

2020-01-01

## Assessing Attitudes And Knowledge Regarding Voice Modification In Transgender People Among Practicing Speech Language Pathologists (SLPs) In Texas

Iliana Renee Lopez  
*University of Texas at El Paso*

Follow this and additional works at: [https://scholarworks.utep.edu/open\\_etd](https://scholarworks.utep.edu/open_etd)



Part of the [Health and Medical Administration Commons](#), [Speech and Hearing Science Commons](#), and the [Speech Pathology and Audiology Commons](#)

---

### Recommended Citation

Lopez, Iliana Renee, "Assessing Attitudes And Knowledge Regarding Voice Modification In Transgender People Among Practicing Speech Language Pathologists (SLPs) In Texas" (2020). *Open Access Theses & Dissertations*. 2997.

[https://scholarworks.utep.edu/open\\_etd/2997](https://scholarworks.utep.edu/open_etd/2997)

This is brought to you for free and open access by ScholarWorks@UTEP. It has been accepted for inclusion in Open Access Theses & Dissertations by an authorized administrator of ScholarWorks@UTEP. For more information, please contact [lweber@utep.edu](mailto:lweber@utep.edu).

ASSESSING ATTITUDES AND KNOWLEDGE REGARDING VOICE  
MODIFICATION IN TRANSGENDER PEOPLE AMONG  
PRACTICING SPEECH LANGUAGE  
PATHOLOGISTS (SLPS) IN  
TEXAS

ILIANA LOPEZ

Master's Program in Speech Language Pathology

APPROVED:

---

Patricia Lara, Ph.D., CCC-SLP Chair

---

Deena G. Peterson, M.S., CCC-SLP

---

Oralia Loza, Ph.D.

---

Stephen L. Crites Jr., Ph.D.  
Dean of the Graduate School

Copyright ©

by  
Iliana Renee Lopez  
2020

ASSESSING ATTITUDES AND KNOWLEDGE REGARDING VOICE  
MODIFICATION IN TRANSGENDER PEOPLE AMONG  
PRACTICING SPEECH LANGUAGE  
PATHOLOGISTS (SLPS) IN  
TEXAS

By

ILIANA RENEE LOPEZ, B.A.

THESIS

Presented to the Faculty of the Graduate School of

The University of Texas at El Paso

in Partial Fulfillment

of the Requirements

for the Degree of

MASTER OF SCIENCE

Department of Speech Language Pathology

THE UNIVERSITY OF TEXAS AT EL PASO

May 2020

## ACKNOWLEDGEMENTS

First and foremost, I would like to thank Dr. Patricia Lara who was not only my mentor but so much more. You are someone I will continuously admire and aspire to be like, not only in my professional career, but as a person. Our mentor/mentee relationship began 4 years ago when I was given the amazing opportunity to become a part of your Brain, Voice and Language Lab. It was there that you gave me the chance to research a topic that I care very deeply for and love. It is because of you that I am graduating with such confidence as a clinician and as a professional through the experiences I have gained as a researcher and presenter. I am so thankful for all of the time, dedication and hard work you have put in as my mentor and thesis advisor. How can I ever express my thanks and appreciation for all you have done?

My next acknowledgement will be for my committee members Deena Peterson M.S., CCC-SLP, and Oralia Loza Ph.D., I am so grateful for the time I have been able to spend with both of you. You pushed me to become a critical thinker and kept me on my toes. Thank you for the time and expertise you brought to my research.

To my parents, Nina, and Erik, words cannot explain how lucky I am to have you in my life. Without your continuous support, love and encouragement I would not have made it this far. It is because of you and the examples you set every day that I am the woman I am today. Thank you for being the continuous wind beneath my wings and pushing me to do my best.

Lastly to my friends, Isabel Cano, Elise McLain, Jordan Orozco and Cassie Woodhouse, thank you for lifting me up and keeping a smile on my face. Your constant encouragement, humor and love got me through my worst days and made my best days even better. I am truly grateful and lucky to have you in my life. I cannot wait to see what adventures our futures hold.

## TABLE OF CONTENTS

ACKNOWLEDGEMENTS .....	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES .....	vi
CHAPTER 1: LITERATURE REVIEW .....	1
1.1 Introduction.....	1
1.2 Barriers to Healthcare .....	2
1.3 Background .....	3
1.4 Factors Influencing Attitudes, Knowledge, and Comfort.....	3
1.5 Limited Research .....	4
CHAPTER 2: METHODS AND PROCEDURES .....	7
2.1 Purpose.....	7
2.2 Participants.....	7
2.3 Procedures.....	8
2.4 Analysis Plan .....	10
CHAPTER 3: RESULTS.....	11
3.1 Qualitative Results.....	11
3.2 Quantitative Results .....	11
CHAPTER 4: DISCUSSION.....	13
CHAPTER 5: CONCLUSION .....	16
CHAPTER 6: LIMITATIONS .....	17
REFERENCES .....	18
APPENDIX.....	21
VITA.....	25

**LIST OF TABLES**

TABLE 1.1: RESPONDENT CHARACTERISTICS .....8

# CHAPTER 1: LITERATURE REVIEW

## 1.1 Introduction

Members of the transgender (TG) community suffer from numerous health disparities that result in negative patient outcomes. The National Transgender Discrimination Survey reported that TG individuals postponed their care due to the denial of their healthcare services or harassment at the hands of healthcare providers (Rowe, et al., 2017). Recently the Texas Senate passed a bill heavily impacting the LGBTQ community and their rights to receive healthcare services. The Texas Senate Bill 17 states that individuals that hold an occupational license can refuse services to members of the LGBTQ community based on their religious beliefs. The passing of this bill opens the door for possible refusal of services to TG persons as a result of the SLPs religious beliefs. This bill is another barrier to access to healthcare and comfort with healthcare providers.

