The Ethics of Trust in Telemedicine

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Abstract
The ethical use of technology in the delivery of healthcare is essential to it having a positive impact on those receiving care. In telemedicine, the practice of caring for patients remotely using video conferencing and other telecommunications technology, there is a greater reliance on technology than in-person medical care, and the role of ethics in its use accordingly presents even greater demands. In this paper, we discuss telemedicine, laying bare the inextricable link between trust and ethics and show how different kinds of trust are indispensable to this mode of caring for patients. We address this topic now, in the wake of the Covid 19 pandemic, because of the prevalence of telemedicine and the consequent need for healthcare providers and recipients alike to be more aware of the ethical obligations associated with its use.

Keywords
Telemedicine, Trust, Ethics, Technology

1. Introduction
There are numerous aspects to telemedicine. We contend that trust lies at the root of the implementation of this use of electronic information and telecommunication to get appropriate health care at a social distance. Different types of trust inherent to beneficial telemedicine are addressed.

The use of technology in medicine, generally, and in telemedicine is pervasive, and built on trust. Trust is essential for ethical behavior in medical care, and anything that undermines that trust is arguably harmful to those endeavors. To be sure, technology is now ingrained in every facet of our lives, and its many advances have proven positive, specifically in the field of medicine. Technology has enabled remote health care, obviously beneficial to its users, particularly in these difficult times of a pandemic. That said, we would like to call attention to the
ethical use of technology in telemedicine, the possibility of the undermining of trust, and consequent adverse and unethical impact on this mode of healthcare.

Two kinds of trust need to be distinguished. The first, what we might call reliability-based trust, is “the reliance on the integrity, strength, truth, ability, surety, etc. of a person or thing” (Dictionary.com, 2020). In this sense, a person who trusts another has complete confidence in him. The second kind of trust is vulnerability-based trust and is what allows people to be genuinely transparent; it is exemplified by the need for professionals to admit when they do not have an answer and are willing to seek help from or consult with another professional. Trust lies at the heart of a successful undertaking. As such, we underline the relationship between trust and telemedicine.

2. Discussion

Telemedicine, as we mentioned, is the practice of caring for patients remotely using video conferencing and other telecommunications technology. It affords care to some who may not be in a position to see a doctor or a medical caregiver because they live too far. We address this topic now, in the wake of the Covid 19 pandemic, because of the prevalence of telemedicine and the consequent need for healthcare providers and recipients alike to be more aware of the ethical obligations associated with its use.

Some of the recent technologies that have been integrated into our lives that constitute evidence of the growing field of telemedicine include:

- On-site kiosks situated in a clinic or job site. They usually consist of a computer interface and some type or types of medical devices to measure vital signs, e.g. blood pressure. The computer provides communication with a physician if required.
- Mobile Apps that can be accessed from a smart phone or mobile device. These are often used to track weight, and sleep patterns. A physician can be contacted via 2-way videos on these apps as well.
- Secure email provides a way of receiving reminders about preventive care and appointments. If the transmission is secure, it is often used for sharing patient medical data as well.
- The Internet has websites, e.g. WebMD that provide vast information about symptoms and diseases and medical treatment.
- Online Video Conferencing allows a patient to have “face-to-face” visits with a healthcare provider remotely.
- The telephone is a technological tool that should not be ignored even though we have been using it for some time already. Patients can speak with physicians, physicians can speak with pharmacists, and physicians can consult with each other using this device (eVisit, 2017).

Future technologies will probably include wearable trackers that can interact with other devices. As a relatively simple example, these could measure weight gain, calories consumed, and calories burned (Sherwood, 2016).
The technology promotes medical care by allowing healthcare providers to share their diagnoses with other experts in the field. It is also used for recording and storing patient history and the transmission of scans such as x-rays and MRIs.

There are some applications of electronic consultations that are presently used for history review, ophthalmology determinations, and other purposes. Remote monitoring is used for managing specific conditions such as diabetes mellitus or enhanced joint management, among other conditions. Telemedicine is employed in some emergencies, but there are several caveats here. For example, providers are not always licensed in the geographical area where the patient is situated, and insurance companies are not willing to reimburse for the costs. In addition, physicians are not always willing to supply the necessary information to suit telemedicine applications for reimbursement either. Another concern is that a number of drugs that are used for chronic pain management cannot be prescribed without an in-person exam and so cannot even be prescribed via telemedicine platforms (eVisit, 2017). In countries with emerging market economies, telemedicine is essential; in remote areas, healthcare providers are scarce or lacking completely. The lack of a communication infrastructure, however, needs to be overcome. There is often limited mobile connection, landline phones, or broadband connection. The best that can be hoped for here is the establishment of health centers that have power supplies. These centers are better for the local communities than no promise of healthcare at all.

The current pandemic encourages the use of telemedicine for those in developed countries as well. The ethical issues surrounding telemedicine are akin to those of face-to-face medical care. We seek a sound doctor-patient relationship, a protection of privacy, a treatment of diverse populations in an equitable manner and a practice of good healthcare (Fisher & Fried, 2003: pp. 103-111).

