Psychological Effect of the COVID-19 Pandemic Among Facial Feminization Surgery Patients

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Abstract

BACKGROUND: The COVID-19 pandemic has disproportionately impacted mental health among the lesbian, gay, bisexual, transgender, queer community, with the delay of medical services as a factor. The pandemic’s psychological effect on the transfeminine community pursuing facial feminization surgery remains unstudied.

METHODS: Patients at our institution whose facial feminization surgeries were delayed due to the COVID-19 pandemic were included. A chart review collected validated, self-reported depression and psychological distress measures, as well as perceived facial femininity and desire for feminizing facial surgery prior to the pandemic. The data were compared to repeat measures during the pandemic (March–April 2020).

RESULTS: Thirty patients were included in the study, 11 of whom had repeat data. Respondents during the pandemic (compared to prepandemic) felt their face was more feminine (p = 0.026) and more likely to be perceived as feminine by others (p = 0.026). They indicated a lower desire to alter their appearance with surgery (p = 0.041). Depression and distress indices were greater during the pandemic (p = 0.0018 and p = 0.026, respectively).

CONCLUSION: This study is consistent with increasing depression and psychological distress among transfeminine individuals pursuing facial feminization surgery during the pandemic. The study revealed greater perceived facial femininity and a lower desire for surgery during the pandemic.

Introduction

The severe acute respiratory syndrome coronavirus 2 virus that caused the COVID-19 pandemic has throttled socioeconomic and health-care productivity, as well as affected population health negatively. Along with physical health, mental health has shown a population decline, with greater anxiety and depression measures during the COVID-19 pandemic.1,2

The transgender and gender-nonconforming population is affected disproportionately at baseline, with some estimates of suicidal ideation breaching 60%,3 and is thus at increased risk for mental health burden, particularly among additional pandemic stressors.4,5 Urgent work among the surgical community is needed to understand more fully and mitigate additional harm.

The pandemic postponed many nonemergent surgeries, including gender-affirming surgery, which contributes to greater psychological distress during the pandemic.6 Yet, facial feminization surgery (FFS) and other gender-affirming surgeries are medically necessary and can prevent suicide and improve safety.7 Comorbid mood disorder exists at baseline in as many as 42% of patients seeking FFS,8
with 78% of gender-nonconforming individuals reporting an increase in mental health disease. The pandemic's negative psychological impact is likely felt by those transfeminine patients pursuing FFS, yet there exists no evidence in the literature.

Our study was designed to characterize the psychological impact of the COVID-19 pandemic on transfeminine patients pursuing FFS. Anxiety and depression measures, as well as perceived facial femininity and desire for facial surgery, were assessed prior to and during the COVID-19 pandemic. We hypothesized anxiety and depression measures among patients pursuing FFS were higher during the pandemic (compared to the prepandemic) period.

Materials and Methods

PARTICIPANTS
Approval was obtained from the Kaiser Permanente Northern California Institutional Review Board for this retrospective study. Participants from our institution whose FFS was postponed as a result of hospital closure of nonurgent surgeries from March through April 2020 were included. Data prior to the pandemic were available for these participants. These participants were resurveyed by US postal mail in an effort maintain communication and provide resources, as postponement of gender-affirming surgery may be distressing.

MEASURES
Validated psychological measures from 2018 to 2019 were collected using a chart review of all participants. Responses to the Patient Health Questionnaire (PHQ-9) (α = 0.86–0.89),10 a self-reported survey measuring depression, and the Global Distress Scale (GDS) (α = 0.86–0.93),11 a self-reported psychological measure of distress (scale: 0, not at all; 1, several days; 2, more than half the days; 3, nearly every day), were analyzed. Higher scores among these surveys indicate greater depression (PHQ-9) and psychological distress (GDS). All participants completed the Facial Feminization Patient Questionnaire (FFPQ), a self-reported measure of perceived facial femininity and desire for feminizing facial surgery developed by our group (scale: 1, not at all; 2, somewhat; 3, moderately; 4, very much; 5, completely) during their FFS-preoperative appointment. One participant completed the prepandemic FFPQ in 2020 and was excluded from the analysis.