In addition, TG persons experience access barriers to highly specialized healthcare services. One of the specialized healthcare needs that TG persons may seek is voice modification. Individuals who identify as TG may seek the services of SLPs for voice modification services to feminize or masculinize the voice resulting in a voice that more closely represents their gender identity. A major factor in successfully transitioning and positively living as the person's gender identity is the ability to be perceived by others as the identified gender. Thus, to improve quality of life, visual gender perception and voice alignment can be vital to a transition for some individuals. The Williams Institute (2016) reports that approximately 125,350 adults in Texas identify as TG. Since Texas, as compared to all 50 states, has the 5th highest percentage of adults who identify as TG, SLPs trained in cultural competence and voice modification are essential. This is further complicated by the lack of cultural competence



required to work with LGBTQ persons. Particularly, many speech language pathologists (SLP) do not feel knowledgeable in voice modification nor are they culturally competent to serve members of the TG community (Hancock & Haskin, 2015; Pickering, 2015).

## **1.2 Barriers to Healthcare**

As previously stated, members of the TG community face numerous barriers to healthcare and social services. These barriers include cost of care, distance required to travel to see health providers for transition related care, and closely related to this study, fear of being mistreated as a transgender person (Rowe, et al., 2017). As reported in another study “fears of transphobic reactions from providers, concerns about confidentiality and stigma, discrimination from PCPs, and past negative experiences with providers, however, are major reasons why transgender persons have difficulty disclosing to their providers” (Mayer, Bradford, Makadon, Stall, Goldhammer, & Landers, 2008). Loza, Beltran, Mangadu (2017) examined the barriers to care for transgender women who live in a US–Mexico border city. This study found that 13 transgender women in Texas could not find a local healthcare provider with whom they felt were trans-friendly or competent. As reported in Hancock and Haskin (2015) “these concerns are prevalent among members of the LGBTQ community” especially from those who seek voice modification services or who have other communication impairments. Another issue includes health care provider’s lack of competency pertaining to transgender healthcare needs. A study conducted identified that providing education for healthcare providers and identifying healthcare providers who are willing to provide competent care to transgender individuals is necessary to provide appropriate care “adapted to local culture and gender norms” (Loza, Hernandez, Calderon-Mora, Laks, Leiner, Reddy, Lara & Granados, 2018). Hancock and Haskin (2015) also found that there is a need for increased LGBTQ cultural competency. These health disparities

are affected by the attitudes, knowledge and comfort of healthcare providers. Therefore, they affect the quality of care individuals in the LGBTQ population receive.

### **1.3 Background**

The American Speech Language and Hearing Association (ASHA) is the national professional association for SLPs and audiologists. It guides clinicians towards practice efficacy as well as clinical decision making (ASHA, 2019). According to ASHA, SLPs that choose to work with the TG population should “demonstrate cultural sensitivity” and “have current knowledge of appropriate, inclusive, respectful, and nonpathologizing terminology” (ASHA, 2019). However, a need for cultural competence in LGBTQ issues continues to exist in the field of speech language pathology. For example, in a study conducted by Hancock and Haskin (2015), 279 SLPs were surveyed from four different countries. The participants responded to a survey that asked questions related to respondents’ age, educational background, knowledge, comfort and terminology on LGBTQ culture. The results of this study found that in a group of clinicians with 10 years of experience or less, half reported having less comfort and knowledge working with this population. This same group of respondents also reported negative feelings toward transgender persons. Furthermore, clinicians with over 20 years of experience reported being more comfortable with the role that SLPs play in the management of voice modification in TG persons than their less experienced counterparts.

### **1.4 Factors Influencing Attitudes, Knowledge, and Comfort**

In considering the factors that impact overall attitudes, comfort and knowledge, Bangert and Rucker (2012) found that in a group of 116 SLP respondents 97.4% reported that they were willing to work with TG persons. Of those that responded negatively, 11.8% personal reasons

and 2.7% cited religious reasons for their response. Sawyer, Perry, and Dobbins-Scaramell (2014) examined the attitudes of SLPs regarding TG persons and their knowledge on the scope of practice regarding speech and communication services. In this study over 1000 surveys were sent out electronically. Only 228 surveys were returned. The mean age of the respondents was 41 years. Two hundred and four of the 228 respondents indicated that they had attained a master's degree in speech language pathology. Eighty-eight of the respondents indicated having 15 or more years of experience. The results of this study found that 69% of those that responded indicated that treating TG persons for speech and communication disorders was within the scope of practice of SLPs. However, 59% felt uncomfortable providing assessment and 55% felt uncomfortable providing treatment (Sawyer et al., 2014). Researchers reported that respondents lack of comfort may relate to lack of educational experiences or the lack of clinical experience.

