Family Medicine

Virtual Care: Perspectives From Family Physicians

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ABSTRACT

Background: During the COVID-19 pandemic, virtual care expanded rapidly at Michigan Medicine and other health systems. From family physicians' perspectives, this shift to virtual care has the potential to affect workflow, job satisfaction, and patient communication. As clinics reopened and care delivery models shifted to a combination of in-person and virtual care, the need to understand physician experiences with virtual care arose in order to improve both patient and provider experiences. This study investigated Michigan Medicine family medicine physicians' perceptions of virtual care through qualitative interviews to better understand how to improve the quality and effectiveness of virtual care for both patients and physicians.

Methods: We employed a qualitative descriptive design to examine physician perspectives through semistructured interviews. We coded and analyzed transcripts using thematic analysis, facilitated by MAXQDA (VERBI) software.

Results: The results of the analysis identified four major themes: (a) chief concerns that are appropriate for virtual evaluation, (b) physician perceptions of patient benefits, (c) focused but contextually enriched patient-physician communication, and (d) structural support needed for high-quality virtual care.

Conclusions: These findings can help further direct the discussion of how to make use of resources to improve the quality and effectiveness of virtual care.

INTRODUCTION

The COVID-19 pandemic transformed the health care system as the availability of virtual visits expanded and robust online patient portals developed. Virtual care, which includes video or phone visits, has continued as an alternative to in-person appointments. Virtual care may reduce both the burden on the health care system and exposure to communicable disease; however, potential downsides include the invasion of patient privacy,[1,2] safety incidents that can lead to patient harm,[3] poor fit for chief concerns,[4] and challenges communicating and building rapport.[5–7] Moreover, the benefits are unequal because patients most likely to have cancelled or missed video visits are over age 65,[8] historically minoritized races and ethnicities,[8,9] male,[8] lower income,[9] limited English proficiency, and those with disabilities or multiple comorbidities,[8,9] Single parents, people of lower income, those with disabilities, and work-family conflicts are more likely to experience time poverty and also may have poorer physical and mental health outcomes.[9,10] Research with primary care team members has noted that virtual care resulted in improvements in wait times[11] and an increase in the number of visits related to mental health.[12] The continued use of virtual care has the potential to change the practice of family medicine and the health care system.

Family physicians care for patients of all ages with a variety of concerns and develop long-standing patient-physician relationships. Family physicians are uniquely positioned to assess the role of virtual care for a wide range of chief complaints as well as for its impact on patient-physician relationships. However, little is known regarding family physicians' perspectives on optimizing virtual care.

This study explores physician perspectives to improve the quality and effectiveness of virtual care for both patients and physicians. Unlike literature published as a direct result of the pandemic, this study allowed for investigation into a virtual care system that has evolved since the pandemic began. This study adds possible practice implications and provides future directions for ongoing use of virtual care.

METHODS

We conducted qualitative semistructured interviews with physicians at Michigan Medicine, a large academic medical

center. The University of Michigan Institutional Review Board approved the study as exempt (HUM00199739).

Participants

We recruited from two sources, inviting 38 respondents in the Department of Family Medicine to a physician survey (31% response rate)[13] and 47 additional physicians who practiced in clinics serving diverse populations or providing specialized care. Interview invitations were sent in November 2021, approximately 20 months after the World Health Organization declared COVID-19 a pandemic in March 2020,[14] and 16 agreed to participate. Recruitment was guided by purposeful sampling based on two criteria; physicians had to provide virtual care as well as specialized care. These specializations ensured that the study applied to the entire scope of family medicine practice and captured vulnerable populations. All saw general primary care patients.

Semistructured Interviews

The interview protocol covered domains of access, uptake, adherence, and efficacy of virtual care. Sample questions included (a) How convenient is virtual care for your patients? (b) How did your patients respond to virtual care? (c) How engaged are your patients during virtual visits? and (d) In what ways do virtual visits make it easier or more difficult to see patients?

Analysis

All interviews were professionally recorded and transcribed verbatim. Analysis followed an inductive thematic analysis approach.[15] Two researchers (OR and TG) coded two transcripts independently to develop a codebook. Through consensus meetings, they compared codes, revised codes, and refined the codebook for application to the remaining interview transcripts. Next, with the larger research team, they identified themes. We conducted analysis in MAXQDA (VERBI) software.

