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The Lived Experiences of Transmasculine Speakers: A Phenomenological Investigation of Vocal Quality and Function in Relation to Gender

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The Lived Experiences of Transmasculine Speakers: A Phenomenological Investigation of Vocal Quality and Function in Relation to Gender

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by

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Abstract

The objective of this study was to learn how transmasculine individuals perceive the quality and function of their voices, and how those perceptions influence how they experience gender identity and communicate with others. This qualitative study adopted a hermeneutical phenomenological approach that involved using content analysis and thematic analysis to describe and interpret phenomena. This approach assumes that the researcher is not biased, but is a part of the world being studied and, therefore, understands the phenomenon by interpretive means. Saturation was achieved when all relevant information was introduced, and patterns of information had been identified. Sixteen interviews were conducted. Five themes and 20 subthemes emerged during data analysis. Themes included: My Masculine Voice, Education and Resources, Acceptance and Support, Authenticity, and Pandemic. Subthemes included Vocal Satisfaction, Vocal Quality, Suprasegmentals and Stylistic Elements, The Voice on Testosterone, Changes to Appearance, Free to Speak Like Me, Code Switching, Access to Care, Cultural Competence, Vocabulary and Language for Self-Exploration, Family Support, Opinions of Others, Self-Acceptance, Authentic Voice, and Authentic Identity. Pitch was of primary concern for voice masculinization, however other descriptions were offered such as smooth, powerful, resonant, and commanding. The function of the voice seemed as important to the participants as the qualities of the voice itself; a voice that is perceived as masculine, taken seriously, and effective. Above all, authenticity was of primary concern, having a voice that truthfully represents the identity and experience of the individual. The mind, the body, and the voice are inextricably linked and must be considered together.

Glossary

This is not intended to be a comprehensive, but a curated collection of terms relevant to the transmasculine population and/or mentioned by the participants of this study as part of their lived experience.

Ally - one who challenges themselves and others to resist heterosexism, homophobia, biphobia, transphobia; and heterosexual and gender-straight privilege as a matter of social justice (Green & Peterson, 2006)

Ballroom - known by various names, including *ballroom scene* and *ballroom culture*, a cultural movement that gained prominence in New York City in the 1970s -90s, arising from youthful African-American, Latino, and underground LGBTQ+ subculture. Roots of the movement date as far back as the 1880s. Cross-dressing, gender-bending masquerade balls began as a protest to laws that banned individuals from wearing clothing corresponding to another gender ("Ball Culture," 2022).

Bottom Surgery – surgical procedure(s) performed on the lower half of the body intended to create a body in harmony with a gender identity (Green & Peterson, 2006)

Cisgender - a description of an individual with a gender identity that aligns with their sex assigned at birth; cis-het describes a cisgender heterosexual individual (*PFLAG National Glossary of Terms*, 2016)

Coming Out - for gays and lesbians, coming out means revealing stigmatized sexual desire in heteronormative culture; for a transgender person coming out means disclosing gender identity in a cisnormative culture, and may occur before or after a change in gender roles (Zimman, 2009)

Dead Name - the birth name of a transgender or gender diverse individual; used as a verb, *deadnaming* is the accidental or intentional act of using a person's dead name, seen as a denial or invalidation of their gender identity ("Deadnaming," 2021)

Drag - a theatrical or performative representation of gender, usually in a celebratory fashion or context (Green & Peterson, 2006), though sometimes considered caricature

Gender Binary – the conceptualization of gender as male/female or man/woman, applied strictly (Green & Peterson, 2006)

Heteronormativity - the assumption that all people are heterosexual, and that heterosexuality is superior to other sexual orientations (Green & Peterson, 2006)

Masculine of Center (MOC) - a term that acknowledges the breadth and depth of queer masculine identity, such as butch, stud, aggressive, or androgynous (*Masculine of Center - Nonbinary Wiki*, 2021).

Packing - donning a prosthetic phallus under clothing as part of gender presentation, seduction, or sexual readiness (Green & Peterson, 2006)

Sex Assigned at Birth - the unambiguous label of male or female, usually determined by a relative, midwife, nurse or physician who inspects the genitalia of an infant upon delivery; this label may also be assigned before birth during prenatal sex discernment (Rathus et al., 2005)

Stealth - a description of a person who is secretive about their gender history, even after transitioning, despite successfully passing; also known as 'going stealth' or 'living in stealth mode' (Green & Peterson, 2006)

Top Surgery - surgical procedure(s) performed on the top half of the body intended to create a body in harmony with gender identity (Green & Peterson, 2006)

Trans - Trans is an abbreviation that may be used to refer to transgender, transsexual, or a variety of identities under the transgender umbrella (GLAAD Media Reference Guide, n.d.). Because this term is not widely understood, someone using this word should clarify exactly what they mean because audiences may not know exactly what is meant. Best practice is to avoid using this term unless it is contained in a direct quote. Since trans can apply to several groups, it would be best to avoid using it. If it is used, though, the speaker should provide clarification as to their meaning or communicative intent.

Transmasculine Spectrum - a diverse part of the gender spectrum that includes identities such as FTM or F2M**,** shorthand for a female-to-male transgender individual (Green & Peterson, 2006), trans man, demi boy, multigender, genderfluid, enby (Raveenthiran, 2017; Rathus et al., 2005), man, MTM (one who considers his transition as male to male), transsexual man, man of transsexual experience, new man, transqueer, genderqueer, guy, boi, trans-butch, tomboy, boy-chick, gender outlaw, drag king, passing woman, bearded female, two-spirit, ungendered, gender trash, questioning, or just curious (Hansbury, 2005)

Transsexual - although some individuals who have transitioned prefer to use this term, most transgender people do not identify as transsexual and prefer the term transgender (GLAAD Media Reference Guide, n.d.). Many consider the term transsexual to be outdated or offensive, therefore it should only be used when a person self-identifies as transsexual (*PFLAG National Glossary of Terms*, 2016).

Contents

Chapter 1: Introduction

I speak in my Paul voice *always*. *Always*. Yeah. I have nightmares a lot. I have

recurring nightmares about people calling me by my dead name. Yeah. But I

always just completely own that. *I'm Paul*. And I just completely own that. *I'm*

Paul; I'm a transgender guy and that's perfectly normal and natural. That's what I

put out. And I think what you put out does have a large impact on how people see

you, how people treat you. (Paul)

This notion of authenticity is very important to me. I just turned 50 in March. And

it's been very awesome. I know that's an overused term, but it's—it's awesome.

And what is awesome about it is—all this noise and stuff that I had in my head

about presenting as female, and all of that anxiety and stuff that came with not

feeling congruent with who I was internally, or who I *am* internally. Now it's the

absence of that noise and chatter and anxiety. So it's like I'm suddenly freer. And

I'm free of that stuff that used to consume so much of my energy, my time, my

thoughts. And I can put all that energy toward other things that are more

gratifying for me to spend my time on, such as making photographs, other kinds

of art or writing. I think the most awesome part of it —yes, there are physical

changes, but the most awesome part of it is just— wow— there's this weird

freedom that comes with it, because I'm not carrying all this extra shit anymore,

you know, all this extra *noise,* and it's just *gone* now. And that was really a very

cool part of transitioning. (Robin)

What is authenticity and how does it relate to voice? Our voice is one of the most

revealing things about us; it makes us vulnerable to others. We share our voice with other people

to form relationships. We use our voice to exchange information—our history, thoughts, ideas, feelings, hopes, and plans. Our voice is what connects us to the outside world. Through language, our voice may reveal our place of origin, age, education, intelligence, and culture. The energy of our voice may reveal our emotional state, level of confidence, and physical and mental health. How we communicate with our voice and body contributes to our understanding of ourselves and other people. The voice is a mosaic—a unique identifier that gives clues to our linguistic influences, lived experiences, and communicative competence. Authenticity allows us to embrace these elements that shape our identity. For transgender individuals, identity exists outside of the cis-normative gender binary, and that experience is reflected in their voices. If you listen, they may reveal themselves to you.

Context

Testosterone is the major sex hormone in males and is important, in part, for the deepening of the voice during puberty (Evans et al., 2008; Jenkins, 1998; Harvard Health Publishing, 2015). Members of an interdisciplinary treatment team for a transmasculine individual, such as endocrinologists, vocologists, and speech-language pathologists (SLPs), may presuppose that endocrine treatment with testosterone will result in vocal satisfaction as it will deepen the voice (Davies et al., 2015; Davies & Goldberg, 2006; Hancock et al., 2017; Levy et al., 2003). In transmasculine individuals, testosterone does correlate with improved mental health (Adler et al., 2019; Colton Meier et al., 2011); however, the nature and extent of changes to the voice as well as the impact on gender identity are variable (Hancock et al., 2017). Testosterone therapy intended to treat gender dysphoria or gender incongruence may help align voice and gender identity (Adler et al., 2012; Adler et al., 2019), but access to care for transmasculine

individuals may be limited (Block, 2017), and testosterone therapy may not guarantee vocal satisfaction (Hancock et al., 2017).

Purpose

This phenomenological study explored the lived experiences of transmasculine individuals to learn about their self-perceptions of voice and gender. The use of phenomenology is essential as (a) little is known about their self-perceptions about their vocal satisfaction as it relates to their gender identity and (b) self-perceptions may have a significant impact on the quality of life (QoL) of the transmasculine individual. Much of the current research focuses on the relationship between acoustical measurements and gender attributes rather than the perspective of the individual. Therefore, this study was guided by the following two questions:

(1) How do transmasculine individuals perceive the quality and function of their voices?

(2) How do these self-perceptions influence how they experience gender identity and communicate with others?

Findings from this study will be used in two ways: (a) to inform the voice community, at large, regarding self-perceptions of transmasculine individuals as they relate to their voice and (b) to identify specific areas for further exploration as they relate to the development of a perceptual voice assessment tool for clinicians to use with transmasculine clients. Research related to the transgender population has mostly focused on transfeminine individuals, leaving the transmasculine population greatly underrepresented in the voice research literature. It is plausible that uninformed individuals may make the assumption that testosterone is the determining factor in vocal satisfaction. Consequently, this information is also important as the first step in the development of a voice-related patient-reported outcome measure (PROM) for the transmasculine population. Currently, only the Trans Woman Voice Questionnaire (TWVQ),

a psychometrically-tested PROM developed for and used with transfeminine individuals, exists. Some providers have adapted the TWVQ for use with transmasculine individuals (Bultynck et al., 2017). This, however, may be unreliable and invalid because transfeminine and transmasculine individuals are not simply mirrors of each other; rather they embody unique experiences that require different considerations.