### **1.5 Limited Research**

A review of the literature reveals that there is limited research on the attitudes of SLPs toward TG persons and knowledge of voice modification in this same group of people. Furthermore, the studies that were reviewed showed that while SLPs may be comfortable with TG persons, they do not feel competent treating them due to the lack of knowledge with this clinical parameter. For example, Hancock and Haskin (2015) found that SLPs with at least ten years of experience reported that their academic career did not include voice modification for TG persons and almost half of the total respondents (47%) reported the same. Similarly, Sawyer et al. (2015) surveyed 228 SLPs in the state of Illinois. The results showed that 74% of the respondents did not feel that their academic training was adequate regarding voice therapy services for TG persons. Other studies have found that lack of academic training and exposure to this group of persons as well as lack of specialized training as factors in the comfort level of

SLPs regarding service provision to TG persons (Bangert & Rucker, 2012; Pickering, 2015; Sawyer, Perry & Dubbins-Scaramelli, 2014).

As per ASHA standards of care and the code of ethics, all SLPs must have knowledge on safe voice modification treatment, however the association does not mandate that graduate SLP programs include this clinical parameter in their curriculums (ASHA, 2016). There are 266 accredited speech language pathology master's programs in the United States. Of these, only 47 offer voice modification services in their speech and language clinics (2U Inc., 2020). Offering voice modification services to TG persons serves two purposes. First, these programs offer a valuable and much needed service to a vulnerable group of people. Secondly, graduate students in SLP will gain the academic knowledge and clinical exposure needed to treat this group of individuals. For example, in a pilot study by Lopez, Gandara, and Lara (2018), graduate students' attitudes and knowledge of voice modification in TG persons were examined pre and post academic and clinical experiences. Post-survey results show that graduate students reported increased clinical competency, knowledge, and positive attitudes. Similar results have been demonstrated in studies that examined attitudes and knowledge of other healthcare professionals regarding treating TG persons. In a study by Rowan et al., (2019), 40% of resident and faculty physician respondents reported the need for increased training in academic programs. Similarly, Braun et al., (2017) reported that the knowledge of health profession students regarding TG health topics increased after completing a TG health elective course. Furthermore, measures of transphobia were reduced, suggesting that curricular exposure not only has a positive impact on knowledge, but on attitudes and beliefs. Park and Safer (2018) also reported that a majority of students at Boston University School of Medicine had negative attitudes towards working with TG persons as opposed to those students that identified as lesbian, gay or bisexual. Due to this

finding, Boston University School of Medicine added a TG medicine elective to the curriculum. Students received increased education and training by completing the academic course and a rotation where clinical care was provided to TG persons. Post-survey results showed an increase in the number of students who responded with “high” comfort levels in working with TG persons. Additionally, 85% of the student respondents reported “high” knowledge level regarding the healthcare needs of TG persons suggesting that clinical training and education on TG healthcare topics increase students’ comfort and knowledge levels.

Similarly, the literature suggests that practicing SLPs lack the knowledge regarding voice modification for TG persons. The attitudes, beliefs, and lack of knowledge regarding voice modification in TG persons among practicing SLPs may impact the outcomes and efficacy of voice modification treatment for TG person as well as the success of the TG person’s transition. Therefore, it is imperative that SLPs have training and exposure to this patient population. Without the training, SLPs lack the knowledge to treat voice modification in TG persons and without the exposure to this population SLPs may lack the cultural competence required. Therefore, this study examines the attitudes and knowledge of TG voice and communication issues among licensed and ASHA certified SLPs in Texas. The findings are expected to increase the knowledge currently available regarding the training and academic needs of current and future SLPs thus improving the speech and communication services to TG persons. This would result in increasing quality of life of TG persons.

## **CHAPTER 2: METHODS AND PROCEDURES**

### **2.1 Purpose**

The purpose of this cross-sectional study is to examine the attitudes and knowledge of voice modification in TG persons among practicing SLPs in the state of Texas. The independent variables are the respondent's demographic information as well as their educational, clinical and personal experiences and the dependent variable are the respondent's attitudes and knowledge towards transgender persons and voice modification. This study was approved by the University of Texas at El Paso Institutional Review Board. The purpose of this study is to examine the attitudes and knowledge of TG voice and communication issues among licensed and ASHA certified SLPs in Texas. Participation in this study was voluntary was designed so that complete anonymity was maintained throughout the study.

### **2.2 Participants**

Participants included SLPs from the state of Texas. Inclusion criteria included holding a license to practice speech language pathology in Texas, a Certificate of Clinical Competence (CCC) or being a Clinical Fellow (CFY) as per the American Speech Language Hearing Association (ASHA, 2019). Exclusion criteria included speech language pathology assistants (SLP-A), did not practice speech language pathology in the state of Texas and did not hold the CCC or CFY from ASHA. Two hundred fifty-one individuals viewed the survey. Thirteen started the survey but did not complete it; therefore, their data was excluded. Thirty-nine individuals completed the survey. Prospective participants were recruited through The El Paso Speech Language and Hearing Association emailing list and social media. Table 1.1 shows respondent's demographics including the sample size and the means.

