

Transgender Voice Therapy

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**“You may shoot me with your words,
You may cut me with your eyes, You
may kill me with your hatefulness, But
still, like air, I'll rise....”**
~Maya Angelou

- Terms**
- Gender Identity Disorder (GID)
 - “A diagnostic category referring to individuals with a preoccupation to live as a member of the other sex”
 - DSM-IV
 - Transgender (TG)
 - “One’s psychological gender does not match one’s anatomical gender”
 - Transsexual (TS)
 - “A person whose external genital anatomy has been changed to resemble that of the opposite sex”
 - Passing
 - “The ability of a TG or TS to be perceived by others as belonging to the target gender group”
- (King, Lindstedt, Jensen, & Law, 1999)

Terms continued

- FtM
 - A person seeking to transition from their birth female gender to the male gender
- MtF
 - A person seeking to transition from their birth male gender to the female gender
- Ambigenderous / Bigender
 - A person who blends characteristics from both gender roles and identities

(King, Lindstedt, Jensen, & Law, 1999)

Etiology

- Unknown
- Possible involvement of the bed nucleus of the stria terminalis (BST) in the hypothalamus
- Literature suggests that males raised as females due to ambiguous genitalia, penile ablation, or agenesis, expressed gender dysphoria or reported identifying more with males
- Gender identity is not chromosomal

(Safer & Tangpricha, 2008)

The Standards of Care for Gender Identity Disorders

- Harry Benjamin International Gender Dysphoria Association
- Clinical guidelines originated in 1979
- DSM-IV and ICD-10
- Triadic Therapy
 - Hormones
 - Real-life experience
 - Surgery
- Eligibility requirements
 - Documentation letter prior to hormone therapy
 - Real-life experience for 12 months prior to surgery
- Readiness Criteria

(The World Professional Association for Transgender Health, Inc., 2001)

Interventions

- Fully reversible
 - Puberty-delaying hormones
- Partially reversible
 - Masculinizing or feminizing hormones
- Irreversible
 - Surgery
- Psychotherapy
- Post-transition follow-up

Voice Therapy Goals

- One of the most daunting obstacles is achieving an acceptable voice, particularly during the male to female transition
 - (Berger, 1988; Neumann & Welzel, 2004)
- For the MTF population, it has been demonstrated that voice alone has a negative impact upon a person's perceived femininity, while physical appearance bestows a positive impact
 - (Van Borsel, De Cuyper & de Berghe, 2001)
- Therapy should focus upon a variety of speech, language, and pragmatic functioning as they relate to gender
 - (American Speech Language Hearing Association, 2009; Andrews, 1995, Case, 1996, Colton & Casper, 1990, Oates & Dacakis, 1993, Wiltshire, 1995; cited by King, Lindstedt, Jensen & Law, 1999; Stemple, Glaze & Klaben, 2000)

Male/Female Voice

- Dividing line for male versus female voice perception is approximately 155-160 Hz
 - (Spencer, 1988 cited by Brown, Perry, Cheesman & Pring, 2000; Van Borsel, De Cuyper & den Berghe, 2001)
- Voices pitched higher than 160 Hz typically are perceived as female, and voices pitched less than 155 Hz usually are perceived as male
- Biologically male voice is further characterized by a greater degree of shimmer, and less jitter, than biologically female voices
 - (Sorensen and Horii, 1983 as cited by Van Borsel, De Cuyper, Rubens & Destaerke, 2000)

FtM

- Intake of testosterone during FtM hormone therapy increases the mass of the vocal folds, and thus, results in a lower pitched voice
 - (King, Lindstedt, Jensen & Law, 1999)
- The effects of testosterone on the voice may become apparent as soon as six to 12 weeks after the first injection, or as late as several months later
 - (Kuiper, Asscheman & Gooren, 1992, Damsté, 1964, as cited by Van Borsel, De Cuyper, Rubens & Destaecke, 2000)
- 14 out of 16 FtM transgender clients reported that they were satisfied with their vocal changes as a result of hormone therapy, while the other two participants did not report a change due to previously low-pitched and acceptable voices
 - (Van Borsel, De Cuyper, Rubens & Destaecke 2000)

MtF

- Intake of the female hormone estrogen does not produce any discernable effects upon the vocal folds
 - (Money & Walker, 1977 as cited by Brown, Perry, Cheesman & Pring, 2000)
- Many MtF transgender clients seek a combination of voice therapy and/or surgery.
 - Surgery modulates automatic functions, such as sneezing, coughing, and throat-clearing
 - (Adler, Hirsch & Mordaunt, 2006 as cited by Pickering & Kayajian, 2009)

Surgical Options

- 3 goals: To increase tension, alter consistency, and/or decrease the mass of the vocal folds.
- Types
 - Cricothyroid approximation, also known as type IV thyroplasty
 - Anterior commissure advancement
 - Scarification
 - Injection of triamcinolone into vocal folds
 - (Neumann & Welzel, 2004; Gross, 1999)
- Endoscopic vocal fold shortening is intended to both shorten the vocal folds and reduce their vibrating mass
 - (Gross, 1999)

