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Evaluating the Medical Professional Practice based on Merits and Demerits of Telemedicine from Doctor's Perspective in Western Maharashtra

Raiba Deshmukh[1], Priti Shah[2], Aditi Dubey[3], Gehna Gehlot[4]

[1]Associate Professor, Department of General Surgery, Symbiosis Medical College for Women & Symbiosis University Hospital and Research Center, Symbiosis International (Deemed University), Pune, India.
[2]Professor, Department of General Surgery, Symbiosis Medical College for Women & Symbiosis University Hospital and Research Center, Symbiosis International (Deemed University), Pune, India.
[3]Intern, Department of General Surgery, Symbiosis Medical College for Women & Symbiosis University Hospital and Research Center, Symbiosis International (Deemed University), Pune, India.
[4]Intern, Department of General Surgery, Symbiosis Medical College for Women & Symbiosis University Hospital and Research Center, Symbiosis International (Deemed University), Pune, India.

Corresponding Author: Dr. Raiba Deshmukh

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ABSTRACT

Telemedicine has significantly impacted healthcare delivery, particularly in the wake of the COVID-19 pandemic. This study aimed at evaluating the merits and demerits of telemedicine from the perspective of medical professionals practicing in tertiary care centers and private hospitals across Western Maharashtra. Using a cross-sectional descriptive design, data were collected via a structured questionnaire from 25 postgraduate doctors across various specialties, including general medicine, surgery, pediatrics, dermatology, obstetrics and gynecology, orthopedics, and psychiatry.

Findings revealed that 41.7% of respondents used telemedicine daily, with mobile-based video consultations being the preferred modality (70.8%). While 87.5% agreed that telemedicine improved patient access, significant technical challenges were reported—41.7% faced internet issues, 33.3% experienced software glitches, and 16.7% noted platform lag. Financial dissatisfaction was widespread, with most doctors unable to determine consultation fees based on time spent and only 58.3% receiving timely payments. Additionally, 66.7% felt that patients did not adequately respect their time and expertise during virtual consultations.

Despite these challenges, the majority acknowledged that telemedicine allowed sufficient time for patient interaction and facilitated efficient appointment scheduling. The study highlights the need for improved digital infrastructure, transparent remuneration models, and patient education to enhance the effectiveness of telemedicine. Improved strategies and acceptance by the patients are key to bridge healthcare gaps and improve health service accessibility.

Keywords: Telemedicine, Doctors, Professional Practice, Mobile Applications

INTRODUCTION

Telemedicine, as defined by the World Health Organization (WHO) in 2010 states that "it is the provision of health services remotely using information and communication technologies (ICTs) with the aim of improving the health of the population" [1]. It covers a huge spectrum from virtual consultations to use wearables to monitor and integrate patient data into medical records [2].

Telemedicine enables easier access by eliminating travel constraints, time away from work, waiting periods, and the risk of contracting infectious diseases [3]. The use of telemedicine has significantly increased since the COVID-19 pandemic, enhancing access to medical consultations, improving health outcomes, and yielding high levels of patient satisfaction. Telemedicine presents several drawbacks, including the potential for inappropriate antibiotic prescribing and excessive healthcare use for conditions that typically resolve on their own [4]. Despite rapid advancements in technology and increased availability of digital resources, digital literacy remains a significant barrier. While using devices or apps may appear straightforward and accessible, this experience can vary greatly across different age groups and rural communities. Given the benefits of telemedicine, it is crucial for healthcare systems to focus on its strategic implementation and growth. Telemedicine holds the promise of revolutionizing care delivery by improving access for isolated and marginalized populations, while also lowering expenses for both healthcare providers and recipients. Realizing this potential, however, requires the development of robust legal frameworks, technological support, and cultural acceptance [5]. And through this study we aim to understand the merits and demerits of telemedicine from doctors' perspective.

MATERIALS AND METHOD

Design:

Cross sectional descriptive design using a structured questionnaire to explore doctor's perspective on merits and demerits of using telemedicine.

Data collection:

A simple sampling method will be used to select doctors from tertiary care centers and private hospitals for the study. And a structured questionnaire was used to analyze the perspectives of doctors. The following inclusion and exclusion criteria were followed:

Inclusion criteria

1) Minimum 1 month of experience of using telemedicine platform
2) willingness to participate voluntarily
3) Currently practicing in a Tertiary care center and Private hospitals

Exclusion Criteria

1) Doctors practicing Out of India
2) Doctors with Ayurvedic and Homeopathic qualification
3) Doctors not willing to participate voluntarily

Sample Size:

Considering confidence level of 95% with margin of error of 5% and population portion of 50%, a sample size of 25 doctors was taken for the study.

