Virtual care: a ‘Zombie’ apocalypse?

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Received 6 July 2020; Revised 15 July 2020; Editorial Decision 16 July 2020; Accepted 22 July 2020

ABSTRACT

In the wake of COVID-19, clinicians took to telehealth to continue providing services to their patients, mostly via telephone or videoconferencing technology. Telehealth has many promised and proven benefits including convenience to the patient, potentially less distraction from the electronic health record (EHR), saves in travel time and expenses, and lowering patients’ wait time in the clinic. However, there could be some unintended negative consequences including increased clinician burnout due to screen fatigue, potential loss of information due to the limitations of the medium, difficulty discussing sensitive issues and impacts on patient-clinician relationship, empathy, and compassion. In this perspective, we discuss some of the positives and potential negatives of telehealth and highlight some considerations that could guide the choice of media. We submit that for telehealth to become a sustainable solution that is widely applied, it is important to take these issues into consideration in both research and implementation of telehealth solutions.

Key words: telehealth, videoconferencing, virtual care, physician patient relationship, professional burnout

INTRODUCTION

“Do you hug all of your patients?” It was the end of a busy clinic, and my (MA) third-year medical student’s question caught me off guard. Taken aback, I asked what he meant. “It seems like you hugged each of the families we saw today…” It was an odd question, and the observation must have been a fluke I thought, but then he added “…and last week too.”

As my student left for afternoon lectures, I reflected on my apparent hugging habit. It was true, I had formed a close bond with my patients and their families, so much so that seeing them often felt like seeing family. Over 12 years of meeting over ear infections, routine checkups, rashes, and a broken bone or two, our bond had often naturally leant itself to a caring embrace at the end of most of our clinical interactions. It wasn’t strange, and it wasn’t forced. In fact, I didn’t even realize that it happened until my astute student pointed it out.

Enter COVID-19. Suddenly, work life took on two very different worlds. In-person clinic consisted of handwashing, face masks, and social distancing while virtual clinic became a blur of work–home boundaries. My little patients delighted in that I could see them in their pyjamas at home, one excitedly saying it was like we were having a slumber party! However, while telehealth provided an important opportunity for me and my patients to connect, albeit virtually, thereby decreasing our exposure risk, the loss of childcare and school made nebulous the boundaries that had once helped define a semblance of a work–life balance. Virtual visits could be taxing. Granted, I didn’t have to wear a face mask all day long which was a welcome reprieve, but they seemed tiring. Perhaps it is partly because patient expectations changed in a way I did not anticipate. In past, patients were understanding of needing to wait as I finished my last appointment perhaps because they could see me going from one room to another, juggling different care-related tasks. Now, I find many expect the telehealth visit, the ultimate in-home convenience, to happen right at its set time without delay.

On my end however, I do encounter delays from one patient to the next, and a back-to-back schedule of visits without support to...
help me quickly tackle issues that arise or allow me to take a much-needed bathroom break makes it even harder to stay on track. I do find though, when one of my young daughters peaks into the room to ask for help setting up their next zoom class for school, something that never would have happened while I was in clinic, that my patients are actually tremendously empathetic of the new roles I have been forced to take on and it bonds us, each realizing how the new normal has strangely impacted both of our lives. It is this meaningful connection with my patients, our mutual respect and understanding for one another that makes long busy days all worth it; but, in the virtual setting, I find myself longing for the physical aspect of seeing and touching them, so much so that I often close the visit by saying “I hope I get to see you guys soon. I miss you. I’m sending you big hugs.”

These thoughts and others were echoed in a recent virtual meeting of a committee organizing an international conference on “The Patient, The Provider, and The Computer.” When do you balance work–home life when home is the workplace and the workplace is home? How do patients feel about letting us into their homes, and vice versa? What happens when sensitive topics like mental health or domestic abuse need to be discussed and others might overhear the conversation? Issues surrounding adolescents and confidentiality are always difficult, but how does one now tackle that in the setting of telehealth? And with the broader systemic issues brought to light by COVID-19, how can we ensure technology does not contribute to increasing disparities because of a “digital divide”? After all, not everyone has access to a reliable Internet connection, a device to access it on, or the understanding of how or when best to tap into a virtual visit.

Most of all, concerns prevailed about maintaining the patient–provider relationship, supporting effective communication, and fostering the ability to express empathy and provide compassionate care through the lens of a video. We each admitted feelings of exhaustion after being on video conferences or consultations for long hours. Indeed, the 2-dimensionality of the images on the screen, the need to focus on it all the time, to overcompensate for the difficulty of processing nonverbal cues such as body language and facial expressions, as well as the awareness of being watched, can be physically and emotionally draining. How do we find ways to do so in a meaningful way that conveys care and attention?

THE MEDIUM IS THE MESSAGE

When thinking about the current state of telehealth, Marshall McLuhan’s famous phrase “the medium is the message” comes to mind. In the 1980’s, researchers in information systems proposed that various communication media differ in their “richness,” where richness of a medium is based upon a mixture of 4 attributes:

1. The ability to provide immediate feedback;
2. The provision of multiple cues (e.g., words, numbers, graphic symbols, body language, and intonation);
3. Language variety (e.g., numbers provide greater precision while natural language is better for discussion of concepts and ideas); and
4. Personal focus (e.g., the exchange of personal opinions and emotions).

