that are vital to caring for this population, including this topic in multiple courses is appropriate and may emphasize the importance of culturally responsive care for TGNC clients. While most respondents learned about the domains of communication that gender-affirming services may target, fewer reported learning about specific treatment techniques for these services. Some respondents specifically identified more thorough education about treatment techniques for gender-affirming services as an area that graduate programs could improve upon.

Over half of respondents reported that the instruction time on working with TGNC clients was insufficient. It should be noted that these responses were subject to the personal opinion of

respondents and related to their level of clinical experience. These opinions would likely be subject to change as the respondents acquired more clinical experience. Nonetheless, Jakomin and colleagues (2020) found that the majority of graduate-level voice instructors surveyed felt that time spent on gender-affirming services was insufficient, aligning with recent graduates' opinions from the present study. They also found that graduate-level voice instructors who did not include transgender voice and communication in their curriculum identified insufficient course time as a reason for not covering this topic. Some publications have shared curricula that include gender-affirming communication services and gender diversity awareness into graduate coursework in a feasible manner. La Trobe University and San José State University integrated clinical case studies of clients seeking gender-affirming communication services in graduate-level multicultural and voice courses (Mahendra, 2019; Oates & Dacakis, 2017). The case objectives set forth by La Trobe University included using evidence-based clinical decision-making to design assessment and treatment for the client, using respectful terminology, understanding possible impacts of a gender-incongruent voice on wellbeing, and identifying possible relevant psychosocial considerations for successful therapy (Oates & Dacakis, 2017). The San Jose State University curriculum consisted of six to seven hours of LGBTQ-related content in a required multicultural course. In addition to a clinical case study on gender-affirming communication services, their curriculum included self-assessment of prior knowledge and implicit biases; LGBTQ history, terminology, discrimination, health disparities, and ASHA policies; LGBTQ-identified guest speakers; a reflection paper; and an experiential learning activity outside of class. The instructor encouraged students to express questions or discomfort openly, emphasizing that "cultural competence is a complex journey and that some discomfort or conflict is expected and has value in an individual's lifelong learning toward becoming an ethical and socially just clinical provider" (Mahendra, 2019). Respondents of this survey who sought continuing education reported higher confidence in working with TGNC clients than those who had not.

Beyond information covered during class time, professors may suggest further education sources for interested students, such as ASHA-approved continuing education events and other webinars and courses from TGNC-identified clinicians, as learning to provide culturally responsive practices can be seen as a life-long pursuit (Lubinski & Matteliano, 2008). Professors should emphasize the importance of learning from the perspectives of TGNC individuals when students seek further learning outside of or after their graduate coursework. While graduate programs may have limited time to thoroughly prepare all graduates to deliver gender-affirming communication services, graduates should be prepared to provide inclusive services, as SLPs may work with TGNC clients in any clinical setting. Such foundational knowledge may include the acknowledgement of personal biases that may impact service delivery (Lubinski & Matteliano, 2008), the importance of respecting clients' personal pronouns, gender inclusivity in client intake forms, and knowledge of the healthcare discrimination that is often experienced by this client population.

The most common suggestion from respondents for improving graduate education on this topic was integrating perspectives of TGNC individuals, through incorporating TGNC-identified speakers who are clinicians and/or have personal experiences with gender-affirming communication services. Thirty-seven percent of respondents reported learning from TGNC perspectives during their education (from in-class speakers or other media), and there was a statistically significant association between learning from TGNC perspectives and reporting that

their graduate program prepared them sufficiently to serve TGNC clients. There are many online resources created by TGNC individuals and clinicians to educate professors and students and to assist instructors in selecting a guest speaker to integrate this perspective. One such resource is Transplaining (https://www.transplaining.info), a website which provides online trainings in culturally responsive practices for SLPs and other clinicians working with TGNC clients. The National LGBTQIA+ Health Education Center also offers webinars and learning modules on transgender health, some of which feature TGNC speakers (https://www.lgbtqiahealtheducation.org/resources/type/webinar/). It should be noted that these resources are a sampling of what is available, and this list is not exhaustive or specifically endorsed by the authors or journal over other resources. In a 2020 survey that asked TGNC individuals what they would like SLPs to consider when working with the TGNC community, response themes included gender-inclusive language, financial difficulties accessing gender-affirming care, knowledge of treatment and evaluation, and the diversity of gender identity and expression (Chalom, 2020). Some respondents of the present study articulated similar topics as important for SLP education, such as knowledge of terminology and understanding gender identities beyond the gender binary.