Data analysis:

Quantitative data from the questionnaire will be analyzed using descriptive statistics. Qualitative responses will be documented to identify common patterns.

RESULTS

A total of 25 postgraduate medical professionals from diverse specialties—including general medicine, general surgery, pediatrics, dermatology, obstetrics and gynecology, orthopedics, and psychiatry—participated in the survey. Among them, 58.3% reported experience practicing telemedicine in urban settings, while only 8.3% had exposure to rural telemedicine practice.

Regarding frequency of use, 41.7% of respondents indicated daily engagement with telemedicine platforms, 25% used it several times a week, another 25% used it occasionally, and 8.3% reported rare usage. Video communication was the preferred modality for teleconsultation among 70.8% of participants (Figure 1), and 83.3% accessed telemedicine services primarily through mobile devices.

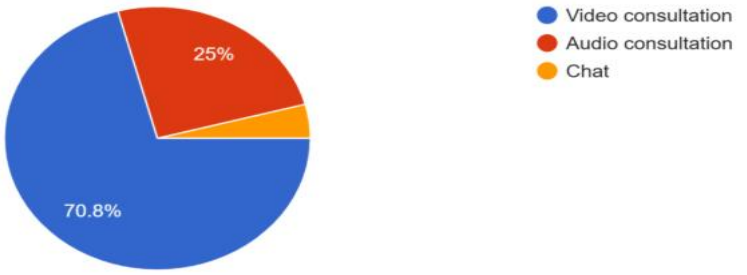

Figure 1: Preferred method of communication with patients on Telemedicine platform

In terms of perceived benefits, 87.5% agreed that telemedicine enhances patient access to care. However, technical challenges were noted: 41.7% experienced internet connectivity issues, 33.3% encountered software glitches, and 16.7% reported platform lag. Despite these issues, most respondents were able to schedule patient appointments within five to fifteen minutes.

Financial concerns were prominent. Nearly all participants expressed dissatisfaction with the remuneration per teleconsultation, and 87.5% reported that they were unable to determine consultation fees based on the time required to address patient queries (Figure 2). Only 58.3% confirmed receiving timely payments from telemedicine service providers.

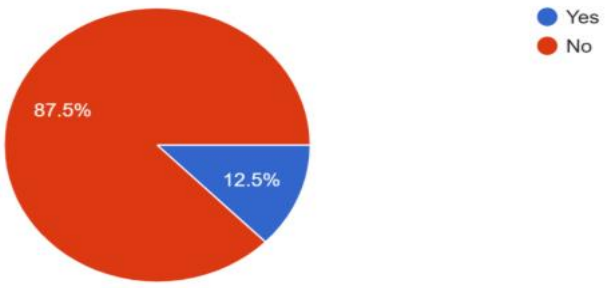

Figure 2: The charge or fee for the consultation provided to patient depends upon the time taken by patient to answer his/her queries and doubts

Regarding consultation quality and time management, 70.8% felt that the platform allowed adequate time for patient interaction, yet 66.7% believed that patients did not sufficiently respect their time and expertise. While 75% acknowledged that the platform facilitated appointment reminders and follow-ups at the physician's convenience (Figure 3), only 50% were satisfied with the frequency of consultation calls initiated by the service. Additionally, 58.3% reported difficulty in following up with patients when needed.

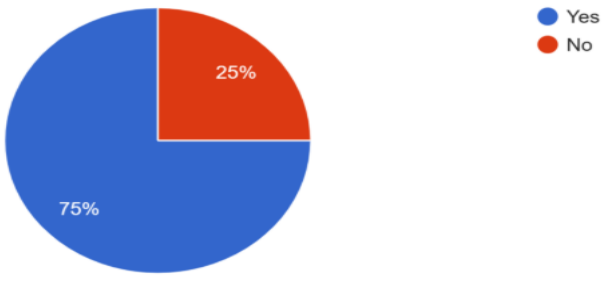

Figure 3: Telemedicine platform allows appointment reminders and follow-up as per convenience

Access flexibility was affirmed by 62.5% of respondents, who could use the platform at their preferred time and location. Awareness of legal and ethical considerations was high, with 87.5% indicating familiarity with relevant guidelines. However, 70.8% had not received formal training from the concerned authority prior to initiating telemedicine practice.

Clinical limitations of telemedicine were also highlighted. A significant proportion (83.3%) believed that telemedicine platforms are inadequate for specialties requiring physical examination. Furthermore, 75% considered it inappropriate to provide consultations to patients' relatives during emergencies—such as myocardial infarction, stroke, or pregnancy—without direct clinical assessment (Figure 4). Similarly, 75% deemed teleconsultation unsuitable for patients with severe psychiatric conditions.