The richer the medium, the better it is in facilitating understanding and shared meaning.

Based on these criteria, the richness of different types of media can be ranked. Obviously, face-to-face interaction provides the richest form of communication, followed by, in descending order, video conferencing, phone calls, text messaging, and finally email or portal messaging. When considering the various forms of telehealth currently available to our patients, it is important to take into account a number of factors including: 1) the patient and clinician’s preferences and competence in using the medium; 2) the nature of the task (e.g., whether it is simply for conveying general information, which can be achieved via patient handouts or reference to credible websites, or for convergence on meaning and reaching agreement as in shared decision-making) and; 3) the richness of the medium. Complex or sensitive issues that require the provision of multiple cues, immediate feedback, language variety, and personal focus, are likely best served by using richer, more sensory-oriented and nuanced media, while simple and routine issues might be more efficiently addressed by the use of low-richness, direct, and less complex communication forms.

INTENDED AND UNINTENDED CONSEQUENCES

The obvious positives of telehealth are many. Virtual care can improve access, especially for remote rural communities and those in low-resource countries. It can be used to address care issues that do not necessarily require an in-person visit, thus serving as an important invisible “front line” in the COVID effort to reduce downstream impacts on more traditional frontline services such as our emergency departments. Telehealth can also maximize time and resources and minimize exposure risks—for patient and healthcare team alike. It can help avoid the need for often costly travel, which in turn can save money for the healthcare systems and patients, and lower carbon emissions associated with medical travel. Some studies report improved communication between patients and providers as one of the factors contributing to patients’ satisfaction with telehealth. It’s no wonder that patients have told us telehealth has often provided them the “best interaction they have ever had with their doctor.” Studies suggest this is due in large part to patients being able to receive care from the comfort of their home, at convenient times to suit their needs and with the full attention of their clinician, and that video consultations are generally equivalent to face to face.

There may also be benefits and drawbacks to telehealth that are not as obvious. A recent qualitative study of virtual care during COVID-19 found that while patients were generally satisfied with video visits, they also expressed concerns about errors due to inability to conduct physical examinations, as well as difficulties facilitating communication and establishing a provider–patient relationship via videoconference. Implementing new technologies can be challenging, and telehealth is no exception, but if carefully planned and executed, it can be successful. At the same time, it is important to understand possible telehealth negatives, some of which we know, some of which we’re starting to feel, so that we can work to address these as well. If we have learned anything from the experience of widespread implementation of the EHR (and other health information technologies), it is that health information technology often leads to unintended consequences such as increased administrative work for clinicians, higher rates of burnout, and diverse impacts on the patient–clinician relationship. Considering the issues discussed above, we can easily anticipate similar challenges resulting from widespread implementation of virtual care, as well as other, unintended yet to be discovered consequences.

As we look for guidance in a time where there are so many future unknowns, it is helpful to look back into our past for context. In his
The seminal 1936 article “The unanticipated consequences of purposive social action,” sociologist Robert K. Merton proposed 5 causes of unintended consequences, one of which is “the imperious immediacy of interest,” meaning that the need to achieve short-term intended consequences may lead to dismissing or deferring concerns over potential long-term unintended consequences. This is exactly the situation we’re in with COVID-19. There is a pressing need to continue to provide care for all patients—and not just those with COVID-19. Health conditions such as cardiovascular diseases, diabetes, and cancer don’t go away just because we are in the midst of a pandemic. Telehealth provides a viable, effective, and highly valuable solution to provide ongoing care for these important health issues while minimizing exposure risks.

That said, the current pressing need for telehealth does not mean we should completely ignore the issues discussed above. Moving forward, we need to acknowledge and understand the variety of impacts of virtual care on patients, clinicians, care processes, and health outcomes. We need to establish recommendations for choosing the best communication medium for various types of problems and care processes, and develop mitigation strategies for the negative unintended consequences we’re starting to experience.

CONCLUSION

To answer the question in the title: virtual care is not an apocalypse, nor will video consultation turn us all into emotionless zombies. COVID-19 has dramatically altered our lives and has created a new normal. However, while this too shall pass and I will find myself in clinic hugging my patients again, telehealth will likely remain as a rich communication media tool to engage our patients, with a variety of uses and outcomes that differ from one specialty to the other. This article is NOT a call to ditch virtual care and video consultations all together, not that we could put the telehealth genie back into the bottle with our patients having experienced its many benefits. What this is, is a call for more multi- and interdisciplinary research so we can improve the technology itself from a human factors perspective, its implementation, education, and related policies—in order to make it sustainable and get the best of it, for patients and clinicians alike.

FUNDING

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

AUTHOR CONTRIBUTIONS

Both authors meet the ICMJE criteria for authorship and both:

- Made substantial contributions to the conception or design of the work; AND
- Drafted the work and revised it critically for important intellectual content; AND
- Provided final approval of the version to be published; AND
- Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Both authors contributed equally to this manuscript.

ACKNOWLEDGMENTS

The authors would like to thank the members of the program committee and organizers of the 2nd International Conference on The Patient, The Provider, and The Computer for sharing their thoughts and ideas with us.

CONFLICT OF INTEREST STATEMENT

None declared.

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