COMMENTARY

To increase patient use of video telehealth, look to clinicians

Samantha L. Connolly PhD^{1,2} | Michael E. Charness MD^{3,4} Christopher J. Miller PhD^{1,2}

¹Center for Healthcare Organization and Implementation Research, VA Boston Healthcare System, Boston, Massachusetts, USA

²Department of Psychiatry, Harvard Medical School, Boston, Massachusetts, USA

³Chief of Staff of the VA Boston Healthcare System, Boston, Massachusetts, USA

⁴Department of Neurology, Harvard Medical School, Boston, Massachusetts, USA

Correspondence

Samantha L. Connolly, Center for Healthcare Organization and Implementation Research, VA Boston Healthcare System, 150 S. Huntington Avenue, Boston, MA 02130, USA.

Email: samantha.connolly@va.gov

Funding information

Health Services Research and Development, Grant/Award Numbers: VA HSR&D COR 20-199, VA HSR&D QUE 20-026

1 | INTRODUCTION

The COVID-19 pandemic has revealed a stark "digital divide" between the patients who have access to video telehealth and those who do not, with older, lower income, rural, and racial minority patients potentially being left behind.¹ Indeed, a national crosssectional study conducted during COVID-19 found that over a third of older adults were not video-ready; these rates increased dramatically when considering Black and Hispanic older adults, as well as those with lower income and education levels.² Rates of video use are also lower among patients living in remote and rural areas, which often have poor internet connectivity.³ Collectively, patients within these groups are more likely to receive audio-only phone visits, which may be lower quality than video care.^{4,5} In addition to providers not being able to visually assess their patients' health status, audio-only visits tend to be shorter in length than video appointments,⁶ and patients may retain less information shared by their provider.⁷ In response, a fast-growing body of literature has highlighted critical issues of health equity and the need to address structural barriers to patients' video telehealth access, including inadequate broadband connectivity and low digital literacy.^{3,8} However, this focus on patient-facing barriers overlooks a key determinant of telehealth utilization: clinicians.

1.1 | Clinicians as gatekeepers

Well before the onset of COVID-19, clinicians have been referred to gate a te as the gatekeepers of telehealth.^{9,10} While factors such as patient understan Published 2022. This article is a U.S. Government work and is in the public domain in the USA.

preference and insurance reimbursement certainly contribute to the mode through which care is delivered, clinician beliefs play a critical role. Analyses conducted during the pandemic found that clinician factors had a greater impact on video telehealth utilization than patient factors.⁵ We also know that many patients, and particularly those who are older and have fewer years of education, prefer deferring to their providers when making healthcare decisions.¹¹

Unfortunately, clinicians may not be offering video telehealth to all patients equally. A recent study found that over a third of Medicare beneficiaries receiving remote care were only offered a phone visit, even though over 65% of those patients were video-ready.¹² Furthermore, this study found that Black, Hispanic, and nonprimary English-speaking patients were less likely to be offered video visits, irrespective of whether they had access to a video-enabled device. It is clear that there is much more to telehealth access than patient characteristics. Clinician beliefs and behaviors are a major determinant of the modality through which patients receive care, whether in-person, via video, or by phone.

1.2 | Understanding clinician attitudes is key

For an innovation to be successfully adopted, it must have a relative advantage over alternatives (e.g., the quality of video care must be seen as superior to phone), and those advantages should outweigh any accompanying increase in complexity (e.g., the need to own a video-enabled device, have adequate internet connectivity, and navigate a telehealth platform to engage in video care).^{13,14} Thus, to understand clinician decision making around telehealth, we must

6

COMMENTARY

understand their attitudes regarding its quality and ease of use. In short, clinicians must see a benefit to recommending a video visit as opposed to engaging in a much simpler phone call. If clinicians believe that video and phone visits are essentially equivalent with regards to factors such as clinical effectiveness and safety, they may have little motivation to conduct a more complex video visit, particularly if audio-only visits are reimbursed at a comparable rate.¹⁵

We conducted a survey of clinician attitudes towards telehealth after the rapid transition from in-person to remote care during the first few months of the pandemic. Clinicians generally rated the quality of video care as higher than phone; however, there were considerable specialty-level differences in the remote modality clinicians preferred.¹⁶ Whereas over two-thirds of mental health clinicians preferred video over phone, most primary care and medical/surgical specialty providers either preferred phone or had no preference. Importantly, primary care and medical/surgical specialty clinicians were more likely to endorse significant challenges of video care, including patient difficulties connecting and a lack of patient training. These findings highlight the critical role of ease of use in influencing clinician attitudes and preferences. Primary care and medical/surgical specialty clinicians, who may have larger caseloads and shorter appointment times than mental health providers, may be impacted more by the added complexity of a video visit. Troubleshooting technology with hundreds of patients during 15-min video appointments may be less appealing than simply picking up the phone.

