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Masking Gender: The Impact of Facial Coverings on Gender Recognition

Coronavirus disease of 2019 (COVID-19) has drastically altered how we interact with each other. Video conferences and masking have increased focus on the upper facial third.[1] In the transgender community, this increased focus on the face could have substantial effects on facial gender recognition, leading to exacerbation of facial gender dysphoria.[2] Misgendering can compound the effects of transphobia experienced by this community, intensifying both discrimination and social isolation. With the increased challenges faced by the transgender community during the pandemic, including access to gender-affirming care and social support, worsening of gender dysphoria may have devastating outcomes.[3]

With worldwide quarantine requirements, limitations of domestic and international travel, and the necessity of personal protective equipment because of COVID-19, health care delivery has needed to adapt effectively and efficiently, especially in relation to gender affirmation.[4] We have seen a substantial increase in online and personal consultations with people from around the world interested in facial feminization surgery. During our consultations, we noticed a rising trend: members of the transgender community reported increased episodes of being misgendered and attributed this to the use of facial masks or coverings. An important question arose: does wearing a facial mask accentuate aspects of the face that are generally considered more masculine?

Studies on facial gender recognition point to a variety of aspects of the face that influence gender perception.[5] The gender markers of the middle and lower facial thirds are less influential behind a mask. In turn, because of facial coverings, attention is driven completely to eyes, brows, and hairline, converting the facial upper third into the main protagonist in facial gender recognition. The perception of this area has now become central to the interpretation of gender as a result of wearing masks.

Our research into how laypersons evaluate faces for gender markers supports these patient experiences. By using eye-tracking devices, we observed where people fixate and how they pattern their gazes on transgender women after facial feminization.[6] The results indicate that the forehead region receives significant focus when people evaluate faces and that the bone structure of the forehead (frontal bone) is fundamental to facial gender recognition (Fig. 1).

When using face masks, we are not only hiding a great deal of our faces, but we are driving attention and giving a greater role to the upper third of the face. Even if a person presents with feminine features of their middle and/or lower facial thirds, the use of a facial covering can exacerbate their facial gender dysphoria, as their feminine features are not accentuated when covered.

Forehead feminization surgery, when applied properly to appropriate patients, can have a substantial

Fig. 1. Clinical case before and after facial gender confirmation surgery. Procedures performed included forehead reconstruction by a coronal approach and rhinoplasty.

impact on the improvement of their gender dysphoria.[7] No set of operations can eliminate masculinity of the upper third of the face, but interventions can improve feminine contour and oftentimes can play an important role in facial gender recognition.[2]

The face mask is essential during the COVID-19 pandemic. We are not advocating removal of masks to accentuate feminine features of the face; we are only noting the role masking has in highlighting the upper third of the face and how this potentially contributes to misgendering in the transfeminine community.

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Interventional Technology in Plastic and Reconstructive Surgery

Robot-assisted surgery is feasible both for transoral surgery and for neck dissections, and although preliminary reports are positive, further research is required to determine its superiority over conventional approaches.[1] In other anatomical regions, studies are predominately on animals or cadavers: the feasibility of robotic flap harvesting and vascular microanastomosis has been demonstrated, in addition to multiple nerve exploration and repairs.[2] The main barriers to implementation are inadequate instruments (as these are often developed for thoracoabdominal surgery), increased operating times, absence of tactile feedback (although some argue that three-dimensional visualization makes up for this), and high costs and space requirements.

Use of three-dimensional models preoperatively has been shown to translate to decreased blood loss and operating time.[3] There are published case reports on its use in the preoperative planning of soft-tissue reconstruction, vascular mapping of perforators, and four-dimensional models for assessment of hand movements. The greatest challenge is representing small vessels on three-dimensionally–printed models, as they require reinforcing or break off immediately. This severely hampers the model's ability to represent the anatomy of finer structures, which is required for plastic surgery.

Virtual reality has been used for surgical planning, navigation, and training on a small scale.[4] In preoperative planning, a combination of three-dimensional eyewear and haptic hand devices allow trials of different approaches before tackling the surgical case in vivo. Virtual reality can also be used to assist with surgical