RESULTS

Sixteen family medicine physicians, including two residents, participated in the interviews. Most (n=11) were female, and areas of specialization included women's health, deaf health care, Japanese family health, and sports medicine. Four major themes were identified, including (a) chief concerns appropriate for virtual evaluation, (b) physician perceptions of patient benefits, (c) patient-physician communication, and (4) structural support needed for high-quality virtual care.

Chief Concerns Evaluated Virtually

Physicians identified several chief concerns that were appropriately addressed virtually, as well as other concerns best evaluated in person (Table 1). Chief concerns that do not require a physical exam or that can be followed asynchronously (eg, blood pressure or glucose measurement) were considered well-suited for virtual care. In contrast, some acute concerns (eg, gynecologic or respiratory concerns) are best assessed through physical exam, and thus physicians preferred in-person visits. Despite their discomfort addressing some acute concerns virtually, such as possible ear infections, several physicians believed that virtual care is preferrable to no visit.

Physician Perceptions of Patient Benefits

Physicians identified convenience as a patient benefit of virtual care (Table 1). Providing virtual care has the potential to decrease barriers that may prevent patients from accessing care. For example, with virtual care, patients can continue with daily tasks instead of sitting in a waiting room and dealing with issues such as transportation, childcare, or work schedule. Additionally, virtual care is more convenient for caregivers, enabling multiple caregivers to attend visits without being physically present.

Focused but Contextually Enriched Patient-Physician Communication

Physicians noted that virtual care has enabled new means of communication with patients (Table 1). The ability to have visits outside of the office setting provides a window into a patient's home environment. Physicians also noted that virtual visits are more efficient for providers, because discussions during virtual visits are more focused.

Structural Support Needed for High-Quality Virtual Care

Physicians identified the need for systems and structures, such as workflows and technical support, to be in place for virtual care to provide high-quality care comparable to in-person visits (Table 2 subthemes).

DISCUSSION AND CONCLUSIONS

Family medicine physicians believed that virtual care increases appointment efficiency, while also opening doors for patients who may not be able come to the clinic, perhaps because of physical, travel, or time-related challenges.[10] Increasing visit efficiency and advocating for increased integration of virtual care is especially important in these populations and may contribute to increased health care access.

This study reinforces findings in prior research that seeing patients in their home setting yields contextual insight into a patient's life and allows providers to see their patient as a whole person and not just a set of symptoms.[1,12] Thereby, physicians may be better equipped to address upstream social determinants of health. Including caregivers in the appointment can broaden the patient's network of medical and social support and improve health outcomes.[16]

Virtual care has the potential to increase visit efficiency and improve quality of care.[12,17,18] Physicians in this study identified systems such as triaging,[4] portal enrollment, technical support, and postvisit follow-up as imperative to providing equitable and quality care. Next steps include developing systems to ensure proper follow-up care and identifying which chief concerns are appropriately triaged for virtual visits. Training related to virtual rooming, patient portal registration, and troubleshooting will be necessary. Further studies are needed to clarify how to systematically train and support team members.[19,20]

