

INTRODUCTION

Transgender (Trans) is a generic term of the LGBTQIAP+ acronym (Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual, Pansexual, and more), representing people whose gender identity differs from their assigned sex at birth. To align the body to their gender identity, transgender people may need gender-affirming hormone therapy (GAHT) as an alternative. GAHT alters sex steroid profiles, inducing masculine characteristics in trans men (testosterone) and feminine characteristics in trans women (estrogen). The literature suggests a correlation between sexual dimorphism and a higher prevalence of pain conditions, such as temporomandibular disorders (TMD), in cisgender women, potentially due to estrogen levels and social stressors. The trans community in Brazil faces minority stress and experiences high rates of violence.

AIM

The aims of this study aims to investigate TMD, anxiety symptoms, and facial changes after initiating GAHT.

MATERIALS AND METHODS

Approved by Research Ethics Committee of FORP/USP (CAAE No. 02198018.5.0000.5419) and HCRP/FMRP (CAAE No. 59992522.1.3001.5440). The convenience sample consisted of trans women and trans men aged 18-55 years, recruited from the Gender Incongruence Outpatient Clinic.



Figure 1. Demonstrative diagram of the clinical examination stage of the DC/TMD protocol. Chi-square test (p<0.05)

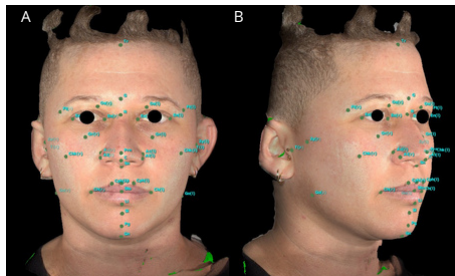


Figure 2. Reference points used in facial morphometric assessment, according to the protocol proposed by Ferrario et al. (1999) and adapted to the Farkas (1996) protocol.

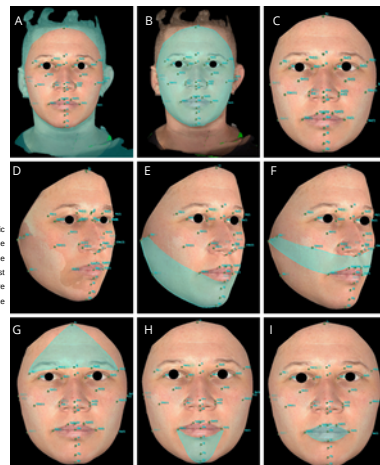


Figure 4. Graphic diagram of the demarcation of the areas of interest that were evaluated in the present study.



Figure 3. Image from the VECTRA® Portable System (Canfield Scientific, Fairfield, NJ, USA). Wilcoxon test (p<0.05)

RESULTS

- A total of 53 trans were recruited, with 45 accepting participation (24 trans men, 21 trans women). On average, participants reported 34 months without a dental check-up.
- The chi-square test indicated a statistically significant difference in the occurrence of TMD between genders (p<0.05).
- Men had a higher incidence of TMD at the initial moment and a reduction after 3 months in both genders, remaining higher among men (p<0.05). At six months, the reduction was more significant among trans men, and there was no disparity between genders according to statistics (p>0.05).
- Trans men showed more significant increases in facial volume at both 3 and 6 months p<0.05, gaining in all areas measured, whereas trans women exhibited reductions and gains in different areas.

Variable	Trans men (n=24)	Trans woman (n=21)	Trans men (n=19)	Trans woman (n=14)	Trans men (n=14)	Trans woman (n=12)
TMD	83.3%	47.6%	63.1%	28.5%	35.7%	33.3%
Pain	45.8%	23.8%	26.4%	14.3%	28.6%	8.4%
Local Myalgia	25%	23.8%	10.5%	14.2%	21.4%	8.3%
Headache to TMD	16.6%	4.7%	5.2%	0%	0%	0%
Referred pain	8.3%	0%	5.2%	0%	0%	0%
Arthralgia	25%	9.5%	21%	0%	21.4%	8.3%

Table 1. Occurrence of temporomandibular dysfunction based on DC/TMD at baseline, 3 months, and 6 months of gender-affirming hormone therapy, including the subdiagnoses of painful TMD.

GAD-7	Trans men (n=24)	Trans woman (n=21)	Trans men (n=19)	Trans woman (n=14)	Trans men (n=14)	Trans woman (n=12)
GAD>4	58.3%	76.1%	30.3%	50%	30.7%	50%

Table 2. Presence of signs of generalized anxiety, from the level of mild anxiety (TAG-4), at the beginning of the study, 3 months and 6 months

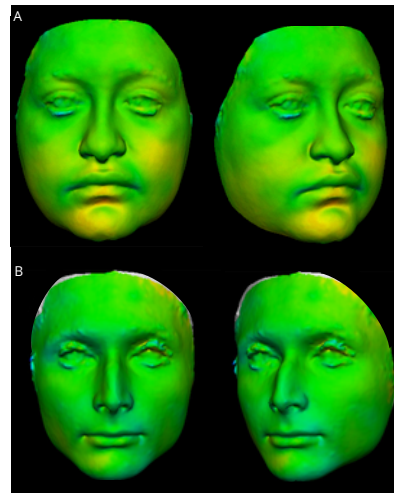


Figure 5. Color map of volumetric differences for trans men and women (A and B) from the volume difference between T0 and T2. The color scale represents a volumetric variation from -5 to 5 cm³. Red indicates volume gain, and blue indicates volume reduction in the different evaluated regions of the face.

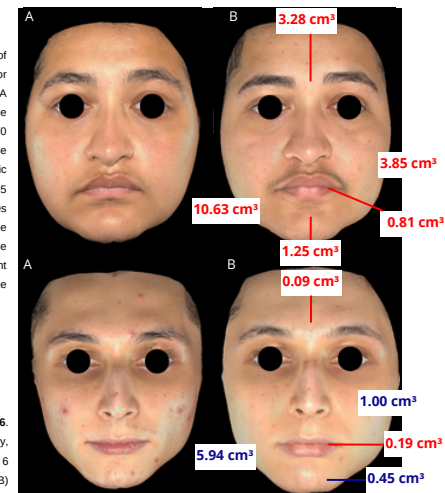


Figure 6. Stereophotogrammetry, before (A) and after 6 months (B)

CONCLUSIONS

The results reveal the impact of gender-affirming hormone therapy (GAHT) as a whole on reducing the prevalence of Temporomandibular Disorders (TMD), particularly in painful cases, among transgender people. The association between this reduction and a decrease in anxiety symptoms suggests a complex interplay within the biopsychosocial aspects. Integrated healthcare approaches for transgender people are needed, recognizing the interconnected nature of mental health, physical changes, and pain. Volumetric changes, especially in trans men, highlight the influence of GAHT on facial characteristics. These findings emphasize the necessity of spreading awareness and the need for inclusive attention from healthcare professionals.

RELEVANCE FOR PATIENT CARE

The decrease in TMD, especially pain, and reduced anxiety emphasize the biopsychosocial nature of pain. Patients benefited from specialized medical, psychotherapy, and dental care tailored to the transgender community. This success underscores the need for inclusive and respectful care, highlighting that sensitivity to gender and sexuality issues is crucial for a discrimination-free healthcare environment, ensuring optimal well-being for all.

REFERENCES