Objective

The following chapters support the objective of this study as stated in the research questions presented above by following established methods and protocols and presenting the data in a transparent and detailed manner. This will facilitate this study's findings in contributing to the current body of research so that it may be used by other researchers in pursuit of answers to new questions. Future research will be necessary to fully realize the vision of the current study. However, this is a necessary first step in a series of studies. Chapter 2 will begin with a review of the literature, including detailed information regarding terminology, voice assessment, and patient-reported outcomes. Chapter 3 will provide details of the methodology of the research following the Standards for Reporting Qualitative Research (O'Brien et al., 2014). Chapter 4 contains the findings and discussion. It describes the interviews and provides a summary of participant demographics. For clarity and convenience, a table is provided that presents each participant's pseudonym along with (a) their gender identity, (b) their age, (c) an estimate of the percentage of time they feel satisfied with their voice, (d) an estimate of the percentage of time they openly identify as transmasculine, and (e) testosterone status. The analysis is written in a narrative form that is organized by themes, which give context to the words the participants spoke during the interviews. Chapter 5 presents the conclusion by providing an overall summary as well as limitations and recommendations for future research.

Chapter 2: Review of the Literature

The expectation of gender begins with the binary labeling of an infant as either female or male, based on the appearance of the genitalia, during sex assignment, or in utero during prenatal sex discernment (Raveenthiran, 2017; Rathus et al., 2005). In recent decades, momentum has been building for recognition and acknowledgement that this gender binary is not all-inclusive. *Gender identity* refers to the innate and deeply felt psychological sense that an individual possesses of being a man, woman, boy, girl, another gender, or no gender at all (American Psychological Association, 2014). Gender identity is not restricted to binary categories of female and male; rather, it exists on a gender spectrum, and it may not match the individual's sex assigned at birth. Additionally, gender identity and sexual orientation are separate aspects of personal identity (Centers for Disease Control and Prevention, n.d.), thus gender identity does not determine sexual orientation (Green & Peterson, 2006).

Gender diverse is an emerging, inclusive term that describes individuals whose gender identity or gender expression does not conform to the traditional gender norms (Thorne et al., 2019). *Gender expression* refers to the way an individual uses or manipulates gender cues (Green & Peterson, 2006) to create their desired presentation. Elements of presentation include wardrobe, appearance, behavior, and communication style.

Transgender terminology is ever-evolving due to decades of interaction between a growing body of medical research, radical feminist theory, and trans social activism (Pearce, 2018). An assortment of terms have been used to describe gender identity, gender diverse, and gender expression, such as gender variant, gender non-conforming, and gender-atypical (Haldeman, 2000). In view of the evolving terminology and the history of social stigma, cultural competence is of particular importance for SLPs and related professionals who do or will provide

services to transgender individuals. Knowledge of current terminology will help establish trust and build a therapeutic alliance.

Transgender Identity

Meerwijk and Sevelius (2017) estimate that 1 in 250 (almost 1 million) adults living in the United States identify as transgender. Transgender is an umbrella term that encompasses individuals who identify differently from their sex assigned at birth (GLAAD Media Reference Guide, n.d.; Green & Peterson, 2006). Transfeminine broadly describes an individual who was assigned male at birth but who identifies either partially or fully female (Green & Peterson, 2006). Conversely, transmasculine broadly describes an individual who was assigned female at birth but who identifies either partially or fully male (Edelman & Zimman, 2014; Erickson-Schroth, 2014, as cited in Nonbinary Wiki, n.d.). As an umbrella term, transgender applies to a diverse set of identities that includes genderqueer, agender, bi-gender, nonbinary, and gender-fluid (Block, 2017; Green & Peterson, 2006).

A familiar, though unexplained, phenomena is that individuals who describe themselves as genderqueer are frequently younger and masculine of center (Block, 2017). Hansbury (2005) outlines the rich diversity of the transmasculine spectrum by providing a framework with three broad categories of identity: woodworkers, transmen, and genderqueers—with subgroups continually evolving and emerging. The term woodworker describes someone who identifies as a man, but without any indication of being transgender, likely out of a desire to be stealthy and blend into the woodwork. The term transman describes an individual who embraces transgender identity. The term genderqueer describes an increasingly visible array of individuals who may identify as non-binary and scoff at the notion of being labeled or classified. This general framework sheds light on the therapeutic needs of the individual (Hansbury, 2005).

Diagnostic Categories and Standards of Care

The mismatch between gender identity and biological sex impacts QoL and may require services from healthcare providers (Hruz, 2020). *Gender dysphoria* and *gender incongruence* are both diagnoses that may be applied to a transgender individual who presents with discomfort or distress regarding a misalignment of the mind and body. The difference between the diagnoses is that gender dysphoria is a mental health diagnosis that describes clinically significant discomfort or distress, while gender incongruence is not a mental health diagnosis because it does not involve clinical significance (Grinten et al., 2021; Robles et al., 2022). Individuals with either gender dysphoria or gender incongruence may seek transition-related services (Kreukels & Guillamon, 2016) and many will pay out of pocket. Application of either of these diagnoses will impact the transition-related care, as healthcare providers typically use pathology to justify providing services. Multiple providers offering specialized services work together to provide comprehensive care. To support transgender healthcare worldwide, a multidisciplinary approach is recommended by the World Professional Association for Transgender Health (WPATH) in Standards of Care number 7 (Adler et al., 2019). To promote the health and well-being of all transgender people, WPATH recommends transgender health providers serve all clients along the gender spectrum (Block, 2017; Coleman et al., 2012).

Transition

Transition or transitioning refers to the process of acknowledging transgender identity to self and others (Collazo et al., 2013) and typically involves the transformation of appearance to (a) align better with the gender the person feels themselves to be or (b) be in harmony with their preferred gender expression (Green & Peterson, 2006). This process varies from person to person

(GLAAD Media Reference Guide, n.d.) and may involve all or any combination of social, medical, and legal aspects.

Social transition refers to the process that involves changing gender roles and gender expression in ways that do not involve medical procedures (Radix, 2016; Planned Parenthood, n.d.) or legal services (Planned Parenthood, n.d.). A social transition is highly individualized and may involve coming out to friends, family, or colleagues; adopting a chosen name; using accurate pronouns; and creating a presentation that is a truthful embodiment of their identity.

Medical transition refers to the process that involves medical treatment, such as gender-affirming surgery or hormone therapy. For example, a transmasculine individual may desire a more masculine appearance and opt for chest reconstruction surgery, or top surgery, which is a procedure where excess breast tissue is removed (i.e., mastectomy). Additionally, or alternatively, a transmasculine individual may choose masculinizing hormone therapy, a treatment that involves administration of testosterone to develop male secondary sexual characteristics (e.g., development of facial hair, suppressed menstrual cycles, lower vocal pitch). Laryngeal framework surgery may be used for more dramatic vocal masculinization (Adler et al., 2019; Söderpalm et al., 2004; Van Borsel et al., 2000), and Type III thyroplasty is recommended (Adler et al., 2019; Isshiki, 2000; Isshiki et al., 1983). A Type III thyroplasty involves removing a 2mm section of the posterior length of the thyroid cartilage, resulting in decreased vocal fold tension and an instant, considerable drop in pitch. To date, no peer-reviewed publications have reported on outcomes for this procedure in the transmasculine population (Adler et al., 2019).

Legal transition refers to the process of formally and officially changing documents used for identification purposes, such as a driving license, social security card, and birth certificate (Collazo et al., 2013). For example, a transmasculine individual may request an official name

change and that the sex on their driving license or birth certificate be changed to align with their identity.

Voice and Identity

The voice is distinctive to each individual (Colton & Estill, 1981; Crow et al., 2019) and has even been adopted by many security applications to verify the identity of a person (Tandogan et al., 2017; Trilok et al., 2004). Its uniqueness results from the shape and size of the vocal tract and the shape and size of the body (Vukovic et al., 2010) as well as a mosaic of vocal cues that combine in a distinctive way to create a vocal style (Agha, 2005; Coupland, 2007; Eckert, 2003; Eckert & Rickford, 2001; Zimman, 2017). The vocal style of a speaker indexes the linguistic exposure and lived experiences that are specific to the individual, and the combination of these features creates a meaning that is greater than the individual components (Eckert, 2003; Zimman, 2017). The voice conveys self-identifying information, such as age, ethnicity, geographical identity, health status, and gender (Schneider, 1999; Scott & McGettigan, 2016). It informs perceptions of communication partners, such as emotional state (Yogo et al., 2000), personality characteristics (Aronovitch, 1976; McAleer et al., 2014; Scherer, 1979), attractiveness (Berry, 1992; Collins & Missing, 2003; Zuckerman & Driver, 1989), maturity (Berry, 1992; Lee Hummert et al., 1999; Linville, 1996; Mulac & Giles, 1996), and even possible occupation (Yamada et al., 2000). A "consistent, special or appealing" vocal quality is a "tool of the trade" in many professions (Titze et al., 1997). An overly high-pitched voice combined with fast-paced speech might lead to a perception that the speaker is nervous; however a low-pitched voice might assert extroversion and dominance (Stern et al., 2021), competence (Klofstad et al., 2012) and masculinity (Feinberg et al., 2005; Oguchi & Kikuchi, 1997).

Vocal cues are a rich source of information because the speaker can manipulate the voice to express a wide range of nuanced emotion. As part of sociolinguistic theory, style has long been used to investigate intra-speaker variation (Zimman, 2017). Established research has identified certain vocal cues that most often differ based on the gender of the speaker (Ko et al., 2006). These cues include pitch (Coleman et al., 2012; Graddol & Swann, 1983), variability in pitch (Aronovitch, 1976; Graddol & Swann, 1983), formant frequency (Coleman et al., 2012; Fitch & Giedd, 1999; Peterson & Barney, 1952; Whiteside, 2001), and speech rate or duration (Aronovitch, 1976; Byrd, 1994). Pitch is the perception of the frequency of the voice, which is measured in hertz. Variability in pitch describes the range of frequencies during speech. Formant frequency measures vocal resonance, and speech rate or duration is a measure of the amount of time a speaker takes to produce an utterance (Ko et al., 2006).

Beyond vocal cues and style, which describe the voice itself, there exists a functional component that specifically relates to identity. Representation, one of the five functional aspects that characterize voice (Boone et al., 2019), refers to the accuracy with which the voice represents the identity of the speaker. In essence, the voice that comes from the speaker's mouth should match the listener's expectations given visual and other cues. The functional voice will faithfully represent characteristics, such as the age and gender of the speaker.

Voice and Transgender Identity

Just as the expectation of gender begins at birth, so does the perception of gender. In utero, a fetus can discriminate between male and female voices (Lecanuet et al., 1993; Merritt & Bent, 2020). During infancy, infants can categorize voices as male or female (Merritt & Bent, 2020; Miller et al., 1982). Decades of research shows a broad consensus among researchers that gender socialization begins in childhood (Brend et al., 1972; McConnel-Ginet, 1978; Sachs,

1975; Zimman, 2018). Gender socialization is typically based on the sex assigned at birth and continues into adulthood (Zimman, 2017). Research suggests a link between speech naturalness and gender prototypes, as evidenced by the tendency of listeners to rate voices that are extremely masculine and feminine as more natural than less binary voices (Merritt & Bent, 2020).

