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Speech-language pathologists with a vocal music background: exploring impact on the training of the transgender voice

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Speech-language pathology, vocal music, and music education literature reveal similar and complementary approaches to the transgender voice. The purpose of this qualitative pilot study was to explore what, if any, impact having a vocal music background has on how a speech-language pathologist (SLP) works with transgender and non-binary voice modification clients. Two SLPs were interviewed regarding their vocal music backgrounds, their work with transgender voice modification clients, and their thoughts on how music and voice modification training intersect. Results of the study indicate that a musical background may be beneficial to both the SLP and clients. Musical training provided the SLP with a broader range of tools for training clients in voice modification techniques, including the ability to model exercises, and manipulate timbre, resonance, and placement of the voice with great nuance. Both SLPs explicitly cite their vocal music background as being helpful in their practice. Further refinement of the interview protocol, as well as multiple interviews with a larger pool of subjects, will determine if the results of this study are generalisable.

Keywords: transgender, non-binary, voice, singing, speech-language pathology

Voice modification and performativity: introduction and terminologies

Which are the potential implications of vocal music training on delivery of speech modification services? How can speech-language pathologists (SLPs) with a background in music training and performance assist

transgender clients when collaboration between a team of voice specialists (both medical and musical) is not an available or sustainable option? And how can a shift from the idea of ‘therapy’ to ‘training’ help us rethink the provider and client as co-learners in the process? In attempting to grapple with these questions, this pilot study specifically examined two speech-language pathologists (SLPs) with a vocal music background. Initial research was conducted in the literature, which was comparatively examined to draw conclusions from across the fields of speech-language pathology, vocal performance, and music education.¹ These conclusions were supported by interviews conducted as part of the pilot study to determine if an SLP having a vocal music background was influential and beneficial to transgender and non-binary voice modification clients.

Although feminist social psychologist Rhonda Unger, for example, challenged understandings of sex and gender (and their troubled relationship) in the psychological literature as early as 1979, sex and gender are only recently coming to be understood to be separate from one another in popular culture in the United States. When considering LGBT (lesbian, gay, bisexual, and transgender) populations, the ‘T’ is often subsumed and conflated with sexual orientation and sexual identity when in fact it is decidedly different and complex. In the US, an external examination of genitalia by a doctor or midwife determines one’s assigned sex at birth. One’s gender is the sociocultural role one is expected to perform based on one’s assigned sex. (In this light, performance at large and performer training in particular are scaffolded within the embodiment of non-staged identity, which makes an examination of non-staged voice from the perspective of training – in the sense that we are all ‘trained’ to construct our identity – significantly pertinent and urgent.)

Someone whose gender identity matches their assigned sex at birth is *cisgender*. Assigned sex and one’s gender role can be experienced as a severe mismatch, however, resulting in emotional and physical distress, a diagnosis currently termed by the American Psychiatric Association as *gender dysphoria* (Parekh 2016). A person who does not identify with the sociocultural role associated with their assigned sex at birth might classify themselves as *transgender* or *non-binary*. Although people sometimes equate the terms transgender and non-binary, not all non-binary people feel the term ‘transgender’ applies to them. Therefore, the umbrella abbreviation *trans* will be used when indicating both transgender and non-binary individuals, while the longer terms transgender (one whose assigned sex at birth does not match their gender) and non-binary (one who does not conform to gender role stereotypes) will be applied when discussing those specific communities.²

In the 1988 essay ‘Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory’, Butler explores the idea that all gender is performative, the very act of this performance *creating* an identity. This performed identity is predicated on expectations about gender normativity, the strictures for this identity being binary, narrow, and predetermined by the society in which one lives. Dress, mannerism, gesture, and other social signifiers are all part of gender performance. Our voice is part of this performance and one of the first and primary ways in which we interact with the world. Much is determined by the

1 While there is more SLP literature on the transgender voice, emerging scholarship from vocal performance and music education also sheds light on transgender voice training and was pertinent, and has been included below.

2 Additional terms will be defined and used if warranted. Further, acknowledging that gender performance as it applies to the voice and intersex people is an additional component of this issue, due to constraints on length of this article, the topic of intersex voice may be addressed in a subsequent publication.

quality of our voices, with the first identifier often being that of our gender (Kreiman and Sidtis 2011, pp. 130–147).

While we *all* perform our gender, transgender and non-binary people can encounter difficulty when such performativity relates to the voice. A practical example of this might be a transgender woman who calls her bank to request information. After correctly answering all security questions, she is still denied the information because she does not sound *correct* (either her voice is ‘too low’ or some other intangible quality is judged as being ‘off’). This impairs her ability to function in society in a basic way, such as accessing money that is legally hers. These types of encounters affect a transgender or non-binary person’s mental health (Meyer 2013, Mills and Stoneham 2017). Transgender and non-binary clients who seek to alter their voice to more closely align with their gender do so not just because of practical reasons such as the one listed above, but also to alleviate the considerable stress that comes from gender dysphoria, or the newly coined ‘gender incongruence’ (World Health Organization 2019), which can be induced by the voice not matching the client’s gender. Zimman (2012) links gender identity and expression to the voice, and multiple speech-language pathology studies cite client satisfaction with the quality of their voice as a key element of trans mental health and wellness (McNeill *et al.* 2008, Hancock *et al.* 2011).