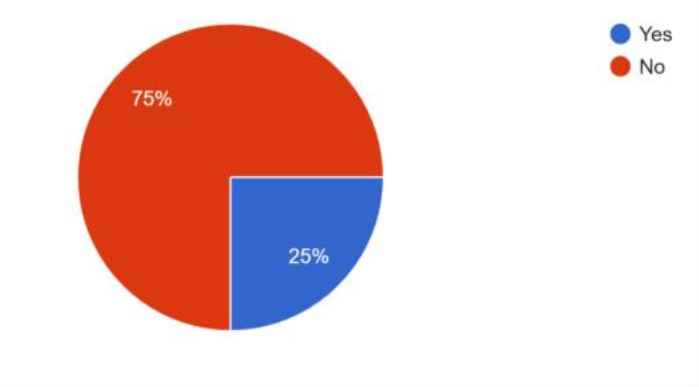

Figure 4: Is it appropriate to provide opinion/consultation to patients' relative in emergency of patients' condition on Telemedicine platform without clinical examination

Despite these concerns, 95.8% of participants supported the issuance of fitness or sickness certificates via telemedicine (Figure 5). Conversely, 91.7% felt that discussions on political, religious, or spiritual matters during consultations were inappropriate. While 70.8% reported being able to assess patient satisfaction and clinical outcomes, 62.5% noted the absence of meaningful feedback or appreciation from patients (Figure 6).

When asked about the role of telemedicine in medical education, responses were mixed. Some participants viewed it as non-essential, while others acknowledged its potential, contingent upon substantial improvements. Lastly, 70.8% of respondents opposed the commercialization of telemedicine services for both physicians and patients.

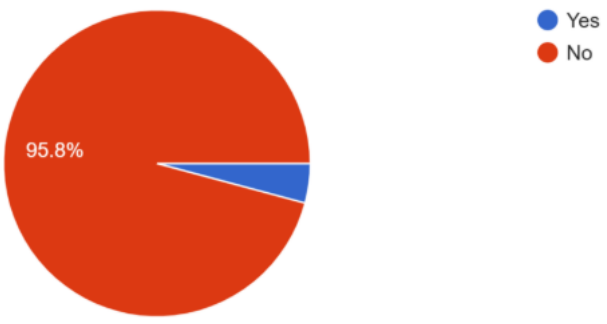

Figure 5: Is it appropriate to provide fitness certificate or sickness certificate on Telemedicine platform

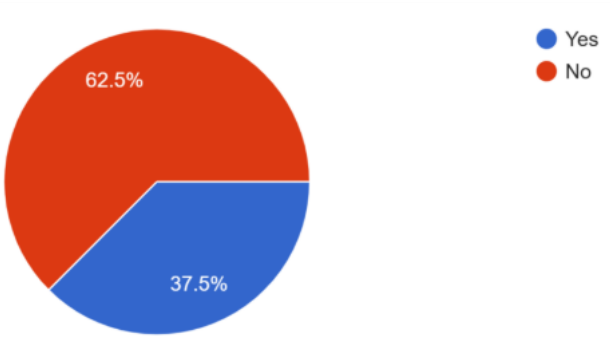

Figure 6: If proper feedback and timely appreciation by the patient was received

DISCUSSION

Telemedicine has rapidly evolved in healthcare practices, particularly following the COVID-19 pandemic. This study reveals that most doctors in Western Maharashtra engage with telemedicine platforms frequently, with video consultations via mobile devices being the preferred mode. This emphasis how technology has grown and how convenient it has become especially in urban sectors.

However, there are several challenges that persist. Technical issues such as poor internet connectivity and software glitches hinder consultations. Financial dissatisfaction is a major concern—most doctors feel undercompensated and lack control over fee structures, with only 58.3% receiving timely payments. These limitations may affect long-term adoption and satisfaction.

Despite these drawbacks, telemedicine is valued for improving patient access and scheduling efficiency. Yet, doctors report that patients often fail to respect their time and expertise, indicating a need for better patient education on virtual consultation etiquette.

To fully realize telemedicine's potential, strategic improvements in infrastructure, digital literacy, and transparent compensation models are essential. Addressing these gaps will enhance both provider satisfaction and patient care quality, paving the way for sustainable integration into healthcare systems. Although the study emphasizes the key trends, the small sample size (n=25) restricts applicability. Hence further studies need to be carried out in this to strengthen conclusions on telemedicine and build better policies.

CONCLUSION

From a doctor's perspective, telemedicine presents a mixture of opportunities and challenges. While it enhances access and flexibility, concerns around quality of care, technology and ethics remain. With proper training, institutional support, and policy clarity, Telemedicine can evolve into a sustainable and integral part of modern clinical practice. Telemedicine is a pivotal for the health care system.

Declaration by Authors

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