



## A STUDY TO ASSESS THE NEED AND ACCEPTANCE OF TELEMEDICINE BY DOCTOR, PATIENT AND ADMINISTRATIVE STAFF IN G.S HOSPITAL, SHOLINGHUR

**V.NANDHANA  
PRASHANTH**

Student MBA in Hospital Management, Annamalai University, Chithambaram, Tamilnadu, India. - Corresponding Author

**N. JUNIOR  
SUNDRESH**

Associate Professor of Surgery, Raja Muthiah Medical College, Annamalai University, Chithambaram, Tamilnadu, India.

### ABSTRACT

**Background and objective:** 1. To identify the needs which influence the technology acceptance by medical professional, administrative staffs & patients 2. To study the telemedicine system performance in the hospital.

**Methods:** The study was descriptive on the basis of analysis of data. The research approach includes collection of information, attitude and opinion directly from the concerned doctors, administrative staffs and patients through structured open and close ended questionnaires and direct interview.

#### Results:

According to our study,

- 1.80% of doctors agree that using telemedicine technology is more flexible in providing patient care.
- 2.71% of administrative staffs feel that among the factors affecting the telemedicine performance is due to non availability of doctors while 29% points to miscellaneous factors like power failure and none faced problems with technical failure.

**Conclusion:** Majority of the administrative staffs are in favor of telemedicine. This technology helps in improving the image of the hospital, attracting patients, providing efficient care and most importantly curbing cost, time, distance and documentation work.

### KEYWORDS :

#### INTRODUCTION

Telemedicine refers to the science and practice of disease management (medicine) from a distance (tele). Telemedicine technology will reduce the need for a large number of consultants and specialists to travel long distances to meet the demands of patients in remote areas. The technology can also transform the life of medical doctors working in remote and rural areas with access to communication with their seniors and specialists located in major hospitals in cities.

India is an ideal place for promotion of telemedicine as it is the perfect combination of availability of experts and professionals, extremely high level of information technology infrastructure and certainly IT professionals. The study indicates, that majority of the administrative staffs will be in favor of telemedicine. This technology helps in improving the image of the hospital, attracting patients, providing efficient care and most importantly curbing cost, time, distance and documentation work.

Majority of doctors will consider this as an added advantage in their profile. They would like to use this technology when it becomes available in their department, while others would like to use it as often as possible to provide an efficient patient care. Patients will also accept this technology as it will prove to be affordable and make specialized healthcare facilities accessible, ease in contacting doctors, getting efficient care.

#### MATERIAL AND METHODS

The study was descriptive on the basis of analysis of data. The research approach includes collection of information, attitude and opinion directly from the concerned doctors, administrative staffs and patients through structured open and close ended questionnaires and direct interview.

The sample selected for the study comprise of total 44 subject n=44. Among these, patients selected where n=27, administrators n=7, doctors n=10 during the study period of one year. The sampling technique used is random sampling method.

The data has been collected from a 1000 bedded multi-speciality hospital. The data are sorted out into numerical data. Basically the

researcher has framed questionnaire for patients, administrative staffs and doctors who are benefitted with the technology to know the need, acceptance and performance of telemedicine in the hospitals. For this questionnaires was framed for the administrative staff (n=7, Q=10), doctors (n=10, Q=8) and patients (n=27, Q=10).

#### RESULTS

The healthcare delivery system in our country is through a network of primary health centers, community health centers, district hospitals and medical colleges. The tertiary level hospitals with super specialty and subspecialties in medical sciences are very few and are located in big cities, therefore expert and specialty care inaccessible to the rural and underserved people in remote areas.

The present study was conducted by administrating structured questionnaire to patients, doctors and administrative staffs.

**Doctors:** Total sample sizes for doctors were 10. Out of which 80% (8) were male and 20% (2) were female. 40% (4) of doctors were super specialist and 60% (6) of them have completed post graduate.

Most of the doctors preferred radiology as the best suited for telemedicine and next preferred were cardiology and neurosurgery. Few felt telemedicine is necessary in all departments.

#### According to our study,

1. 80% of doctors agree that using telemedicine technology is more flexible in providing patient care.
2. 71% of administrative staffs feel that among the factors affecting the telemedicine performance is due to non availability of doctors while 29% points to miscellaneous factors like power failure and none faced problems with technical failure.
3. All the administrative staffs feels there is a need of training and education to improve the telemedicine.
4. 57% of administrative staffs say physicians shows resistance in using the technology while 43% has no problem.

#### DISCUSSION

Telemedicine is a method by which patients can be examined, investigated, monitored and treated with the patient and the doctor

located in different places. Tele is a Greek word means distance & mederi is a Latin word meaning to heal. Time magazine called telemedicine healing by wire.(1) Telemedicine as the practice of diagnosis, consultation & treatment of patients by telecommunication between physician and specialists.(2)

The current rapid advances in the frontiers of telecommunication and information technology gave birth to Telemedicine where medicine has merged inexplicitly with technology to benefit patients who does not have access to advanced health care. The Telemedicine Industry Report 2000 forecasts that the telemedicine industry will grow 40% annually over the next 10 years and it is predicted that by 2010 almost 15% of all healthcare services will be provided using telemedicine.(3)

Telemedicine is not just about technology, it's about people, cultural and social influences and political and demographic factors. This book addresses a conglomerate of international projects and case studies, outlining their approaches and experiences in implementing telemedicine applications in the most rural and remote areas of the developing world.(4)

Telemedicine possesses the ability to bridge gaps and overcome barriers in a way unthinkable to traditional forms of healthcare. Throughout telemedicine's bumpy start and deployment, researchers and practitioners have been concerned with user satisfaction, a key challenge that still remains for today's healthcare organizations. Insights supplied by patients and providers remain essential across the medical fields served by telemedicine projects, especially as the number of these projects continues to increase at a dramatic rate. In fact, only four active telemedicine programs existed in 1990, but 10 years later, the number has jumped to an unquantifiable level.(5)

A critical hurdle must be overcome if telemedicine is to have an impact on the medical industry. The products and systems, processes, and procedures that make up telemedicine must be usable. The degree to which telemedicine's components are usable will either inhibit or facilitate its acceptance, use, and growth and its effectiveness as a model for medical care provision. Poor usability could at a minimum retard the growth of telemedicine and drastically reduce acceptance of telemedical technologies.(6)

## CONCLUSION

Through this study we can streamline the

- COMMUNICATION
- BRANDING
- PERFORMANCE UPRAISAL
- PATIENT SATISFACTION
- JOB SATISFACTION
- TECHNOLOGY VALUATION
- IMMEDIATE SOLUTIONS
- RECRUITMENT
- INDUSTRIAL RELATIONS
- IMPROVED HEALTH CARE DELIVERY

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