**TABLE 1.1 RESPONDENT CHARACTERISTICS**

<b>Age (Years)</b>	<b>Ethnicity</b>	<b>Religion</b>	<b>Sex</b>	<b>Gender</b>	<b>Sexual Orientation</b>	<b>Experience (years)</b>
<b>20-30</b> (N=5) 12.8%	<b>African American</b> (N=1) 2.6%	<b>Catholic</b> (N=22) 56.4%	<b>Male</b> (N=2) 5.1%	<b>Cisgender</b> (N=27) 77.1%	<b>Heterosexual</b> (N=37) 94.9%	<b>SLP Clinical Fellow</b> (N=4) 10.3%
<b>31-40</b> (N=9) 23.1%	<b>Caucasian</b> (N=12) 30.8%	<b>Christian</b> (N=11) 28.2%	<b>Female</b> (N=37) 94.9%	<b>Prefer not to say</b> (N=1) 2.9%	<b>Homosexual</b> (N=1) 2.6%	<b>SLP with 1-10</b> (N=13) 33.3%
<b>41-50</b> (N=8) 20.5%	<b>Hispanic or Latino</b> (N=23) 59.%	<b>Jewish</b> (N1) 2.6%		<b>Other</b> (N=7) 20%	<b>Other</b> (N=1) 2.6%	<b>SLP with 11-20</b> (N=13) 20.5%
<b>51-60</b> (N=15) 38.5%	<b>Prefer not to say</b> (N=2) 5.1%	<b>Prefer not to say</b> (N=1) 2.6%				<b>SLP with 21-30</b> (N=9) 23.1%
<b>61+</b> (N=2) 5.1%		<b>Other</b> (N=4) 10.3%				<b>SLP with over 30</b> (N=5) 12.8%
Mean= 45.21	Total # of Resp. = 39	Total # of Resp. = 39	Total # of Resp. =39	Total # of Resp.= 38	Total # of Resp. = 39	Total # of Resp. = 39

### 2.3 Procedures

The 10- minute on-line survey was administered using QuestionPro (QuestionPro, 2019). QuestionPro (QuestionPro, 2019) was chosen to complete the survey because the surveys can be accessed through any device including respondent-owned cell phone, tablet and/or computer with internet connection. The survey consisted of 38 questions with seven demographic questions and 31 that asked specifically about attitudes regarding TG persons and knowledge about voice feminization and masculinization in TG persons. The survey was developed using questions from the Promoting Cultural Diversity and Cultural Competency: Self-Assessment Checklist for Personnel Providing Services and Supports to LGBTQ Youth and Their Families

(Fisher, Poirier & Blau, 2012) and the Survey of Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) Knowledge and Attitudes (Hancock & Haskin, 2015).

The demographic questions were multiple-choice or scale format. Two questions included in the survey asked whether TG voice and communication treatment were included in the respondent's speech language pathology master's degree curriculum and whether continuing education in the area of voice modification would be beneficial to the respondent's practice. Six questions related to attitudes regarding the LGBTQ community were asked. These questions were rated on a 5-point Likert scale; with 1 indicating more positive attitudes and 5 indicating more negative attitudes. Eight questions on the study were related to the respondent's overall knowledge of TG persons and their healthcare needs. These questions were rated on a 4-point Likert scale where 1 indicated high knowledge and 4 indicated poor or no knowledge. In addition, 13 questions addressed cultural competence and comfort treating TG persons where a score of 1 indicated increased comfort and competency and a score of 5 indicated decreased positivity, knowledge and comfort. Finally, 2 open-ended questions were included that asked the respondents level of knowledge regarding voice modification treatment in TG persons and factors that contributed to the respondent's overall attitudes regarding TG persons. Respondents were explicitly told if they did not know the answer, they should skip the question. See Appendix A for a complete version of the survey.

Prospective participants were invited to participate in the study using social media sites as well as through email. Respondents were asked to forward the survey to other SLPs and CFYs in Texas. Prior to starting the on-line survey, respondents were asked to consent to participation in the study by clicking on a confirmation question. At any point during the survey, participants were able to choose to stop completing the survey. The data of those prospective



participants that did not complete the data was deleted and was not included in the data analysis. The de-identified data collected will be stored in a password-protected QuestionPro (2019) database until April 14<sup>th</sup>, 2021. Password is known only by the PI and her thesis chair.

## **2.4 Analysis Plan**

A content analysis was completed on the two open-ended questions of the survey. This analysis was done to determine the presence of any themes or patterns. The content analysis was completed on Microsoft Excel (Microsoft, 2018) by the lead researcher and a research assistant. To increase inter-rater reliability each individual identified main categories based upon the responses of the open-ended questions and divided each main category into subcategories depended on the information from each individual response. After the categories were created the researcher and assistant researcher convened to identify which categories were created and discussed why a certain category identified more with the research question. Upon the completion of the described qualitative analysis, a quantitative analysis was completed. The numerical data from the survey was analyzed using SPSS-26 (IBM SPSS-26, 2017). A Pearson correlation coefficient was used to identify any relationship between the dependent variables and the independent variables. A p-value less than or equal to 0.05 ( $\leq 0.05$ ) is considered to be statistically significant finding. To determine if there were further associations between sociodemographic measures and disagreement with Texas Senate Bill 17 a Pearson bivariate correlation coefficient was completed. A p-value less than or equal to 0.05 ( $\leq 0.05$ ) is considered to be statistically significant finding.

