# Treatment Attendance for Gender-Affirming Voice Therapy: A retrospective analysis of treatment trends before and during the COVID-19 pandemic

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## Introduction

- Gender-affirming voice therapy (GAVT) is a service delivered by a speech-language pathologist that aims to better align a patient's voice with their gender identity and expression.
- To our knowledge, no previous studies have examined attendance trends for GAVT. However, several barriers to healthcare access have been identified for the transgender and gender diverse community, including discrimination in healthcare settings,[1,2] insurance denials for gender-affirming healthcare services,[3] and disparities in socioeconomic status[4] and mental health outcomes.[5-8]
- The advent of COVID-19 has presented several challenges to in-person treatment attendance and vocal care; however, telemedicine has grown as an alternative to various types of in-person healthcare appointments, including voice therapy. We hypothesized that increased availability of virtual appointments during the COVID-19 pandemic would increase therapy attendance.

## Purpose

- Understand how the COVID-19 pandemic impacted access to GAVT through analysis of therapy attendance and completion
- Investigate the impact of telehealth on therapy attendance and completion
- Explore socioeconomic and psychosocial factors related to therapy attendance and completion

## Methods

We completed retrospective chart review of 50 patients referred for GAVT at a Midwest outpatient center between 2016 and 2021. Data extraction included:

- Demographic information
- Socioeconomic factors (employment, insurance coverage)
- Psychosocial factors (social support, social transition, mental health)
- Other gender-affirming healthcare
- Factors relevant to vocal health
- Number of therapy visits (total visits, cancellations, no shows)
- Type of therapy visit (in-person, virtual)
- Therapy completion status

Employment and hormone replacement therapy were reported at the time of initial GAVT evaluation.

From here, participants were sorted into three groups for further statistical analysis: all therapy completed prior to the COVID-19 pandemic (**pre-COVID**), all therapy completed after the onset of the COVID-19 pandemic (**post-COVID**), and therapy split between pre- and post-pandemic onset (**mixed-COVID**).

**The number of telehealth sessions attended significantly predicted treatment completion: patients were 1.8 times more likely to complete therapy with each telehealth session attended. Our exploratory analysis determined that social support and hormone replacement therapy predicted therapy attendance, whereas socioeconomic factors of insurance provider and employment status significantly predicted therapy completion. These areas should be investigated further to provide important information on how clinicians can respond to barriers to accessing and completing gender-affirming voice therapy.**

## Results

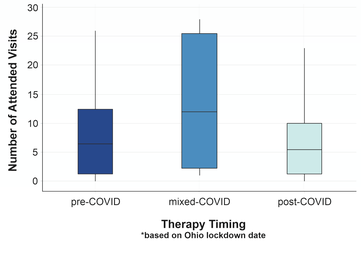
50 patients (43 transgender female, 3 transgender male, 4 nonbinary), aged 18-67 years (M=34.92, SD=12.32) were included in the study.

- **Racial demographics:** Asian (2%), Black (12%), multiracial (6%), other (2%), white (76%), NR (2%); No patients were Hispanic or Latino.
- **Insurance coverage:** No insurance (2%), Medicare (2%), Medicaid (36%), private insurance (46%), mixed coverage (14%)
- **Employment:** employed (60%), unemployed (30%), NR (10%)
- **Mental health factors:** yes (84%), no (10%), NR (6%)
  - Included psychological diagnoses and relevant symptoms, such as suicidal ideation. Gender dysphoria was not included.
- **Social support:** yes (80%), no (4%), mixed (12%), NR (4%)
- **Social transition:** yes (82%), no (4%), mixed (10%), NR (4%)
- **Hormone replacement therapy:** yes (84%), no (14%), NR (2%)
- **Gender-affirming procedures**: yes (46%), no (50%), NR (4%)
  - Included surgical and cosmetic procedures (e.g., hair removal)

*NR = not reported

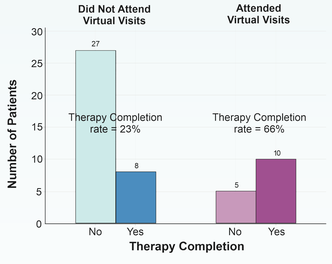
### Impact of Pandemic Timing on Therapy Attendance and Completion

A Kruskal-Wallis analysis showed no significant differences across treatment timing groups for attended visits (p=.374), rescheduled visits (p=.628), cancellations (p=.128), or no-shows (p=.139). A logistic regression prediction model also determined that treatment timing did not predict therapy completion (p=.530).




### Impact of Telehealth on Therapy Attendance

The number of telehealth sessions attended significantly predicted treatment completion (p=.026). As telehealth attendance increased, patients were 1.8 times more likely to complete therapy.




### Socioeconomic and Psychosocial Factors Predicting Therapy Attendance and Completion

A backwards stepwise regression found that social support (p=.021) and hormone replacement therapy (p=.016) significantly predicted the number of attended therapy visits.

- *Post hoc* analysis showed that patients without any social support had a greater number of attended visits compared to those with support.
- Patients receiving hormone replacement therapy had a significantly greater number of attended visits than those who were not.

The backwards logistic regression analysis found that insurance coverage (p=.016) and employment (p=.041) were significant predictors of therapy completion.

- Patients with private health insurance were 19 times more likely to complete therapy compared to those without private insurance.
- Those who were employed at the time of evaluation were 12 times less likely to complete therapy than those who were unemployed. Unemployed patients included full-time students and patients who became employed during GAVT, which may have influenced this relationship.

## Discussion

- GAVT attendance and completion did not vary significantly between pandemic timing groups. We suspect that the addition of telehealth services improved access to care and allowed patients to access treatment more readily and easily during the pandemic. This was observed through our findings that the number of telehealth visits predicted treatment completion: with each additional telehealth sessions attended, the likelihood of completing therapy increased by 1.8.
- The incorporation of telehealth services may increase access to GAVT by alleviating socioeconomic barriers to attendance, such as transportation. Telehealth may prove a viable alternative option for patients who feel socially unsafe in society, have severe symptoms of gender dysphoria, or have stressors and anxieties that impact their ability to attend visits. Nearly 84% of our patient population had a mental health factor (e.g., anxiety, depression) that could impact therapy attendance. The relationships between patient-perceived barriers and telehealth attendance should be investigated further.
- Patients that lacked social support attended more appointments, potentially due to receiving the support from affirming and competent clinicians. When seeking other healthcare services, many patients avoided appointments with medical providers after discriminatory experiences and lack of competence in treating transgender patients.[4] Therefore, it is vital that clinicians respond to specific barriers and learn to provide competent care to the transgender and gender diverse community.

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GENDER DIVERSITY PROJECT

## References