To what sources might a transgender or non-binary person look to explore gender expression through their voice? Concerning simply altering the speaking voice, someone might look to a speech-language pathologist (SLP). Regarding mannerism and posture, perhaps they turn to an acting coach or Alexander Technique specialist. To address stress brought on by dysphoria associated with the voice, perhaps they seek a psychologist. For broader vocal exploration of identity through voice and the benefits of self-expression, character, and gender role exploration, they might turn to a teacher of singing. A transgender or non-binary person looking to modify their gender performance as well as their voice could be best served by access to multiple resources.

In the best of all worlds, a person seeking care for their voice would have access to a team of highly trained voice specialists. But for some transgender people, who are often disproportionately affected by poverty, lack of transportation, joblessness, lack of medical care, and the stressors that come from having multiple minority identities (Mayer *et al.* 2008, Singh and Burnes 2010, Meyer 2013, Chang and Singh 2016), the utopian vision of this well-coordinated medical and vocal team is an inaccessible fantasy. So, to whom might a transgender person go for assistance if they want to modify their voice? A voice teacher does not require a referral from a doctor or approval by insurance. However, voice teachers are not typically trained in voice and communication therapy. While they can facilitate the exploration of the vocal range, expression of identity through repertoire, and might even be able to healthily guide transgender vocal development, ultimately this does not qualify a teacher to work with a singer who might have a pathology or a person who needs other therapeutic intervention. An SLP may be covered by

insurance but might not have the full range of tools to help a transgender person access all elements of their gender expression.

In a 2010 survey, Gilman, Nix and Hapner ascertained the beliefs and practices of vocal music teachers who treat disordered singers. Speech-language pathologists are required to get licensure in every state in which they practise. However, there are no ‘competencies, guidelines, or licensure for singing teachers’ (Gilman *et al.* 2010, p. 174). The report concluded that many voice teachers take care to augment their understanding of the singing voice through continuing education and exploring a variety of resources for working with singers who might have a disordered voice. However, the lack of universal standards leads to a misperception on the part of voice teachers about who is qualified to care for a voice which might need therapeutic intervention.

A speech-language pathologist, then, is often in the best position to care for the transgender or non-binary voice. However, one cannot eschew the benefits that an overlap in techniques between speech-language pathology and vocal music can bring to a client, and an SLP with training in both fields could be particularly creative in delivering services. ‘[T]he distinct yet related fields of speech-language pathology and vocal arts can be seen as working toward common goals: to understand the voice and its functions as fully as possible and address the needs of voice users’ (Lukkonen 2009, p. 1). Approaches to the speaking voice via the singing voice can help unlock the vocal mechanism of a client where other approaches have been unsuccessful. ‘For some [transgender] clients, work on singing provides the gateway to finding a healthy vocal range for their speaking voice’ (Kozan 2012, pp. 416–417). Kozan posits that qualities which the layperson might not immediately associate with speaking can be addressed through singing if administered creatively. If only one person can deliver care, evidence suggests that an SLP with a vocal music background is uniquely positioned to train the transgender voice.

A combination of events led to the formation of questions for this study. In the spring of 2016, I presented a workshop for Beth Israel Deaconess Medical Center Speech Pathology Department, a teaching facility of Harvard Medical School. The workshop, entitled ‘Exploring the benefits of singing and the transgender speech pathology client’ was co-presented with speech-language pathologist Anita Kozan, PhD, CCC-SLP (Certificate of Clinical Competence). The intended audience was a combination of medical professionals and singing voice teachers. Structured as a masterclass, the workshop featured eight transgender singers, including non-binary individuals, transgender clients who had chosen to transition without hormonal intervention, and transgender clients who were taking hormone therapy and were in various stages of transition.

