

Ethical Challenges of Telemedicine & Tele-health

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Introduction

- With rapid adoption of technologies healthcare delivery is less constrained by geography, nationality, or even by institutional boundaries
- Some aspects of the healthcare processes are now shifted from medical centers back into home and communities
- Telehealth applications intended for health promotion, social services, and other activities- for the healthy as well as for the ill
- Health Information websites, on-line support groups, automated telephone counseling, interactive health promotion programs, and electronic mail exchanges
- Growth of consumer health informatics – individuals seeking medical care or information are able to find various health information resources that take advantage of new information technologies

Definition of Telehealth

“Use of electronic information & telecommunication technologies to support long-distance clinical healthcare, patient and professional health-related education, public health and health administration”

US Department of Health and Human Services

Distinction between telehealth & telemedicine

- Telemedicine has a clinician as at least one of the participants, where as telehealth is any use of information technology for health purposes
- What is common – both use ICT & distance separates the participants
- Wide Spectrum of applications
- Linking telephone, video, facsimile, home computers, and other low cost technologies to various devices to facilitate exchange of health related information : Store and Forward system of telehealth service
- Clinical consultation in real time video in an interactive way
- Advance applications such as Tele-intervention in real time e.g. tele-surgery needing high precision technologies and techniques

Definition of Ethics

- Ethics, as related to healthcare, is not simply an attempt by an individual to make moral decision
- As per dictionary definition (Random House College Dictionary)

Ethics are “the rules of conduct recognized in respect to a particular class of human actions or a particular group, culture” that constitutes “a system of moral principles.”

Professional ethics is the systematic application of moral principles through uniform rules of conduct

Ethical Challenges

- Telehealth is not only a technological improvement, but a re-engineering of healthcare processes requiring consideration of socio technical aspects of their design and development
- Some question whether this new model of medical attention is clinically effective and provides positive outcomes for the users.
- Both effectiveness and ethics of such services are still to be proved
- Little time was left to avoid adoption before thinking through moral implications
- Home-based telemedicine is being driven by economic and technological criteria, with little attention to its ethical appropriateness or justification
- Need of development of framework and guidelines through reasoned discussion before technology becomes too entrenched to be able to effect changes

Ethical tensions surrounding telehealth technologies & Practice

- Common ethical concerns: Privacy, Security, Confidentiality and Information accuracy
- Design issues
- Evaluation issues in telehealth and clinical research
- Individuals using the technologies: Informed consent, autonomy, and empowerment
- Relationship among various individuals involved, such as patients, providers, and care givers, and people within a patient's family
- Societal and policy issues

Ethical Issues Concerning Design

- Conflicts between various aspects of technology usage and such ethical principles as abridgement of privacy (including combining and mining data), inaccurate and obsolete data, and security breaches
- Information Overload; Usability and Userfriendliness, Data Standards and Integration for linking patient and personal information to achieve interoperability for individual records, personal health management, and public health; and how new applications fit with changes in healthcare delivery and health information infrastructure
- The quality and accuracy of online information also is of deep concern, which various honor codes and vetting mechanisms have evolved to help ensure
- Whether individuals would use the technology and whether or not it is “usable” or “obtrusive”
- How much are actual users involved in user-centered and user friendly design approaches to telehealth applications

Ethical Concerns relating to Applications

- Informed Consent
- Empowerment & Autonomy
- Changing relationship
- Societal Issues
- Specific care domains: Tele-nursing, Tele-homecare, Acute vs Chronic care etc.
- Internet of things and cloud based telecare
- Third Party role and responsibility (Insurance)
- Fee for service
- eLearning , capacity building,

Conclusion

- Need to broaden and deepen understanding of how to use these technologies that have so much to offer for improving both health and well-being
- Need for evaluation of these technologies that addresses their ethical and social aspects, thereby adding to the thoughtful considerations and colleague's calls for finding ways to use the new technologies to benefit patients and practitioners while avoiding potential pitfalls
- So many questions without answer yet