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THE PERSONAL ATTENTION OF PRACTICING TELEMEDICINE: STABILITY, DEPENDABILITY, AND PATIENT FOCUSED TELEMEDICINE SOLUTIONS

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Abstract

As we are living in an internet-enabled society, many organizations have lost the human touch in conducting day-to-day operations. Many internet users of so-called apps are concerned about the privacy and security of their most confidential data especially in relation to healthcare. This paper addresses the need for healthcare professionals in giving personal attention to healthcare recipients when practicing telemedicine and the security, patient privacy and patient centric nature that promotes the human touch through technology from a physician's perspective.

Keywords: Telemedicine, Security, Patient Privacy, Human Touch

INTRODUCTION

The field of telemedicine is increasing rapidly every year, with a great number of solutions to meet the requirements of patients and healthcare providers. A report from Mordor Intelligence entitled Telemedicine Market Analysis states that the telemedicine market size is expected to grow from USD 151 billion in 2023 to USD 290 billion by 2028 at a CAGR of 13.88% during the forecast period (2023-2028) **[1, 2].** From a regulatory standpoint, this expansion will intensify as telemedicine initiatives align with the goals of the Ministry of Health and Welfare and the Department of Information Technology to reduce healthcare expenses and improve quality of care to patients.

Finding the right solution for healthcare organization can be disheartening given the unique requirements of physicians, patients and practice, and the complex nature of the technology including permissions, licensing, reimbursement, and regulatory issues. Then how do physicians find a reliable, secure telemedicine platform that is flexible and used in various healthcare settings? Provided that human connectivity is the basis to maintain personal touch with patients while using what is perceived as detached? Since telemedicine continues to grow, how can one create an experience that integrates flexible and safe technology that also provides the best care for patients?

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Progress of Telemedicine

Telemedicine provides patients with instant access to efficient, cost effective and fast care. Whether used to monitor patient conditions in regions where specialty care is not available, manage chronic diseases or in emergency situations, telemedicine applications provide remarkable benefits for both patients and physicians. Research shows that telemedicine is assured for grand expansion as well as consumer trust. According to webinarcare.com, India predicts a 15% increase in the telemedicine market from 2023 to 2025 **[2].** Given the probable growth, and augmented of telemedicine platforms which to choose, there are numerous factors that healthcare organizations must carefully consider when assessing these solutions.

Security in a Mobile World

While physicians send medical records from their smartphones or tablets, their patient's confidential information can be hacked and misused. Telemedicine applications that integrate safety measures like password protection and data encryption is crucial in preventing misuse of information. "Bring Your Own Devices" (BYOD) has increased safety risks significantly, since healthcare providers prefer their own devices for both personal and professional purposes **[6, 7, 8 – 10].**

There is an increased usage of mobile devices and communication in the field of medicine, but in reality, there is a large population of healthcare providers who find it difficult to manage patient information properly. As physicians, it is necessary to have complete awareness of such issues and incorporate technologies that ensures security of patient health records and privacy.

Military Level Security for Patient Privacy

To safeguard patients' confidential information, developers of telemedicine applications are employing military level mobile security solutions. The problems caused by tablets and smartphones requires a comprehendible strategic security and expertise in using these security tools with the telemedicine applications. This implies having a deep understanding and knowledge of technology that hospital administrators and most healthcare providers and are unaware of.

An important aspect in securing a telemedicine platform is ensuring that the security extends past the device, encrypting the information being transferred over unsecured networks. According to Health Insurance Portability and Accountability Act (HIPAA) guidelines and the Health Information Technology for Economic and Clinical Health Act (HITECH), security is crucial in maintaining patient confidentiality **[5].**

While considering a mobile application to support telemedicine services, the software developers should:

- Use HIPAA – compliant messaging, information storage, voice and file transfers that enable physicians and patients to communicate securely.

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- Patient information should be stored in data centres which offer maximum security by conducting risk assessments regularly.
- Integration with existing communication systems like text messages, email, SMS, Android, Apple, and Microsoft devices.
- Distribution and accessibility to sensitive information from a mobile device securely; transferring data over industry standardised encrypted connections and deny access to non-compliant devices or unauthorized users.
- Making use of unique identification techniques, which includes usernames and passwords **[8, 12].**

Discovering the Human Touch of Telemedicine

Lack of personal interaction with mobile applications is a major hurdle that telemedicine services must address. Many services may leave out the main elements required by physicians to provide effective care. There is a need to address how physicians can work within a virtual environment and provide a personal touch.

Firstly, one should recognize that personal interaction must take up a new role in the online environment. Telemedicine services must benefit from innovation by making more efficient and speedy connections between patients and physicians. Healthcare providers must believe that telemedicine services can greatly help them achieve a personalized patient experience with a desired result.

Secondly, finding a vendor who understands physician's requirements. This is easier said than done. Since telemedicine vendors are IT professionals and not healthcare providers. To show that physicians can provide the same level of service whether in person or via telemedicine services, healthcare practices need a technology partner that can understand requirements and work synergistically. An excellent way in ensuring high quality and reliable telemedicine services that provides compassionate and personalized care is by collaborating with a telemedicine vendor **[11, 12].**

A patient-centric system that promotes the "Human Touch" through technology from a physician's perspective should include:

- Web and mobile access to medical services anywhere, anytime and on any network enabled device.
- A user interface that is easier to use which does not intimidate both physicians and patients.
- A solid yet flexible platform which can be configured for either direct patient-provider interaction, home monitoring or a hub and spoke model.
- A comprehensive level, in today's era that allows healthcare professionals to gather resources and tools so that they can view various on-call rosters and manage patient volume.

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- Camera/Picture applications which allow patients by using a mobile device to share clear pictures of their health issues like rashes on the skin or wounds.
- An electronic medical record (EMR) system which allows physicians to view patient's records and assists patients in producing an invoice for insurance purposes.
- Multilingual patient care agents to help patients through the consultation and providing additional services.

CONCLUSION

Due to the rapid growth of telemedicine industry, there is great opportunity for healthcare providers to provide a highly personalized quality care with reliable and secure services. The main point is to discover a solution that merges a patient-centric, securitized, and reliable innovation that gives a functional technology without compromising on the human touch.

In today's world, which is increasingly interconnected through technology, it is essential that the medical fraternity accepts the changes and the challenges in continuing to offer the highest quality care to the society.

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