As with transfeminine individuals (Hancock et al., 2011; Watt et al., 2018), transmasculine individuals experience greater life satisfaction, QoL, and self-esteem as well as less anxiety and depression when their voices are perceived as congruent with their gender identity (Watt et al., 2018). *Vocal congruence* refers to the extent to which an individual's voice aligns with their identity, uniqueness, and sense of direction (Crow et al., 2019). Modifying voice and communication aspects relative to gender identity has been shown to reduce gender dysphoria while improving mental health and QoL (Coleman et al., 2012). The voice is essential to an individual's self-identity, and a mismatch between an individual's voice and their personhood can disrupt self-identity (Jacquemont, n.d.). Of the elements that contribute to the voice, pitch is of foremost concern for the transgender individual who presents to the clinic (Gelfer et al., 2019). Vocal pitch is mediated by physiological differences and although there is significant variation, men typically speak at a lower pitch than women (Fitch & Giedd, 1999; Krahé et al., 2021). Therefore, an individual's gender usually can be determined on the basis of voice (Coleman, 1976; Smith, 1979).

Transition and Voice

Social transition, as previously described, involves coming out, using a chosen name and accurate pronouns, and embodying a truthful identity. SLPs can aid the transmasculine individual, in part, with voice and language modification. Tools used by the SLP may provide objective data or subjective information. An example of a tool that provides objective data is the

orchestral tuner, which is an instrument that measures vocal pitch. An example of a tool that provides subjective information is the Consensus Auditory Perceptual Evaluation of Voice (Zraick et al., 2011), which is a clinician rating scale that involves six aspects of the voice, including pitch. These examples reflect the clinician-reporting dimension of assessment and treatment. In the clinician-reporting dimension, the information recorded is derived and interpreted by the clinician. Another dimension is the patient-reporting dimension, where the information recorded comes directly from the patient and is not interpreted by the clinician or anyone else. The tool used to systematically capture and quantify patient-reported information is the patient-reported outcome measure (PROM).

A voice-related PROM describes the impact that the voice has on the individual from the point of view of the patient or client (Patel et al., 2018). Self-perceived measures help to quantify a functional outcome for the patient following intervention (Jacobson et al., 1997). Perhaps the most widely-used voice-related PROM is the Voice Handicap Index (VHI), which consists of a series of items that evaluate three aspects of the voice from a QoL perspective: functional, emotional, and physical (Bultynck et al., 2019). Other PROMs exist and measure domains such as symptoms, behaviors, functional status, and experience with care. PROMs can also be developed for specific populations. For example, the Aging Voice Index (Etter et al., 2019) was developed for aging adults with voice disorders.

Statement of the Problem

Historically, SLPs have worked primarily with transfeminine individuals largely because those were the individuals seeking voice and communication services; however the diversity of individuals across the gender spectrum seeking these services has increased (Gelfer et al., 2019). Block (2017) acknowledges that little research has been conducted in transmasculine voice and

that discussion about transmasculine voice is scarcely addressed. Azul (2018) has identified an array of voice-related issues that may impact vocal function in transmasculine individuals, such as changes to outward appearance, changes to posture, psychosocial situation, and self-guided changes to voice use. He concluded that clinicians should consider these issues, as assessment and practice should reflect the diversity of the population and the nuances of vocal gender and social interaction.

Voice-related PROMs provide the clinician with a systematic method for gathering and quantifying issues regarding vocal function or related aspects (Holman & Goldberg, 2006; Slavych et al., 2021). As information obtained by PROMs reflect the client's perceptions and perspectives, PROMs have the potential to facilitate client involvement in decision-making (Frost et al., 2007). The TWVQ measures transwomen's experiences with their voices (La Trobe University, n.d.). It has been adapted for use with transmasculine clients by changing gender-specific words; however, transmasculine individuals are not mirror copies of transfeminine individuals. When adapting a PROM, psychometric analyses of the adapted PROM must be performed with the target population to ensure that what is measured is intended to be measured (Slavych et al., 2021). While Bultynck et al. (Bultynck et al., 2020) conducted a factor analysis of the adapted version of the TWVQ, the adapted version has not been validated for the transmasculine population. Currently, there is not a psychometrically-developed transmasculine questionnaire (Adler et al., 2019; Bultynck et al., 2020).

Azul (2017) emphasizes that future research must consider participants' self-evaluations as well as other parameters, to establish how functional vocal production can be supported in this population. Indeed, Bultynck (Adler et al., 2019; Bultynck et al., 2017) advises that more research of the voice quality factor would help to create a more useful evaluation measure. A

phenomenological investigation of the lived experiences of transmasculine individuals is key to the first step in the development of a PROM that is valid and reliable for this population (Adler et al., 2019; Dacakis et al., 2013). The two research questions of this study were developed to provide a first step in addressing this need:

(1) How do transmasculine individuals perceive the quality and function of their voices?

(2) How do these self-perceptions influence how they experience gender identity and communicate with others?

Chapter 3: Methods

This qualitative study was prepared following the Standards for Reporting Qualitative

Research: A Synthesis of Recommendations (O'Brien et al., 2014). The University of Arkansas

at Fayetteville Institutional Review Board approved this study (Appendix B). To my knowledge,

no other research study has focused exclusively on the lived experiences of transmasculine

individuals that inform their perceptions of voice and gender.

Qualitative Approach and Research Paradigm

Phenomenology is a qualitative approach that involves collecting, analyzing, and

describing data (Sloan & Bowe, 2014). Quantitative research reduces phenomena to numerical

values for analysis (Gelo et al., 2008). In contrast, qualitative research uses *content analysis* or

thematic analysis to describe or interpret phenomena (Namey et al., 2008). Valued for efficiency

and reliability, content analysis involves the researcher analyzing the frequency and prominence

of words or phrases to identify ideas. Thematic analysis describes a process by which the

researcher pinpoints implicit and explicit ideas. Thematic analysis often involves using codes for

ideas and themes that are analyzed together with raw data so that relative frequencies, co-

occurrences, and relationships may be recognized (Namey et al., 2008).

This phenomenological study adopted a hermeneutic approach to answer questions about

how transmasculine individuals perceive the quality and function of their voice and whether their

perceived vocal quality influences their experiences as they relate to gender identity and

communicating with others. Ontologically, this approach assumes that the lived experience is an

interpretive process set in an individual's subjective construction of reality—or lifeworld

(Neubauer et al., 2019). Epistemologically, this approach assumes that the researcher is not bias-

free, but is part of that world and, therefore, understands the phenomenon by interpretive means

(Neubauer et al., 2019). Welch offers this description: "As we understand something we are involved, and as we are involved, we understand" (Welch, 1999).-The use of phenomenology to characterize self-perceptions of voice is important because little is known about these self-perceptions and their potential impact on the QoL of the transgender individual.

Researcher Characteristics and Reflexivity

Researcher characteristics refer to the researcher's personal attitudes, values, and beliefs—tenets that are shaped by religious faith, political allegiance, geographical location, ethnicity, skin color, and sexuality (Sikes, 2022; Wellington et al., 2022), to name a few. Reflexivity refers to the ongoing process of examining these personal attitudes, values, and beliefs to identify ways in which they might have influenced how information was collected, what information was collected, and how the information was analyzed (Cohen et al., 2011; Greenbank, 2003; May & Perry, 2022). Established as a method for ensuring rigor and quality in qualitative research (Dodgson, 2019), reflexive practice is the gold standard for determining trustworthiness (Teh & Lek, 2018). Acknowledging researcher characteristics and engaging in the process of reflexivity are necessary for reducing the likelihood of researcher bias and increasing the credibility of the findings (Berger, 2015).

Researcher characteristics that could have influenced this research may be characterized as distorted views shaped by negative transgender-related messages communicated by the entertainment industry and exacerbated by personal limited experience with transgender individuals. For example, movies such as *The Crying Game* and *Ace Ventura: Pet Detective* depict the transgender body with disgust or as an object of derision. Likewise, the Aerosmith song *Dude (Looks Like a Lady)* implies that gender mismatch is something to be mocked. Such movies and songs that reinforce a binary gender were prominent in the 1980s and 1990s and

reflect the cultural zeitgeist in which this researcher developed and matured. More recently, this researcher has engaged in experiences that have encouraged open-mindedness toward gender identity and increased cultural awareness. Additionally, this researcher has delved into books about trans issues and gender theory, as well as documentaries that emphasize the trans perspective. These documentaries include *Disclosure*, *Transhood*, *The Trans List, The Death and Life of Marsha P. Johnson*, and *Paris is Burning*.

The researcher is a cisgendered gay white man. Despite also being part of an often misunderstood and marginalized minority group, this researcher's experiences with sexuality do not equate to the experiences of a transgender individual. Moreover, to the researcher's knowledge and personal or professional experiences with transgender individuals have been few, which lends itself to GLAAD's acknowledgement that only 16% of Americans personally know a transgender individual (Dolan-Sandrino, 2020).

As a result of occupying a largely unfamiliar role relative to the participants, measures were taken to address reflexivity and possible bias related to this position (Berger, 2015). Measures included engaging in discussions and self-reflections to examine the researcher's own expectations and experiences related to the study (Buetow, 2019). All participants were informed of this researcher's background prior to conducting interviews.

Context

Qualitative research aims to achieve an in-depth understanding of phenomena by considering how individuals and groups derive meaning from their experiences and how this meaning influences their reality (Polit & Beck, 2008). Understanding what transmasculine individuals think and feel about their voice has the potential to improve the effectiveness and efficiency of clinical practice as the clinician will be better prepared to respond to their client's

needs. Researcher influence on the context, however, is largely unavoidable. For example, a researcher's presence alone can result in a participant changing their behavior. Should the researcher's influence on the context be too great, then illusive understandings may result.

Individual interviews were determined to be the most effective mode for answering the research question. Synchronous online interviews were planned. This mode enabled the researcher to recruit a diverse group of participants in terms of geographical location, age, and other characteristics while allowing for real-time interaction and replication of face-to-face interviews in terms of ability to transmit and respond to verbal and nonverbal cues.

Sampling Strategy

Purposive, snowball sampling was used to recruit trans masculine individuals. Recruitment fliers (Appendix C) were distributed through the researcher's social network via word-of-mouth marketing, email, text, and Facebook. Participants were included in this study if, at the time of the interview, they (a) were 18 years of age (b) identify as a gender that is under the transmasculine umbrella (e.g., trans man, man), (c) identify as either binary or non-binary, (d) expressed dissatisfaction with vocal congruence, and (e) were able to read and write in English. Individuals were excluded if they (a) were assigned male at birth, and (b) were not fluent in English. Compensation for completing the study (including follow up interviews) included a $25 gift card and a complimentary voice consultation with BKS, the thesis chair and a voice-specialized SLP.

Sampling saturation is a fundamental principle of qualitative research and has been linked with the psychometric property of content validity (Francis et al., 2010). To reach sampling saturation in qualitative research, data collection and analysis continue until all relevant information has been introduced, and patterns of information have been identified. Once this

information has been gathered, theoretical saturation is achieved (van Rijnsoever, 2017).