This work was confirmed and expanded in a one-year follow-up survey.¹⁷ We demonstrated that clinician attitudes regarding telehealth quality and ease of use corresponded strongly with actual utilization rates. Specifically, mental health providers, who had more positive views of video telehealth, conducted significantly more video visits than primary care and medical/surgical specialty clinicians. These findings suggest that provider perceptions of telehealth may play an important role in determining what modality is ultimately used with patients.

1.3 | We need more data and more clinician support

Clinician attitudes may be influenced by data regarding the relative quality of phone and video care. While a recent meta-analysis demonstrated that phone is clinically less effective than video for mental health treatment,¹⁸ similarly rigorous studies have not yet been published for primary care or medical/surgical specialties. This information will be critical in determining whether there is a measurable clinical benefit of seeing your patient in addition to hearing them during remote visits. If findings demonstrate that video visits are indeed more effective than phone calls, primary care and specialty clinicians may shift their recommendations from phone to video visits, despite the additional work required. It will likewise be important to understand what is driving potential quality differences between modalities. For example, clinicians may be better able to complete aspects of a virtual physical exam over video as opposed

to by phone, such as assessing the range of motion of a patient's joint or observing how a wound is healing.¹⁹ These more granular analyses of quality differences could help providers decide which clinical scenarios might particularly benefit from the added visual information of a video visit and which may be effectively managed via an audio-only phone call. Patient satisfaction data will also be crucial, including studies that directly compare patient preference for video versus phone once they have tried both modalities. It will also be important to move beyond standardized patient surveys to achieve a more nuanced understanding of patient experiences with telehealth, such as via focus groups and direct observations of telehealth sessions. These findings may help to counter clinician assumptions regarding how their patients want to receive care. For instance, multiple studies have noted clinicians' surprise at how many of their older patients have embraced video telehealth, refuting their initial beliefs that these patients would not be interested in or capable of engaging with video technology.²⁰⁻²² Perhaps just as important as conducting the research outlined above is ensuring that it is then successfully communicated to clinicians, in order to ultimately inform their attitudes and choices.

Even if clinical outcomes favor video, efforts to shift away from phone will falter if video care is not smoothly integrated into clinicians' workflows.²³ This will require investments in infrastructure and support staff to facilitate sustained adoption of video care by clinicians and patients. Telehealth technicians can provide training and guidance to less tech-savvy patients in advance of their visit to ensure that they are video-ready at the time of their appointment, thereby saving clinicians considerable time and hassle.²⁴ Studies conducted within the Department of Veterans Affairs (VA) have shown positive impacts of having a telehealth technician conduct a pre-visit phone call with patients scheduled for a video visit; this could include guiding the patient through downloading a videoconferencing app and conducting a test visit to ensure that their device is functioning properly.^{24,25} These efforts were found to reduce both the number of failed video appointments as well as the amount of time providers spent troubleshooting technology during clinical encounters.²⁵ Adoption of virtual rooming practices, in which medical assistants or nurses complete portions of the visit, could also help to better replicate inperson appointments.²⁶ This could include ensuring that the patient is logged on and that their device is working, setting a visit agenda, and completing medication reconciliation. Medical assistants and nurses can also engage in post-visit activities such as reviewing next steps with the patient and scheduling follow-up appointments.²⁷ Collectively, this integration of additional medical staff into the virtual appointment aims to remove burdens from clinicians and in turn streamline the delivery of telehealth care.

We must also increase underserved patients' access to videoenabled devices and broadband connectivity. The VA has distributed more than 100,000 internet-enabled tablets to veterans without a device,²⁸⁻³⁰ and the Federal Communications Commission Lifeline program has provided discounted broadband access to millions of low-income consumers across the country.³¹ Clinicians should never assume that their patient is not interested in video telehealth until it has been explicitly offered to them, and ideally, a patient's current lack of a device or broadband should not preclude them from ultimately receiving video care. To meaningfully address disparities in access, healthcare systems must implement procedures to connect their patients with needed resources, and these procedures must be seamlessly integrated into preexisting workflows.

