Introduction

Telemedicine use is growing rapidly; telemedicine spending is projected to increase from approximately $240 million in 2014 to $2.2 billion in 2018 (1). This rapid increase in spending is fueled by healthcare providers’ belief that telemedicine services enable clinicians to provide highly efficient and high-quality clinical encounters without compromising patient experience. By investing in telemedicine initiatives, academic medical centers hope to improve access, convenience, and the quality of their clinical encounters.

While enthusiasm surrounds telemedicine, successful implementation of any intervention requires an evaluation of the patient’s perspective. For example, there are many
Methods

At prior, it was determined that we would conduct interviews with at least 20 patients because we expected that we would reach thematic saturation by then. Of the 35 patients who completed a video visit in the Department of Urology at Michigan Medicine, 20 were randomly selected over the course of our study period. They were asked if they would be willing to share their experience. While we ask questions regarding the overall experience, we also dig deeply to learn about the enrollment process, technology issues and other topics that are related to our patient's responses were too short or not sufficiently informative. Patients may initially be excited to try a video visit, their experience may not meet their expectations. For instance, patients may consider video visits too short or feel that they were not able to have all of their questions answered. It is also plausible for patients to find that rapport with their physician is because of technical issues. Prior research exploring patient perspectives around video visits has found that patients self-report interest and satisfaction with video visits (7-10). In this study, we build on this quality improvement project to provide hospital administrators at other academic medical centers more nuanced insight into patient experiences with video visits.

Results

Upon completing the video visit, each patient was asked three questions, listed below, along with probes if the patient's responses were too short or not sufficiently informative:

- How was your experience with our patient education instruction sheet helpful?
- What device did you use?
- Were there any difficulties in downloading the app?
- Would you want to do a video visit again?
- Did you feel as though you had enough time to discuss your issues?
- Would you have any feedback to improve video visits?

In addition, patients were also asked to provide a satisfaction score between 1-10, 1 being extremely dissatisfied and 10 being extremely satisfied. These interviews were audio-recorded and transcribed for analysis. The patient's enrollment officer prior to their visit to provide assistance with downloading the application.

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reported a score of 10, 1 reported a score of 9, and 1 patient reported a score of 8.”

From the interviews, three key themes emerged: easy accessibility to the video visit, quality of the visit itself, and overall comparison to an in-clinic visit.

Ease of use

“Overall, most patients were able to access the video visit with little to no issues with two requiring additional assistance.” Several patients found the patient enrollment officer very helpful with downloading the Epic application. Others who considered themselves more tech-savvy were able to download the application without the enrollment officer’s help, but found the phone call courteous. One specific patient said that the “patient handout material was very helpful......I liked having the materials and person calling......it was quick and easy.”

However, there were a few complaints with the Epic application. One patient commented that he felt the instruction sheet did not match the format he was seeing on his screen; we believe this was related to the size of his device screen. Another patient noted that he initially had trouble downloading the application on an Android device because the enrollment officer was providing instructions for an iOS device.

Quality of the video visit

“Almost all patients were impressed and pleased with the quality of their video visit. There was no criticism regarding the picture-quality of the video visit; however, one patient had issues regarding the audio.” This interviewee noted that the volume of the visit was quite low despite the device being on maximum volume. The patient was unable to discern which end of the two-way audiovisual feed was responsible for the lack of sound.

As a whole, it was apparent that one's quality of video was dependent on the Internet connection. Any drops or low-speed connections led to a slight lag between the video feed with the clinician and the audio. This lag did not appear to hinder the overall video visit, though, and patients who experienced it did not find it to negatively affect the visit itself.

Comparison to an in-clinic appointment

“All 20 patients found the video visit to be much faster than an in-clinic visit, as they could avoid the drive and overall wait-time.” Unlike with in-clinic visits, they were able to carry on uninterrupted with their day prior to and after the video visit. Patients with children at home especially found the video visit to be more convenient.

Through these patients had an existing patient-clinician relationship, a few patients expressed that video visits would be a good option for many standard clinic visits with their physician. One patient commented, “Dr. Name Redacted has good patient rapport. He is willing to go to great gains to explain whatever needs to be explained and felt that I was dealing with the same doctor on a video conference as I was in person.” However, some patients said they would not like a video visit for new patient encounters (Table 1).

Discussion

Our study found that, overall, patients were pleased with their video visit experience and its enrollment process. In many cases, patients preferred a video visit over an in-clinic visit for their follow-up appointment. However, through these interviews, we learned details about our workflow which would not have been evident without interviews. The findings suggest that video visits can be a suitable alternative to in-clinic visits at academic medical centers, but it is important for health systems to obtain direct feedback from patients to identify issues (e.g., sound quality, workflow issues).

“Our findings are consistent with the research of other investigators who have demonstrated that patients find video visits to be both convenient and satisfactory (11-15). In addition, our interviews provided important feedback that was used to modify our existing program. For example, we now use a modern iPad with high-quality light and sound within a clinic workspace as the study demonstrated patient experience relying heavily on the perception that a telemedicine appointment be no different than one in-clinic.” Furthermore, our patient enrollment officer now has instructions that are specific to multiple models of smartphones. We would not have considered these modifications unless we had in-depth information directly from patients.

Our study has several limitations. First, the patients interviewed were limited to the Department of Urology at Michigan Medicine. While this narrows the generalizability of our study, the findings were not specific for any urological conditions. Second, all of the patients in our study were treated by a single urologist and, therefore, it is possible that their responses were biased by their relationship with the
urologist. Third, our study focused on established patient visits. Therefore, the results may not be generalizable to new patient video visits. Finally, we interviewed a small number of patients. However, near the end of our study, we found that we had reached thematic saturation and we did not feel the need to interview additional patients with the same questions. “It should also be accounted for that video visits do not allow for physical examinations and that any issues warranting this should be addressed in at an in-clinic appointment.”

These limitations notwithstanding, the findings are useful to physicians and hospital administrators who are in the process of implementing video visits for urology and other subspecialties services. Moving forward, research in this area should focus on the experience of patients who complete new patient video visits (as opposed to established patient visits). In addition, larger-scale qualitative research projects can assess the association between patient experience and factors such as age, culture, and distance to providers. While the use of video visits (and other forms of telemedicine) have the potential to transform the delivery of health care, a robust understanding of the patient perspective on the technology is essential to ensure a high-quality experience for all patients.

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None.

Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

References


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