Achieving a level of saturation indicates that adequate data exists to develop a valid

understanding of the phenomenon of study (Hennink & Kaiser, 2019). Appropriate sample size

is often debated, but without definitive conclusion, as described in Mason's analysis of 560

qualitative studies (Mason, 2010). For phenomenological research, Cresswell (Creswell & Poth,

2016) recommends a sample size between five and 25 participants while Morse (Morse, 1994)

suggests six or more. This study adopted Hennink et al.'s (Hennink et al., 2017) approach of

code saturation (i.e., no additional issues identified) and meaning saturation (i.e., no further

dimensions, nuances, or insights identified).

Data Collection Methods, Instruments, and Technologies

A screening questionnaire (Appendix D), sociodemographic data form (Appendix E), and

a semi-structured interview guide (Appendix F) were developed prior to conducting the

interviews. A link to the screening questionnaire was emailed to potential participants upon their

request. Individuals who qualified to participate in the study (based on responses to the screening

questionnaire) were immediately presented with a consent form and (after agreeing to

participate) the sociodemographic questionnaire as well as a request for either their email address

or phone number so that an interview could be scheduled. The screening questionnaire, consent

form, and sociodemographic data form were hosted by Survey Monkey (surveymonkey.com), a

cloud-based survey tool.

One-on-one interviews were conducted via Zoom (https://zoom.us/) with video turned on.

Interviews were recorded and saved as audio files. Permission to record and to take notes was

obtained. Interviews were scheduled at each participant's discretion and lasted as long as they

needed to fully express themselves. As natural conversational intimacy and flow could have been

interrupted because of the unfamiliarity of the researcher, the initial portion of the interview was used to establish rapport and create an environment that facilitated the sharing of personal stories and experiences. In the spirit of phenomenology, the researcher was careful to follow the interview guide and listen to what was being said rather than veering into the territory of confirmation bias.

Data Processing, Data Analysis, and Techniques to Enhance Trustworthiness

To protect privacy and anonymity, all study material was assigned a unique identifying code, and only the researcher had access to the key code. Upon completion of each interview, the audio recording was uploaded to Otter.ai, a web-based transcription service, for initial transcription. The initial transcript was then compared to the audio file, and changes to the transcript were made as needed to ensure verbatim transcription as well as de-identification. The recordings were destroyed after the transcripts were finalized.

Coding was performed manually by two researchers using a collaborative process. Individual codes were not fixed but evolved throughout the coding process. Codes were grouped into potential themes and subthemes that were checked against each other and with the original data set. Potential themes and subthemes were reviewed and discussed. To enhance rigor, the two researchers wrote reflective notes to help clarify established and new themes and discussed differences of opinion until consensus was reached. The researchers met regularly to discuss expansion and modification of the coding framework as it evolved during the initial phases of data analysis.

Chapter 4: Findings and Discussion

Participant Demographics

Sixteen interviews were conducted via Zoom between June 2021 and July 2021. One interview was excluded due to the participant being non-fluent in English. Interviews ranged from 29 minutes to 62 minutes, with an average length of 42 minutes. See Table 1 for demographic characteristics of the participants. Names have been changed to protect the identity of the participants.

Themes

Study findings include five themes and 20 sub-themes. See Table 2 for a list of the themes and associated subthemes. Themes and sub-themes are described and revealed by narrative comments from the participants (see Table 2).

My Masculine Voice

My Masculine Voice conceptualizes what the participants felt were masculine vocal qualities and communication styles as viewed through the lens of their own vocal experience and satisfaction, which includes the perceptions of other people.

Vocal Satisfaction. Pitch refers to the perceived frequency of the voice, measured in hertz (Sapienza & Hoffman, 2020). In general, adult females have higher-pitched voices, and adult males have lower-pitched voices. Participants described pitch as the most important aspect of masculine voice.

> Part of me would say [my masculine voice] would be a voice that never cracks, never goes above a certain pitch, is always perceived as really masculine. But then, the other part of me is like, I just want to be able to speak how I speak without being conscious

about it, self-conscious about it. So really, I don't know if I would even want to change my voice, or just change how it's perceived. (Garth)

While all participants felt that lower pitch characterizes the masculine voice, several participants also described the masculine voice as sounding firm, smooth, powerful, resonant, and commanding. Milo described his masculine voice as one that "would probably be a little smoother, definitely more power behind the words, confident." Timbre is another distinctive vocal feature responsible for vocal quality perception. It is the characteristic tone or color of the voice (Britannica, n.d.) that makes it possible to distinguish between two voices of the same pitch and loudness.

I think [my masculine voice] would have more roundness to it, more resonance. For me, [my masculine voice] would be more expressive and closer to my sense of where I would like to be. The tinniness of [my voice now is] kind of annoying, and maybe there's something about it, a feeling it doesn't represent me. (Giles)

Vocal Quality. The participants described how the quality of a voice impacts its perception.

Women tend to talk from the upper part of their throat or their nose. And then they talk from the front of their mouth. Men tend to talk from their chest and their throat. Women tend to speak with their mouth really small, and men like to project a lot - make their mouth a lot bigger. (Everett)

I feel like a lot of people aren't observant enough to pick up the difference in [the transgender man's] voice. I think I was anxious to meet my partner's parents because his mother [knows] there's a difference in my voice from a cis man's voice, but she doesn't know why. I feel like a lot of trans men, myself included, have a very specific sound to

our voice that I don't know how to describe, but I can pick up on it with other transgender men. I don't like that quality in my voice at least. But I have no idea what it is; our voice is, like, almost nasally. (Jon)

[I thought it was] definitely a low voice. [But my teacher explained that] it sounds lower because [the singer] had a fuller and darker tone to his voice." Just because it sounds lower doesn't mean it's [a] lower pitch. (Finn)

Vocal quality is a tool of the trade for a voice-over artist. Robin used to do voice-over work, but intimated that he now shies away from it:

I have done some voice over stuff here and there, which I don't do anymore. Not because anybody's telling me that I can't do it. But it's just something that—I somehow—I have felt like that's not something I could do now [that I am on testosterone]. Although nobody's really telling me that. I wonder what that's about? It's like, the quality of my voice is entirely different. And I don't even really know how to command my voice. Yeah, I guess I'm still figuring that out. Like so, as far as, like, manipulating my voice to sound like a character, like, I might not have as much range.

Suprasegmentals and Stylistic Elements. Eric, Bjorn, Ezra, and Titus explained how their use of language impacts gender perception. Suprasegmentals and stylistic elements included intonation, inflection, and content of the language.

Bjorn described his struggle with ingrained communication patterns and styles that impact how he is perceived:

I think maybe my speech patterns lead people to think that I'm a very deep-voiced woman instead [of a man] because [I have] spent 30 years adding qualifiers to everything that I say. *If you've got any time* or *thank you for your consideration*, or *do you mind, please?*

Friendliness is expected [of a woman]. [A woman will say] *Hi, how's it going?* [while] waving [her] hand. [But a man will just say] '*Hey, what's up? How you doin'?* It's just a different level of energy.

Everett agreed that "using a lot of words [and] facial expressions [is more feminine]."

Titus explained that his life experience in the queer community and in the gender-bending ballroom culture influence his vocal style:

I would say that my speaking cadence and choice of words and my choice of inflections and things along those lines have been heavily influenced by the queer community that I have been ingratiated into since I was a teenager. So the words that I use, the slang that I use, you know? I cut my teeth in ballroom and drag.

The Voice on Testosterone. Testosterone treatment lowers vocal pitch by increasing the length of the vocal tract and the length and thickness of the vocal folds (Hodges-Simeon et al., 2021). Bjorn and Ezra described microdosing, which involves administration of testosterone in doses that are smaller than what is typically prescribed. Everett is awaiting his consultation appointment for hormone therapy and expects to start treatment soon. Emery is only a few months into his social transition and has not yet received services. Logan has declined testosterone because he fears he may go bald, grow facial hair, or make permanent changes to his voice that he feels might not end up being representative of his identity as an androgenous gay man. The remaining 10 participants are all on testosterone, which they each describe as having helped them to achieve a lower pitch. Each of these 10 participants expressed that the changes were an exciting experience. Ezra shared that since beginning testosterone treatment, he is "having fun listening [to] and feeling the vibrations" in his chest "that weren't there before." Giles asserted that his voice "dropped through [his] boots." Paul initially claimed his 70% vocal

satisfaction percentage was due to testosterone but revised that figure during the interview to 90% or more. Other participants weren't so certain. Finn claimed 75% vocal satisfaction, saying, "I think a lot of people like me were like, 'Oh, I'll just take T and then that will sort it out,' [but for me it] doesn't feel like it's fully sorted out.'"

Giles wondered how different his voice might be had he taken a lower dosage of testosterone:

> I started on a full dosage, so it dropped very quickly, and I would have been 20 [years old]. Yeah, so the change was quite rapid. I think then I was really impatient to transition. So, I don't know, if I'd have thought, for example, that a slower transition might have meant more flexibility in the voice. I don't honestly know whether I'd have gone for that.

For some individuals, testosterone impacts other conditions, such as bipolar disorder. Bjorn explains the effects of testosterone on his voice and why he microdoses:

> It is a lot deeper. And I can, if I focus on [my pitch], I can lower it even more. I've been on testosterone since last September. It's not the full dose because it ends up making my bipolar disorder worse. So, I'm on a much smaller dose than maybe other trans men are on. But it is low enough that I pass [as a man]. Often.

Ezra was apprehensive of quick and possible painful changes to the vocal anatomy that have been described by other transmen. For this reason, he elected to proceed with microdosing. In 10 months of microdosing, Ezra has experienced a moderate drop in pitch. This fear of painful changes was corroborated by Bjorn who said, "it hurt a little bit, actually. When my vocal cords started stretching, it ached."

Changes to Appearance. Participants described several ways in which they modified their appearance to achieve a more masculine presentation, including masculine wardrobe, top surgery, binding, wearing prosthetics, using makeup to accentuate bone structure, and growing

facial hair. Of these, binding (i.e., the act of compressing or flattening the breasts) has resulted in poor posture, possibly impacting respiratory support for some of the participants. This has been identified in the research literature as one of the factors impacting vocal function (Azul et al., 2017). Ezra related that he has "been binding for 11 or 12 years," and it has "become painful." He explained, "Having poor posture [is] not fun." Eric shared a similar experience and not only suspected that binding has caused his poor posture but also hurt his voice. He explained that he "[does not] realize [that he is] hunching and leaning over [until his] neck starts hurting." Garth echoed the sentiment stating, "When I was using a binder, it definitely impacted my voice [as] breathing was a little bit more difficult. So it wasn't as easy to project my voice."

