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Telemedicine: Healing By Information Superhighway

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ABSTRACT:
Telemedicine is the practise of using information and digital technology to diagnose and treat patients in remote locations. In India, it is difficult to provide in-person healthcare because of the vast geographic distances and few resources. The government is dedicated to ensuring that everyone has access to high-quality healthcare, and digital health is a key enabler for the system's entire transformation. Therefore, integrating telecare into health systems will reduce access hurdles and inequity. In cases where there is a risk of communicable illnesses and disasters, telemedicine offers patient and healthcare worker safety. Telehealth can help patients, particularly those who live in remote areas, save money and time because they don't have to travel far for health care. For licenced medical practitioners, the absence of defined criteria has led to substantial uncertainty and raised concerns about the use of telecare. The effectiveness and results of the nation's healthcare system will increase with the integration of home healthcare. The results of this study highlight the significance of developing creative approaches to forge cooperative relationships with those in need of telemedicine-based healthcare.

Key words: Confidentiality;Ethics;Health; Information Technology; Telemedicine

I. INTRODUCTION:

The World Health Organization describes telemedicine as "The delivery of health-care services, where distance is a critical factor, by all health-care professionals using information and communications technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and the continuing education of health-care workers, with the aim of advancing the health of individuals and communities."[1] Health education, counselling, and medications are effective forms of treatment in Smart health.Licensed physicians using telecare must adhere to the same professional conduct, etiquette,ethical norms and standards as those regulating traditional in-person care, within the confines of the technology's inherent limitations. The "Telemedicine practice guidelines" were released by the Board of Governors on March 25, 2020, allowing licenced medical professionals to deliver care via telemedicine.[2] The Indian government's first-ever online OPD (outpatient) consultation facility is called eSanjeevani which was created by the Ministry of Health and Family Welfare. Military service members, veterans, and their families can access telecare services through the Services e-Health Assistance and Tele-consultation (SeHAT) site. The Center for Development of Advanced Computing, Mohali (CDAC) and The Headquarters of the Integrated Defence Staff (HQ IDS) have created Services e-Health Assistance andTele-consultation (SeHAT) OPD, which is similar to eSanjeevani.[3] To enable high-intensity coverage and fill the gap for overnight ICU care, intensive care unit telemedicine (Tele-ICU) may be used within a hybrid paradigm of care. Further, it is not possible to assess patient physically by the doctor through m-Health which may affect the proper and complete examination of the patient. Maintaining confidentiality of thepatient information is another issue through telemedicine.[4,5] ThisStudy emphasizes the value of developing creative approaches to build cooperative relationships with those in need of e-Health.

II. MATERIALS & METHODS:

The goals and objectives were to ascertain and get a comprehensive grasp of telemedicine and how it might be applied to the delivery of healthcare services such public health, patient care, education, management, and research. After receiving approval of research from the institutional ethics committee, the current study was started. The department of forensic medicine and toxicology at Jawaharlal Nehru Medical College in Belagavi is where the current study was carried out. This Retrospective study focused on cases that were registered and had full consultations in four basic health unit areas attached to Jawaharlal Nehru Medical College in Belagavi, namely Ashok Nagar, Kinaye, Rukmini Nagar, and Vantmuri. Between September 2021 and August 2022, this research was done. The

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Excel spreadsheet and the noted observations were used to analyse all the data gathered.

III. RESULTS:

4174 consultations were conducted in Belagavi throughout the period of the preceding year, among the four Basic Health Unit Areas attached to Jawaharlal Nehru Medical College as shown in Table 1. The gender split was about 54.8% female, 45.1% male and 0.1% transgender as shown in Figure 2. Up till August 2022, around 6.3 million consultations were conducted across all of India.[6] It is noteworthy that during the COVID-19 outbreak, smart health was used to consult on an average of 100–150 patients per month using real-time video, audio, and text-based communications. It is therefore obvious that home healthcare was successfully employed throughout the pandemic on an unrestricted basis. Patient consultations with licenced medical professionals are facilitated by a health worker and Ayushman Bharat Health Account Number, name, age, residence, contact information, or any other registered ID that may be deemed relevant should be used to authenticate and validate the patient's identification before arranging for them to see a registered medical practitioner in telecare.

