

Research Article

Provider Perceptions Toward Telemedicine and Sensitive Exams: Impact of Conducting Sensitive Exams online and Sharing and Uploading Sensitive Media

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Received: May 07, 2024**Accepted:** May 31, 2024**Published:** June 07, 2024**Abstract**

Background: Telemedicine emerged as vital resource for patients to access medical care during the COVID 19 pandemic. This rapid adoption revealed many challenges of which one is the sensitive exam.

Objective: This study's purpose is to determine the practice patterns of providers using telehealth services to complete sensitive exams. From these results suggestions for what future best practices may be determined.

Design: A mass survey regarding patient comfort with chaperone use and telehealth and with casual patient behaviors and telehealth was sent out to invited participants. Participants included providers at the Primary Care, Family Medicine, and Internal Medicine departments at Loyola University Medical Center.

Results: 42 participants responded. These respondents were primarily white female physicians. Overall clinicians did not feel comfortable performing any physical exam via telehealth. They preferred to defer sensitive exam and review of sensitive materials to in person encounters. Respondents also viewed themselves as conservative while rating most interactions with patients as casual.

Conclusion: In general providers feel less comfortable performing any exam virtually and that telehealth increases discomfort with interacting with any sensitive material. Further research into its use and development of standards particularly regarding the sensitive exam

Keywords: Telehealth; Sensitive Exams; Attitudes; COVID 19

Background

Telehealth has been a part of healthcare since about 1996 [1]. First utilized by the VA for consultations in remote areas. Its offer of convenience, improved access and increased patient satisfaction has been promising to transform healthcare. It was not until computers and smartphones began being a part of daily life that this promise began to become a reality [1-2]. Yet still in a national survey in 2014, only 15% of family physicians reported using telemedicine [3]. It was not until the COVID-19 pandemic that there was widespread adoption of telehealth practices [4]. Several studies show that telemedicine is cost effective while maintaining positive outcomes [5-7]. While providers have adopted and adapted to telehealth professional organizations have been lagging behind in setting standards and guidelines for this medium [8].

Some institutions, like the Society of Teachers of Family Medicine, have created Telemedicine Modules to help teach providers about telemedicine. And resources have been created to help providers feel more comfortable performing various physical exams via telemedicine. Some exams can be transitioned to a telemedicine (such as orthopedics) [9]. One aspect of physical exam that presents a unique challenge to the telehealth model and to education of telehealth is sensitive exams. Exams of the breast, genitals, and rectum have always presented challenging to providers from a patient comfort and medicolegal perspective. Overtime an emphasis has been placed on chaperoning these exams. The chaperone offers some measure of comfort to the patient and some legal protection to the provider [10-11]. While this has become somewhat standard in the office, this is not always feasible on telehealth [12]. The VA in their

Telehealth Manual state that for gender specific procedures and exams a female chaperone is present, but this was prior to the pandemic, when telemedicine visits were mainly used for consultations of patients who were at a VA hospital institution, rather than patients being at home, work, or in public [13]. This has left providers to craft their own practice in a relatively undifferentiated time.

Patients on the other hand like several things about a telemedicine visit convenience, lack of travel/time spent in the visit, but also have their own concerns, such as difficulty surrounding physical exams [1]. Similarly, telemedicine also allows for asynchronous communication with patients. Some patients find this beneficial because especially for dermatologic conditions they can take a photo and upload it to their provider’s telemedicine web portal. Medical-legally most web portals have a statement when patients sign up regarding anything written/uploaded via the web portal will be in the patient’s chart. But at this time, there does not exist a protocol for how the provider should handle photos of sensitive areas, nor is their guidance for patient’s on how to upload images to prepare providers for what they will be seeing.

It is the aim of this study to determine the practice patterns of providers using telehealth services to complete sensitive exams in hopes of making suggestions for best practice.

Methods

A voluntary survey which included questions regarding patient comfort with chaperone use and telehealth and with casual patient behaviors and telehealth was sent out to invited participants via email using an online survey platform. The survey-maintained anonymity, but the email contained information to consent participants. After reading the email, participants consented to participate by clicking the survey link, and those who did not consent did not complete the survey.

Invited participants included Loyola Departments of Primary Care, Family Medicine, and Internal Medicine (n of 345 IM=253, PC = 92). After about 1 month, due to low response rate, the email with survey link was sent out again. Any Loyola physician, physician’s assistant, or nurse practitioner with internet access and an email in one of the three listed departments were eligible to participate.

Analysis included using SAS Studio for data management, descriptive, and analytical statistics. The frequency counts for all descriptive data were obtained. ANOVA tests were used to determine the relationship between provider comfort level conducting the telehealth visits when the situation included a sensitive exam. All tests were calculated at the alpha=.05 level, in conjunction with estimated 95% confidence intervals.