## CHAPTER 3: RESULTS

### 3.1 Qualitative Results

The content analysis on the open-ended responses of the participants revealed key findings. The first survey question asked which asked SLPs (respondents) to list areas targeted in voice feminization/masculinization therapy for TG persons. Only 18% of respondents completed this question. The second question asked respondents what influenced their overall knowledge and attitudes towards the TG population. Sixty four percent of the respondents answered this question. The most common responses were graduate school and personal relationships as factors that impacted the overall attitudes and knowledge. For example, one of the respondents wrote “there was a wonderful speaker who addressed our multicultural class in grad school. He spoke sensitively and provided excellent information to educate us on TG issues”. Another respondent wrote “personally, I have been introduced to the TG community (a little) through my friend”. Still another respondent wrote “but more so from my marriage, and our desire to love/treat everyone equally and with kindness”.

### 3.2 Quantitative Results

Results of the study show that 95% of the respondents were female. In addition, 59% indicated their ethnicity as Hispanic, 56% indicated their religion as Catholic, 77% identified as cisgender, 95% as heterosexual, and 33.3% had 1-10 years of experience. Furthermore, only 52% of respondents indicated that TG voice and communication were addressed in their SLP Graduate degree curriculum.

A positive correlation between age and disagreement with Texas Senate Bill 17 was found ( $r=.337$ ,  $p=.05$ ), suggesting that there was a statistical significance. As respondents

increased in age the more likely they were to disagree with the bill. A statistically significant positive correlation was also found ( $r=.360$ ,  $p=.05$ ) between years practicing as an SLP and disagreement with Texas Senate Bill 17, indicating that the longer a SLP works in the field the more likely they will disagree with the bill. This finding could be related to the longer an SLP works, the better understanding a SLP obtains of their role in the management of voice for TG persons. There were no other statistically significant correlations between sociodemographic measures and disagreement with Texas Senate Bill 17. Additionally, a statistically significant positive correlation was found between personal comfort and professional comfort ( $r=.527$ ,  $p=.05$ ) suggesting that SLPs that are personally comfortable with TG persons are also professionally comfortable with TG persons.

## CHAPTER 4: DISCUSSION

The purpose of this study was to assess the attitudes and knowledge of practicing SLPs in Texas regarding voice modification and TG persons. The results of this study showed a correlation between age and disagreement with Texas Senate Bill 17 which suggests that SLPs that are older disagree with Texas Senate Bill 17. This may stem from all the media coverage that was given to the bill in Texas. Texas Senate Bill 17 states that occupational license holders may refuse services to members of the LGBTQ community if it conflicted with the license holder's religious beliefs. We felt that it was important to ask a question about this bill in the survey because ASHA's code of ethics states "individuals shall not discriminate in the delivery of professional services or in the conduct of research and scholarly activities on the basis of race, ethnicity, *sex, gender identity/gender expression*, sexual orientation, age, religion, national origin, disability, culture, language, or dialect" and this bill protects those individuals who withhold professional services based on religious beliefs (ASHA, 2019).

The present study found a positive correlation between personal and professional comfort with TG persons. This was supported by the findings of the content analysis completed on the open-ended questions which found that personal beliefs, values and personal contact with TG persons impacted personal comfort toward TG persons. These findings were contradictory to Bangert and Rucker (2012) who found that clinicians had negative attitudes towards TG individuals due to their beliefs. Similar to Bangert and Rucker (2012), a study by Hancock and Haskin (2015) found that SLP respondents had more negative feelings towards TG persons than other members of the lesbian, gay and bisexual population. According to Hancock and Haskin (2015) this may be attributed to gender biases. However, in the current study we found that most of the respondents had positive feelings towards this group of individuals. This is attributed to

some of the respondents having personal acquaintances that identify as TG as reported by respondents in the current study.

Respondents' knowledge regarding clinical practice standards were assessed using an open-ended question that asked respondents what areas are targeted in voice feminization/masculinization therapy. Previous literature commonly recommended pitch and resonance as target areas for TG voice modification (Carew, Dacakis, & Oates, 2007; Gelfer, 1999; Gelfer, Van Dong, 2013; Quinn, Swain, 2018). However further research suggests that pitch and resonance should not be the only targets during voice modification treatment and aspects such as vocal health, intonation, volume, articulation, and language should be incorporated (Adler, Hirsch & Mordaunt 2012; ASHA, 2020; Simpson, 2008; WPATH, 2012). As previously stated, 18% of respondents answered the question and of that 18% most respondents stated pitch was a primary target of voice modification. The lack of responses and uniformity in the answers suggests that SLPs in Texas who responded have little information regarding voice modification for TG persons. This is consistent with data obtained in other studies as pitch and resonance are believed to be the only targets for voice modification (Hancock and Haskin, 2015).

The low number of SLP respondents knowledgeable in voice modification services for TG persons may be associated with the lack of education and clinical training incorporated into Master's degree curriculum as 52.3% of respondents answered that they received neither. This finding is also reported in other research which highlight that TG health and voice modification are not integrated into the degree curriculum (Rowe, et al., 2017; Sawyer et al., 2014; 2U Inc., 2020). Although there were no correlations between the lack of training and education, an overwhelming 63% voiced that education and training for voice modification would be

beneficial to their practice. This is supported by the pilot study completed by Lopez, Gandara, and Lara (2018) in which graduate students were asked to fill out a pre-survey on attitudes toward TG persons and knowledge regarding voice modification for TG persons. The students were then provided with academic course work and were clinically exposed to TG persons. A post-survey was administered to the graduate students following the learning opportunities. The results of this pilot study showed that graduate students reported increased clinical competence, knowledge and positive attitudes upon completion of graduate coursework and training on voice modification and TG persons. This is further supported by other studies where positive attitudes and knowledge of students in the health care field increased after being provided education and training on TG individuals and TG health issues (Braun et al., 2017; Park & Safer, 2018). The lack of clinical training and education on voice modification for TG individuals is remarkable as SLPs are required to be culturally competent and knowledgeable in the diagnosis and management of communication disorders as well as communication differences (ASHA, 2019). The results from this study support the need for education and clinical training on cultural competence for the LGBTQ population and voice modification for TG persons in graduate speech language pathology curriculums.

