

# Online Physicians: The New Norm?

Peter Anto Johnson<sup>1\*</sup>, John Christy Johnson<sup>1</sup>

<sup>1</sup> University of Alberta, Edmonton, AB, Canada

\*Author for correspondence (paj1@ualberta.ca)

## Introduction

The rise of and transition to virtual care is a trend, which has permeated both primary care and specialist healthcare settings amidst the new reality of the pandemic. For many patients and physicians who are used to conventional care, tele-healthcare has created a rift in the way consults, referrals, and treatments are approached. However, by now both patients and care providers recognize virtual care has become the new norm to which we must all adapt. This commentary aims to explore advances and limitations of virtual care amidst the pandemic in light of conventional standards established by our current healthcare delivery model.

## Advances in Remote Healthcare

Virtual care employs novel technologies that prevent the spread of more variants, strains, and infectious diseases, while enabling patient care and follow-up by reducing the need for contact and travel [1]. Moreover, advances in remote monitoring, videoconferencing technology, and patient safety screening reduce the risk of viral transmission and offer increased convenience, cutting travel and wait times – one of the biggest critiques of modern primary care. Virtual care technologies might also allow physicians and other care providers to have more time in their schedules to see more patients, eliminating the need to physically visit office locations. Studies have also suggested that virtual connectivity and communication provides an environment that is less restrictive and lowers stress levels [2,3].

## Limitations of Virtual Care

Virtual care has inherent limitations associated with the absence of in-person consults. Patients do not receive the same level of attention or human contact fundamental to an in-person interaction [4]. Face-to-face communication is hampered when doctors and patients

are sitting in front of their computers rather than each other. The presence of another human being in the environment ultimately influences sensitivity of counsel especially where care has psychological components [5].

A variety of complications can also be anticipated when considering the many modalities of virtual care including telephone appointments, videoconferencing calls, or even online chat consults, including limitations in network connectivity, decision-making based on visual clinical findings, and ease of communication between practitioner and patient [6–8]. Furthermore, though many novel innovations in telemedicine and remote monitoring technology are evolving, physical exams and investigations have nonetheless become more difficult in a virtual care environment [9–11]. Self-reports and other subjective measures can be biased without the physical presence of a white coat figure whose clinical expertise is what guides a diagnosis, investigations, and medical interventions [5]. Additionally, the dependence on these technologies could threaten patient confidentiality, which is difficult to protect online [12].

## Barriers to Accessibility

In spite of an ease of access to care, this new norm of virtual care may not be able to address barriers that create disparity among patients. Several studies have demonstrated parallels to in-person healthcare access, finding systemic racial factors, socioeconomic inequities, and limitations in rural access to care that persist in virtual care [13–15]. Studies have also determined that the generational gap in digital literacy is a poor predictor of access to virtual care, suggesting that the modality of healthcare delivery may not have an effect on older adults' use of virtual care services [13,14]. Other research studies suggest that geographical proximity to primary care clinics and referring hospitals is

more closely associated with access to care, despite the increased access enabled by virtual care [16,17]. A body of literature, which has focused on economic status reports that patients with a lower median household income had decreased access to tele-health compared to middle- and high-income patients [15,18,19]. Of the studies describing demographic factors, increasing age and male sex are associated with lower odds of accessing virtual care [15,19]. Additionally, Indigenous, Asian, non-English speaking, and other ethnic minority groups are less likely to use virtual services as observed by trends in in-person healthcare [1,13,14].

## Future Avenues

These factors are undeniably complex and reflect structural systems, societal frameworks, and personal circumstances that virtual care approaches have not yet addressed. As such, although the use of telemedicine and virtual care during the pandemic has increased the accessibility of health services to the larger population, studies have highlighted a sustained disparity among already vulnerable groups, perhaps reflecting inherent systemic flaws already present in healthcare. As such, it is critical for healthcare providers, policymakers, and innovators to work collaboratively in addressing these barriers. One promising avenue is a focus on patient engagement through user-friendly digital systems such as healthcare apps and group education through virtual care support groups in chronic disease management [20]. Another unexplored direction is stakeholder advocacy at the community level to lower the barriers to virtual care, as well as referral by healthcare professionals to ultimately promote awareness and the use of virtual care services.

## Conclusion

Already recognized as here to stay, virtual care presents new opportunities along with novel challenges and familiar limitations in terms of barriers to access to conventional care. Regardless, this is the new norm and a new reality to which we must adapt and develop strategies for a more equitable virtual care.