IV. DISCUSSION:

In terms of digital health, "A broad umbrella termencompassing eHealth, as well as emerging areas, such as the use ofadvanced computing sciences in 'big data', genomics and artificial intelligence"[7]. Telehealth may be extremely helpful in ensuring that all impacted people receive prompt treatment and care during a disaster crisis or pandemic like the COVID-19. If it is an emergency, the patient must get crucial life-saving first aid instructions before receiving the proper referral via teleconsultations. In order to effectively serve the requirements of those in need with telecare services, information technology-related instruments and services must be developed at the grassroots level. In order for physicians to give patients with better treatment, artificial intelligence may offer them sophisticated information and communication environments.[8] Registered medical professionals have the option of purchasing Medical Indemnity Insurance to protect themselves against financial losses resulting from accusations of negligence via smart health while they are being defended in court. The Insurance Regulatory and Development Authority of India (IRDAI) has requested in a letter that general and health insurers permit claim settlement for teleconsultations with regard to the patient's payment of medical claims.[8] The elderly and people with disabilities can obtain high-quality healthcare through e-Health. By bridging the digital health gap between rural and urban areas, digital health lowers patients' out-of-pocket costs for healthcare services. Since physical follow-ups often occur less frequently than telecare services, it is even more crucial in the case of follow-up. A Registered Medical Practitioner (RMP) may use telemedicine services to consult with another RMP or a specialist for a patient under their care. RMP may, in accordance with his or her professional judgement, start such discussions. Continues to be the treating RMP and is in charge of the patient's care and other suggestions. The classifications of recommended medications include Group O, A and B. Widely used "over-the-counter" drugs including paracetamol, packets of oral rehydration solution (ORS), antacids, etc. were included in List Group O. List Group A consists of regularly prescribed drugs that can only be diagnosed by video consultation, such as antifungal drugs for Tinea Cruris, Ciprofloxacin eye drops for conjunctivitis, etc., and refill drugs for long-term conditions like diabetes, hypertension, asthma, etc., List Group A drugs are those that can be prescribed during the video consultation portion of the initial appointment and are re-prescribed for refills in the event of a follow-up. The "add-on" drugs in List Group B are used to improve an existing ailment. An ACE inhibitor like Enalapril, may be prescribed if the patient is already taking Atenolol for their hypertension and their blood pressure is not under control. Teleconsultations for drugs on the Prohibited List include those on Schedule X of the Drug and Cosmetic Act and Rules as well as any narcotic or psychoactive substance specified on the Narcotic Drugs and Psychotropic Substances Act, 1985 list. Examples include anti-cancer medications and narcotics like morphine and codeine. These medications carry a significant risk of abuse and, if misused, might be harmful to the patient or society as a whole.[10]

V. CONCLUSIONS:

Access to healthcare that is both rapid and affordable is made possible via telemedicine. In a COVID-19 pandemic, teleconsultations can stop the pathogen from spreading. Any telecare consultation must have the patient's Consent. Explicit or implied Consent is both acceptable. The storage and sharing of electronic health records should be governed by home healthcare to safeguard the data's security, authenticity, and anonymity. Even though the majority of other

nations have comprehensive telemedicine laws, India did not have any legislation concerning Telehealth practise until very recently. Additionally, both doctors and their patients are at danger because of legal gaps and uncertainty of guidelines in order to protect the privacy, confidentiality, and security of the data. Therefore, there is a tremendous need to fix this problem with our Indian Health System.

The results of the present investigation lend credence to the following assertions:

1. It was found that there is no appreciable difference in patient care between "in person care" and telemedicine in non-emergency situations.
2. Additionally, it minimises the psychological and social stress related to visiting a hospital.
3. However, there are still certain difficulties with privacy, confidentiality, and security of electronic health data that the government has to address before teleconsultations can become the gorgeous and excellent face of the Indian healthcare system of the future.
4. There is a paucity of knowledge regarding telemedicine services in remote and indigenous areas. If the government set up appropriate Information, Education & Communication (IEC) strategy campaign, the standard of healthcare provided via digital health would considerably improve.
5. If telemedicine is utilised to treat minor medical ailments, it relieves the strain on medical personnel, makes it simpler to treat critically ill patients.
6. Lowers the risk that patients may contract hospital acquired illnesses.