## **CHAPTER 5: CONCLUSION**

SLPs in Texas who responded are professionally and personally comfortable working with transgender individuals. Most respondents did not know what was targeted in voice modification services, however are willing to learn. Respondents' attitudes, knowledge and comfort were impacted most by personal values, graduate school education and personal relationships. The results from this study support the need for education and clinical training on cultural competence for the LGBTQ population and voice modification for TG persons.

## CHAPTER 6: LIMITATIONS

The current study examined the attitudes and knowledge of voice feminization and masculinization of TG persons in SLPs in the state of Texas. The current study had some limitations. One of the limitations is the small sample size. According to ASHA (2019), there are 14,054 certified SLPs in Texas. The current study was disseminated through social media, the El Paso Speech Language and Hearing Association and via e-mail. For the current study, there were 251 prospective respondents that viewed the survey. However, of the 251 who viewed the survey only 39 respondents completed the survey. This is similar to the findings by Hancock and Haskin (2015) where the study was disseminated around the world and only 279 SLPs from four different countries participated. This was also seen in the Sawyer et al. (2014) study as over 1000 surveys were sent out electronically and only 228 surveys were returned. Another limitation was that there were only two male participants in this study which may have contributed to finding no correlation between sex and any of the other variables. However, according to ASHA (2019) males compromise only 3.7% of its SLP membership. Further studies should consider expanding dissemination to a greater geographical area to determine national patterns of attitudes, and their predictors, towards TG persons. In addition, while the current study showed positive trends toward TG persons, it should be noted that we had a small number of respondents most of whom indicated being biological females. According to a study that examined predictors of attitudes toward TG persons, gender was found to have a significant effect on attitudes toward TG persons (Claman, 2007). The results of this study showed that females have more positive attitudes than males toward TG persons which is consistent with the findings of the current study.



## REFERENCES

- 2U Inc. (2019). Speech pathology programs promoting access to transgender voice therapy. Retrieved from: <https://speechpathologymastersprograms.com/transgender-voice-therapy/>
- Adler, R. K., Hirsch, S., & Mordaunt, M. (2012). *Voice and communication therapy for the transgender/transsexual client : A comprehensive clinical guide* San Diego, CA : Plural Publishing Inc., 2012]; Second edition. Retrieved from: <http://0-search.ebscohost.com.lib.utep.edu/login.aspx?direct=true&db=cat04704a&AN=nug.b3627535&site=eds-live&scope=site>; <http://0-ebookcentral.proquest.com.lib.utep.edu/lib/utep/detail.action?docID=1886761>
- American Speech-Language-Hearing Association. (2016). *Code of ethics*. Retrieved from: [www.asha.org/policy/](http://www.asha.org/policy/)
- American Speech Language Hearing Association. (2019). General information about asha certification. Retrieved from: <https://www.asha.org/certification/clinical-fellowship/>
- American Speech-Language-Hearing Association. (2020). Profile of ASHA members and affiliates, year-end 2019. Retrieved from: [www.asha.org](http://www.asha.org)
- American Speech Language Hearing Association. (2020). Voice and communication services for transgender and gender diverse populations. Retrieved from: [https://www.asha.org/PRPSpecificTopic.aspx?folderid=8589944119&section=Key\\_Issues](https://www.asha.org/PRPSpecificTopic.aspx?folderid=8589944119&section=Key_Issues)
- Bangert, K., & Rucker, A. (2012), (Unpublished Research Project). Perceptions of transgender individuals in speech-language pathology. University of Northern Iowa, Cedar Falls, Iowa.
- Braun, H. M., Garcia-Grossman, I. R., Quinones-Rivera, A., & Deutsch, M. B. (2017). Outcome and impact evaluation of a transgender health course for health profession students. *LGBT health*, 4(1), 55-61.
- Carew, L., Dacakis, G., & Oates, J. (2007). The effectiveness of oral resonance therapy on the perception of femininity of voice in male-to-female transsexuals. *Journal of Voice*, 21(5), 591-603. doi:<https://doi.org/10.1016/j.jvoice.2006.05.005>
- Claman, E. (2007). An examination of the predictors of attitudes toward transgender individuals (Unpublished doctoral dissertation). The Ohio State University, Columbus, Ohio.
- Coleman, E., Bockting, W., Botzer, M., Cohen-Kettenis, P., DeCuypere, G., Feldman, J., Fraiser, L., Green, J., Knudson, G., Meyer, W. J., Monstrey, S., Adler, R. K., Brown, G. R., Devor, A. H., Ehrbar, R., Ettner, R., Eyler, E., Garofalo, R., Karasic, D. H., Lev, A. I., Mayer, G., Meyer-Bahlburg, H., Paxton Hall, B., Pfafflin, F., Rachlin, K., Robison, B.,