Each client presented a prepared piece of music (some musical theatre pieces, some self-composed) for coaching. Kozan coached clients from the perspective of a speech-language pathologist with a vocal music background, utilising singing exercises as part of her speech-pathology practice to unlock the speaking voice of her clients. As a singer, I coached clients from the perspective of a voice teacher utilising the fundamentals of

3 In brief, Stemple's Vocal Function Exercises are a series of sustained pitches, stretches, and glides organised to systematically balance the voice. While I use all of these, most frequently I include phonating on a closed [o] vowel within an [u] vowel on one pitch as long as possible. For low voices such as basses, baritones, and tenors, one begins on a C3 (the C below middle C on the piano) or for high voices, such as countertenor, alto, or soprano, a C4 (middle C). One then moves up to the subsequent D, onwards up to the G above the starting C, phonating each pitch as long as possible, taking breaks between. Semi-occluded vocal tract exercises can be performed by phonating into a straw (size variable), sustaining pitches, doing slides, or even humming a tune. For a demonstration by the developer Ingo Titze, visit: <https://www.youtube.com/watch?v=0xYDvwvmBIM>.

classical vocal technique as well as techniques drawn from the SLP realm, including Stemple Vocal Function Exercises (Stemple *et al.* 2014) and semi-occluded vocal tract exercises (Titze 2006).³ Not all the SLPs attending possessed a vocal music background. Similarly, the voice teachers had little to no background in speech-language pathology. The workshop was well-received by the medical professionals and voice teachers alike, with each finding techniques to draw from the other.

Also, in 2016, I conducted observations of sessions between SLPs and transgender voice modification clients in two different clinics in the Midwest. Some of the SLPs observed had extensive vocal music backgrounds. Clients under the care of these SLPs seemed to understand and acquire skills more easily. This was demonstrated in the creativity and flexibility of methods used by the SLP, the speed of mastery of skill by the client, and the nuance with which the client was able to perform skills. These observations, along with the success both Kozan and I had with participants in the master class, led me to investigate further the extent to which a vocal music background would be helpful to an SLP working with a transgender voice modification client. The resulting pilot study, consisting of separate interviews with two SLPs with a vocal music background, is a preliminary model for future work in this area.

Cross-disciplinary encounters in the literature

Speech-language pathologists' approaches

A speech-language pathologist will evaluate the client on several levels. These include vocal and medical history (such as use of hormones or voice feminisation surgery), desired outcomes for the voice, and patient quality of life as it is related to voice use. An SLP will use evaluation tools such as the Voice Handicap Index (Jacobson *et al.* 1997) and the Transgender Voice Questionnaire (Dacakis *et al.* 2013), which ascertain the client's perception of the function of their voice from both a physical and a social perspective. SLP approaches to voice modification for the transgender client have traditionally focused on altering the fundamental frequency of a voice, which is the discreet pitch range that is one part of how a naïve listener determines whether a person is male or female. SLPs also draw attention to vocal hygiene, resonance, and placement of the voice. However, there are intangible factors that also affect the perception of the voice. These include speech patterns, word selection, emoting while speaking, pitch range while speaking, upspeak or its opposite, and being more monotone. Additionally, work must be done to help the client access their new voice healthily, all the time, not just in the clinical setting.

As a point of departure, SLPs will measure the fundamental frequency of their client in hertz (Hz) to find where on the spectrum the voice lies. A voice which a naïve listener would typically identify as male lies between 85 Hz and 180 Hz, a female voice between 165 Hz and 255 Hz, with 165 Hz falling directly into a gender-ambiguous zone (Titze 1994). Clients are given exercises to help them achieve their desired vocal goals

within the realm of healthy voice function. However, numerous studies show that even once a client achieves the ‘correct’ range in fundamental frequency, they are not consistently identified as their preferred gender by naïve listeners (Hardy *et al.* 2016). Additionally, studies also show that achieving the recommended fundamental frequency does not equate to client satisfaction with their voice. Sanchez (2013, p. 19) asks: ‘Which vocal characteristics, acoustic and perceptual, are the most associated with the gender identity of a voice, and how well can these characteristics be remediated if necessary?’ Taking this line of thought in a new direction, if traditional SLP methods for training the voice cannot fully address these characteristics, is music an additional means by which an SLP might address these ‘other’ qualities? Are some practitioners already doing this, and if so, what methods are they using?

Music education: choral and voice teacher approaches

Emerging literature provides insight into how voice and choral teachers are beginning to work with their transgender and non-binary students on these same elements of pitch, range, breathiness, placement, and expression. Literature reveals that many of the subjects sought the care of SLPs or other medical voice professionals while also studying singing (Palkki 2016, Sims 2017). Some of the literature describes complementary efforts or collaborations between SLPs and voice teachers (Goffi-Fynn and Carroll 2013, Palkki 2016) while other literature has been generated by voice professionals who use music as a tool in transgender vocal training (Manternach *et al.* 2017, Jackson Hearn and Kremer 2018, Kozan and Hammond 2018).

