


Assessment of Patient Experiences in Otolaryngology Virtual Visits During the COVID-19 Pandemic

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Abstract

This study evaluates the patient experience during virtual otolaryngology clinic visits implemented during the coronavirus disease 2019 (COVID-19) pandemic. Patient satisfaction surveys were queried from January 1, 2020, to May 1, 2020, for both telehealth and in-person visits. A descriptive analysis of the question responses was performed. There were 195 virtual and 4013 in-person visits with surveys completed in this time period. Ratings related to provider-patient communication were poor for virtual visits. Telehealth has become the new norm for most health care providers in the United States. This study demonstrates some of the initial shortcomings of telehealth in an otolaryngology practice and identifies challenges with interpersonal communication that may need to be addressed as telehealth becomes increasingly prevalent.

Keywords

telehealth, patient satisfaction, patient experience, virtual medicine, telemedicine, COVID-19

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With the coronavirus disease 2019 (COVID-19) pandemic, otolaryngologists, among other specialties, implemented telehealth strategies to adapt to physical distancing guidelines.¹⁻⁹ Previous studies demonstrated telehealth to be cost-effective and useful.¹⁰⁻¹⁴ Given the perceived utility of remote care under these circumstances, policy changes have readily promoted its increased use across specialties.¹⁵

Implementing telehealth on a wide scale presents unique challenges to otolaryngologists given routine use of endoscopy and microscopy.¹⁶ However, recent efforts have demonstrated the promising potential of new techniques and tools to evaluate these patients.¹⁶⁻²⁰ As telehealth inevitably becomes prevalent from improved technological access and response to the pandemic, there is an emerging knowledge

gap of how these rapidly evolving practices are addressing patient needs and concerns.²¹

The main objective of this study was to assess the virtual visit experience from the patient's perspective relative to more traditional in-person clinic visits in the same time period.

Methods

The National Research Corporation is currently used to administer and collect the Clinician and Group Consumer Assessment of Healthcare Providers and Systems (GC CAHPS) survey across outpatient clinics.²² This has continued during the recent conversion to telehealth, although with slight alterations to suit the different platform. Providers have used Doximity Dialer²³ videoconferencing software for most visits, with Facetime²⁴ as an alternative. Virtual visit time slots were doubled compared to in-person time slots to allot for technological issues and potential inefficiencies in communication. Cedars-Sinai internal institutional review board exemption was granted for this study since no personal health information was accessed. Patient satisfaction metrics were queried from January 1, 2020, to May 1, 2020, for both telehealth and in-person visits for the 16 otolaryngology providers in our practice. Questions contained in the respective surveys and mean scores are shown in **Table 1** and **Table 2**. Data from individual surveys were not available, so standard deviation and error were not calculable. Statistical analysis between telehealth and in-person

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Table 1. Virtual Visit Patient Satisfaction Survey Results.^a

Question	No.	Score
Did this provider seem to know important information about your medical history?	173	64.7
Did this provider listen carefully to you?	186	82.3
Would you recommend this provider's office to your family and friends?	176	85.8
Did this provider give you easy to understand information about these health questions or concerns?	188	75.5
Using any number from 0 to 10, where 0 is the worst provider possible and 10 is the best provider possible, what number would you use to rate this provider?	178	84.8
Method of connecting to the provider was easy.	192	65.6
Overall quality of the video or call.	191	68.1
Overall trust for the provider.	184	81.5
Amount of waiting before talking to the provider.	195	66.7
Know what to do if more questions.	181	65.2

^aFor each question, patients were asked to rate their experience from 0 to 100.

Table 2. In-Person Visit Patient Satisfaction.^a

Question	No.	Score
Did this provider seem to know important information about your medical history?	4013	87.6
Did this provider listen carefully to you?	4013	95.9
Would you recommend this provider's office to your family and friends?	4013	94.5
Did this provider give you easy to understand information about these health questions or concerns?	4013	95.1
Using any number from 0 to 10, where 0 is the worst provider possible and 10 is the best provider possible, what number would you use to rate this provider?	4013	89.9
Did this provider spend enough time with you?	4013	93.7
Did this provider show respect for what you had to say?	4013	96.2

^aFor each question, patients were asked to rate their experience from 0 to 100.

visits was also not calculable, so a descriptive analysis of the results was performed.

Results

During the study time period, there were 195 virtual visits and 4013 in-person visits with survey results. Results are displayed in **Tables 1** and **2**, respectively. **Figure 1** shows results from overlapping questions.

Despite allotting double time per visit, scores across the survey were surprisingly low in certain categories. Ratings for ease of connection to the provider (65.6), video quality (68.1), wait times (66.7), knowledge of medical history (64.7), and patient understanding of what to do for follow-up questions (65.2) were poor for virtual visits. Ratings for trust in the provider, provider listening, likelihood to recommend, and overall rating were higher.