- Schechter, L. S., Tangpricha, V., Van Trotsenburg, M., Vitale, A., Winter, S., Whittle, S., Wylie, K. R., & Zucker, K. (2012). Standards of care for the health of transsexual, transgender, and gender-nonconforming people, version 7. *International journal of transgenderism*, 13(4), 165-232.
- Fisher, S., Poirier, J., & Blau, G. (2012). Improving Emotional and Behavioral Outcomes for LGBT Youth. Brookes Publishing | [www.brookespublishing.com](http://www.brookespublishing.com)
- Flores, A.R., Herman, J.L., Gates, G.J., & Brown, T.N.T. (2016) How Many adults Identify as Transgender in the United States? Los Angeles, CA: The Williams Institute Retrieved from: <https://williamsinstitute.law.ucla.edu/wp-content/uploads/How-Many-Adults-Identify-as-Transgender-in-the-United-States.pdf>
- Garrison, N. O., Ibañez, G. E., Sabin, J. A., & Riskind, R. (2016). Attitudes of health care providers toward LGBT patients: The need for cultural sensitivity training/Sabin and Riskind Respond. *American journal of public health*, 106(3), 570.
- Gelfer, M. P., & Van Dong, B. R. (2013). A preliminary study on the use of vocal function exercises to improve voice in male-to-female transgender clients. *Journal of Voice*, 27(3), 321-334. doi:<https://doi.org/10.1016/j.jvoice.2012.07.008>
- Gelfer, M. P. (1999) Voice treatment for the male-to-female transgendered client. *American Journal of Speech-Language Pathology* 8, 201-208
- Grant, J.M., Mottet, L.A. and Tanis, J. (2015) Injustice of every turn: A report of the national transgender discrimination survey.
- Hancock, A., & Haskin, G. (2015). Speech-language pathologists' knowledge and attitudes regarding lesbian, gay, bisexual, transgender, and queer (LGBTQ) populations. *American journal of speech-language pathology*, 24(2), 206-221
- IBM Corp. Released 2017. IBM SPSS Statistics for Windows, Version 25.0. Armonk, NY: IBM Corp.
- Lopez, L., Gandara, G., & Lara, P. (2019). *Graduate SLP students' attitudes towards transgender individuals: Pre and post academic and clinical experiences*
- Loza, O., Beltran, O., & Mangadu, T. (2017). A qualitative exploratory study on gender identity and the health risks and barriers to care for transgender women living in a US–Mexico border city. *International Journal of Transgenderism*, 18(1), 104-118.
- Loza, O., Hernandez, P., Calderon-Mora, J., Laks, S., Leiner, M., Reddy, S., ... & Granados, H. (2018). Developing trans-affirming health services in an underserved area: An intersectional approach. *Transgender health*, 3(1), 127-135.

- Mayer, K. H., Bradford, J. B., Makadon, H. J., Stall, R., Goldhammer, H., & Landers, S. (2008). Sexual and gender minority health: what we know and what needs to be done. *American journal of public health, 98*(6), 989-995.
- Microsoft Corporation. (2018). *Microsoft Excel*. Retrieved from <https://office.microsoft.com/excel>
- Park, J. A., & Safer, J. D. (2018). Clinical exposure to transgender medicine improves students' preparedness above levels seen with Didactic teaching alone: a key addition to the Boston University model for teaching transgender healthcare. *Transgender health, 3*(1), 10-16.
- Pickering, J. (2015). Transgender voice and communication: Introduction and international context. *Perspectives on Voice and Voice Disorders, 25*(1), 25-31.
- QuestionPro Survey Software. (2019). QuestionPro. Retrieved from: <https://www.questionpro.com/>
- Rowan, S. P., Lilly, C. L., Shapiro, R. E., Kidd, K. M., Elmo, R. M., Altobello, R. A., & Vallejo, M. C. (2019). Knowledge and Attitudes of Health Care Providers Toward Transgender Patients Within a Rural Tertiary Care Center. *Transgender health, 4*(1), 24-34.
- Rowe, D., Ng, Y. C., O'Keefe, L., & Crawford, D. (2017). Providers' Attitudes and Knowledge of Lesbian, Gay, Bisexual, and Transgender Health. *Federal Practitioner, 34*(11), 28.
- Sawyer, J., Perry, J., & Dobbins-Scaramelli, A. (2014). A Survey of the Awareness of Speech Services Among Transgender and Transsexual Individuals and Speech-Language Pathologists. *International Journal of Transgenderism, 15*:3-4, 146-163, DOI:10.1080/15532739.2014.995260
- Simpson, B. C. (2008) General Voice Care/Vocal Hygiene. Retrieved August 30, 2018 from <http://uthscsa.edu/oto/voice.asp>

## APPENDIX A

### Assessing Attitudes and Knowledge Regarding Voice Modification in Transgender People among Practicing Speech-Language Pathologists (SLPs) in Texas

---

What is your age?

1. 20-30
2. 31-40
3. 41-50
4. 51-60
5. 61+

What is your ethnicity?

1. African American
2. American Indian or Alaska Native
3. Asian
4. Caucasian
5. Hispanic or Latino
6. Native Hawaiian or Other Pacific Islander
7. Multiracial
8. Prefer not to say
9. Other

What is your religion?

1. Catholic
2. Christian
3. Jewish
4. Muslim
5. Prefer not to say
6. Other \_\_\_\_\_

What is your sex?

1. Female
2. Male

What is your gender?