Many of the teachers from the literature reviewed imply surprise that they did not have to eschew all their formal, classical training and start from scratch. Traditional vocalises were easily modified and effectively addressed range, resonance, and placement; repertoire, instead of being a barrier, served as a gateway to gender expression through binary character exploration. Sims, a private voice teacher, worked for two years with Lucas, a transgender male, who was vocally transitioning from soprano to tenor. After working with Lucas through the first two months of his hormone replacement therapy, Sims noticed that Lucas could finally sing to A4 (the A above middle C on the piano) in full chest voice and that Lucas’ break (*primo passaggio*) was that of a cisgender tenor. Sims (2017, p. 369) recalls: ‘My initial approach to Lucas’s voice from that day forward was exactly the same way I begin warming up any tenor voice’. Sims’ research goes more into depth about training, addressing Lucas’ evolving technique for sounding like a cisgender male and how he manipulated his timbre (vocal quality) to create sound like either a tenor or a countertenor, playing with vocal presentation.

Manternach’s 2017 articles and Sauerland’s 2018 dissertation also focus on singers and their teachers in the applied voice studio. Like Sims, the teachers interviewed in Manternach’s first article discuss technique, range, and the challenges unique to their trans students. At the writing of Manternach’s articles, only one source was available for voice teachers

looking to educate themselves about the transgender singing voice, a short primer on trans voice by an SLP (Davies 2016). Sauerland also had to draw from related SLP literature and the scant existent scholarship on trans and non-binary singing in applied lessons and the choral classroom. With little else for scientifically backed information, Sauerland rightly concluded that there was value to be drawn from the SLP literature for voice teachers working with trans students. Sauerland uses much of the SLP literature to discuss the voices of the students profiled. In the literature, there is a continual overlap of techniques and approaches, as well as anecdotal evidence from trans people about the benefits of these complementary approaches.

Such an example can be drawn from Palkki (2016). Palkki's dissertation focused largely on the emotional side of the musical experience as it related to voice and gender identity. This dissertation is a multi-case study on three individuals, attempting to broadly capture some of the experiences of transgender and non-binary students in secondary choral programmes. Vocal *technique* was mostly the concern of the educators of these students. Students were more concerned with how their voice allowed them to function in a *social* context. The music classroom was a place where students felt they could express themselves and explore their identity. Though only slightly broader than Sims' study, Palkki's findings do not always agree with Sims' (i.e. that we can train transgender singers the same way we train cisgender singers). Two of Palkki's students are staunchly non-binary, against the gender codes that would relegate them to a specific voice part (see Palkki 2016, chapters 4 and 6, examining the cases of Sara and Skyler). However, both reflect that singing was an affirming experience regarding their identity. Only one subject, Jon, felt so strongly that his vocal classification was a reflection on his gender that, in an effort to speak and sing as low as possible, he caused vocal damage that had to be medically assessed and treated (Palkki 2016, p. 179). Palkki mentions this relationship between Jon and his ear, nose, and throat (ENT) doctor, and Jon specifically talks about its benefit to his singing voice. 'I take my music to Dr. Endroth ... he's a vocal therapist but he's like my voice teacher I guess essentially. He helps me with music and ways that I can be singing as low as I can without damaging it' (Palkki 2016, p. 181).

It should be noted that much of this literature centres on the binary construction of gender. Current SLP voice modification practices still preference a binary construct of gender and this creates bias against non-binary individuals (Lev 2013, Chang and Singh 2016). Resources regarding non-binary voice are far fewer. Conversations in the voice studio centre on *Fach* (voice classification) and repertoire for transgender students who wish to present in a binary, stereotypically feminine or masculine fashion. Vocal ranges among transgender singers in transition can vary greatly (even from week to week with the same individual), but literature shows that teachers are still attempting to categorise students into traditional voice parts (Kozan and Hammond 2018) such as soprano, alto, tenor, and bass. Whether dealing with a fundamental frequency or the *Fach*

system, the classifications can be restrictive, limited, and are highly gendered (Palkki 2017, Kozan and Hammond 2018, Sims 2018).

Non-binary individuals can struggle in both the SLP and the music setting, leading SLPs to quantify what is perceived as a gender-neutral fundamental frequency and develop techniques which a person can use to modify, blur, erase, or otherwise subvert the binary in gender expression through their voice. Such adaptation for non-binary individuals in music is still in development, although, from the recent spate of conference presentations at the 2019 Transgender Singing Voice Conference, it seems that research in this area is moving along rapidly, with advances in areas such as non-binary vocal performance, non-binary voice classifications in the choral setting, extended voice work, and de-gendering musical theatre auditions (Berman 2019, Culverhouse 2019, McLean 2019, Vastine 2019, Woodzick and Murtha 2019).

Whom to choose for transgender voice training

Literature suggests that what is best for a client is an integrated approach in which closely communicating professionals can collaboratively care for the voice (Gilman *et al.* 2010, Kozan 2012, Goffi-Fynn and Carroll 2013, Kozan and Hammond 2018, Söderstern *et al.* 2018). Adler, Hirsch and Pickering's authoritative 2018 text for SLPs on transgender and gender-diverse voice heavily emphasises the benefits of a collaborative approach. Cooperating voice care practitioners can tackle the issues of the client from several different perspectives.

