E-Health: Need to Meet Unmet Needs

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Introduction

Globally, digitalization is an inevitable and irrevocable undertaking. The contemporary digital revolution is unfurling imaginative probabilities and possibilities in almost every discipline, health care being no exception. The current internet age has pushed the healthcare delivery system into a new avatar- e-health (electronic health). Technological advances in health care are becoming more and more prevalent. The term 'e-health' qualifies as a generic blanket term used for Information and Communication Technologies (ICT) in health-allied activities and facilities. Today's healthcare systems rely heavily on electronic health records, computerized medication overviews, and other forms of e-health, including telemedicine-related services like patient triage, teleconsultation, and so on, making it critical for modern healthcare systems around the world.

It is a concerted venture capitalized by health care facilities and hi-tech industries to fully harness the utilities available through the convergence of internet services and health care in a collaborative fashion. It is a dynamic entity ever-evolving, consistently growing and steadily expanding to envision newer and more and more intricate avenues. It is a tripartite synergy of medical informatics, public health, and marketing together rendering health services through the internet and related technologies. In a broader sense, it portrays a mindset, a thought process, a conviction, and an allegiance for 'networked', universal intellect. Digitalization is an irreversible exercise, still trying to dig roots into the healthcare sector, to improve health care locally, regionally, and globally by using ICT.

Basically, 'e-health'/ 'telemedicine' refers to the health service provision when the patients and healthcare providers are not physically present together. e-health and telemedicine systems have the prospect to improve the quality of care, minimize hospital visits, curtail inpatient hospital stays, and cut down on treatment costs. Both contribute to combine the exchange of knowledge between the health professionals and imparts patient access to quality services. Despite geographic and economic restrictions, its application boosts the availability of services and care. In addition, their role is to ensure that patients with minor illnesses receive necessary supportive treatment while minimizing their exposure to other patients with acute conditions, particularly contagious diseases [1].

During the ongoing epidemic, telemedicine has emerged as a vital tool for providing medical advice to patients while attempting to limit viral transmission among patients, their families, and treating physicians. So, the development of akin services can notably help to manage the pandemic better. As mentioned above, one of the potentials of e-health is to escalate efficiency and bring down the costs in health care. Enhanced patient involvement and avoiding unnecessary diagnostic as well as therapeutic interventions are the possible

means to take the edge off the costs. Efficiency improvement entails not only cost reduction but also refinement of quality. By expediting comparisons among individual service providers, (with consumers acting as additional authority for quality assurance), e-health may revamp the standard quality of care by regulating the patients to the best-quality providers. As a result, the efficacy and efficiency of e-health interventions must be demonstrated through rigorous scientific evaluations rather than assumed.

Due to the advent of e-health, consumers can now access medical information and personal electronic records on the internet at any time. It also empowers the patients to make choices based on the available data. Fostering of a new patient-health professional alliance is based on an actual collaboration where a conclusion or resolution is reached after due consideration by mutual consensus. Both physicians (continuing medical education) and consumers (consumer learning) can cash in from online health education services suited to their specific requirements. It also allows for standardized data transmission and exchange of information, and communication between healthcare organizations. Stretching the ambit of healthcare facilities beyond their traditional limits, health services are readily available to consumers via the internet from global providers through e-health. These services might range from elementary counseling to additionally complicated interventions, depending on the intricacy of the interference [2].

Ethical issues must be contemplated when developing and implementing e-health and telemedicine applications. While they introduce new genres of patient-physician interaction, yet fresh risks, strains, and dangers do uprise. Validity of online professional practice, dispensing informed consent, privacy concern, and equity issues are among the ethical challenges and threats posed by e-health. 'Health technology' is viewed negatively by a good number of doctors due to their concern about ineffective data protection. Both -data security and privacy for electronically collected health data- are recognized as unresolved issues. There is skepticism that the digitized data could potentially be exploited and relegated to insurance companies, precipitating irreversible damage. Currently, legal and ethical considerations do not have adequate funding to support them. Besides security and privacy aspects, inconsistent responsibility has surfaced as yet another concern.

For the successful integration of e-health into the current medical system, the attitudes of the medical staff must be favorable. Guidelines for structural and organizational design must be clearly established. To increase the adoption of health technologies, the development of adequate business models and the involvement of healthcare professionals, including clinicians, researchers, nurses, and students, are vital. This could help reduce skepticism among users in the healthcare sector too.

One of the additional pitfalls is the concern regarding the reliability of online health information and its quality control. So, the retrieval of health-related information by patients might serve as a double-edged sword. While an informed patient might experience good compliance and self-care, treating physicians might feel that their clinical decision-making is being negatively impacted by distorted and inappropriate health information retrieved online. Doctor-patient interaction is also related to a variety of potential challenges of health technologies encountered in medical practice, mostly pointing out the perceived negative impact caused by reduced traditional face-to-face contact. Modern health technologies affect the healing relationship between practitioners and their patients through complex social processes leading to objectification, commodification, and standardization of care [3].

Health care equity is one of the 'e-promises' of the new system. Presently, there is a "digital divide" that separates rural and urban populations; the rich from the poor; the young from the old; men from women; and neglected/rare from common diseases. However, there is a real risk that e-health could exacerbate already existing inequalities. People who lack the necessary funds, skills, and access to computers and networks may be unable to garner the benefits. Unless political efforts provide equal access for all, the patients who might benefit the most from health information are the ones who are least likely to gain from technological advances. Above all, digital health should be simple to operate, enjoyable, and thrilling. People will have reservations if they find it boring or uninteresting. To increase respective knowledge and awareness among healthcare professionals, e-health and telemedicine should be integrated into the medical curriculum (undergraduate and postgraduate) as well as of advanced education and training for medical staff.

The application and utilization of e-health and telemedicine facilities are anticipated to escalate globally until it reaches the goal of almost 100% penetration. Likewise in our own country, it has earned an immense potential of boosting the healthcare delivery system and is proficient enough to transform the panorama of the healthcare industry. In India, Government has taken several measures towards its objective of executing e-health in an integrated fashion across the country. The focus is to bring about advancements in the public health delivery system, making it accessible in the comfortable ambiance of homes. The purpose of such programs is to ensure that services are more widely available, especially in rural and inaccessible places, by bridging the health resource gap through effective and optimal use of current resources. This helps improve patient safety, simultaneously reducing the cost.

In conclusion, digitization in everyday medical practice has gained importance in a very short span. However, there is a paucity of familiarity with the concept of e-health and telemedicine for common folks, especially in developing countries like ours. In this regard, there is a need for more comprehensive, user-friendly, and well propagative, and reproducible technical breakthroughs. Furthermore, for the successful implementation, acceptance of e-health and telemedicine services by consumers is crucial. The ratification by doctors and other health professionals is equally essential to fully exhaust the possibilities of novel health technologies in everyday patient care.

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