## References

1. Li HL, Chan YC, Huang JX, Cheng SW. Pilot Study Using Telemedicine Video Consultation for Vascular Patients' Care During the COVID-19 Period. *Ann Vasc Surg* 2020;68:76–82. doi:10.1016/j.avsg.2020.06.023.
2. Nissen L, Lindhardt T. A qualitative study of COPD-patients' experi-

- ence of a telemedicine intervention. *Int J Med Inform* 2017;107:11–7. doi:10.1016/j.ijmedinf.2017.08.004.
3. Samargandy SA, Al Gami TA, Almoghairi A, Alahmari M, Alshehri B, Mosaad M, et al. Effect of COVID-19 pandemic on the cardiac outpatients' perception of seeking medical advice. *J Saudi Hear Assoc* 2020;32:377–82. doi:10.37616/2212-5043.1094.
4. Glauser W. Virtual care is here to stay, but major challenges remain. *CMAJ* 2020;192:E868–9. doi:10.1503/cmaj.1095884.
5. Flodgren G, Rachas A, Farmer AJ, Inzitari M, Shepperd S. Interactive telemedicine: Effects on professional practice and health care outcomes. *Cochrane Database Syst Rev* 2015;2015. doi:10.1002/14651858.CD002098.pub2.
6. Walthouwer MJL, Oenema A, Lechner L, De Vries H. Use and effectiveness of a video- and text-driven web-based computer-tailored intervention: Randomized controlled trial. *J Med Internet Res* 2015;17:e222. doi:10.2196/jmir.4496.
7. Corry M, Neenan K, Brabyn S, Sheaf G, Smith V. Telephone interventions, delivered by healthcare professionals, for providing education and psychosocial support for informal caregivers of adults with diagnosed illnesses. *Cochrane Database Syst Rev* 2019;2019. doi:10.1002/14651858.CD012533.pub2.
8. Byaruhanga J, Paul CL, Wiggers J, Byrnes E, Mitchell A, Lecathelinais C, et al. Connectivity of real-time video counselling versus telephone counselling for smoking cessation in rural and remote areas: An exploratory study. *Int J Environ Res Public Health* 2020;17. doi:10.3390/ijerph17082891.
9. Perrone G, Zerbo S, Bilotta C, Malta G, Argo A. Telemedicine during COVID-19 pandemic: Advantage or critical issue? *Med Leg J* 2020;88:76–7. doi:10.1177/0025817220926926.
10. Mills EC, Savage E, Lieder J, Chiu ES. Telemedicine and the COVID-19 Pandemic: Are We Ready to Go Live? *Adv Ski Wound Care* 2020;33:410–7. doi:10.1097/01.ASW.0000669916.01793.93.
11. Johnson PA, Johnson JC. Considerations for robotic-assisted laparoscopic surgery in children. *J Minim Access Surg* 2021;17:276. doi:10.4103/jmas.jmas\_327\_20.
12. Hall JL, McGraw D. For telehealth to succeed, privacy and security risks must be identified and addressed. *Health Aff* 2014;33:216–21. doi:10.1377/hlthaff.2013.0997.
13. Zhai Y. A Call for Addressing Barriers to Telemedicine: Health Disparities during the COVID-19 Pandemic. *Psychother Psychosom* 2020;90:64–6. doi:10.1159/000509000.
14. Jaffe DH, Lee L, Huynh S, Haskell TP. Health Inequalities in the Use of Telehealth in the United States in the Lens of COVID-19. *Popul Health Manag* 2020;23:368–77. doi:10.1089/pop.2020.0186.
15. Darrat I, Tam S, Boullis M, Williams AM. Socioeconomic Disparities in Patient Use of Telehealth during the Coronavirus Disease 2019 Surge. *JAMA Otolaryngol - Head Neck Surg* 2021;147:287–95. doi:10.1001/jamaoto.2020.5161.
16. Gajarawala SN, Pelkowski JN. Telehealth Benefits and Barriers. *J Nurse Pract* 2021;17:218–21. doi:10.1016/j.nurpra.2020.09.013.
17. Makhni MC, Riew GJ, Sumathipala MG. Telemedicine in Orthopaedic Surgery: Challenges and Opportunities. *J Bone Joint Surg Am* 2020;102:1109–15. doi:10.2106/JBJS.20.00452.
18. Agarwal R, Gao GG, DesRoches C, Jha AK. The digital transformation of healthcare: Current status and the road ahead. *Inf Syst Res* 2010;21:796–809. doi:10.1287/isre.1100.0327.
19. Harst L, Timpel P, Otto L, Richter P, Wollschlaeger B, Winkler K, et al. Identifying barriers in telemedicine-supported integrated care research: scoping reviews and qualitative content analysis. *J Public Heal* 2020;28:583–94. doi:10.1007/s10389-019-01065-5.
20. Srinivasan M, Phadke AJ, Zulman D, Israni ST, Madill ES, Savage TR, et al. Enhancing patient engagement during virtual care: A conceptual model and rapid implementation at an academic medical center. *NEJM Catal Innov Care Deliv* 2020. doi:10.1056/CAT.20.0262.