One example of this comes from Palkki's dissertation. Some trans individuals will attempt to lower or raise their voice on their own in order to be 'stealth' in public. In some cases, not all, this can lead to vocal damage, as with Palkki's subject Jon, who developed vocal nodes. Jon consulted with an SLP and an ENT when his high school choir teacher asked him to investigate why Jon kept losing his voice. Jon eventually ended up seeing a speech therapist for rehabilitative vocal therapy. Jon's choir teacher helped avert further damage to Jon's singing voice by helping Jon get set up with medical professionals. Jon received vocal training from his choir teacher but also worked on his singing with his doctor. This concern for vocal hygiene led to a fruitful collaboration among Jon and the vocal professionals in his life.

Some singers, like Lucas (Sims 2017), do not have a pathology but visit an SLP so they can monitor the voice proactively as they continue to sing through transition. Agha and Constansis, two of the transgender singers to formally document their vocal transitions (Adler *et al.* 2012, Agha and Hynes 2019), and multiple singers from Jackson Hearn's and Kremer's 2018 publication also discuss the desire to continue singing through transition, even when their range shrank or their ability to match pitch became unstable. While Hammond, founder of the Boston-based Butterfly Music Transgender Chorus, used her own classical vocal background to assist singers in re-accessing their voice, many singers in the chorus faced technical issues that Hammond was unable to fully resolve (Kozan and Hammond 2018). For example, all the trans women in

Hammond's chorus had undergone male puberty and were now trying to access higher ranges in accordance with their feminine identity. Hammond notes how beneficial it would have been to have an SLP working with the chorus to ensure healthy and safe vocal production.

From the voice and music education literature in this review, multiple students were under the care of an SLP during their transitions and had positive experiences regarding the health of their singing voice. The SLP was able to fill in the gaps, as it were, as students navigated their vocal changes. However, it is the music teachers who provided the consistent emotional support and the daily environment in which students felt safe enough to live out their gender identity. If a client or student only has access to one person to train their voice, however, one could imagine the benefits of having a medical professional such as an SLP who also had the tools of a vocal music instructor.

The pilot study: music in medicine

For this qualitative pilot study, two speech-language pathologists with a background in vocal music which included formal training such as voice lessons and choral singing were interviewed to determine if, and how, this prior training impacted their work with transgender voice modification clients. Having the clinical expertise of the SLP informing and augmenting my vocal music expertise allowed for a broader and deeper understanding of the possibilities for assisting transgender voice clients. I was to serve as an analyst, viewing speech-language pathology through a musical lens, finding similarities and discrepancies between fields with similar aims: the training and healthy function of the voice.

Criteria for inclusion in this study were a vocal music background from childhood through college, consistent study of the voice with vocal professionals, and performance experience throughout, preferably also post-college. Subjects had to be a licensed and practising SLP with transgender clients seeing them for the purposes of voice modification. Subjects were purposefully selected. Interviews consisted of one-hour phone conversations with follow-up calls for clarification and additional detail. Interviews were transcribed and subject to a member check for accuracy.

Participants

Subject one, Erin Nicole Donahue, BM, MA, CCC-SLP (she/her), works for the Blaine Block Institute in Dayton, Ohio and the Professional Voice Center of Greater Cincinnati in Cincinnati, Ohio. Donahue self-identifies as a singing voice specialist and has been working with transgender voice modification clients since 2012. She has an extensive background in music, attending a performing arts high school, double majoring in music and speech pathology as an undergraduate, and continuing with a performance career after completing a master's degree in speech-language pathology.

Subject two is Kevin Andrew Dorman, MS, CCC-SLP (they/them), a private practitioner out of Greensboro, North Carolina. Dorman has

chosen to specialise in transgender voice and sees clients for the purpose of voice modification. Dorman has been in practice for four years. They have a varied background in voice study. In addition to participation in chorus and voice lessons in high school, Dorman also trained as a voice actor and provided character voices for animation. Dorman studied voice in college and hopes to pursue a voice acting career in addition to working as an SLP. Both subjects attribute their love of the voice and their career choice as beginning with their study of vocal music.

Results

Both SLPs cite their vocal music background as being helpful to them when working with their transgender voice modification clients. Dorman states explicitly: 'I feel like it set me up to be very successful when studying speech language pathology and then specialising in voice later on.' Both use the terminology associated with speech-language pathology and music interchangeably. 'Pitch' as opposed to 'fundamental frequency' is a word most of their clients understand, whether or not they have a vocal music background. Pitch is one way Donahue listens to the voices of her clients. She credits her vocal music background with helping her hear the nuances in the voice as well as providing her with the pedagogy to correct misuse of the voice and its support systems.