> Sometimes, [getting enough oxygen] is definitely a concern. Binding your chest for somebody who's trans masculine or a trans man can cause issues. You aren't supposed to wear a chest binder that constricts your breathing at all anyway, but if you have that little bit of pressure…. I actually like compression, because I have anxiety. So it helps a lot with that. I tend to be a lot calmer when I'm wearing [a binder]. (Everett)

Milo described changes to his appearance as coping mechanisms that he turns to when he feels he does not have proper control of his voice:

> It got to the point where [my voice] started hurting, kind of in the middle of my throat, but in the back. It's hard to explain, but whenever I started feeling that, I stopped doing it and switched to other coping mechanisms, like dressing more masculine or using socks as a prosthetic. So I mean, [my voice is] definitely something that I want to work on.

Garth felt that visual presentation informs gender perception:

In terms of my voice, I can speak in a higher pitch now, but still be perceived as male completely. And I think that has a lot to do with my facial hair. And also, I dress really masculine. Most of the time, people just automatically assume male.

Paul described the changes to his appearance during transition:

Being able to actually grow a beard is just amazing to me. And everybody at [Narcotics Anonymous] was there with me throughout my transition, and I would get all these compliments about my beard [and my] top surgery. [Before top surgery] I had gigantic breasts. So that sucked for a while to have gigantic breasts and a beard. [At that time] I was like, 'What do I do? It was really awful.

Logan, who has chosen not to pursue testosterone treatment, found that masculine wardrobe helps to steer gender perception:

I've found people are gendering me as male much more [now that I am wearing] buttoned-downs. The first time I was called "bro," it was a really cool moment for me. Then I was called "Sir" later that same day, and that's when I really started realizing it could be possible.

Free to Speak Like Me. Participants described concerns for expressing themselves freely. Many stated that they have a difficult time speaking spontaneously, especially in professional situations, because they must decide what they are going to say (e.g., vocabulary) and how they are going to say it (e.g., pitch, loudness). Milo explained, "If I have a script then I'm good. [My] sentences are a little broken and spaced apart because I have to think a lot." Several participants indicated that they feel pressure before speaking as they have concerns about their vocal production. Sometimes, Garth "just [wants] to be able to speak how [he speaks] without being self-conscious about it." Milo refers to it as "a release" to "finally get [his

masculine] voice." He further described that "it would be like a sense of freedom." Logan agreed, intimating that:

> I could just talk how I want to, say what I want to, just be myself and have people just see, you know, a guy. And not have to constantly be worrying about what I'm saying or how I'm saying it. I just want to be myself, you know?

> I [am] so happy that [passing is] just not an issue anymore. I [am] just so happy about that. I was kind of obsessed about it. You know, wanting to sound male. How does it feel inside my body? Well [my masculine voice is] a relief, very much a relief. Like something lifted off of me, you know? Like "Ahhhhhhh, thank God!" I carried it around and then it was *gone*, and my body feels lighter. I'm much more comfortable just talking, to where it's not constantly on my mind and [worried if] people are thinking about [my gender]. Probably all of it was, almost all of it, was probably in my mind. You know what I mean? Like, it seems like we always think that other people are thinking about us, and they're almost never thinking about us. Yeah, so just a relief. Yeah. And peace and serenity. (Paul)

Code Switching. Code switching describes how a speaker uses language and behavior to give clues to their identity (Gardner-Chloros, 2009). While working at a busy restaurant, Everett felt like he used his customer service voice to please people. (Everett has scheduled his consultation appointment for testosterone but has not yet begun treatment.) Despite his desire to present as masculine, "Whether I'm in a checkout line, or if I'm actually working, it almost feels like I have to hyper-feminize myself in situations with strangers."

Unfamiliar spaces may mean that an individual is uncertain how to present vocally. For instance, Titus explained that:

When I'm in new scenarios or new spaces, I find that I am very quiet. And some of that is just anxiety in general. And some of it —especially if it's not a queer space or a trans space, or it's a very mixed space—I find myself sitting back and waiting and listening before I engage. And I don't want my voice or my choice of speech or anything like that to give me away.

However, in other professional settings, Titus must be more concerned about being taken seriously and must speak thoughtfully and with intent because he wants to be impactful so the listener will remember what he said. He described a time when he spoke at a coalition meeting between his office and other nonprofit groups where the audience included representatives from the district attorney's office, law enforcement, and county corrections. At this meeting, Titus chose to be direct so people from other organizations might be encouraged to speak up:

I feel like sometimes there has to be that one person that's willing to sacrifice themselves and maybe look silly, or maybe look like the bad guy to encourage other people to be like, 'Well, actually, yeah, I think that way too.'

Bjorn described his experience with code-switching in everyday situations,

It requires focus, but it's getting easier. As I pass more and more, it's easier for me to mirror how other men are communicating with me. So, for example, yesterday [I] was going into the men's bathroom at the airport, rounded the corner, almost hit somebody. He said, 'Hey, sorry.' And I said, 'Yeah, no problem,' but it was just very straight and to-the-point. That sort of code switching requires more concentration than I like, but a lot less than it used to.

Sometimes code-switching happens with close family members.

> I was kind of [code switching] more with my mom because she wasn't and she still hasn't been very supportive. She kind of just pretends that I didn't come out or anything. So then sometimes I just feel like I'm still having to hide this from her, but I've stopped doing that for the most part now that my name's changed. (Finn)

While code-switching has been described as exhausting and frustrating, there are sometimes humorous moments, like when Robin described a situation after he was involved in a car accident. He had a moment of fear for his safety, but then was able to find humor:

> Somebody crashed into my car, and this is so funny. It was a Dodge Challenger, so it was like a muscle car. Then this guy pulled over. Oh, man, he was totally *bro-dude-ing* me like, *Bro, I saw, like, saw what happened man. Dude!* you know? And then I think I lowered my voice in that situation just because you know—want to make sure I'm cool. I don't know this person. And then it was hilarious because he was trying to get—made these weird, sort of like bro-dude handshakes and stuff, which I was totally terrible at.

Visual Information. Multiple participants discussed the impact of visual information on gender perception. Visual information appears to support gender perception when the voice alone does not; the absence of visual information may mean a higher likelihood of being misgendered. The most common examples of these situations are telephone calls, voice messages, or drive throughs.

> I have trans friends who, if I'm looking at them, and I see their face and how they look [masculine], I'm perceiving a male voice. But when they've sent me voice memo messages, [and] I'm not looking at them, I could see it either way. They're kind of right in

the middle. So I was kind of concerned about [being misgendered for the same reason].

(Finn)

Giles describes similar feelings about his voice in a situation without visual support:

It's a voice that I *suppose* passes as male on the telephone. Cheeky, I think, on the

telephone, because I think when a voice isn't associated with visual clues, then I think

there's more likelihood of being misgendered.

However, when visual information is present, but incongruently, it may be a concern for safety,

as Chase explains:

Unless your voice matches, it's a coin toss whether [you're] going to be taken seriously.

I've always been masculine. So I had no problem at all. I grew a beard before [beginning]

testosterone. Passing silently was never an issue. [But] it was awkward when I had to

speak at work. I got the look of confusion quite a bit. I am now a contractor, and I run job

sites. And it's very important to me because [I] have to earn those guys' respect,

especially when I am working with guys that actually have more experience and that are

older. They're good old boys, and it's a risk factor [if] my voice [doesn't] match my

demeanor and my look on a job site. (Chase)

Education and Resources

Education and resources include access to care (e.g., hormone replacement therapy) and

healthcare providers who practice in a culturally competent manner. Cultural competence

describes an approach to care in which the health care provider constantly strives to work within

the cultural context of the client (Campinha-Bacote, 2002). Just as it is important to have an

educated (and culturally competent) healthcare provider, it is equally important for the individual

seeking service to be educated about themselves, so that they may articulate exactly why they are

seeking services. This requires (a) awareness that there are other transgender people in the world who share their experience, and (b) having an adequate vocabulary and language for self-description. The ability to self-describe makes self-exploration, and thus self-acceptance, possible.

Access to Care. Access to care describes the ability to access to (or the ease of access of) medical or therapeutic services that affirm gender identity. It is impacted by attitudes of the providers themselves, various policies of insurance companies, slow processing times, local and national laws, financial barriers, educational barriers, and distrust that transgender individuals harbor for health care providers due to personal experience (Berkman et al., 2011; Gulliford et al., 2002; Kasper et al., 2000; Smith, 2020). Access to care presented a major hurdle or frustration for many of the participants for various reasons. Eric faced financial hurdles during transition, as well as gatekeeping from healthcare providers and insurance companies. He stated that access to care was a "constant battle every single month to get my prescription on time, which is always usually a week late." During the pandemic, he became uninsured, and care turned into a financial burden as his testosterone treatment cost increased from $10 to $400 per month. He goes on to say:

> It's very clear how masculinity is guarded and that certain groups aren't allowed to have it. And so, it's so easy for my cousin in-law to walk up and get his prescription because he has low testosterone. And it's *easy*, there's no bars or fielding for him, acquiring that prescription with a doctor's note or whatever. For *me*, it's just a constant battle every single month to get my prescription on time, which is usually always a week late. It is frustrating, and I think it [has] to do with the doctors not being able to see me as often, not being able to know what dosage is gonna help me. I had to ask when I switched

providers, [and then again] when I became uninsured, to use the full gel packet, because

at first, I was just doing the half gel packet. I was seeing changes and then that kind of

flatlined.

Many participants, such as Jon and Paul, were unaware of voice therapy services that are

available to trans men. Others, like Titus, know that there are services available, but are unsure if

they would benefit from voice therapy: "There is a vocal clinic in town that will see trans folks

specifically for like coaching for gender affirming type therapy. And every now and again, I'm

like, '*Should I reach out to them?*'" Testosterone and voice therapy were the vocal

masculinization options discussed by participants, while phonosurgery remained unknown and/or

unexplored.

Pathologizing transgender individuals through the diagnosis of gender dysphoria has

important implications for transgender individuals who must portray themselves as a person who

is suffering or in distress so that gatekeepers will provide them access to services related to their

transition. Performative suffering forces the transgender individual into a position of dishonesty

and for many individuals, the entire purpose of the transition is to become a more authentic

version of themselves (*GLAAD Media Reference Guide*, n.d.). Additionally, the foundation for

therapeutic services should be an open and honest relationship between the provider and the

client (Sapienza & Hoffman, 2020). When the patient is forced to be dishonest to obtain services,

the foundation of the therapeutic alliance between therapist and client is not built on trust, and

this could have a negative impact on therapy outcomes. For instance, a client might withhold

information that they do not feel safe sharing, therefore a problem goes unaddressed. Conversely,

a provider may decide not to share information about certain services, therefore not allowing the

client to make an informed decision. Not only must the medical provider performing the

assessment conform to guidelines provided by the government and insurance companies, but also they carry with them personal bias and preconceived notions of gender (Whitehead et al., 2012) that will have an impact on the care provided. Some feel that this gatekeeping or referral process is dehumanizing and unethical, arguing for an informed consent model (Ashley, 2019). An informed consent model is a process that involves an adult accepting or rejecting healthcare services based on their personal values and goals (Grady, 2015). The informed consent model is important because it does not pathologize what is now seen as normal human variance (Ashley, 2019).