TABLE 1. Themes and Subthemes

Theme Subthemes	Summary	Illustrative quotes
Chief concerns evaluated virtually		
Mental health	Physicians emphasized the benefits of virtual care in patients presenting with mental health concerns.	"I think, in general, behavioral health I feel has been a pretty good avenue for type of patients that might benefit from the virtual visit in terms of just medication management for an SSRI or again an addiction population." (Participant A)
Chronic disease management	Physicians noted that chronic disease management could be effectively provided in a virtual setting. Examples of chronic conditions well-suited to virtual care included hypertension (if the patient has access to a validated blood pressure cuff), diabetes, and asthma.	"Chronic medical care that's ongoing is something that works well virtually . . . mood, high blood pressure, diabetes, even congestive heart failure if somebody's doing well." (Participant B)
Acute concerns	Physicians noted that acute concerns are often challenging to evaluate virtually. Trying to assess these concerns without a physical exam can lead to discomfort with diagnosis. This situation can result in escalation of care, recommendation to present to urgent care or emergency department, or a delay in care until an in-person visit can be scheduled.	"The barrier to this is when I need a physical exam and it really has a great impact on how good my care is. I have to kind of presume the worst. In the height of the pandemic virtual world, I was giving antibiotics for ear infections that I typically wouldn't do. . . . coming in for cough and I can't listen to your lungs." (Participant C)
Physician perceptions of patient benefits		
Patient benefits	Virtual care is often more convenient for patients, who save travel time and have work or family responsibilities to manage.	"Imagine if you're a patient, you have to drive to the office a half hour, whatever it is, park, walk in, sit in a waiting room with a bunch of other people, maybe be exposed to things, maybe not, get put in a room, wait a while longer, and then drive home again. . . . But with the virtual visit, at least they're home." (Participant D). "The access and ability to have people attend visits, especially with childcare or other things that may not allow them to drive and have access to the office visit, is really superior." (Participant B).
Caregiver involvement	Caregivers' involvement can be easier and more convenient.	"My palliative care patients have a huge amount of barriers to access. It's hard for them to leave their home. Gosh, you name it, they probably got it. But I can incorporate a lot of people in my visits this way. I can share the link. I can have family visits with people who are not in the same household. I can have their caregivers be present easily with me and multiple caregivers." (Participant C).
Focused but contextually enriched physician-patient communication		
Physician-patient relationship in virtual care	Physicians noted that virtual care can alter the means of communication and interaction with patients	"So when patients are driving, . . . they tend to want to take up a little bit more time, whereas if they're in their own environment, 'I'm checking in with [my doctor], but I have other things going on and I'm taking time out of my workday, or I'm taking out of my home day.' We're just going to hit on the things that we absolutely have to. We're not going to chit chat." (Participant E) "We actually get a window into patient's homes. We see them where they are a lot of times, and we can kind of see their environment, which is a good thing." (Participant D).

Abbreviation: SSRI, selective serotonin reuptake inhibitors

Limitations of this study include its completion in a single department at an academic medical center with mostly urban and suburban settings. Physicians' perception of patient reaction may differ from actual patient experience; study of patient experiences is needed. Comparison of provider and patient perspectives of virtual care may help to identify mismatches in expectations and goals. Future research is needed in different health care settings such as community health centers, office-based practices, and rural areas.

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TABLE 2. Subthemes of Structural Support Needed for High-Quality Virtual Care

Subthemes	Illustrative quotes	Possible practice implications
Appropriate triaging: selecting types of visits that are appropriate for a virtual visit	"In 2020, we were not very good at determining what [was] an appropriate in-person visit versus what was appropriate for virtual. . . . And I would say the incidence of inappropriate virtual visits has gotten a lot less as we learned how to screen those." (Participant F)	To set physicians and patients up for success, there needs to be clear training and systems to identify what chief concerns are appropriate for a virtual visit, and who needs to be seen in person. Inappropriate triaging can lead to further delay of care.
Rooming patient in a virtual setting: gathering information prior to physician visit (eg, medication reconciliation, pending orders/best practice orders)	". . . having somebody call the patient in the morning and get everything done that needs to get done so that the chief complaint is in there; whatever rooming stuff that normally gets done, gets done, is incredibly helpful. When that doesn't happen, it really makes everything much more difficult." (Participant G)	Virtual care should use clinical staff to complete all of the same rooming that is done prior to an in-person visit, such as questionnaires and medication review.
Patient follow-up: scheduling a follow-up appointment, providing referral information, etc	"So, after a real-time encounter, in-person encounter, that patient checks out [in] front. They schedule an appointment for follow-up. I can make sure the nurses are doing any education that's needed. And when it's virtual, our staff has a similar process to making sure that the patient gets a follow-up appointment." (Participant H)	Unlike the in-person setting, the patient does not walk over to check out for the clinical staff to ensure they have follow-up appointments and information for referrals. A clear system of follow-up with the patient is needed after a virtual visit.
Technical support: services needed to help patient with any technical difficulties or challenges	"I would say make sure you have a platform that patients could access widely. So whether that's through the patient portal that you can enroll patients in and that you have a support system to enroll patients." (Participant H)	Creating a system to enroll patients in the portal and support them with registration is essential. Having designated staff to help troubleshoot this process is imperative to breaking down barriers to virtual care.

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