Many respondents reported that clinical experiences with TGNC clients during their graduate education were helpful for preparing them to work with this client population in the future. Those who had clinical experiences during their graduate program felt more sufficiently prepared to work with TGNC clients by their graduate programs. Although this seems to be a helpful learning experience, graduate programs may not be able to offer this opportunity to all students. Jakomin and colleagues (2020) surveyed SLP graduate clinical directors, and most reported that it was uncommon to have TGNC clients at their university clinic. The authors suggested that targeted recruitment of TGNC clients is necessary to expand clinical education opportunities for graduate students to learn to competently serve this client population. In addition to providing valuable educational experiences, providing free or reduced-cost clinical services to TGNC clients may eliminate financial barriers that some of these clients face while seeking healthcare services (Jakomin et al., 2020).

Lubinski and Matteliano (2008) suggest objectives and curricular activities for SLP education based on the Campinha-Bacote (2002) model for cultural competency. Although this publication focuses on race, ethnicity, and disability, some of its tenants may be applied to gender diversity cultural responsiveness education. The authors identify a first step of identifying stereotypes, biases, and belief systems that are present in the dominant culture of the United States and those that are held by oneself. Educators may promote reflecting on one's implicit biases related to the TGNC community through group discussion and personal writing reflection. Researchers may employ a measure of attitudes toward TGNC people, such as the Implicit Association Test developed by Axt and colleagues (2021), to measure the efficacy of educational interventions on reducing implicit biases. Lubinski and Matteliano (2008) also recommend that curriculum improves students' skills in assessment, treatment, and advocacy for clients from diverse cultures. Gender diversity education may integrate case studies of TGNC clients to build such skills. Educators can lead group discussion on how to advocate for better TGNC healthcare and school environments, or how to build a clinic environment that is welcoming to clients of all gender identities. Finally, Lubinski and Matteliano (2008) note the importance of viewing cultural

humility as a life-long journey—an essential perspective to teach students as they continue growing as clinicians.

Limitations

The first limitation of the present study was a small sample size. The results of this pilot survey reflected the opinions of a smaller group of SLP graduate students and may not be representative of all students. Although the survey was available for one month, participation may have been limited by the COVID-19 wave that occurred during that time frame because potential respondents may have been otherwise occupied. Incentives, such as raffles, may improve responses to future surveys. We did not collect identifying information, such as school or location, to protect respondents' anonymity; geographic regions and other features of the respondents' graduate institutions, however, may have influenced the nature of their responses. Additionally, some respondents were recruited from online groups that represent certain interests and clinical specialties over others. For example, members of groups focused on voice therapy or gender spectrum communication may have been more likely to have sought continuing   education about TGNC clients or to know where to find more information about serving TGNC clients. Since this area of education is important for all SLPs, this is an important limitation to note.

With the nature of a survey, there is potential for both sampling and response biases. It is possible that those who graduated more recently may have more readily recalled specific gender diversity topics covered in their graduate coursework. It is also important to note that the responses of recent graduates provide one perspective for the development of gender diversity curricula. Perspectives of educators, experienced clinicians, and TGNC clients and clinicians are also valuable to consider. Additionally, while the survey asked respondents about the sufficiency of instruction time, it should be noted that other factors, such as instructor and learner characteristics, might impact the quality of instruction, regardless of time. Though the present study had limitations, its preliminary findings support a need for expansion and improvement of gender diversity education for SLP students.

Future Directions

The knowledge and confidence of instructors in teaching about gender diversity confidence is also an important consideration for the effectiveness of improving this area of SLP graduate education. Other studies have suggested that lack of knowledge and clinical experience among instructors on working with TGNC clients may present a barrier for including or expanding this topic in their courses (Jakomin et al., 2020; Matthews et al., 2020). Some respondents in the present study mentioned that instructors seemed uncomfortable teaching this material or avoided answering further questions about the topic. Instructors may seek online continuing education resources or academic texts to improve their knowledge and familiarity with these services, or they may consider inviting guest speakers including TGNC individuals and clinicians who specialize in gender-affirming communication services.

Previous authors have suggested that ASHA include transgender voice and communication within the required curriculum for accredited SLP graduate programs to improve future clinicians' and educators' knowledge of this area of clinical practice (Jakomin et al., 2020). Future research may

explore the efficacy of specific curricular activities in addressing students' biases about TGNC individuals, improving confidence for working with TGNC clients in future clinical practice, and knowing where to find further information and training about these issues. Future research may specifically consider the influence of student bias on the efficacy of educational interventions on this topic. Lara and Peterson (2018) implemented a two-hour gender diversity training in an SLP graduate program in Texas. They found that 16% of students were not comfortable interacting with transgender individuals before the training, and that 11% were still not comfortable after the training. Existing biases may interfere with learning opportunities presented to students. Although this survey had some respondents who self-identified as TGNC in open-ended responses, future research should gather more TGNC perspectives on how graduate programs can improve gender diversity curricula—from TGNC students and clinicians in speech-language pathology and other healthcare professions, and from TGNC individuals seeking gender-affirming communication services.