Cultural Competence. "You have a cold, and they want to talk about your gender!" Ezra exclaimed, "I put off appointments as long as I can. Until it hurts, until I'm in too much pain."

Milo declared that he was the first trans patient to be seen by his endocrinologist:

I couldn't even get anything in Arkansas. I had to move to Oklahoma and find a doctor there that was like, *Okay, you've been coming to me for a couple years now and no other doctors are helping you. So we're gonna try it. We're going to do this.* It was really frustrating, and my parents didn't really help at all with it. So, I was kinda left to psychiatrists [who] were pretty dismissive, therapists that [said], *Oh well, are you sure you don't want to wait?* I will say my gynecologist was supportive, but she wasn't [an endocrinologist]. She couldn't do the hormones.

Education. Participants expressed a desire to learn more about their voices and how to use them. Everett said, "I definitely, definitely, definitely want to know where to talk from my body to sound the way I want to." In a similar way, Finn claimed:

I had this issue where I would try to go back to my old habits with my vocal muscles. And [I] would feel a strain on my voice. I would start doing the higher voice that was my

habit. So, then I was like, 'Well, I think I need someone to help me figure out how to not do that.'

Some want to learn how to adapt to particular situations, like with a romantic partner. Everett shared:

My girlfriend likes it when I use my really, really deep voice. That one does cause some strain. So, I can't do it all the time. I just want to know where I can talk from to get the lowest register and not strain my voice.

Testosterone might bring about wanted changes, but it might also reduce the speaker's ability to recognize how he is using his voice.

After testosterone, my voice [was] a lot deeper. And so it's hard for me to perceive if I'm talking loud enough or if I'm talking too loud. I don't want to be yelling at people, but also, I don't want them to not be able to hear anything, so [voice therapy] might be something I would be interested in. (Garth)

Old, familiar activities may become different. For example, Finn found that his masculine voice made cheering a more conscientious activity in certain situations (e.g., at a concert):

Since [my pitch] dropped and sort of shows have kind of been coming back, it's been interesting for me to be, like, 'Oh, I don't know how to cheer anymore.' [When cheering] my voice randomly cracks, and I don't know when it's gonna happen or [if it will happen]. When I'm cheering in a crowd of people, people don't really notice if that happens. I'm the only one who notices.

Vocabulary and Language for Self-Exploration. At some point during their lives, many participants say they struggled to find language to describe themselves and their feelings. Being just a few months into his transition, Emery explained:

I've always had a really hard time speaking up for myself and expressing myself verbally:
the way that I am inside, the way that I feel inside, and saying the things that I really
mean. It feels like my voice is going through this other person before it comes out of me.

Robin deepened the discussion when he suggested that "the absence of language can sometimes
even prevent you from understanding yourself." Everett recalled a time earlier in his journey: "I
always wanted to be one of the dudes, so I was like, 'Oh, is that what it means to be gay?' Like
you're one of the dudes? I later realized that [for some people, these feelings indicate sexual
orientation, but that is] not always the case." Bjorn described a similar experience:

Growing up, transgender wasn't something I had ever really learned about [or] knew
about. I knew that (a) it was kind of a punchline, and (b) it was something that was
extreme, you had to go through with bottom surgery. You had to do this, you had to do
that. The thought of being trans never occurred to me, because there was no vocabulary
for it.

Logan says that there were things he wanted for himself before he knew what it meant to
be transgender. Regarding his transition and personal goals:

Top surgery was the big one, because there was no world where I knew I didn't want that.
That's something I've wanted my entire life. Before I even knew what it was, before I
knew what transition was, or transgender.

Garth shares:

I didn't know that gender identity and sexuality were different. I just had no concept of
that. And so, when I was introduced into LGBTQ concepts and was getting more into
that, I would see lesbians dressing more masculine, which is how I wanted to present.
And so, for a long time, I think I just identified as a lesbian so I could wear men's clothes

and that be sort of acceptable. So, I think it was just a way for me to express my gender in a way that I knew of at the time, and then eventually - I think it was my freshman or sophomore year of undergrad - I started learning more about transgender people and transitioning and then it just clicked: the whole difference between my sexuality and my gender identity. And so, once I realized that those two things were separate, I just knew [that] I'm not necessarily a lesbian. I just want to present masculine. I am a masculine person. That was just sort of the gateway for me to start actually presenting that way. Yeah, and then I transitioned.

Acceptance and Support

Acceptance and support contain the sub themes of family support, opinions of others, and self-acceptance. What seemed even more important to the participants than specific vocal qualities was a voice that was perceived and accepted as masculine, a voice that allows the individual to be seen for who they know themselves to be. The perception and acceptance of masculine identity from other people positively influences the individual's self-acceptance.

Family Support. Family dynamics describes the roles and relationships of family members and how they have been shaped by their history together. Family members depend on one another for economic, as well as emotional and physical support. Healthy dynamics foster love and care, while dysfunctional dynamics are laden with conflict, criticism, and burdensome demands (Jabbari & Rouster, 2022). Lack of family support was a common experience among the participants. Everett experienced rejection from his father: "I was outed to my dad, and I've not talked to him since." Paul recalls how his mother would refuse to call him by his name: "She said, 'You're not my son, you're my *daughter*, and you'll never be my son.' I would love it if my mom ever said to me, 'You know, I'm proud of you, *son*.'" He goes on to say:

I don't have my sisters anymore, and I used to have two of them: the one that was nasty, and the one that just kind of doesn't understand it. I would at least go to family gatherings. And I don't do that anymore. I'm afraid of one of their husbands too, honestly.

Rejection from family members may teach the individual to anticipate negative responses.

My mom's super transphobic. She's very much not happy with me. My mom had such a bad reaction when I told her that *now* [because of her reaction] I feel much less [emotionally] safe telling people, you know? When I started my transition, I wasn't that concerned about anything. I think that really changed after I came out to my mom 'cause I lost that support system. So now I'm kind of finding myself alone in something that I thought I would have more support in. (Emery)

Sometimes family members aren't attuned to transgender identity, leading to feelings of invisibility.

My mom didn't understand what she was doing. One day she was like 'all the women are going to [be] jealous of your body, you should show it off.' And I was like, 'Mom, I'm a man. I don't want women to be jealous of my body.' (Everett)

Differences or changes can be difficult for family members to reconcile, and this difficulty may not only disrupt family dynamics, but also fundamentally change relationships. Chase states:

In the beginning, I don't think my family took me very seriously. I come from a very conservative family and they're not really great or nice or accepting. When things started to mellow and even out with my voice, it got a little more believable for them. Growing into this has made me more confident about *not* being around them, and the reason I'm not around them. I'm feeling more confident in the choices I made about it.

Logan recalls a conversation with his mother,

At the time Biden was elected, I said something like, 'Isn't it really cool? He named transgender people in his speech' and [my mom responded] 'Yeah, but that's not you.' I said, 'Yes, it's me. I'm transgender.' And she was like, 'No, you're not,' and I was just furious. Who is *she* to say what I am and I'm not?" I sent her an email, and she took a day to answer it. And she basically said, 'This kind of thing can tear a family apart and I don't want that to happen to us. So, if this is what you really want, then I'm going to have to be okay with that.' It's making it a lot easier to feel like I can actually live this way. You can't live this entire separate life from your family, as much as you might want to. Because I don't want to *never* see my family again, but I also don't want to have to be a *woman* every time I see them. Because that's not who I am. I want to embrace this instead of like, you know, still hating half of my life.

It is important to note that the impact of attitudes and opinions comes from the top down as well as the bottom up. People such as the President, other elected officials, institutional administrators, educators, and other people of power, influence the opinions and attitudes of the people in the life of the transgender individual. Those in power constantly seek to frame the conversation in a way that is politically expedient for them, regardless of whether their arguments are evidence-based.

Opinions of Others. Emery said, "I can't always notice it when I'm gendered *correctly*, but I can notice when I'm gendered *incorrectly*. Then, I feel less in my body, you know?" Chase asserted that his voice was masculine before his transition. He describes the unexpected reactions to his voice that he experienced after his transition, and the feeling of frustration that

followed, "Before I transitioned, everyone called me 'Sir'— on the phone, on the street— you know, so they're like, 'Oh, now you have a girl's—' *Now* I have a girl's voice?"

On the other hand, Finn recalls the joy of being identified as a man by people he did not know.

> I was not as sure about how [my voice] sounded, and not as sure how I came off to strangers. Then I went through Texas in April where they [say] 'Sir' and 'Ma'am' [to] everyone. [A woman] was giving me 'Sirs,' so I was like, 'Oh, so I do come off as male before I even talk! Great!'

Logan also shared, "There was one occasion where somebody referred to me as 'she,' and I just shut down after that and didn't participate anymore." Likewise, being misgendered on the phone causes some participants to avoid phone calls entirely.

> When I first started taking testosterone and my voice wasn't as deep as it is now, I would not talk on the phone or make any phone calls. I did not like talking in public at all. At that time, I was presenting very masculine, but my voice was still pretty high. And so, it was almost an immediate outing of myself. People would realize 'Oh, like, you know, *that's* not a cis man.' Talking on the phone was difficult. (Garth)

> Jon says, "I only really out myself as transgender to other queer people. I don't usually tell coworkers or classmates. Even my partner's parents don't know." Everett explained that since he has begun to transition "I don't want to hang out with people I've not met. I usually am really outgoing." Logan reflected that "in situations where I'm around people, I don't know how they would react to a trans person, those are the ones [where] I am more likely to be guarding my voice."

Self-Acceptance. When asked what complete vocal satisfaction would mean to him, Everett responded:

I don't think I'll ever be perfectly satisfied. I don't. I try. I hold myself to this impossible standard consistently throughout my life. In an [ideal] world, if I could just wake up tomorrow and have the perfect voice, I would be happy for a little while.

Emery ruminated:

I think the thing that helps the most is taking those moments and giving myself permission to exist inside myself. [I think] I didn't allow myself to acknowledge who I really was for a long time, you know? So just like, taking a moment and telling myself it's okay—those quiet moments when I'm alone.

Eric reflected on his journey,

Coming into myself made me so much more joyful. And I enjoy my voice as it is. It's been more of a joyful journey than a sad goodbye, because that person, she's bitter. I was just really not a happy person, and that's because I hadn't really fully accepted [myself]. So, I'm very happy. And I look back on that period of my life and there's [certainly] really cool things about it, but it wasn't all great. And that was just the journey that it took in order to become who I am now.

Authenticity

Authenticity and Sense of Self. Although elusive and poorly understood, sense of self (SOS) is (a) part of typical human development, (b) the foundation of psychological investigation, and (c) the underpinning of therapy (Basten & Touyz, 2020). Basten and Trouyz (2020) define SOS as "a continuous experience of being a complete and authentic person who feels in control of their own activities." Authenticity draws on phenomenological traditions, describing a person who is self-authored and genuine (Ryan & Ryan, 2019). An authentic person behaves in a way that is not forced or alien, choosing instead to act and communicate in a way

that aligns with their values and life experience. An inauthentic person is someone who chooses not to reveal their true self. For the transgender individual, the SOS is often hidden to others because they experience the world with a mind and body that do not match (e.g., masculine mind and feminine body). This makes them vulnerable to the social stigma associated with being different. Transgender individuals negotiate their existence with a desire to be true to themselves, while also trying to minimize the harmful impact stigma has on the SOS (Fraser, 2009).

