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The Potential for Telemedicine to Reduce Bias in Patients Seeking Facial Plastic Surgery

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Abstract

Telemedicine use among otolaryngologists–head and neck surgeons and facial plastic and reconstructive surgeons has accelerated as a result of the COVID-19 pandemic. Yet, it is unclear what impact the increased adoption of telehealth will have on the doctor-patient relationship, patients' perceptions of individual practices, and the likelihood of patients proceeding with the next steps toward surgery. While an understanding of these complex questions is imperative for all otolaryngologists, it is extremely important for facial plastic surgeons who focus on elective procedures, particularly cosmetic/aesthetic operations. The use of telemedicine has the potential to reduce bias among patients seeking facial plastic surgery, especially cosmetic procedures. As reports of this phenomenon are anecdotal thus far, we recommend further study into the specific criteria that patients consider when selecting a facial plastic surgeon.

Keywords

telemedicine, telehealth, bias, patient bias, surgeon selection, choosing surgeon, COVID-19, virus, pandemic, public health, coronavirus, SARS-CoV-2

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The novel coronavirus disease 2019 (COVID-19) pandemic has transformed the way that otolaryngologists interact with their patients, including the widespread adoption of telemedicine.¹⁻⁴ As the epidemic has developed, facial plastic and reconstructive surgeons (FPRSs) have focused attention on the implications of telemedicine use for the field of plastic surgery.^{2,5} In the facial plastic surgery literature, publications have identified benefits (eg, improved access for patients, health care cost savings, physician wellness, patient satisfaction) as well as limitations (eg, high startup costs, medicolegal concerns, patients lacking access to the appropriate technologies).^{1,2,6-8} Yet, as the COVID-19 epidemic and telemedicine utilization evolve, it is unclear how the pervasive use of this technology alters the doctor-patient relationship, patients' perceptions of individual practices, and, finally, the likelihood of patients proceeding with the next steps toward surgery. While an understanding of these questions is important for all otolaryngologists, it is

extremely important for FPRSs who focus on elective procedures—especially cosmetic/aesthetic operations.

The specific criteria that patients consider when selecting a plastic surgeon have not been well studied. A search on PubMed (National Library of Medicine) revealed little on this topic, with the exception of some studies regarding gender bias among patients when choosing a plastic surgeon.⁹ A Google search with the query “How to choose your plastic surgeon” resulted in several websites/blogs designed for a lay audience, many of which highlighted similar themes.¹⁰ For the most part, these websites highlight that patients should consider the importance of “interactions with staff” as well as “impressions of the office space” when selecting a surgeon, particularly with aesthetic practices. The importance of these characteristics explains why many FPRSs—specifically those focused on cosmetic surgery and/or in private practice—invest heavily in the appearance of their office and the demeanor and presentation of their office personnel.¹⁰ Similarly, allocating resources toward practice websites, social media, and marketing is common among many FPRSs. Yet, for FPRSs who are employed by larger multispecialty groups, tertiary centers, or universities or are new to practice, financing and crafting their ideal office/practice aesthetic and atmosphere is limited by institutional norms, budget, and/or union concerns. This may be a disadvantage when it comes to booking patients for surgery, as ambience (or the lack thereof) may alter the perception of true surgical skill and outcomes.

Virtual consultations may reduce the impact that a physical office and office staff have on the selection process;

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virtual visits create a direct interaction between the physician and the patient, often with less stringent time constraints. With telemedicine visits, the impressions of patients are less likely to be consciously or subconsciously swayed by peripheral factors—such as office appearance, staff behavior, wait times, parking, and scheduling issues—shifting more control to the individual surgeon. Moreover, virtual consultations potentially enhance convenience for patients and surgeons.⁶ While in-person patient visits are handicapped by several factors (eg, location, time of day, staff logistics), telemedicine visits can feasibly occur at any time, from any location. For example, if desired, visits could be conducted outside of typical work hours, as physicians need not be reliant on ancillary staff.

While it may be counterintuitive at first, by simplifying visits and emphasizing the interaction between physician and patient, in certain situations virtual consultations may actually enhance the relationship between physicians and their patients. Moreover, virtual visits may be conducted without face coverings and thus augment the rapport and comfort built between patient and physician. Anecdotally, many plastic surgeons underscore that despite positive interactions with their patients, some patients are unwilling to pursue surgery in certain settings (eg, tertiary or academic centers, geographically distant areas) due to perceived stigmas and other concerns. Virtual consultations shift the focus away from the marketing-related elements of FPRS practices and onto the patient-surgeon interaction.

Of course, virtual medicine precludes a comprehensive physical examination and detailed preoperative photographs. This may affect insurance preauthorization for functional operations, although there has been substantial progress made in the domain of telemedicine reimbursements.² Even before the COVID-19 outbreak, many FPRSs were already using virtual consultations to schedule surgery for select patients (eg, patients in geographically distant locations). Understanding the outcomes and ethical implications of booking patients for surgery based on virtual visits is another area of telemedicine that warrants further study.

To date, the effect of telemedicine on FPRSs has been poorly studied. Studies must examine the effect of virtual consultations on physician practices and patient care while working to identify shortcomings with potential solutions. To our knowledge, there are no reports focusing on how the increased utilization of telemedicine will affect patients' perceptions of FPRS practices, the doctor-patient relationship, and the likelihood of their proceeding with aesthetic surgery. Given our anecdotal experience thus far, we contend that virtual consultations will likely affect the way that patients choose a plastic surgeon. Telemedicine increases access and, despite being in silico, may improve the interaction and relationship between surgeon and patient, obviating or reducing the impact of in-office marketing elements while possibly heightening the importance of the practice's virtual elements (eg, website, marketing). Overall, the increased utilization of telemedicine in the field of facial plastic and reconstructive surgery is a promising solution to reduce bias among patients seeking facial plastic surgery, especially aesthetic procedures. Ultimately, it remains to be seen whether

virtual consultations will retain the same impact as in-person encounters when patients select a surgeon; we recommend future data-driven studies in this domain.

Author Contributions

Parsa P. Salehi, initial inquiry, concept and design, acquisition, analysis and interpretation of data, drafting of the manuscript, critical revision of the manuscript for important intellectual content, critical analysis of literature; **Brian J. F. Wong**, concept, analysis and design, and critical revision of the manuscript for important intellectual content; **Babak Azizzadeh**, concept, analysis and design, and critical revision of the manuscript for important intellectual content.

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