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REFERENCES:

[1]. TELEMEDICINE- Opportunities and developments in Member States [Internet]. Who.int. 2010 [cited 22 September 2021]. Available from: https://www.who.int/goe/publications/goe_telemedicine_2010.pdf
[2]. MOH | National Telemedicine Guidelines [Internet]. Moh.gov.sg. 2015 [cited 26 September 2021]. Available from:https://www.moh.gov.sg/resourcesstatistics/guidelines/nationaltelemedicine-guidelines
[3]. NFPC | Indian Navy veterans- SeHAT OPD [Internet]. Available from:SeHAT OPD - Medical Tele-consultation for personnel of Armed Forces
[4]. Ateriya N, Saraf A, Meshram VP, Setia P. Telemedicine and virtual consultation: The Indian perspective. Natl Med J India. 2018 JulAug;31(4):215-21
[5]. De Bustos EM, Moulin T, Audebert HJ. Barriers, legal issues, limitations and ongoing questions in telemedicine applied to stroke. Cerebrovasc Dis 2009;27 Suppl 4:36–9.
[6]. eSanjeevani OPD - National Telemedicine Service [Internet] Available from:https://esanjeevani.in/
[7]. WHO Guidelines: "Recommendations on digital interventions for health system strengthening", 2019, Available from:https://www.who.int/reproductivehealth /publications/digital-interventions-health-system-strengthening/en.
[8]. Kuziemsky C, Maeder AJ, John O, Gogia SB, Basu A, Meher S, Ito M. Role of Artificial Intelligence within the Telehealth Domain. Yearb Med Inform. 2019 Aug;28(1):35-40.
[9]. Guidelines on Telemedicine [Internet]. Irdai.gov.in. 2020 [cited 22 September 2021]. Availablefrom: https://www.irdai.gov.in/ADMINCMS/cms/frmGuidelines_Layout.aspx?page=PageNo4155
[10]. BOARD OF GOVERNORS |Telemedicine Practice Guidelines 2020[Internet]. https://www.mohfw.gov.in

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Tables:

Table1: Frequency distribution of consultations in various Basic Health Unit Areas through Telemedicine (n=4174)

Basic health unit Areas	Consultations completed	Prescriptions Awaited	Average Consultations /Day	Unique Patients	Gender Distribution % (Male/Female)
Ashok Nagar	617	15	1.50	553	45.9/ 54.1
Kinaye	972	5	1.38	764	37.3/ 62.7
Rukmini nagar	1139	29	1.62	1041	49.5/ 50.5
Vantmuri	1446	0	2.06	1342	47.8/ 52.2

Figure legends:

Figure 1:Telemedicine implementation methods

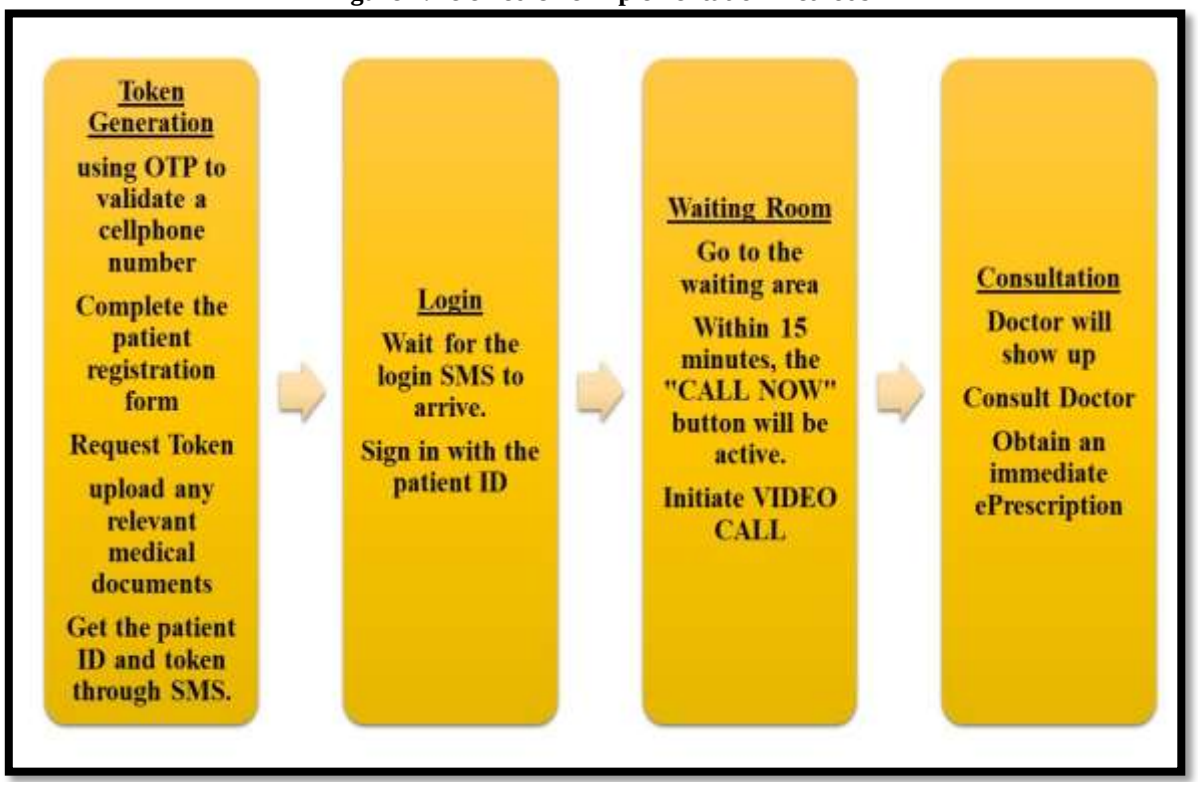

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Figure 2: Gender distribution of study cases (n=4174)

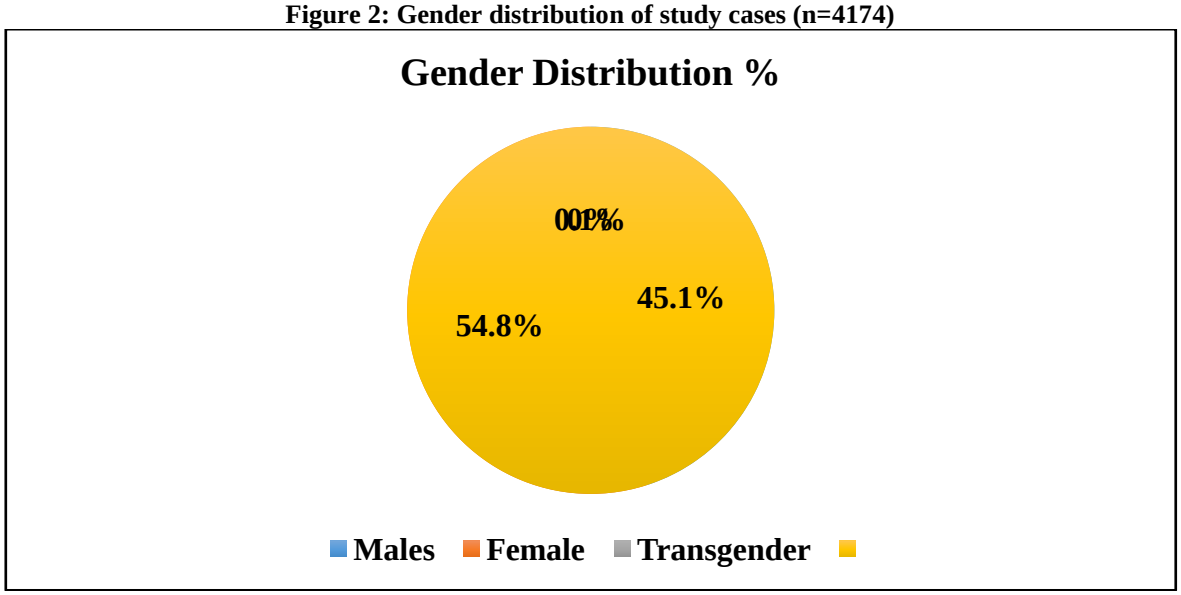

Figure 3: Frequency distribution of consultations in various Basic Health Unit Areas through Telemedicine (n=4174)