You have to have a good ear to work with transgender patients, I think ... you have to be able to tell if they're in a vocal register that is perceived as a more normal speaking voice. What I tend to see a lot of is trans women coming in with this very disengaged, soft, subtle, breathy speaking voice. It's good as far as pitch but it doesn't sound as natural. Being able to use some of that training from [vocal] pedagogy to get them to engage their voice – at the goal pitches and kind of mix it a little bit more – makes a big difference. So, I do think [a vocal background] is necessary.

For patients without a vocal music background, Donahue and Dorman first work on feeling the differences in range, introducing clients to the concepts one learns when studying vocal music: head voice, chest voice, and falsetto. Dorman has a client associate feelings of resonance and physical production with parts of the voice by having them make high, medium, and low sounds in ways that Dorman has deemed healthy for the voice of that particular client.

Educating the ear of a client through exercises and listening is something both subjects cited as being important. Each describes the benefits of being a competent and versatile vocal model for their clients. 'Music trained my ear – pitch and resonance', says Donahue. And for Dorman, '[i]t definitely helps us [SLP and client] because I've had so much singing experience. I can shift my resonance easily and provide clients with an example of how it sounds'. Without access to resources for voice modification, many trans people turn to the internet for help, watching videos of other trans people doing voice work or using voice applications on their phones. Dorman has noticed clients then come to the practice with

detrimental effects to the voice. The absence of personal feedback from an experienced voice professional means that patients have not developed the skills to have their own 'vocal barometer', as Dorman puts it. Therefore, listening to an accurate vocal model is crucial. A vocal music background allows Dorman and Donahue to be a clear model of technique as well as more creative and flexible with teaching necessary skills, assisting clients in developing this 'barometer'.

Vocal warm-ups are an important part of voice modification therapy. Both subjects note the similarities between the vocalises used in the voice studio and the warm-ups used by an SLP. One resource Donahue feels is particularly useful is Kozan's chapter in the 2012 Adler text, which provides extensive singing exercises. Both subjects discuss *glissandi*, or slides across pitches, as a method for smoothing the transition from chest voice to head voice. This helps the singer refrain from 'muscling' the sound. The *glissandi* can be a diagnostic tool as well, providing information to the SLP about where in their range a client is introducing tension.

Both subjects discuss vocal hygiene and concepts of breath support as the other transferable skills from their vocal music training to their careers as SLPs. While they are not overt with using musical terminology regarding these concepts with their clients, neither do they shy away from using the terms when they are helpful. For both, it depends on the level of musical experience of the client. If the client has a vocal music background, all the better, says Donahue. She notices that more musical clients have an easier time in voice modification therapy: 'The ones who have some training or have a musical ear make things so much easier. [I] just give them a touch [such as drawing attention to the base of the tongue or the hinge of the jaw using the hand] or do a demonstration [such as modeling resonance] for them and [they] actually do the same thing as me.' The implication here is that, while it is beneficial to the client if the SLP has a vocal music background, the benefit is even greater if the client *also* has a vocal music background. However, clients with little to no experience in a formal vocal music background can approach all the exercises used by Donahue and Dorman.

Dorman believes music is helpful, both for their own practice and their clients. It is not just the overlap in technical skills but the experience of performing that has the potential to be beneficial. 'Presentation is such a fluid thing in the performing arts', says Dorman, later implying that 'playing' with presentation and character voices might make a client more willing to experiment with their presentation and voice in real life. Dorman utilises a tool which they refer to as the 'character deck', in which a client reads text in various voices, such as the voice of a national public radio announcer or the voice of a kindergarten teacher attempting to get students to take a nap. Vocal play, informed by their positive and educational experiences in music and theatre, is an important element of Dorman's practice.

An unexpected result of this enquiry into the musical-ness of the practices of these two speech-language pathologists was their insistence that they do not view their clients through the lens of pathology. While all clients are evaluated for any pre-existing pathology as a matter of protocol,

neither Donahue nor Dorman see themselves as treating the trans voice as a disordered voice. This distinction is especially important to Dorman. Dorman will not refer to voice modification as ‘therapy’ but rather calls it ‘training’, seeking to undo the pathologising of trans people by the medical community:

From my perspective, a trans client’s voice is fully functional, we’re just giving them tools to utilise their voice in a different way ... there’s no habilitation or rehabilitation occurring and using that perspective of ‘correcting’ something can contribute to the over-pathologised status of trans people. If we’re treating anything, it’s dysphoria centred around their voice by giving them these tools to make a voice more aligned with their gender.

The implication that seeking voice modification therapy means that a client has an inherently disordered voice is false and leads to the over-pathologisation of this population.⁴ Donahue and Dorman are both careful to approach their clients as individuals who are co-learners in an evolving process. Such an approach dissolves the clear-cut boundary between doctor–patient, teacher–students, SLP–client, and (returning to the notion of training as outlined above) both are co-constituted as ‘trainees’, learning from each other. The goals of the client are considered first and foremost, with their unique needs and personal desires directing the outcome of treatment. Donahue once had a client who was bi-gender and wanted to work on a distinctly masculine voice and a distinctly feminine voice. Creativity with these clients is key.