Voice Therapy

- Acoustically, voice therapy can increase formant frequencies and pitch into the female range
- SLP should ensure that the transgender client does not produce effortful speech and place a large amount of tension upon the larynx. This type of speech is characteristic of both adductor spasmodic dysphonia and vocal nodules, and has been observed to occur in MTF transgender clients
 - (Gorham-Rowan & Morris, 2006)
- Transgender clients are generally satisfied with their voice following voice therapy, although while rating their voice on the Voice Handicap Index (VHI), a mild voice handicap remains
 - (McNeill, Wilson, Clark & Deakin, 2008)

Voice Treatment

- Treatment program for transgender voice clients focusing solely upon establishing an acceptable pitch level across all levels of speech.
- Initial feedback is provided through the Visi-Pitch program, and faded once the client reaches the sentence level with all speech sounds.
- As appropriate, intonation, emotional expression, nonverbal behaviors, and paralinguistic behaviors are also addressed.
- The final step of the program involves the transgender client utilizing the phone in combination with appropriate strategies to pass as their desired gender through this most difficult means of communication.

(Gelfer, 1999)



Support Site Mission Statements

- <http://www.youthpride.org>
 - "YouthPride, a 501(c)3 non-profit organization, creates positive change in the lives of lesbian, gay, bisexual, transgender, and questioning youth through education, outreach, support services, community activities, and advocacy."
- www.thepointfoundation.org
 - "Point Foundation provides financial support, mentoring, leadership training and hope to meritorious students who are marginalized due to sexual orientation, gender identity or gender expression."
- www.glad.org
 - "Celebrating 30 years as New England's leading legal rights organization dedicated to ending discrimination based on sexual orientation, HIV status and gender identity and expression."
- www.rctequality.org
 - "Dedicated to advancing the equality of transgender people through advocacy, collaboration and empowerment."
- www.wpath.org
 - "The World Professional Association for Transgender Health's Standards of Care for Gender Identity Disorders articulate our organization's professional consensus about the psychiatric, psychological, medical, and surgical management of gender identity disorders."
- www.northwestern.edu
 - "The Lesbian, Gay, Bisexual & Transgender Support Network is a interoffice/department committee with ultimate oversight within the Division of Student Affairs."
- www.sexsupport.org
 - www.transmap.com
 - * "Transsexual transition is simply a journey. Just like a trip, you decide on your destination, the time you'll need to get there, the money you'll spend. Transsexual Road Map is a travel guide to set priorities and choose your route."

References

- Adler, R. K., Hirsch, S., & Mordaunt, M. (2006). Voice and communication therapy for the transgender/transsexual client. San Diego: Plural. (as cited by Pickering & Kayajian, 2009)
- American Speech Language and Hearing Association (2009). Voice and communication therapy for transgender/transsexual clients. Retrieved 30 March 2009 from <http://www.asha.org/public/speech/disorders/TGTS.htm>. American Speech Language and Hearing Association.
- Andrews, M.L. (1995). *Manual of voice treatment: Pediatrics through geriatrics*. San Diego: Singular. (as cited by King, Lindstedt, Jensen & Law, 1999)
- Andrews, M.L. & Schmidt, C.P. (1997). Gender presentation: Perceptual and acoustical analyses of voice. *Journal of Voice*, 11(3), 307-313.
- Berger, R. (1988). Phoniatische mitbehandlung operierter transsexueller. *HNO-Praxis*, 13, 207- 210. (as cited by Neumann & Welzel, 2007)
- Brown, M., Perry, A., Cheesman, A.D. & Pring, T. (2000). Pitch changes in male-to-female transsexuals: Has phonosurgery a role to play? *International Journal of Language and Communication Disorders*, 35(1), 129-136.
- By committee (2001). The Harry Benjamin International Gender Dysphoria Association's Standards of Care for Gender Identity Disorders, Sixth Version. Retrieved 2009, 8 May, from <http://www.wpath.org/Documents/6socc6.pdf>
- Carew, L., Dacakis, G. & Oates, J. (2007). The effectiveness of oral resonance therapy on the perception of femininity of voice in male-to-female transsexuals. *Journal of Voice*, 21(5), 591-603.
- Case, J. (1996). *Clinical management of voice disorders*. Austin: Pro-ed. (as cited by King, Lindstedt, Jensen & Law, 1999)
- Coleman, R.O. (1983). Acoustic correlates of speaker sex identification: Implications for the transsexual voice. *The Journal of Sex Research*, 19(3), 293-295.

