Practical and Ethical Considerations in Telehealth: Pitfalls and Opportunities

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Telehealth has been a long-awaited advancement with the potential to improve efficiency, convenience, and quality in healthcare. However, as telehealth becomes integrated into routine clinical care, it is imperative to consider the practical and ethical implications that could undermine or devalue care delivery. The medical profession must ensure that it is implemented judiciously and with robust quality standards, guided by fair and equitable policies that balance patient autonomy with rigorous standards of care and access. Such a system must recognize the opportunity for more patient input as stakeholders to tailor care to their needs and preferences, while also acknowledging the risk of suboptimal care if convenience is prioritized over quality. More studies of optimal care models are needed to integrate data in terms of both stakeholder input and outcomes.

INTRODUCTION

Telehealth has undeniably transformed care amidst the COVID pandemic, enabling continuity of chronic disease management and triaging of new patient problems while minimizing face-to-face visits. The unleashing of telehealth throughout all parts of the health system has been a long-awaited advancement that has the potential to improve efficiency, convenience, and quality. However, as telehealth becomes integrated into routine clinical care, it is imperative to consider the practical and ethical implications that could undermine or devalue care delivery. These include the risks of prioritizing convenience to the detriment of quality and exacerbating existing disparities, along with other unanticipated consequences of care transformation.

Convenience and Quality

American culture places a high value on choice availability and autonomy, both of which may be augmented by the advent of telehealth. Having more virtual visit options may yield salutary effects, including reduced exposure during a pandemic, convenience for patients, and greater patient access and comfort. But it is important to ask whether, in these scenarios, quality is being compromised. For example, there may be tradeoffs for convenience, wherein the absence of a physical exam or an overlooked nuance in non-verbal communication may...
result in a missed diagnosis. This is especially critical in certain cardiac conditions such as atrial fibrillation or valvular disease, which involve complex decision making and where the physical examination is essential to detect subtle early signs that may change management. Similarly, patients with serious chronic illnesses requiring advanced care planning such as congestive heart failure and cancer may derive more medical and psychosocial support from multidisciplinary face-to-face visits with clinicians and support staff such as social work and nutrition services. Preliminary data suggest mixed levels of patient satisfaction with telehealth, recognizing convenience as a significant advantage of telehealth, but acknowledging greater thoroughness of face-to-face visits [1,2].

**Distributive Justice**

From a distributive justice standpoint, telehealth options have the potential to promote increased access to healthcare for vulnerable populations who struggle with mobility or transportation issues. Patients no longer need to take time off from work or find childcare to visit their clinicians. However, if face-to-face visits are inherently of higher quality, then expanding telehealth visits could unintentionally result in a two-tiered system for patients already disadvantaged, further exacerbating structural inequities made even more apparent during the COVID pandemic [3]. Specifically, the very patients who struggle to come into the office may be the ones who stand to benefit the most from more intensive in-person care and counseling due to lower rates of health literacy and education in disadvantaged populations [4,5]. Similarly, patients with the least comfort with the technology necessary for optimal utilization of telehealth, which might include elderly patients and rural patients, may be unduly guided towards telehealth under the assumption that it will afford greater access. In addition to studies showing that older patients struggle with technology [6], introducing telehealth without other structural supports (eg, internet access, device access, tech support) can amplify disparities due to social determinants of health [7]. Indeed, patients living in poverty and with other social stressors are more likely to use audio-only telehealth visits as opposed to televideo, which provides a much fuller interaction [8].

**Unintended Consequences**

There may be further unintended consequences that result as telehealth moves to the forefront of routine medical care, including evolving care models driven by reimbursement (as opposed to quality) and burdening an unprepared workforce. While changes in reimbursement have catapulted the adoption of telehealth, it is not yet clear whether the Centers for Medicare and Medicaid Services (CMS) and commercial providers will modify reimbursement after the COVID pandemic or whether there will be wide differences in reimbursement between payors. In the latter case, patients with insurance that offer low reimbursement for face-to-face visits could be shifted to telehealth visits to open more slots to patients with higher paying insurance plans. Similarly, low or no reimbursement for telehealth visits may result in forced face-to-face visits potentially at the expense of patient safety and accessibility.