Milo described his journey towards authenticity, "I'm finally ready to start articulating my peace." He encourages transgender individuals to "embrace the awkward, embrace the weird. Just live your truth. That's all you can do."

Authentic Voice. Participants described the importance of an authentic voice:

There was a sense of loss, in terms of the expressiveness of the soprano voice I had, I suppose it was also accompanied by a sense of a feeling like I'd moved into a voice that was that more closely related to my sense of myself. And so that was a really positive experience. (Giles)

I identify as a gay man. So personally, I feel like if I could drop [my pitch] a *little bit*, I could just be myself. And maybe I would come across as gay, but that's okay. I feel like a lot of the times when I'm thinking about talking like a guy, I'm looking at these really manly men who maybe have more of a toxic masculine image in my mind. And I have to remind myself that that is not what I'm going for. And that it's okay to be maybe a little more flamboyant when I talk. But that doesn't necessarily mean that people will have to see me as a woman. (Logan)

Everett also wanted to sound natural:

I don't want to speak in a deeper voice if it's going to sound unnatural. Because that ends up being kind of embarrassing when you're trying to force something. For me, I'd rather be natural than forcing.

The desire for authenticity also comes from the romantic partner, as with Jon: "My ex used to laugh at me. [He would say] "'I [can] see what you're doing. Stop! That doesn't sound right!' I thought I sounded very masculine."

Emery shared his feelings on authenticity in a romantic context:

I feel like being honest is especially important in a romantic setting because not only do you want to be honest and say the right things, but you also want to be seen, you know?

And I feel like because of my voice I'm not. I'm not really seen in that sense. You know?

The desire to be authentic may even mean that an individual will shy away from vocal training or manipulation of the voice, as described by Logan:

I tried watching some YouTube videos to try to train my voice. But every time I tried to do it, I felt more disingenuous, like it wasn't the real me. I don't want to try to be someone I'm *not*. This whole trans journey is about becoming more of *myself*, and the more I push myself past where that's *comfortable*, the less great I feel about that.

Giles described how his relationship with his voice has changed over time, allowing him to be truer to himself:

I think that I'm much more comfortable in my own skin these days. And so, I'm less bothered. Here, say for example, if my voice cracks, there will definitely have been a time, and that would have been quite a stressful event. And I might have been worried about what people might think. Whereas now, if it happens, *it happens*. And it's not such a problem. Only suppose I've had years of getting used to it. Learning how to use it.

Because I think that was the thing for me in transition. It felt like suddenly I had this unwieldy, big instrument that I didn't really know how to use, what to do with it. But I suppose it always felt like being a boy at a time when I had no contemporaries. Suppose it was just like a later puberty for me. (Giles)

Authentic Identity. Participants shared their reasons for claiming an identity that embodies the personal truth. Ezra described his identity like this:

I like non-binary. I like that more people understand what it is, but I think I almost would identify more as *genderqueer*. The difference being like genderqueer is what I *am*, while non-binary is what I'm *not*.

Eric feels that he sometimes walks a tightrope with his identity and presentation. He explained:

I have a certain experience and understanding that cisgendered men wouldn't have, and so I definitely identify as a feminist as well. And being accepted in those female spaces, sometimes it's assumed to be predatory if they do assume me as the gender that I'd like to present as.

Logan shared:

I started out by identifying as non-binary when I was sort of trying to figure everything out. But the more I lived in that role, the more I realized that I did not have any days where I was interested in presenting feminine, and I was mostly interested in presenting masculine all the time. I do find myself not wanting to go maybe all the way to the other end of the masculine though, and I still feel very much like I'm kind of right on the border of non-binary and trans [masculine]. I find both sets of pronouns very comfortable. So that's the place I found myself. That feels comfortable for me.

Legal documents and identification add another dimension to authenticity. Some participants addressed this obliquely when discussing using their identification to buy cigarettes or alcohol. Finn addresses the issue directly when he describes what a legal name change means to him, coupled with the desire to acknowledge his personal history:

There's the name change where 'that's almost done' on documents. And then there's some of it [that is] '*never* done' because I have to take hormones forever, for the rest of my life. And then I'm hoping to just stay sort of open about it. I don't want to just be like 'and now I will pretend it never happened.' I kind of want to keep being like 'semi open and public about it' where it matters.

Transgender individuals often adopt a new name and use pronouns that are congruent with their identity. The right to use self-identification is fundamental and validating, but often requires advocacy on behalf of the individual (Collazo et al., 2013; Holman & Goldberg, 2006). New names and pronouns help to alleviate stress for the individual, but create challenges in workplace, educational, or healthcare settings. Changing legal identity is a laborious process with procedures that vary from state to state and in some cases may be impossible. Sometimes when changing legal documentation is possible, it may be contingent on the individual having undergone surgical procedures, which is a significant, sometimes impossible barrier either due to finance or risk associated with the surgery itself (Collazo et al., 2013). When a person does not have legal documentation that aligns with their gender identity, they are likely to avoid situations that make them vulnerable to discrimination, such as applying for jobs, finding safe housing, and seeking medical services (Hill et al., 2018).

Pandemic

Discussion of the pandemic surfaced across all conversations. Though not directly or historically connected with the lived experience of transgender identities, it presented itself as a reality that all participants were experiencing at the time the interviews took place and impacted all aspects of their lives, including voice.

One component of the pandemic that impacted vocal function was mask wearing. Jon stated that he experiences increased vocal strain while wearing masks. However, face masks also have some positive benefits, as Ezra explained:

If I'm being read as male, I will very intentionally just commit to that and try to lower my voice - especially when we have masks on and stuff. I was getting like 'Sir'd' a lot more in public.

Zoom has been widely used in all walks of life since the beginning of the pandemic. Most of the time, Zoom uses video as well as audio feeds, so there is visual information provided for the listener. This may be a plus for someone who is likely to be misgendered on the telephone or even in person. This was the case for Ezra:

Zoom's funny because you're just seeing my face. [My face is] more masculine than the rest of my body is. I feel like in public, it's a lot more rare that people read me as a [man because] I have hips and features that are [feminine]. (Ezra)

Because large gatherings have been restricted, the pandemic has created a buffer for individuals who might otherwise have encountered hostile situations. Everett shared:

So, in situations where there's a group of people who I think may not be entirely accepting and might lash out, those would be situations I'm afraid of, and I've not had to face any of those yet, but I've only been out during the latter part of this COVID

outbreak.

Although it might reduce the risk of being confronted with a hostile situation, the restriction of large gatherings also has negative impacts on QoL because there are fewer opportunities to socialize. This may also mean limited opportunities to do things like try out a new voice. Finn explained:

> I haven't had a chance to really go out and make new friends since getting to transition at all because of COVID. When I saw some people that I haven't seen for a long time, and something they complimented me on was like, 'Oh, I like your voice.' I was like, 'Thank you. I like it, too.'

Consistently, participants stated that because changes to their voices and bodies are incremental, they might not notice the changes as much as a person who has not seen them for a long period of time. A person might be relieved to have time to explore themselves without feeling the constant gaze of other people. Logan identified this opportunity during the pandemic:

> I've been out *since* the pandemic. I have this feeling of going into lockdown in one gender and coming out as another. When the pandemic hit, I stopped worrying about what other people were gonna see. And I really took that time to figure out what I wanted to look like for myself. (Logan)

Chapter 5: Conclusion

This study found that voice is an integral part of identity for transmasculine individuals, and the voice represents identity in a way that is unique to the individual. This is due both to the infinite variety of transmasculine identity and the specific lived experience of the individual. The mind, the body, and the voice are inextricably linked and must be considered together. Gender socialization begins at birth, and the individual begins to adapt to the environment long before they learn the concepts of gender and sexuality. Thoughts, feelings, and truths about the self are discovered and explored in the context of cis-normative, heteronormative culture. The transgender individual may have always known certain truths about themselves before they had the vocabulary to express them. Therefore, authentic expression of identity becomes particularly important because of the constant, and sometimes contradictory, battle to be seen and accepted, and to be treated like everyone else.

Research tells us that the way others perceive a speaker has a significant impact on the psychology of the individual and will influence the relationship a transgender person has with their voice (Bultynck et al., 2017). Many clients come to therapy with the goal of 'passing' and the QoL issues related to being misgendered (Smith, 2020). The desire to exist as a fully realized individual is tested in the different situations in which transmasculine individuals find themselves, and the way those situations are navigated with their mind, body, and voice. This study asked the questions:

(1) How do transmasculine individuals perceive the quality and function of their voices?

(2) How do these self-perceptions influence how they experience gender identity and communicate with others?

The research questions were targeted with a series of interview questions intended to reveal these self-perceptions of voice and identity, and how those perceptions impact communication, and

thus QoL. This study found that the voice plays a key role in communication in day-to-day situations, on the telephone, at the bank, the drugstore; in professional situations that require thoughtfulness and intentionality; in family situations that may involve denial or confrontation; in unfamiliar situations that may seem unsafe emotionally or physically; in social situations that call for spontaneity or increased volume; and in romantic situations where the individual wishes to be seen, heard, and desired. This study explored the transmasculine individual's perception of their own voice in the context of their lived experiences.

                Takeaways for the Transmasculine Questionnaire. The Voice Handicap Index (VHI), a common assessment tool for clinicians, consists of questions that evaluate three aspects of a voice disorder: functional, emotional, and physical (Bultynck et al., 2019). The previously adapted FtM Questionnaire consists of 30 questions related to three aspects of voice: anxiety and avoidance, gender identity, and voice quality (Bultynck et al, 2017). The thoughts, concerns, and experiences of the participants do broadly align with these categories. However, it seems that these concerns were different depending on how long the speaker had been on testosterone, the dosage of testosterone, if they had chosen not to be on testosterone, and how far along they were in their transition.

       There is a question about the voice representing the "true self," but that is a broad question and could be explored further in terms of identity. Perhaps asking if they wish to be perceived as a cisgendered, heterosexual man would be helpful because, although universally the participants wanted to pass as a man, some mentioned that being perceived as cisgender-heterosexual does not align with their sense of self and values. For example, Ezra and Eric were concerned that cis-normative masculinity might be interpreted as threatening or predatory in certain spaces. Eric stated that he considers himself a feminist. Still others, like Logan who

identifies as an androgenous gay men, see themselves as "on the cusp" of masculinity. Chase, on the other hand, wished to be perceived as a "manly man" to increase his professional credibility on construction sites. Understanding the patient's perception of masculinity and how they wish to be perceived would be helpful information to the clinician.