Discussion

Physical distancing is critical to curtail the spread of COVID-19.²⁵ Many providers have transitioned most of their clinic visits to virtual visits,²⁶ and these efforts have been bolstered by policy changes by reimbursing entities.²⁷ With so many providers now relying on this method to

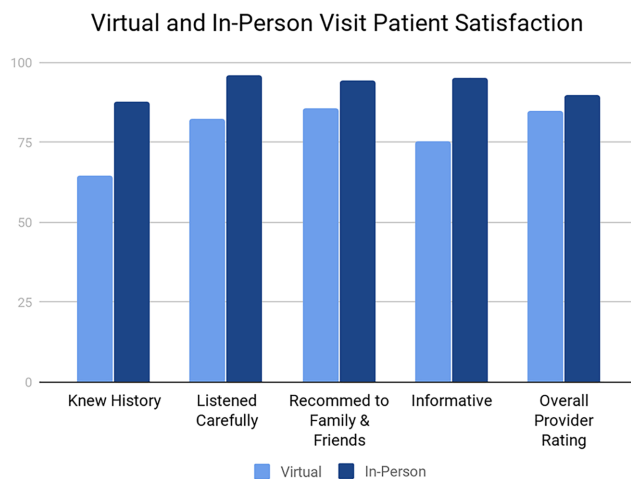


Figure 1. Virtual and in-person visit patient satisfaction survey results for overlapping questions.

deliver care, it is critical to determine the efficacy of these services during and after the pandemic.²⁸

Best practices must be established to optimize quality of care in the remote setting.²⁹ There is a particular need to evaluate the subjective patient experience during these

virtual visits to determine its impact on the patient-physician relationship.²¹ Potential harms of relying on virtual visits include diagnostic challenges from the provider's perspective but also suboptimal interpersonal communication. Although previous studies have described positive patient satisfaction for telehealth services, its applicability in otolaryngology is less known.³⁰

In this study, we report poor ratings on questions relevant to interpersonal communication from patients who underwent virtual visits. Although speculative at best, we postulate that the patient's subjective experience was influenced negatively by this introduction of telecommunication. Despite doubling the length of visits, patients noted difficulties in communication and longer wait times for their visit. The quality of the video was rated quite low by patients and reflects several variables, including the Internet speeds of each individual and the server speed of the platform's server. Audio-video lag is especially frustrating during provider-patient conversation, resulting in an individual talking over the other or missing important details. Patients were not queried about Internet speeds, but this is a consideration that might affect the patient experience. Wait times were also poorly rated for video visits. Virtual check-in to complete various forms may take longer for patients and staff to accomplish. In addition, many of these issues may be a result of providers initially adopting telehealth without formal training or equipment and adapting to these new changes quickly. Over time, it is reasonable to expect patient satisfaction to increase as technical difficulties are optimized.

As many otolaryngologists continue telehealth in their practices moving forward, the need remains to determine how these new practice patterns affect the patient experience. Despite the noted advantages that telehealth provides, we observe that there is room for improvement with regards to patient satisfaction in delivering care remotely.

Our study is limited to the experiences of the providers and patients at our single institution during this limited time period, and therefore selection bias may skew the results of this initial report. In addition, statistical analysis could not be performed to directly compare virtual and in-person visits. Future work should elucidate whether patient attitudes change over time as telehealth becomes a more familiar medium.

Conclusion

Due to the COVID-19 crisis, telehealth has abruptly become the new norm for most health care providers in the United States. This study demonstrates some of the initial shortcomings of telehealth in an otolaryngology practice.

Author Contributions

Kyohei Itamura, data interpretation, initial manuscript creation, manuscript revision; **Franklin L. Rimell**, data collection, data interpretation, manuscript revision; **Elisa A. Illing**, data interpretation, initial manuscript creation, manuscript revision; **Thomas S. Higgins**, data interpretation, initial manuscript creation, manuscript

revision; **Jonathan Y. Ting**, data interpretation, initial manuscript creation, manuscript revision; **Matthew K. Lee**, data collection, data interpretation, manuscript revision; **Arthur W. Wu**, study concept creation, data collection, data interpretation, initial manuscript creation, manuscript revision.

Disclosures

Competing interests: Thomas S. Higgins, Sanofi/Regeneron (consultant, speaker), Optinose (investigator/research grant, speaker), Genentec (consultant), Gossamer (investigator/research grant), and Intersect (investigator/research grant); Arthur W. Wu, Sanofi/Regeneron (medical advisory board, speaker), Optinose (investigator, speaker), and Gossamer (investigator).

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