It is valuable to both Donahue and Dorman that a client is happy with their voice. For Donahue or Dorman, it is not about the satisfaction of the SLP. Donahue does not have a ‘box for voice presentation’ into which she attempts to make a client fit. She says of her clients: ‘For trans patients, voice is very important. It is so intrinsic to how you are perceived by others and how you communicate who you are.’ She later goes on to relate: ‘There are so many variations out there, so it’s just finding the voice that’s authentic to you and who you are.’ The voice a trans person uses on a daily basis needs to be healthy for them to produce and also to feel authentic to *that person*. Part of vocal ‘authenticity’ is subjective on the part of the speaker/singer. Therefore, a client’s satisfaction with their voice is at least as important, if not more, than the outcomes measured by the service provider (McNeill *et al.* 2008). Both Donahue and Dorman were clear that their clients’ goals and needs outweigh any desire they might have for the clients’ vocal development.

Discussion

Cultural competence: client- and student-centred care

SLP literature increasingly demonstrates increased importance placed on client-centred care (Kozan 2012, Mills and Stoneham 2017, Kozan and Hammond 2018, Lev *et al.* 2018). Vocal and music education literature

4 I will note, however, the difficulty for SLPs who cannot bill insurance unless there is a condition for which to bill (Lev 2013, Drescher 2015).

surrounding trans students also demonstrates a turn toward this approach (Steele 2016, Manternach *et al.* 2017, Palkki 2017, Sims 2017, Sauerland 2018, Steele and Rice 2018). This model of care was addressed emphatically by both Donahue and Dorman. Regarding the emotional journey that is part and parcel with vocal transition and helping a client deal with dysphoria, it is important to have tools for assisting the client (Mills and Stoneham 2017). SLPs are typically given training to help deal with clients' emotions, although it is significant to note that there is not specific training regarding trans people as a standard part of an SLP degree (Hancock and Haskin 2015). A voice teacher, on the other hand, does not receive any kind of psychological training as a standard part of their degree. If a person is going to 'play' with their voice through musical elements, this vulnerability requires special care on the part of the provider. Donahue and Dorman possess the necessary emotional training for assisting their clients and use that to inform their delivery of care. The skills from both fields augment one another: the 'how to' in terms of technical skill as well as the exploration of identity that can happen both in the SLP setting and in music.

Regarding client-centred care, one can draw a parallel between counselling literature and SLP literature from the Singh and Burnes 2010 article on shifting the counsellor role from gatekeeping to advocacy for transgender clients. In this model of care, the counsellor centralises the client, their knowledge of themselves, their opinions, and experiences, rather than the client being a passive recipient of care from an 'expert'. Dorman is intentional in their activism by subverting the terms commonly used to refer to the transgender voice in treatment. Using this language – *training* instead of *therapy* – turns the client from a 'patient' into an agent of change with power over the direction they choose for their voice.

Voice professionals such as SLPs and voice teachers must surrender the idea that they might be experts on the identity of, or the direction in which, a transgender person wishes to go with their voice, be that in a more traditional (i.e. binary) direction or something in between. It is important to listen actively to the needs of the transgender population that is being served (Korell and Lorah 2007). Sims (2017, p. 374) puts it aptly when stating that 'we must come to terms with the idea of being non-binary in our solutions'. Although Sims' reference to non-binary refers to gender and gender-oriented techniques, the idea of only 'two' roles transfers to the traditional teacher-as-master/student-as-recipient approach seen in private music studio settings (Duke and Simmons 2006, Parkes and Wexler 2012). The non-binary answer here is that when working with the trans voice, both are co-learners, co-teachers, and co-discoverers with one another.

In both the SLP setting and the voice studio, a client's wishes and goals must set the tone for the interaction. Donahue and Dorman both demonstrate this client-centred approach, from the terminology they choose to the way they respect their clients' vocal goals. Similarly, voice teachers can model their studios after this client-centred approach. Performance is, after all, about exploration. Using non-traditional approaches to repertoire and roles can facilitate a trans person's journey as they use music to explore the depths and heights of their gender.

Vocal exercises and breath management

Like SLPs, voice teachers work on developing skills related to resonance, placement, breath support, and facility (such as the ability to navigate coloratura, the quick successions of fast-moving notes). SLPs focus on speaking fundamental frequency and the natural range of the speaking voice, which is typically just over an octave (Mills and Stoneham 2017). Voice teachers focus on pitch and *tessitura* (the optimal range of a student's voice), encompassing their highest and lowest serviceable, healthily produced sung notes, which can span multiple octaves. In both settings, the client 'warms up', performing a series of vocal exercises designed to facilitate voice use. Like singing teachers, an SLP will use lip flutters and tongue trills (Goffi-Fynn and Carroll 2013) to release facial and tongue tension. These flutters and trills can occur with or without the use of pitch depending on the level of severity of the tension. (Kozan and Hammond 2018) suggests extending the tongue and practising 'speaking' to release tongue tension. Singing teachers often use this same tool.