1. Cisgender
2. Male to Female Transgender
3. Female to Male Transgender
4. Gender Nonconforming
5. Prefer not to say
6. Other \_\_\_\_\_

What is your sexual orientation?

1. Heterosexual
2. Homosexual
3. Bisexual
4. Prefer not to say
5. Other

Which best describes you?

1. SLP Clinical Fellow
2. SLP with 1-10 years of experience
3. SLP with 11-20 years of experience
4. SLP with 21-30 years of experience
5. SLP with over 30 years of experience

Was transgender voice and communication addressed in your SLP Master's degree curriculum (i.e., Clinical training or educational course)? (CHECK ALL THAT APPLY)

1. Not at all
2. Some in class
3. Some in clinical practicum
4. Extensively in class
5. Extensively in clinical practicum

If transgender voice and communication were not addressed in your SLP Master's degree curriculum, would clinical training or educational courses be beneficial towards your practice?

1. Yes
2. No

Rate your attitude towards the following:

	1-Extremely positive	2- Positive	3- Neutral	4- Negative	5- Extremely negative
Lesbian women	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gay men	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bisexual individuals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Queer/gender non-conforming individuals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Male-to-female transgender	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Female-to-male transgender	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please rate your knowledge of the following:

	1- Expert knowledge	2- Considerable knowledge	3-Slight knowledge	4- No knowledge
The process of coming out for people who are transgender	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transgender health care issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Role of SLP in transgender health care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Voice feminization/masculinization services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Terminology (e.g., pronouns, language of transition, gender identity, gender expression)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I know where to look for resources or training on transgender persons and voice feminization/masculinization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I understand the impact of stigma associated with mental illness, behavioral health services and help-seeking behavior among transgender individuals and their families within cultural communities ( i.e. communities defined by race or ethnicity, religiosity or spirituality, tribal affiliation and/or geographic location)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I understand and accept that many evidence-based voice intervention approaches will require adaptation to be effective with transgender patients seeking voice habilitation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please rate yourself on the following:

	1= I frequently do this or the statement applies to me to a great degree	2= I occasionally do this or the statement applies to me to a moderate degree	3= I rarely do this or the statement applies to me to a minimal degree	4= I never do this or the statement does not apply to me
I attempt to learn and use keywords (i.e., pronouns, language of transition, gender identity, gender expression) and terms that reflect transgender culture so that I communicate more effectively with my patients during assessment, treatment or other interventions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I avoid imposing values that conflict or are inconsistent with those of transgender cultures or groups.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I disagree with Senate Bill 17 (SB 17) which states that occupational license holders (including speech-language pathologists) may refuse services and cite “sincerely held religious beliefs”.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Before providing services to transgender individuals, I seek information on acceptable behaviors, courtesies, customs,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

and expectations that are unique to transgender culture and transgender headed families.				
I accept that culture heavily influences responses by family members and others to individuals who are transgender, and to the provision of their care, treatment, services and supports.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I recognize that family members and others may believe that identifying as transgender is a mental illness, emotional disturbance/disability or moral/character flaw.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel neutral interacting with transgender individuals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am professionally comfortable providing speech therapy services to transgender patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am personally comfortable being known as a provider of speech therapy services to transgender patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am personally comfortable interacting with transgender individuals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I discourage the use of “hate speech” or “slurs” about sexual orientation/gender identity or expression by helping individuals to understand that certain words can hurt others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am personally comfortable working with transgender individuals even though it may conflict with my personal values and beliefs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I agree with Senate Bill 17 which states the SLP may cite religious and moral beliefs when their licenses are at risk for refusing to provide services to transgender persons.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What areas are targeted in voice feminization/masculinization therapy for male-to-female transgender individuals?  
(If you are unsure, leave this blank and skip to the next question)

What influenced your overall knowledge and attitudes towards the transgender population (i.e., educational course, training, familial/ friend relationships, religion, news and social media etc.,)

## **CURRICULUM VITA**

Iliana Renee Lopez was Born in El Paso, Texas. She was born to Debra and Manuel Lopez and is the youngest of three children. Upon receiving her high school diploma from Del Valle High School, Iliana began her collegiate career and received her bachelor's degree from the University of Texas at El Paso. While completing her undergraduate degree, Iliana work as a volleyball coach at Valley View Middle School. During this time, she also became a research assistant in the Brain, Voice and Language Laboratory. Iliana served as the VP of Community Service for the National Society of Collegiate Scholars (NSCS) and the Historian for the for the University of Texas at El Paso's National Student Speech-Language-Hearing Association (NSSLHA). In the Spring of 2018 Iliana graduated Magna Cum Laude with a Bachelors of Multidisciplinary Studies. She began Graduate School in the Fall of 2018 at The University of Texas at El Paso in the Master of Science in Speech-Language Pathology Program. During this she began to conduct research in the Brain, Voice and Language Laboratory. It was there that her mentorship began with Patricia Lara, Ph.D., CCC-SLP. Throughout Graduate School, Iliana served as Social Chair for NSSLHA from 2018-2019 and External Vice President from 2019-2020. Iliana has presented her research locally and nationally. She has received the Dodson Travel Grant and the TEXAS Grant.

Contact information:

E-mail: [irlopez@miners.utep.edu](mailto:irlopez@miners.utep.edu)

This thesis/dissertation was typed by Iliana Renee Lopez.