Furthermore, telehealth could unintentionally drive low-value care. For example, the physical exam may be superseded by diagnostic tests, potentially disfavoring implementation of evidence-based care leading to worse outcomes or higher costs. It is also unclear whether telehealth might contribute further to the already widespread problem of clinician burnout, for which too much screen time and too little face-to-face time with patients due to electronic medical record requirements has already been cited as a major contributing factor [9]. Rigorous data collection on these and other fronts will be crucial in assessing the impact of telehealth moving forward.

**Judicious Implementation of Telehealth**

These tensions involving convenience versus quality, distributive justice concerns, and further unintended consequences can be reconciled by establishing core quality standards for telehealth. To ensure that quality is not jeopardized for convenience, training and support for clinicians and patients is paramount. First, patients should be equipped with adequate technology for their visits; this may necessitate the provision of tablets or consoles and the training of some patients in how to use them properly. While training can likely be done by health system staff, purchasing necessary telehealth equipment for patients who cannot afford it will be the duty of healthcare systems, health insurers, or the government in order to move toward greater health equity and reduce disparities. Second, patients should be encouraged to dedicate adequate time and space to their virtual visit in order to minimize distractions. Third, incorporating remote digital diagnostic tools such as automatic blood pressure cuffs, pulse oximeters, and perhaps even digital stethoscopes could enhance care. Many patients have already embraced “wearables” such as the Apple Watch for heart rate and rhythm monitoring, and while more data is needed, these devices have significant potential to enhance remote care [10]. Standards addressing the balance between in-person and telehealth visits may also promote optimal care. For example, treating telehealth as a supplement rather than replacement for traditional medical care by requiring a minimum frequency of face-to-face visits with telehealth visits interspersed, and preferencing face-to-face visits for new symptoms or high-level decision making, could
be implemented and evaluated. Some disciplines, such as the care of patients with congestive heart failure, have already integrated remote monitoring in conjunction with face-to-face encounters; this design has been shown to improve patient health and reduce re-hospitalization and mortality, and may serve as a model for other fields to build upon [11]. Telehealth also opens greater opportunities to include caregivers, or even trusted community representatives, in the visit. Such people could offer insights about patient symptoms, quality of life, preferences, and values; they could also serve as cultural brokers to enhance trust between the clinician and patient and lead to more patient-centered care. Allied health professionals could also be integrated with the purpose of carrying forward care plans via telehealth. For example, pharmacists could titrate medication dosing to achieve guideline-concordant care in between face-to-face visits with the physician.

It is also critical to ensure that patients are not coerced into telehealth visits (or face-to-face visits) based on default assumptions, as opposed to a shared conversation about what is best. Additional supports for optimal telehealth experiences should be developed and reimbursed. For example, community health workers could be used to assist individuals in accessing the full range of technologies necessary for a high-quality visit [12]. Finally, the value of telehealth needs to be studied to ensure that insurance companies can make decisions about reimbursement based on data. With increasing shifts towards value-based care, there is increased incentive to study the value of telehealth experiences. For example, community health workers could also be integrated with the purpose of carrying forward care plans in telehealth. Pharmacists could also be integrated with the purpose of carrying forward care plans in telehealth.

CONCLUSION

Physicians have a duty to provide high quality care and a duty to ensure equitable access to care resources for all patients. As telehealth is integrated more durably into practice models, the medical profession must ensure that it is done so judiciously and with robust quality assurance measures in place. Physicians have a duty to provide care and a duty to ensure equitable access to care resources for all patients. As telehealth is integrated more durably into practice models, the medical profession must ensure that it is done so judiciously and with robust quality assurance measures in place. Physicians have a duty to provide care and a duty to ensure equitable access to care resources for all patients. As telehealth is integrated more durably into practice models, the medical profession must ensure that it is done so judiciously and with robust quality assurance measures in place. Physicians have a duty to provide care and a duty to ensure equitable access to care resources for all patients. As telehealth is integrated more durably into practice models, the medical profession must ensure that it is done so judiciously and with robust quality assurance measures in place.