The research study was approved by the Loyola University Chicago Health Sciences Campus Institutional Review Board (IRB).

Results

In total 42 of the 482 providers comprising Loyola’s Departments of Primary Care, Family Medicine, and Internal Medicine completed the survey. The response rate was 8.7%. Overall, respondents to the survey identified themselves as physicians (85.71%). The majority were in practice for at least 10 years (61.91%). Table 1.

Most participants were female (69.05%). The majority (66.67%) were greater than 42 years of age. The group predomi-

Table 1: Demographics of Respondents.

		N	Percentage
Degree	Physician (MD/DO)	36	85.71%
	Nurse Practitioner	6	14.29%
Age	31-41	14	33.33%
	42-54	17	40.48%
	55+	11	26.19%
Gender	Male	13	30.95%
	Female	29	69.05%
Race	White	35	83.33%
	Hispanic		
	Black/African American		
	Native American		
	Asian	5	11.90%
	Middle Eastern	1	2.38%
	Multicultural		
Years Out From Training	Other/Not listed	1	2.38%
	1-5 Years in Practice	9	26.19%
	+5-10 Years in Practice	7	19.05%
	10-20 Years in Practice	10	23.81%
	20+ years in Practice	16	38.10%
	Retired or No Longer in Clinical Practice		
Specialty	Family	14	33.33%
	Internal Medicine (General and Primary Care)	15	35.71%
	Pediatrics	2	4.76%
	Internal Medicine Specialty	9	21.43%
	Other	2	4.76%
Modesty	Very Conservative	2	4.76%
	Conservative	20	47.62%
	Neutral	14	33.33%
	Liberal	6	14.29%
	Very Liberal		
Casualness with Patients	Very Casual		
	Casual	19	45.24%
	Neutral	18	42.86%
	Formal	5	11.90%
	Very Formal		
Experiences in Telehealth	started around April 2020 (1)	33	78.57%
	1-12 mo. Experience (2)	8	19.05%
	< 1 mo. Experience (3)	1	2.38%
	Nurse Practitioner	6	14.29%
Age	31-41	14	33.33%
	42-54	17	40.48%

nantly identified as white (83.33%). Table 1.

Participants primarily identified as conservative (52.38%) or neutral (33.33%). In provider interactions with patients, most providers felt they were overall casual (45.24%) or neutral (42.86%). The majority started using telehealth with the start of the COVID19 pandemic (78.57%). All respondents had a web portal that allowed patients to upload pictures. A majority had

had experiences with patients showing them photos of sensitive areas in the clinic (54.76%). A plurality had had experiences with patients uploading photos of sensitive areas to the web portal (45.24%).

Provider comfort in various situations was also assessed, Table 2. The majority of respondents were neutral about performing a physical exam via telehealth (57.14%). The next largest group felt uncomfortable or very uncomfortable (26.19%). Only 16.67% felt comfortable. None felt very comfortable. Most felt uncomfortable or very uncomfortable performing a sensitive exam via telehealth (59.37%). Comparatively, almost 83% of participants felt at least comfortable performing a sensitive exam in the clinic. Similarly, a little over half of providers were uncomfortable or worse with patients uploading photos of sensitive areas to the web portal for evaluation (52.38). Whereas only 38.1% identify as feeling uncomfortable or worse if shown a photo of a sensitive area in the clinic without a chaperone present.

If a telemedicine visit required a sensitive exam 20 out of the 42 (47.62%) of respondents would rather defer to an in-office exam as opposed to continuing via telehealth. Of those who

would still perform the exam via telemedicine responses were split regarding the use of chaperone. Some respondents identified a preference for the patient providing a chaperone. Others identified a preference for having a chaperone present with the provider. These responses were further split depending on if patient and provider genders were concordant or discordant.

Only 10 (23.81%) respondents had an actual experience using telehealth to complete a sensitive exam. Most did not have advance notice of the need for a sensitive exam (90%). For those 10 providers, 8 did not use a chaperone. The reasons for not using a chaperone varied from gender concordance with the patient, the patient already having a chaperone present, patients showing the sensitive area without warning and lack of staff availability to chaperone the provider.

A one-way ANOVA model to compare the age of providers with several variables studied, two statistically significant relationships with age were found. Older providers were more likely to feel comfortable performing a sensitive exam in clinic. Older providers were more likely to identify themselves as being more conservative in their modesty.

Table 2: Comfort levels of Providers in various Situations involving sensitive exams.