In both settings, vocal exercises, often taught by rote, address issues of onset, endurance, flexibility, placement, and clarity. Terminology differs, but the approaches, exercises, and desired outcomes are similar. For example, while the SLP might address issues of adduction (the closing of the vocal folds) through therapeutic measures like the Stemple Vocal Function Exercises, a voice teacher might talk about clarity in the tone and work on closed vowels such as [i] or work on a certain area in a singer's range, finding where proper adduction naturally occurs, drawing awareness to that, and then directing the singer back to the area of concern. Both sets of voice professionals also address breathing. An SLP discusses diaphragmatic breathing, while a teacher of singing might talk about singing 'on the breath'. Both address posture as it relates to production of the voice. Posture can be affected by garments, such as binders worn by trans masculine people to bind the breasts, waist trainers worn by trans feminine people, or presentational considerations which affect how a person might stand or sit (Jackson Hearn and Kremer 2018). Body awareness facilitated by mindfulness as well as vocal health supported by good vocal hygiene are some of the fundamental elements of effective vocal training in the SLP setting and voice studio. Donahue and Dorman navigate between these approaches with ease, using whatever facilitates client learning best. These skills are especially helpful if a client becomes 'stuck' vocally or emotionally.

We see evidence in the literature of music-like interventions and training as beneficial to trans clients. One example is Melodic Intonation Therapy (MIT). MIT is explored in Hershberger's 2005 master's thesis, 'The effects of singing exercises and melodic intonation therapy (MIT) on the male-to-female transgender voice'. This system of training uses the musical elements of speech (pitch and rhythm). It has a variety of uses in clinical settings and has its mirror in voice studio exercises. Kozan uses a version of MIT with transgender clients with great success. Using singing within a small range of two to three pitches, the aim is to transfer the sung syllables to speech. Dorman elaborates on this, moving beyond

limited pitches, helping clients access a greater speaking range by moving up and down their vocal registers, feeling healthy extremes and teaching the client how to monitor their own voice. Additionally, Donahue and Dorman can effectively model these exercises with great nuance, providing an additional layer of education for their client.

Concluding questions for future research

This pilot study was intended to serve as a model for future research. Other options for research could involve observations of the SLPs with a vocal music background working with a client, watching how they put their vocal music background to work in their real-life practice versus how they describe it. An additional option would be to interview clients of the SLPs and see if the benefits perceived by the SLP are experienced by the client (and to what extent).

Questions for future directions in research could be:

- What training could be implemented for SLPs who do not come to the field with a vocal music background?
- Could a combination of voice modification training, and singing as a part of that training, with an SLP benefit a transgender client?
- How could SLPs without a vocal music background work consultatively with voice teachers as part of their practice? What new protocols could be devised and implemented?
- With proper training, could a voice teacher also be an appropriate (and perhaps the sole) aid for voice modification for a trans client without pathology?

A collaborative approach to care is perhaps the best route but not always possible. An SLP with a vocal music background possesses a wealth of complementary skills and is a useful resource for a trans client who wishes to access an authentic, healthy, and emotionally satisfying voice. In order to achieve their desired voice, some trans people will push to the extremes of their range or hold tension in the jaw, leading to hoarseness, fatigue, dryness, or damage (Palkki 2016, Kozan and Hammond 2018). A client without pathology is probably fine in the hands of a well-educated voice teacher; however, a professional with both a background as a singer and the training as an SLP is ideal.

For many transgender and non-binary people, gender expression through voice is a key component of their gender identity. The voice conveys multiple pieces of our identity and is one of the first pieces of information people have about one another. Assumptions about gender are made based on various characteristics, including but not limited to range, timbre, placement, resonance, prosody, word selection, and emotional expression. While some individuals wish to present in a binary fashion and adopt stereotypically masculine or feminine characteristics in their voice, still others wish to abandon the binary in a subversion of the binary system, presenting in a vocally gender-neutral fashion. SLPs and voice teachers approach these characteristics of the voice in similar and complementary ways. A person who is a voice modification client could benefit from the wider exploration of gender identity that can happen

through music. Additionally, there are therapeutic elements to musical engagement, including the ability to process experiences and the ability to express oneself. Similarly, a transgender or non-binary singer who is having issues controlling their instrument, especially during medical transition, can benefit from vocal therapy exercises typically offered in the SLP setting. It is the intention of this study and subsequent studies spawned by this investigation to encourage the types of collaborations recommended as best practice in the literature *and* to encourage SLPs to consider music as a complementary part of speech modification training.

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