Table 1. Summary of Suggestions to Promote Ethical, Equitable, High-Quality Telehealth

| Ethical Consideration          | Opportunity                                                                 | Risk                                                                 | How to Reconcile                                                                 | Further Needs |
|-------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------|
| Autonomy versus Beneficence   | More patient input as stakeholders to tailor care to their needs and preferences | Suboptimal care if convenience prioritized over quality              | Establish core quality standards, such as script for scheduling patients to ensure time and space dedicated to virtual visit to minimize distractions, and treating telehealth as supplement rather than replacement for traditional care with core proportion of visits required in-person | More data regarding stakeholder input and satisfaction as well as outcomes; enhancement of visits with remote monitoring tools |
| Distributive Justice          | Increased access for patients who struggle with mobility or transportation issues | Exacerbation of existing disparities in patient populations with limited digital access or health literacy | Make digital platforms as simple and as accessible as possible and increase access to support staff (less "tech-heavy" and more "support-heavy") | Funding to ensure minimum standard of connectivity and device access across populations |
| Unintended Consequences       | Benefits as above                                                           | Reimbursement issues, unnecessary testing, clinician burnout, suboptimal or incomplete execution of care plans | Train clinicians in best practices, partner with community health workers to optimize patient experience and follow-up, design care plans that integrate telehealth with in-person visits guided by disease severity and goals of care | Durable compensation models for telehealth and incorporation into value-based plans |

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dards. These must begin with fair and equitable policies that balance patient autonomy with rigorous standards of care and access. Such a system must recognize the opportunity for more patient input as stakeholders to tailor care to their needs and preferences, while also acknowledging the risk of suboptimal care if convenience is prioritized over quality (see Table 1). Patients should not be viewed as mere “consumers” just as clinicians are not mere “providers.” More studies of optimal care models are needed to integrate data in terms of both stakeholder input and outcomes.

REFERENCES

1. Adams L, Lester S, Hoon E, van der Haak H, Proudman C, Hall C, et al. Patient satisfaction and acceptability with telehealth at specialist medical outpatient clinics during the COVID-19 pandemic in Australia. Intern Med J. 2021 Jul;51(7):1028–37.
2. Singh A, Mountjoy N, McElroy D, Mittal S, Al Hemyari B, Coffey N, et al. Patient Perspectives With Telehealth Visits in Cardiology During COVID-19: Online Patient Survey Study. JMIR Cardio. 2021 Jan;5(1):e25074.
3. Tolchin B, Hull SC, Kraschel K. Triage and justice in an unjust pandemic: ethical allocation of scarce medical resources in the setting of racial and socioeconomic disparities. J Med Ethics. 2020 Oct;medethics-2020-106457.; Epub ahead of print.
4. Non AL, Gravlee CC, Mulligan CJ. Education, genetic ancestry, and blood pressure in African Americans and Whites. Am J Public Health. 2012 Aug;102(8):1559–65.
5. Cajita MI, Cajita TR, Han HR. Health Literacy and Heart Failure: A Systematic Review. J Cardiovasc Nurs. 2016 Mar-Apr;31(2):121–30.
6. Murphy RP, Dennehy KA, Costello MM, Murphy EP, Judge CS, O’Donnell MJ, et al. Virtual geriatric clinics and the COVID-19 catalyst: a rapid review. Age Ageing. 2020 Oct;49(6):907–14.
7. Alkureishi MA, Choo Z-Y , Rahman A, Ho K, Benning-Shorb J, Lenti G, Sanchez IV , Zhu M, Shah SD, Lee WW. Digitally disconnected: A qualitative study of patient perspectives on the digital divide and potential solutions. JMIR Hum Factors 2021 Oct 24 (Epub ahead of print) https://doi.org/10.2196/33364.
8. 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 Nov;59(11):1014–22.
9. Linzer M, Poplau S, Babbott S, Collins T, Guzman-Corrales L, Menk J, et al. Worklife and Wellness in Academic General Internal Medicine: Results from a National Survey. J Gen Intern Med. 2016 Sep;31(9):1004–10.
10. Karmen CL, Reisfeld MA, McIntyre MK, Timmermans R, Frishman W. The Clinical Value of Heart Rate Monitoring Using an Apple Watch. Cardiol Rev. 2019 Mar/Apr;27(2):60–2.
11. Koehler F, Koehler K, Deckwert O, Prescher S, Wegscheider K, Kirwan BA, et al. Efficacy of telemedical interventional management in patients with heart failure.