Situation	Very Uncomfortable	Uncomfortable	Neutral	Comfortable	Very Comfortable
physical exam via telehealth	4 (9.52%)	7(16.67%)	24(57.14%)	7 (16.67%)	0
Sensitive Exam in clinic	2 (4.76%)	1 (2.38%)	4 (9.52%)	11 (26.19%)	24 (57.14%)
Sensitive exam via telehealth	16 (35.56%)	10 (23.81%)	5 (11.90%)	8 (19.05%)	3 (7.14%)
Patient uploading sensitive exam photos to a web portal for evaluation	11 (26.19%)	11 (26.19%)	7 (16.67%)	6 (14.29%)	7 (16.67%)
Patient showing a sensitive area photo on a phone without a chaperone	8 (19.05%)	8 (19.05%)	8 (23.81%)	10 (26.67%)	8 (19.05%)

Discussion

This survey was completed at the beginning of the COVID19 pandemic. This was a time where telehealth was rapidly adopted by the US healthcare system. While telehealth has existed in some way for a long time it was not until there was an emergency did it enter the mainstream. This sudden adoption of an unfamiliar system provided a variety of challenges for clinicians. Conducting a sensitive exam via telehealth was one of those challenges.

A sensitive exam in the in person setting exam is a challenge. Clinicians' comfort level with the sensitive exam varies. Training for these exams is variable at best. Adoption into day-to-day practice varies across specialties. Each clinician's own personal modesty temperament and culture factors into their comfort in performing these exams.

The office environment helps to stymie these problems to some extent. It offers the medical provider a homefield advantage. There are protocols in place to provide structure to these exams. Staff members are readily available to act as chaperones. Telehealth removes these guardrails. It places clinicians in patients' homes and offices often without staff nearby to join the call. There they are left to their own devices to figure out how to conduct these exams.

This survey reflects these realities. It captured providers' discomfort with receiving sensitive materials via telehealth platforms. It showed providers' discomfort with completing sensitive exams via telehealth as well. There seems to be a variety of factors that contribute to this discomfort.

One such factor may be the underlying values of medical providers. This survey revealed an interesting dichotomy. Outside of neutrality, the majority of respondents identified as conservative in their modesty but were casual in interactions with patients. Age seems to interact here as well. This survey showed older participants identifying as more modest and feeling more comfortable performing sensitive exams in the clinic. This tension is likely offset in the office by the availability of staff to act as chaperones and the protocols that exist in the office setting for performing sensitive exams.

The legal lens may also provide an explanation for these findings. Older clinicians may have more experience with medical litigation. The absence of a chaperone in the telehealth exposes clinicians to accusations of impropriety without a third party to verify or refute those claims. It should be said too, that without a charone present, patients are too at risk from those clinicians that would abuse their powers during a sensitive exam.

However, the lack of confidence in performing even a routine physical exam via telehealth indicates that there is something uniquely challenging about telehealth. Similarly, the pattern of increased discomfort with posting a sensitive photo to a web portal as compared to seeing a similar photo in person shows there is something unique in how telehealth affects providers' confidence with interacting with sensitive material.

The rapid adoption of telehealth and subsequent provider unfamiliarity with using telehealth platform may explain this unique challenge. The bulk of practitioners only began using telemedicine within 3 months of the start of this study. For those who had started using telehealth an overwhelming majority had not had the opportunity to perform a sensitive exam

via telehealth. Lack of experience may cause providers to prefer performing sensitive exams in the familiar in person setting.

Patient interaction with the telehealth platform may also represent a unique factor. Nearly all of the actual sensitive exams captured in this study happened without advanced notice by the patient. This limits the providers' ability to use safeguards, such as chaperones, to minimize risk and discomfort in completing the sensitive exam.

This study did face some limitations. Overall, this study had a low response rate with only 8.7% of eligible providers responding to the survey despite multiple requests. This is likely related to the fact that the COVID19 pandemic was still occurring, limiting providers ability to respond to non-urgent emails and surveys. The overwhelming majority of respondents to this survey identified as white females. These demographics do not reflect the diversity of providers in our health system. Further the survey nature of this research means that only associations can be seen not causal relationships.

Conclusion

The rapid adoption of telehealth during the COVID19 pandemic provided a unique opportunity to better understand provider's level of comfort with using telehealth to complete a sensitive exam. This survey showed that in general providers feel less comfortable performing any exam virtually and that telehealth increases discomfort with interacting with any sensitive material.

Future Directions

Since this survey was conducted there has been progress. Handbooks and guides have been published providing instruction as to how to best conduct an exam via telehealth [14]. These guides still do not address the sensitive exam and do not mention chaperone use.

While telehealth was rapidly adopted during the pandemic it seems like its use will continue after the pandemics end. Further research into its use and development of standards particularly regarding the sensitive exam and sharing sensitive material are crucial. With the development of these standards, educational programs instructing clinicians how to meet these standards will also need to be developed.

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