More items addressing masculinization of voice and communication might be helpful in setting client-centered therapy goals and tracking progress of treatment. The questionnaire does address visual mismatch; however, it does not recognize the relevance of communication style or language content. In this study, participants discussed the importance of inflection, qualifiers, intonation, proximity, and touch. Although present in the FtM, pitch variability is considered a more feminine communication pattern (Aronovitch, 1976; Graddol & Swann, 1983). Indeed, this study did not find pitch variability to be of concern to the participants with regards to daily communication. Rather, participants appeared more concerned about vocal control.

Participants referred to testosterone therapy as a second puberty. Puberty involves voice cracking and reduced vocal control, both of which were identified by participants as concerns. These concerns about vocal function apply to speaking in noisy environments. Participants were less likely to participate in conversation if they felt they had to raise their voices or speak over other people. This is part of a bigger concern about perceiving their voice and knowing how to use it. Participants receiving testosterone described how they were essentially working with a new instrument. Learning a new instrument involves perception and skill.

The FtM Questionnaire contains a question about being tense while speaking, but this was not directly mentioned by the participants; however there was a pattern of guarding the voice in unfamiliar or un-affirming environments, as well as needing extra time to prepare to speak, especially in professional situations. Recognizing the relevance of vocal freedom or

spontaneity would be helpful for the clinician as some participants described this freedom as "life changing."

An SLP may identify and target goals that are specific, measurable, and attainable. These goals must balance what is achievable physically with what must be achieved emotionally and intellectually. Acknowledgement and understanding of authentic gender identity, and related issues, should be considered with the therapy approach. This conceptualization, which Helou (Helou, 2017) calls meta-therapy, is the catalyst for change in gender affirming voice therapy, allowing for efficient and effective treatment.

Limitations

Participants largely represented the South and Southwest. It is possible that their views were not shared by individuals who reside in other parts of the United States. The participants could speak only for themselves; they could not make generalized statements about the entire population. Also, although attempts were made to minimize bias, true neutrality is difficult to achieve. Analysis of the qualitative data was informed by the life experience and the worldview of the primary researcher and coding team. Reliability may have been enhanced by sharing the findings of the study with the participants for their feedback with regards to the interpretation. Additionally, factors related to technology may have created a barrier to the natural intimacy and flow of in-person conversation. These factors included (with variable frequency) poor internet connection, distortions, interruptions in the audio or video feed, and off-camera distractions. Moreover, the knowledge of being recorded may have caused feelings of self-consciousness among some participants, potentially impacting what was shared during the conversation. Finally, it is possible that some of the participants initially felt a general distrust toward the researcher and the research study given the nature of the interviews.

Recommendations

This study might be replicated with a more geographically diverse sample that includes participants from regions not represented in the study, as well as participants from more varied cultural backgrounds. Cultural differences in these population centers may paint a more complete picture of the issues facing this population. This data could be compared and combined with the data collected during this study to form a more representative sample. The information gleaned may then be applied to the current adaptation of the Transmasculine Voice Questionnaire to inform the creation of a psychometrically valid PROM that may be used by clinicians working with transmasculine clients.

Future research may also include following up with the participants to see if their perspectives and concerns have changed over time, and if the findings have been interpreted satisfactorily. In a future study, their voices may be recorded and then evaluated by listeners to determine if their self-perspectives align with the perspective of others, and what considerations are relevant. An acoustical analysis may be performed with the participants' speech samples to pinpoint specific functional correlates.

The rising wave of anti-trans legislation in the United States, combined with the limited exposure to the transgender population, will likely inform the attitudes and impressions of SLPs and students (future SLPs). Education and advocacy campaigns to increase awareness of the issues would be helpful if the profession truly intends to meet the needs of this marginalized population. This is directly aligned with ASHA's core standards of advocacy (ASHA, 2016). The growing anti-trans sentiment among legislators may mean more restrictions and limitations for SLPs practice, as well as the practice of other members of the treatment team. It is important that professionals know the relevance of advocacy. Professionals working with this population will

always be walking a tightrope to balance what is legal with what is right. Finally, it is the duty of our profession through active allyship to provide a safe space for trans masculine voices to thrive and be heard, enhancing the wellbeing of their lived experiences.

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Appendices

Table A1

Demographics of Participants

Participant	Gender Identity	Age	% Time Voice Represents Identity	% Time Openly Identifies	Testosterone
Milo	transmasculine/ nonbinary	31	75	80	Yes
Jon	man	27	75	25	Yes
Paul	transgender man	49	70	62	Yes
Chase	man	43	81	90	Yes
Titus	man	35	90	70	Yes
Everett	man	22	25	50	No
Finn	man	26	75	50	Yes
Logan	transmasculine/ nonbinary	38	31	10	No
Eric	man	27	49	93	Yes
Emery	man	19	25	50	No
Ezra	nonbinary	29	18	69	Microdosing
Bjorn	man	33	80	70	Microdosing
Garth	man	28	95	95	Yes
Robin	nonbinary/male	50	65	75	Yes
Giles	man	45	67	58	Yes

Table A2

Themes and Subthemes

Theme	Subthemes
My Masculine Voice	Vocal Satisfaction
	Vocal Quality
	Suprasegmentals and Stylistic Elements
	The Voice on Testosterone
	Changes to Appearance
	Free to Speak Like Me
	Code Switching
	Visual Information
Education and Resources	Access to Care
	Cultural Competence
	Education
	Vocabulary and Language for Self-Exploration
Acceptance and Support	Family Support
	Opinions of Others
	Self-Acceptance
Authenticity	Authenticity and Sense of Self
	Authentic Voice
	Authentic Identity
Pandemic	Negative and Positive Factors

Appendix A

Institutional Review Board Approval

UNIVERSITY OF
ARKANSAS.

To:	Micah Wylie
From:	Douglas J Adams, Chair IRB Expedited Review
Date:	06/16/2021
Action:	**Exemption Granted**
Action Date:	06/16/2021
Protocol #:	2103323814
Study Title:	The lived experiences of transmasculine speakers: A phenomenological investigation of vocal quality and function in relation to gender identity

The above-referenced protocol has been determined to be exempt.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval prior to implementing those changes. All modifications must provide sufficient detail to assess the impact of the change.

If you have any questions or need any assistance from the IRB, please contact the IRB Coordinator at 109 MLKG Building, 5-2208, or irb@uark.edu.

cc: Andrew L Bowers, Investigator
        Jessica L Danley, Investigator

Appendix B

Recruitment Flier

Transmasculine Research Study

I want to learn how you feel about your voice and how it affects your life. I would like to know about your feelings and experiences. What you share will ultimately help healthcare professionals to provide more specific care for you and others within your community.

Eligibility

To participate in this study, you must be at least 18 years of age, identify as male or transmasculine, have been assigned female at birth, and speak English.

Researcher

This study will be conducted by a graduate student-researcher in the Communication Sciences and Disorders Program at The University of Arkansas. For more information or if you wish to participate, please contact:

Primary Investigator:
Micah Wylie, The University of Arkansas
maw099@uark.edu

Research Advisor:
Dr. Bonnie Slavych, University of Central Missouri
slavych@ucmo.edu

Faculty Advisor:
Dr. Andrew Bowers, The University of Arkansas
albowers@uark.edu

This study has been approved by the Institutional Review Board at The University of Arkansas.
IRB approval number:
'If you have questions or concerns about your rights as a research participant, please contact:
Ro Windwalker, University of Arkansas Human Subjects Compliance Coordinator,
479-575-2208 or irb@uark.edu.

Appendix C

Screening Questionnaire

Please complete this questionnaire to the best of your knowledge. Your responses will help us determine your eligibility for further participation in this study. As a reminder, submitting this questionnaire implies consent for us to use your responses in our study.

What is your gender identity?

□ man   □ woman   □ nonbinary

□ I prefer to self-describe (below):

How do you wish to be perceived by others in terms of gender?

□ female   □ male   □ no preference   □ neither female nor male

□ I prefer to self-describe (below):

What was your sex assigned at birth? □ female   □ male

Do you feel that your voice adequately represents you?   □ no   □ yes

Appendix D

Sociodemographic Data Form

Please complete this questionnaire to the best of your knowledge. As a reminder, submitting this questionnaire implies consent for us to use your responses in our study.

Date of Birth (MM/DD/YYYY):   /   /

Race:

      □ American Indian or Alaska

      □ Asian

      □ Black or African American

      □ Native Hawaiian

      □ White or Caucasian

      □ I prefer to self-describe (below):

Do you smoke?   □ yes   □ no

      If yes, frequency:

Highest Education level: (rolling response, 1st grade through Ph.D.)

Occupation:

      □ Full-time   □ Part-time

      □ Full-time student   □ Part-time student

      □ Self-describe:

Annual gross income (estimated):

Relationship status:

Have you received any medical transition services?   □ no   □ yes

      Will you share with me which you have received?

            □ gender-affirming surgery

            □ hormone replacement therapy

            □ vocal surgery

            □ Other/Additional:

Do you use any gender-affirming techniques?   □ no   □ yes

      If yes, will you share with me which you do?

            □ chest binding

            □ modified clothing or accessories

            □ Other/Additional:

What percentage of your time do you openly identify as transgender to other people?

May I contact you for an individual interview?   □ no   □ yes

      If yes, please provide either your email address or phone number (below):

Appendix E

Semi-Structured Interview Guide

1) Thank you for agreeing to meet with me. Before we get started, I would like to briefly talk about the consent form as it relates to this interview.

    a. Obtain verbal consent.

2) You stated that you openly identify as transgender _% of the time. What does this entail for you?

3) Do you feel like your voice adequately represents you?

    a. What changed for you?

    b. Why do you feel this way?

        i. What vocal features are not representative?

            1. Pitch?

            2. Quality

4) What do you like about your voice?

    a. Does your voice feel natural?

    b. Does your voice sound natural?

5) What do you not like about your voice?

    a. Please describe for me/tell me about a situation where you have felt afraid or self-conscious about how your voice might sound.

    b. Please tell me about a time your voice prevented you from doing something

    c. Pitch? Quality?

6) Can you think of anything that you might do that can impact your voice?

    a. Smoking frequency?

b. Effects of body/fashion modifications?

7) Do you participate in vocal training or vocal therapy or have you in the past?

    a. How has your voice changed because of it?

    b. How satisfied are you with the results?

    c. Do you experience vocal fatigue? Vocal strain?

        i. Why do you think this is?

    d. Do you have consistent control of your voice?

        i. Why do you think this is?

8) How does your voice impact you in…

    a. Professional situations?

    b. Social situations?

    c. Romantic situations?

    d. In what situations do you feel your voice might not be effective?

9) Tell me about a situation where you enjoyed using your voice.Tell me about a situation where you didn't enjoy using your voice.

10) What would it mean for you to be perfectly satisfied with your voice?

    a. How would your voice sound?

    b. How would your voice feel?

11) Have you found that your concerns or feelings about your voice are different now than they were when you first began your transition?

    a. In what way?

12) What else do you want me to know about your voice?

13) Thank you so much for taking this time with me. May I call you if I have any follow-up

questions?