Since the patient and the doctor are connecting via technology, the patient history may be compromised for no reason other than the patient is not completely comfortable with the technology he used for electronic communication. This could potentially affect the quality of medical care (Fisher & Fried, 2003: pp. 103-111).

Differences in demographics and socioeconomic status are frequently accompanied by differences in access to technology and thereby affect an impartial treatment of people in different circumstances. Given some of the issues with technology today, e.g., hacking, patient privacy could be violated as well (Fisher & Fried, 2003: pp. 103-111).

Another ethical issue is that of cross-border health care. Since telemedicine necessarily means that patient and provider interact at a geographic distance, there is a potential for a conflict of laws. As an example, a practitioner who is licensed in a specific area treats a patient in another area where the practitioner is not licensed. The questions that arise include, did the practitioner violate the laws in the secondary area? What about liability if the patient is treated in a neg-
ligent manner (Fisher & Fried, 2003: pp. 103-111)?

Much the way trust is important to personal relationships, so too is it a critical factor in telemedicine. The patient needs to have confidence in his primary health care contact and in the fact that this contact may initiate consultations with others. The ultimate procedure may be team developed, be it a team of two, the patient and the health care provider or the team of the patient and several health care providers.

Patrick Lencioni, management consultant and author, has pointed out the foundational nature of trust in team dynamics. Lencioni identifies five dysfunctions of a team: absence of trust, fear of conflict, lack of commitment, avoidance of accountability, and inattention to results. On his model, each dysfunction invariably leads to the next. Absence of vulnerability-based trust, the kind of trust when team members are being open and honest with each other, unafraid to admit to mistakes or ask for help, will cause team members to fear and therefore refrain from engaging in conflict around ideas. The team completely avoids constructive debate, and, as a consequence, is likely to achieve inferior results. Fear of conflict, in turn, leads to a lack of commitment. As there has been no real debate around ideas, team members have not registered their opinions on a subject, and no real buy-in occurs. Team members are unaware of where their teammates stand on a given issue, and why. They hold back their feelings and reasoning, and ambiguity prevails. Lack of commitment, thus, results in team members not holding each other accountable. Lastly, when a team member does not feel accountable, he will tend to put his own individual needs ahead of team goals. Lencioni’s recommended solution to these dysfunctions is to turn the pyramid on its head and begin by having the team establish trust. Trust will lead to willingness to engage in conflict, which, in turn, will lead to commitment, and so forth (Lencioni, 2002: pp. 187-190).

Of course, work teams of all kinds, functional, cross-functional, self-directed, integrated product, and virtual exist contemporaneously in today’s world of work, even within one organization. The conventional wisdom is that teams make us more creative and productive and yield better quality services. Team members from diverse backgrounds and opinions can discuss and weigh alternative solutions to a problem, and this, except when teams are dysfunctional, leads to the best possible solution, or, at any rate, to a solution better than one at arrived individually. Success depends in no small way, therefore, on the success of its various teams; the foundation for this success is trust.

3. Conclusion

When seeking medical guidance, people rely on their confidence in the professional. This is manifested by the fact that if the faith in the ability of the expert (specialist) is not of the ultimate level, a second and even third opinion is often desired. Face-to-face medicine has been the accepted norm, definitely prior to the COVID pandemic; as the virus spreads, the social interactions of the popula-
tion have been restricted, and more people are using telemedicine for the promotion of their health issues and well-being in general. There are three major dimensions of trust involved in telemedicine. The first one is, of course, between the patient and the medical professional. This is a reliability based trust, not only in the professional’s ability, but also in his honesty, integrity, and confidentiality. The second one is that the patient must trust telemedicine. This, too is reliability based trust. The patient must have confidence in the technology, that it will not, for example, distort the factual data it reads, but transmit them accurately. This is a relatively new mode of medical treatment, especially in the western world. In more rural areas where there has not been onsite medical diagnosis or treatment for many years, there was no alternative to telemedicine. The third dimension of trust is among the professionals. This is vulnerability based trust. They need to work as a team in many cases and be willing to put their egos aside when necessary and consult with one another. They need to admit when they need input from others.

We are living in unusual times. Telemedicine has been a boon to medical treatment in the past, but now when there are restrictions to staying healthy and limiting outside contact, even more so. Its widespread use has practical implications for both caregiver and recipient. The recipient must be able to trust this mode of seeking diagnoses and treatment. He must be able to rely on the technology and trust his doctors and other medical professionals. The caregiver, in turn, must be trustworthy, something he establishes by behaving with honesty and integrity, by honoring confidentiality and by showing genuine care and concern for the patient. In short, the caregiver becomes trustworthy by behaving ethically. As a caregiver, moreover, there are aspects of healthcare that should be given extra attention. The caregiver must be available when the patient needs attention. When treating a patient via technology, the caregiver should convey sympathy verbally and via facial expressions. It is heartwarming for a patient when the caregiver remembers them. Obviously, the physician assistant or nurse involved in the care should express confidence in his diagnosis (Kimball & Morgan, 2021). Lastly, and this too is part of behaving ethically, doctors must trust their colleagues and be willing to seek consults when necessary.

**Conflicts of Interest**

The authors declare no conflicts of interest regarding the publication of this paper.

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