Conclusion

Previous studies have revealed that many SLPs did not learn about transgender voice and communication in their graduate programs. This study found that most respondents felt that instruction time spent on this topic was insufficient. Those who had clinical experiences with TGNC clients or learned from perspectives of TGNC individuals during their graduate education reported that their graduate program better prepared them to serve this client population in the future. TGNC individuals may seek gender-affirming or other communication services in any clinical setting, and it is important that SLP graduate programs provide all students with a foundational background in competently serving these clients.

Disclosures

The authors have no relevant financial or nonfinancial interests to disclose.

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Appendix

Survey

1. In what semester and year did you graduate from a speech-language pathology master's program?

2. Was working with transgender and gender diverse clients addressed in your graduate education?
   Yes; No; Not sure

3. To what extent did your graduate education address the following topics?

	Not at all	Slightly	Moderately	Considerably	A great deal
LGBTQ+ terminology	○	○	○	○	○
Using an individual's correct personal pronouns	○	○	○	○	○
Discrimination and/or healthcare disparities among transgender and gender diverse individuals	○	○	○	○	○
Domains of communication that gender-affirming communication therapy may target	○	○	○	○	○
Treatment techniques for gender-affirming communication therapy	○	○	○	○	○
Counseling skills for gender-affirming voice therapy	○	○	○	○	○
Incorporating individual needs, wishes, and circumstances of clients pursuing gender-affirming voice therapy	○	○	○	○	○

4. When did you learn about working with transgender and gender diverse clients within your graduate education? (Participants could select more than one answer*)*

>   Voice class; Multicultural class; Counseling class; Clinical experiences during graduate program; Other (please specify); This was not addressed in my graduate program

5. Were any of the following sources used during your graduate education to provide perspective from the transgender and gender diverse community? *(Participants could select more than one answer.)*

>   In-class speaker who is a member of the transgender and gender diverse community; Piece of writing from a member of the transgender and gender diverse community;
>   Video featuring a member of the transgender and gender diverse community;
>   Other material sharing perspectives of the transgender and gender diverse community (please specify);
>   None of the above;
>   Not sure

6. In your graduate education, how sufficient was the instruction time spent on learning how to work with transgender and gender diverse clients?

>   Insufficient; Somewhat insufficient; Neither sufficient nor insufficient; Somewhat sufficient; Sufficient

7. How well did your graduate education prepare you for working with a transgender or gender diverse client?

>   Did not prepare me at all; Prepared me to a small degree; Prepared me to a moderate degree; Prepared me to a considerable degree; Prepared me to a great degree

8. How confident do you feel treating transgender and gender diverse clients in your clinical practice moving forward?

>   Not confident at all; Slightly confident; Somewhat confident; Fairly confident; Very confident

9. How confident are you in your knowledge of the following areas?

	Not confident at all	Slightly confident	Somewhat confident	Fairly confident	Very confident
LGBTQ+ terminology	○	○	○	○	○
Using an individual's correct personal pronouns	○	○	○	○	○
Discrimination and/or healthcare disparities among transgender and gender diverse individuals	○	○	○	○	○
Domains of communication that gender-affirming communication therapy may target	○	○	○	○	○
Treatment techniques for gender-affirming communication therapy	○	○	○	○	○
Counseling skills for gender-affirming voice therapy	○	○	○	○	○
Incorporating individual needs, wishes, and circumstances of clients pursuing gender-affirming voice therapy	○	○	○	○	○

10. I know where to find more information to improve my clinical care with transgender and gender diverse individuals.

      Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree

11. Have you pursued any further education opportunities about working with transgender and gender diverse clients?

      Yes; No

12. If so, what sources have you sought? *(Participants could select more than one answer)*

      ASHA sponsored CE events;

      Workshops, webinars, or online courses (independent of ASHA);

      Websites;

Scholarly articles;
Social media (groups, pages, posts);
Youtube videos;
Colleagues;
Members of the transgender and gender diverse community;
Other (please specify)

13. Please share any learning experiences from your graduate education that you felt were particularly helpful for preparing you to work with transgender and gender diverse clients.
14. How could graduate programs improve their education on working with transgender and gender diverse clients?
15. Do you include your pronouns on your signature, website, and /or business card?
    Yes; No