For any of these suggested changes to be successful, they must be effectively disseminated to providers via rigorous telehealth training. Although the COVID-19 pandemic rapidly increased providers' experience using telehealth, this typically occurred in the absence of any formalized instruction about the practice of virtual care.³² In response, there has been a quickly growing literature highlighting the need for telehealth competencies to be integrated into medical education.^{33,34} Importantly, in 2021 the Association of American Medical Colleges developed six core telehealth competencies in which practitioners should be trained, including the following: (1) patient safety and the appropriate use of telehealth; (2) access and equity issues; (3) effective communication via virtual means (e.g., how to best position oneself on camera, how to engender trust during a telehealth visit); (4) physical examination and clinical data collection; (5) troubleshooting telehealth technology, and (6) ethical and legal considerations.³³ Achieving mastery in these domains will be critical to ensure that patients have access to effective care that is delivered in the setting that is most appropriate to their needs and preferences.

When considering factors impacting sustained adoption of telehealth, the power of clinicians cannot be overstated. It is worth investing time and energy into understanding their attitudes and behaviors, addressing their concerns, and providing them with rigorous training and education to ensure equitable access to high-quality telehealth care well beyond the COVID-19 pandemic.

ACKNOWLEDGMENTS

Dr. Samantha L. Connolly's time was supported by grants from the Department of Veterans Affairs (VA HSR&D QUE 20-026 and VA HSR&D COR 20-199). Content is solely the responsibility of the authors and does not necessarily represent the official views of the U.S. Department of Veterans Affairs or the U.S. Government.

CONFLICT OF INTEREST

The authors have no conflict of interest.

ORCID

Samantha L. Connolly ⁽¹⁾ https://orcid.org/0000-0002-1007-5626 Christopher J. Miller ⁽¹⁾ https://orcid.org/0000-0002-8695-6833

REFERENCES

- Gray DM, Joseph JJ, Olayiwola JN. Strategies for digital care of vulnerable patients in a COVID-19 world–keeping in touch. JAMA Health Forum. 2020;1(6):e200734.
- Lam K, Lu AD, Shi Y, Covinsky KE. Assessing telemedicine unreadiness among older adults in the United States during the COVID-19 pandemic. JAMA Intern Med. 2020;180(10):1389-1391.

 Ortega G, Rodriguez JA, Maurer LR, et al. Telemedicine, COVID-19, and disparities: policy implications. *Health Pol Technol.* 2020;9(3):368-371.

- 4. Uscher-Pines L, Schulson L. Rethinking the impact of audio-only visits on health equity. Health Affairs Forefront, December 17, 2021.
- Rodriguez JA, Betancourt JR, Sequist TD, Ganguli I. Differences in the use of telephone and video telemedicine visits during the COVID-19 pandemic. Am J Manag Care. 2021;27(1):21-26.
- Schifeling CH, Shanbhag P, Johnson A, et al. Disparities in video and telephone visits among older adults during the COVID-19 pandemic: cross-sectional analysis. *JMIR Aging*. 2020;3(2):e23176.
- Voils CI, Venne VL, Weidenbacher H, Sperber N, Datta S. Comparison of telephone and televideo modes for delivery of genetic counseling: a randomized trial. J Genet Couns. 2018;27(2):339-348.
- Shaw J, Brewer LC, Veinot T. Recommendations for health equity and virtual care arising from the COVID-19 pandemic: narrative review. *JMIR Form Res.* 2021;5(4):e23233.
- Whitten PS, Mackert MS. Addressing telehealth's foremost barrier: provider as initial gatekeeper. Int J Technol Assess Health Care. 2005; 21(4):517-521.
- Cowan KE, McKean AJ, Gentry MT, Hilty DM. Barriers to use of telepsychiatry: clinicians as gatekeepers. *Mayo Clin Proc.* 2019;94(12): 2510-2523.
- 11. Brom L, Hopmans W, Pasman HR, Timmermans DR, Widdershoven GA, Onwuteaka-Philipsen BD. Congruence between patients' preferred and perceived participation in medical decision-making: a review of the literature. *BMC Med Inform Decis Mak.* 2014;14(1):1-16.
- Benjenk I, Franzini L, Roby D, Chen J. Disparities in audio-only telemedicine use among Medicare beneficiaries during the coronavirus disease 2019 pandemic. *Med Care*. 2021;59(11):1014-1022.
- Dearing JW, Cox JG. Diffusion of innovations theory, principles, and practice. *Health Aff.* 2018;37(2):183-190.
- Walker J, Whetton S. The diffusion of innovation: factors influencing the uptake of telehealth. J Telemed Telecare. 2002;8(Suppl 3(6)): 73-75.
- Center for Connected Health Policy. State Telehealth Laws and Reimbursement Policies Report, Fall 2021. 2021; https://www.cchpca.org/ resources/state-telehealth-laws-and-reimbursement-policies-report-fall-2021/
- Connolly SL, Gifford AL, Miller CJ, Bauer MS, Lehmann LS, Charness ME. Provider perceptions of virtual care during the coronavirus disease 2019 pandemic: a multispecialty survey study. *Med Care*. 2021;59(7):646-652.
- Connolly SL, Miller CJ, Gifford AJ, Charness ME. Perceptions and use of telehealth among mental health, primary, and specialty care clinicians during the COVID-19 pandemic. JAMA Netw Open. 2022;5(6): e2216401.
- McClellan MJ, Osbaldiston R, Wu R, et al. The effectiveness of telepsychology with veterans: a meta-analysis of services delivered by videoconference and phone. *Psychol Serv.* 2021;19:294-304.
- Benziger CP, Huffman MD, Sweis RN, Stone NJ. The telehealth ten: a guide for a patient-assisted virtual physical examination. *Am J Med.* 2021;134(1):48-51.
- Greenwald PW, Stern M, Clark S, et al. A novel emergency department-based telemedicine program: how do older patients fare? *Telemed e-Health*. 2019;25(10):966-972.
- 21. de Vere HI, van Egmond S, Nava V, et al. Telehealth for older adults with skin disease: a qualitative exploration of dermatologists' experiences & recommendations for improving care. *Br J Dermatol.* 2021; 186:731-733.
- Davoodi NM, Chen K, Zou M, et al. Emergency physician perspectives on using telehealth with older adults during COVID-19: a qualitative study. J Am Coll Emerg Physicians Open. 2021;2(5):e12577.
- Jacob C, Sanchez-Vazquez A, Ivory C. Social, organizational, and technological factors impacting clinicians' adoption of mobile health tools:

systematic literature review. JMIR Mhealth Uhealth. 2020;8(2): e15935.

- Hawley CE, Genovese N, Owsiany MT, et al. Rapid integration of home telehealth visits amidst COVID-19: what do older adults need to succeed? J Am Geriatr Soc. 2020;68(11):2431-2439.
- Wray CM, Sridhar A, Young A, Noyes C, Smith WB, Keyhani S. Assessing the impact of a pre-visit readiness telephone call on video visit success rates. J Gen Intern Med. 2022;1-2.
- Rokicki-Parashar J, Phadke A, Brown-Johnson C, et al. Transforming Interprofessional roles during virtual health care: the evolving role of the medical assistant, in relationship to National Health Profession Competency Standards. J Prim Care Community Health. 2021;12: 215013272110042.
- Sinsky CA, Jerzak JT, Hopkins KD. Telemedicine and team-based care: the perils and the promise. *Mayo Clin Proc.* 2021;96(2):429-437.
- Zulman DM, Wong EP, Slightam C, et al. Making connections: nationwide implementation of video telehealth tablets to address access barriers in veterans. JAMIA Open. 2019;2(3):323-329.
- Heyworth L, Kirsh S, Zulman D, Ferguson JM, Kizer KW. Expanding access through virtual care: the VA's early experience with COVID-19. NEJM Catal Innov Care Deliv. 2020;1(4):1-11.
- Gillespie L. Rural veterans have fewer ED visits, more psychotherapy with VA tablets. Modern Healthcare. April 6, 2022. https://www.

modernhealthcare.com/technology/rural-veterans-have-fewer-ed-visits-more-psychotherapy-va-tablets

- 31. Federal Communications Commission. Lifeline Program for Low-Income Consumers. https://www.fcc.gov/general/lifeline-programlow-income-consumers.
- Pourmand A, Ghassemi M, Sumon K, Amini SB, Hood C, Sikka N. Lack of telemedicine training in academic medicine: are we preparing the next generation? *Telemed e-Health*. 2021;27(1):62-67.
- Noronha C, Lo MC, Nikiforova T, et al. Telehealth competencies in medical education: new frontiers in faculty development and learner assessments. J Gen Intern Med. 2022;1-6.
- Alkureishi MA, Lenti G, Choo ZY, et al. Teaching telemedicine: the next frontier for medical educators. *JMIR Med Educ.* 2021;7(2): e29099.

How to cite this article: Connolly SL, Charness ME, Miller CJ. To increase patient use of video telehealth, look to clinicians. *Health Serv Res.* 2023;58(1):5-8. doi:10.1111/1475-6773. 14041