ANALYSIS
Prepandemic and pandemic data were compared. Because the FFPQ measures various topics and cannot be collapsed into a composite score, each FFPQ question was analyzed using a 1-tailed, paired sample t-test. The PHQ-9 and GDS data were found to be distributed normally by kurtosis and skew values between –2 and 2, and so were analyzed using independent sample t-tests as a result of a considerable number of missing prepandemic data. Significance was established at p < 0.05. All analyses were carried out using Microsoft Excel (version 2002) with the Analysis ToolPak add-in (Microsoft Corp., Redmond, WA).

Results

Thirty participants from our institution whose FFS was postponed because of hospital closure of nonurgent surgeries from March through April 2020 were eligible. One participant was excluded whose prepandemic data was obtained in 2020. Eleven of these participants returned surveys during pandemic delays while surgeries remained postponed indefinitely. One participant did not provide identifying information and was excluded from the paired analysis.

The FFPQ data reveal a significant effect among three of the questions. Pandemic (compared to prepandemic) responses showed greater agreement with “The appearance of my face is feminine” [mean, 2.4; standard deviation (SD), 0.8 vs mean, 1.9; SD, 0.7; t(9) = 2.2; p = 0.026] and “In public, I am confident my facial appearance is perceived as feminine” [mean, 2.2; SD, 1.1 vs mean, 1.8; SD, 0.8; t(9) = 2.2; p = 0.026], and lower agreement with “I would like to alter the appearance of my face (new surgery)” (mean, 4.5; SD, 0.7 vs mean, 4.8; SD, 0.4; t(9) = 1.96; p = 0.041 (Table 1).

PHQ-9 scores were significantly greater among the pandemic (mean, 11.3; SD, 4.4) compared to prepandemic (mean, 5.5; SD, 4.1) responses [t(21) = 3.3, p = 0.0018]. GDS scores were significantly greater among the pandemic (mean, 17.3; SD, 9.2) compared to prepandemic (mean, 10.2; SD, 7.3) responses [t(21) = 2.1, p = 0.026] (Table 1).

Discussion

The negative impact of the COVID-19 pandemic on psychological health is increasingly recognized and has been shown to affect marginalized
The psychological effect of the COVID-19 pandemic among facial feminization surgery patients is disproportionately. The lesbian, gay, bisexual, transgender, queer community—and, in particular, the transgender community—is faced with numerous, unique stressors that have been amplified during the pandemic. One factor is the delay of medical services, which has been shown to affect patients negatively; economic distress and loss of medical insurance may also contribute. Our study is consistent with general population studies during the pandemic, with greater psychological distress and depression seen among our study population. To our knowledge, our study is the first to investigate the impact of the pandemic (and subsequent FFS delay) on transfeminine individuals’ perception of their facial femininity prior to surgery. Somewhat paradoxically, the data indicate greater perceived facial femininity during the pandemic compared to pre-pandemic. Imposed social isolation and face coverings while in public may provide insight.

Decreased social contact and imposed face coverings during the pandemic may mitigate some aspects of the negative social response some transfeminine individuals endure in public. While in public, transfeminine individuals may face aggression and humiliation, and the resulting depression and anxiety. The psychological distress of this is measurable, and in part contributes to many transfeminine individuals’ pursuit of FFS. Imposed face coverings with a mask to protect others from COVID-19 viral exposure (severe acute respiratory syndrome coronavirus 2) may inadvertently reduce exposure to negative social responses. Facial features perceived as inconsistent with affirmed gender can be obscured easily in a socially acceptable—or, rather, public health-imposed—way. Masks have even been shown to make individuals less likely to be recognized, even when the observer is familiar with the individual. Thereby, distress incurred by social interaction may be reduced for these individuals.

