



Voice and Stroboscopic Characteristics in Transgender Patients Seeking Gender-Affirming Voice Care

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Introduction

Gender dysphoria is distress that an individual experiences due to an incongruity between their physical sex or assigned gender at birth and their gender identity.¹ For transgender individuals, treatment to address voice and communication (including voice therapy and/or surgery) is often a critical aspect of gender-affirming care.²⁻⁴ Much work still needs to be done to improve the fundamental understanding of transgender voice care, including how best to assess voice and to follow voice changes in transgender patients during and after treatment.

Research Questions

1. What are the baseline characteristics (including perceptual and acoustic voice assessment) in transgender patients?
2. How do current measures of voice handicap relate to self-reported quality of life in these patients?
3. What is the incidence of vocal fold pathology and dysphonia in these patients?

Materials and Methods

- Transgender individuals evaluated at the UCSF Voice and Swallowing Center from Feb 2018 – Feb 2019
- Data collected:
 - Demographics
 - PROMs including VHI-10 and Transsexual Voice Questionnaire [TVQ^{MtF}] (now TWVQ) and Gender Congruence Scale (GCS)
 - Acoustic analysis and auditory perceptual evaluation using CAPE-V
- Statistical analyses
 - Descriptive statistics
 - Pearson correlation coefficients between VHI-10 and TVQ, SVHI-10 and TVQ

Results

- 71 transgender individuals including:
 - 61 trans women analyzed; 4 excluded (prior laryngeal surgery)
 - 1 trans man, 1 male-to-non-binary
- Demographics for 61 trans women shown in Table 1.
- Mean PROMs scores are shown in Table 2.
- Correlation between VHI-10 and TVQ^{MtF} was moderate with $R = 0.47$ ($p=0.053$) as shown in Figure 1. Correlation between SVHI-10 and TVQ^{MtF} was weak with $R = 0.35$ ($p=0.17$) (data not shown).
- Mean CAPE-V ratings, CSID and CPP (sustained vowel and connected speech) were recorded and analyzed (data not shown).

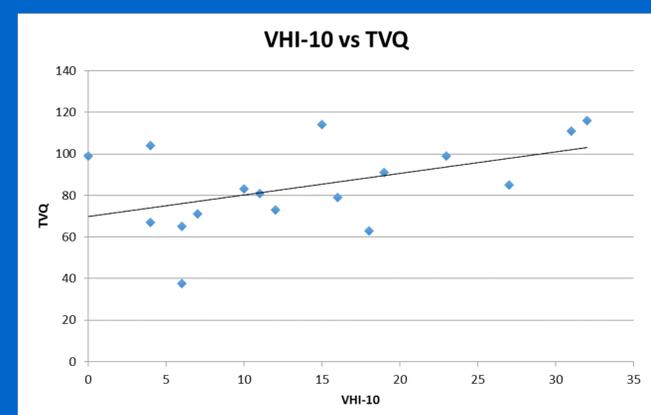
Table 1: Demographic information of trans women seeking gender-affirming voice treatment

Demographic Data		Range
N (Trans women)	61	
Age, years (mean ± SD)	31.98 ± 11.19	17-63
Duration of transition, months (mean ± SD)	36.28 ± 55.83	0.25-300
% presenting full-time as self-identified gender	69%	
% currently working with psychological support team	66.67%	
% with normal stroboscopic exam	95.08%	

Table 2. Patient-reported questionnaires in trans women seeking gender-affirming voice treatment

	Mean score ± SD
Voice Handicap Index-10 (VHI-10)	15.8 ± 10.1
Singing Voice Handicap Index-10 (SVHI-10)	19.44 ± 13.1
Transsexual Voice Questionnaire (TVQ ^{MtF})	81.03 ± 21.97
Gender Congruence Scale (GCS)	35.75 ± 6.67

Figure 1: Correlation between Voice Handicap Index-10 (VHI-10) and Transsexual Voice Questionnaire (TVQ^{MtF})



Conclusions

1. Treatment-seeking trans women reported a perceived voice handicap with both speaking and singing:
 - Mean VHI-10 score = 16 and SVHI-10 = 19
 - 40% of patients with abnormal VHI-10 (>11)
 - Clinicians should carefully assess voice complaints at presentation as this may impact treatment decision-making.
2. Only 5% had abnormal stroboscopy findings, laryngeal exam remains prudent prior to initiation of any voice treatment.
3. This is the first study to evaluate VHI-10, SVHI-10, and TVQ^{MtF} as well as CSID and CPP in transgender individuals. Further evaluation of all of these measures is needed to understand their role in the evaluation, treatment decision-making process, and outcome assessment for treatment seeking transgender individuals.

References

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