References

- Colton, R. & Casper, J. (1990). *Understanding voice problems: A physiological perspective for diagnosis and treatment*. Baltimore: Williams & Wilkins. (as cited by King, Lindstedt, Jensen & Law, 1999)
- Damsté, P.H. (1954). Virilization of the voice due to anabolic steroids. *Folia Phoniatica*, 16, 10-18. (as cited by Van Borsel, De Cuypere, Rubens & Destaeke, 2000)
- Faul, G. (1981). A note on vocal tract size factors and non-uniform pattern scalings. *Speech Laboratory Quarterly Progress and Status Report*, 21(3), (as cited by Coleman, 1983)
- Gelfer, M.P. (1999). Voice treatment for the male-to-female transgendered client. *American Journal of Speech-Language Pathology*, 8(3), 201-208.
- Gorham-Rowan, M. & Morris, R. (2006). Aerodynamic analysis of male-to-female transgender voice. *Journal of Voice*, 20(2), 251-262.
- Gross, M. (1999). Pitch-raising surgery in male-to-female transsexuals. *Journal of Voice*, 13(2), 246-250.
- Gunzburger, D. (1989). Voice adaptation by transsexuals. *Clinical Linguistics and Phonetics*, 3, 163-172. (as cited by Brown, Perry, Cheesman & Pring, 2000)
- Gunzburger, D. (1993). An acoustic analysis and some perceptual data concerning voice change in male-female transsexuals. *European Journal of Disorders of Communication*, 28, 13-21. (as cited by Brown, Perry, Cheesman & Pring, 2000)
- Gunzburger, D. and De Vries, M. (1989) How do minor acoustical cues affect male and female voice quality? In *Proceedings of the European Conference on Speech Communication and Technology*, vol. 2 (Edinburgh: CEP Consultants). (as cited by Brown, Perry, Cheesman & Pring, 2000)

References

- King, J.B., Lindstedt, D.E., Jensen, M. & Law, M. (1999). Transgendered voice: Considerations in case history management. *Logopedics, phoniatrics, vocology*, 24, 14-18.
- Kuiper, A.J., Asscheman, H. & Gooren, L.J.G. (1992). Transseksualiteit III de tweede diagnostische fase: De 'real-life test'. *Nederlandsche Tijdschrift voor Geneeskunde*, 136, 1898-1901. (as cited by Van Borsel, De Cuyper, Rubens & Destaeke, 2000)
- Liberman, P. (1977). *Speech pathology and acoustic phonetics: An introduction*. New York: MacMillan. (as cited by Coleman, 1983)
- McNeill, E.J.M., Wilson, J.A., Clark, S. & Deakin, J. (2008). Perception of voice in the transgender client. *Journal of Voice*, 22(6), 727-733.
- Money, J. & Walker, P. (1977). Counselling the transsexual. In M. Money (Ed), *Handbook of Sexology*. (1289-1301). Amsterdam: Elsevier/North Holland. (as cited by Brown, Perry, Cheesman & Pring, 2000)
- Mullin, W.J., Gerace, W.J., Mestre, J.P. & Velleman, S.L. (2003). *Fundamentals of sound with applications to speech and hearing*. Boston: Pearson Education.
- Neumann, K. & Weisel, C. (2004). The importance of the voice in male-to-female transsexualism. *Journal of Voice*, 18(1), 153-167.
- Oates, J.M. & Dacakis, G. (1993). Speech pathology considerations in the management of transsexualism- a review. *British Journal of Disorders of Communication*, 18, 139-151. (as cited by King, Lindstedt, Jensen & Law, 1999)
- Pickering, J. & Kayajian, D. (2009). Voice program assists transgender community. *ASHA Leader*, 14(3).
- Schrock, D., Reid, L. & Boyd, E.M. (2005). Transsexuals' embodiment of womanhood. *Gender and Society*, 19(3), 317-335.

References

- Sorensen, D. & Horii, Y. (1983). Frequency and amplitude perturbation in the voices of female speakers. *Journal of Communication Disorders*, 16, 57-61. (as cited by Van Borsel, De Cuyper, Rubens & Destaeke, 2000)
- Spencer, L. E. (1988). Speech characteristics of male-to-female transsexuals: a perceptual and acoustic study. *Folia Phoniatrica*, 40, 31-42. (as cited by Brown, Perry, Cheesman & Pring, 2000)
- Stemple, J. C., Glaze, L. E., & Klaben, B. G. (2000). Clinical voice pathology: Theory and management (3rd ed). San Diego: Singular/Thompson Learning.
- Van Borsel, J., De Cuyper, G. & den Berghe, H. (2001). Physical appearance and voice in male-to-female transsexuals. *Journal of Voice*, 15(4), 570-575.
- Van Borsel, J., De Cuyper, G., Rubens, R. & Destaeke, B. (2000). Voice problems in female-to-male transsexuals. *International Journal of Language and Communication Disorders*, 35(3), 427-442.
- Van Borsel, J., Van Eynde, E., De Cuyper, G. & Bonte, K. (2008). Feminine after cricothyroid approximation? *Journal of Voice*, 22(3), 379-384.
- Wiltshire, A. (1995). Not by pitch alone: A review of transsexual vocal rehabilitation. *National Student Speech Language Hearing Association Journal*, 22, 53-57. (as cited by King, Lindstedt, Jensen & Law, 1999)
- Wolfe, V., Ratusnik, D., Smith, F. and Northrop, G. (1990). Intonation and fundamental frequency in male-to-female transsexuals. *Journal of Speech and Hearing Disorders*, 55, 43-50. (as cited by Brown, Perry, Cheesman & Pring, 2000 and Gorham-Rowan & Morris, 2006)