Indeed, the psychological distress associated with negative social feedback is well studied. The societal effect on one’s psychology is evidenced by the

<table>
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<th>Questionnaire M = Mean</th>
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<td></td>
<td>n</td>
<td>M (SD)</td>
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<tr>
<td>PHQ-9&lt;sup&gt;a&lt;/sup&gt;</td>
<td>13</td>
<td>5.5 (4.1)</td>
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<td>GDS&lt;sup&gt;b&lt;/sup&gt;</td>
<td>13</td>
<td>10.2 (7.3)</td>
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<tr>
<td>FFPQ #1 I like my appearance</td>
<td>28</td>
<td>2.2 (1.0)</td>
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<td>FFPQ #2&lt;sup&gt;b&lt;/sup&gt; Feminine appearance</td>
<td>28</td>
<td>1.9 (0.8)</td>
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<td>FFPQ #3 Friend/family perception</td>
<td>28</td>
<td>2.3 (0.9)</td>
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<td>FFPQ #4 Social limitation</td>
<td>28</td>
<td>3.4 (1.1)</td>
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<td>FFPQ #5 Professional limitation</td>
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<td>FFPQ #6&lt;sup&gt;b&lt;/sup&gt; Perception by others</td>
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<td>FFPQ #7&lt;sup&gt;b&lt;/sup&gt; Desire for surgery</td>
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<td>FFPQ #8 FFS importance</td>
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<td>FFPQ #9 Body surgery importance</td>
<td>28</td>
<td>3.9 (1.5)</td>
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<sup>a</sup>p < 0.01.
<sup>b</sup>p < 0.05.

PHQ = Patient Health Questionnaire; GDS = Global Distress Scale; FFPQ = Facial Feminization Patient Questionnaire; Pre representing "pre-pandemic" and Pandemic representing "pandemic". PHQ-9 = 9-item Patient Health Questionnaire; FFPQ #1 = “I like the appearance of my face”; FFPQ #2 = “The appearance of my face is feminine”; FFPQ #3 = “My friends and loved ones perceive my face as feminine”; FFPQ #4 = “My current facial appearance limits my social activities”; FFPQ #5 = “My current facial appearance limits my professional activities”; FFPQ #6 = “In public, I am confident my facial appearance is perceived as feminine”; FFPQ #7 = “I would like to alter the appearance of my face (new surgery)”; FFPQ #8 = “Facial feminization surgery is/was important to my ability to live as a woman”; FFPQ #9 = “Body surgery is/was important to my ability to live as a woman”; FFS = Facial Feminization Surgery; SD = Standard deviation.
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social self-preservation theory, which describes distress (shame, lower self-worth) resulting from an attack on the “social self,” with associated cortisol elevation. Conversely, when social interaction is more consistent with one’s felt self, self-perception and self-esteem—which are linked closely with and influenced by social interaction—follow suit.

There exists an important caveat to such a rationale, as work showing the upper facial third, a portion not typically covered by a face mask, is the facial segment with greatest impact on gender perception. In addition, improved perception of facial femininity does not seem congruent with greater depression and distress measures. According to the PHQ-9 results, prepandemic average scores increased from “mild depression” in prepandemic responses to “moderate depression” during pandemic surgery delays. The GDS scores were also elevated significantly, indicating increased social isolation, anxiety, and decreased productivity. In the case of FFS, surgery delays are delays in patients’ transition to their gender-affirmed self, protracting a state of incongruence. The data further bolster the complicated network of factors contributing to mental health in the transgender community during the pandemic.

Our study is limited by several factors. The depression and distress analyses were limited by unpaired data, requiring independent t-testing. The data are nominal, and our rationale for greater perception of facial femininity remains speculative. Thus, additional etiologies should be pursued for clarification. For instance, patients may fear undergoing surgery during the COVID-19 pandemic and, as a coping mechanism, subsequently rationalize their facial appearance while their surgery is delayed. Future work may focus on qualitative measures to understand more fully the underlying mechanism for such shifts in perception.

Conclusion

Our study is consistent with increasing psychological distress among transfeminine individuals pursuing FFS, with significantly greater anxiety and distress measures during the COVID-19 pandemic. To our knowledge, this study is the first to look at the impact of the pandemic on transfeminine individuals’ self-perception of facial femininity. Our study revealed greater perceived facial femininity and a lower desire for surgery during the pandemic. Imposed social isolation and the use of face coverings while in public may provide insight into these findings. The findings inform potential pandemic-related surgery stoppages, and highlight the need for increased mental health and social support for these individuals.

REFERENCES

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