Study on Acceptance of Telemedicine Service at the Time of Covid19 Crisis

By

Simran Sinha

Dissertation submitted in partial fulfillment of the requirements of the degree

MBA Hospital and Health Management

Academic year, 2018-2020

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Abstract

Title – A study on the acceptance of Telemedicine at the time of covid19 crisis.

Author – Simran Sinha

Background- When covid-19 outbreak began in China and spread throughout Asia, going for regular doctor's visits became risky or impossible. Stuck at home many of those who need physician consultation turned Internet-based options for diagnosis and treatment.

Providing consultation to the patient through virtual medium where gap between the consultant and the patient is crucial, by utilization of the IT Sector diagnosis, treatment and prevention of the disease can be made possible. According to Indian medical council 'disaster and pandemic will give rise to several distinctive challenges to bestow healthcare. Though telemedicine will not resolve all of them, But it will befit the condition in which consultants can access and oversee the patients. A virtual consultation can be held without disclosing the patient and healthcare workers to virus/infection in such scenarios. The practice of telemedicine can avert the transference of infectious disease decreasing the possibility to both the healthcare professional and the healthcare seekers. The health system that has adopted telemedicine ensures that the patient dealing with corona virus acquire the appropriate treatment that they require.

Objective-

1) To understand the acceptance of virtual healthcare in Indian citizens at the time of covid-19 crises.

2) To understand the satisfaction level of Indian citizens towards virtual healthcare

Method-

- Methodology - Quantitative and descriptive & Cross-Sectional Study
- Study Population - Age group between 18-50 were required to fill questionnaire asked in survey.
- Sampling Technique – Non-Probability Convenient Sampling.
- 15 close ended question concerned to different aspect of study.

Conclusion – Telemedicine is a best suited model for the healthcare need at time of covid19 crisis. It can provide quality of care and necessary consultation to people who needs healthcare service. During the covid19 crisis it will help to reduce the infection related to visiting hospitals or consultants. Telemedicine can increase access to necessary care in areas with shortage such as behavioural health, improve patient experience and patient outcome

Key words – Telemedicine service, Virtual healthcare, Covid19 crisis.

Acknowledgement

I Simran Sinha convey my heartful gratitude to Dr. Piyush Kant Pandey (Professor IIHMR & Chairperson) for giving me the opportunity to allow me to work on this topic during my dissertation period. I would also like to thank him for mentoring and guiding me and for constant encouragement and continuous support when it came to guidance, suggestion and His expertise during my dissertation.

I would also like to thank Mr. P.R Sodani (dean IIHMR University) and Mr. Hem Bhargava (Placement& Training Head, IIHMR University) for giving me the golden opportunity to pursue my dissertation.

Last but not the least I would like to express my gratitude for my parents and for their constant encouragement and faith in me during the dissertation period.

Above all, I would like to thank God for giving me the strength to manage the difficulties which I faced during this period

CONTENT

LIST OF FIGURES

1. INTRODUCTION

1.1) **What is tele medicine?**

In 1970 a term coined telemedicine which means healing at a distance . The IT Sector can be used to enhance the quality of care to the patients by expanding the services so that it can be available to the public. According to WHO Virtual Healthcare is "The delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the care of individuals and their communities". The following four element are relevant to telemedicine-

- Its motive is to give medicinal support to the individuals,
- The geographical distance can be removed, and patient can access medical support wherever they require.
- IT Sector plays a crucial role
- Its aim is to upgrade the wellbeing of every individual.

Over the past decade, improvement in the IT sector and growing utilization of technology by the people by the substantial upliftment for telemedicine. With the help of ICT, the traditional forms are being substituted by the online forms. It also helped the healthcare organisation to carry out the latest and well-organized ways of furnishing care. The extend of telemedicine has being expanded by the internet and has also introduced mobile application for easier accessibility of telemedicine to the general population.

Progress in the telemedicine field has led to many dependable medical platforms that are virtual and give accurate information. Internet based medical sites that provide information about treatment, disease, pharmaceutical and including image of pathology. These services are known E-health that is in the form of telemedicine.

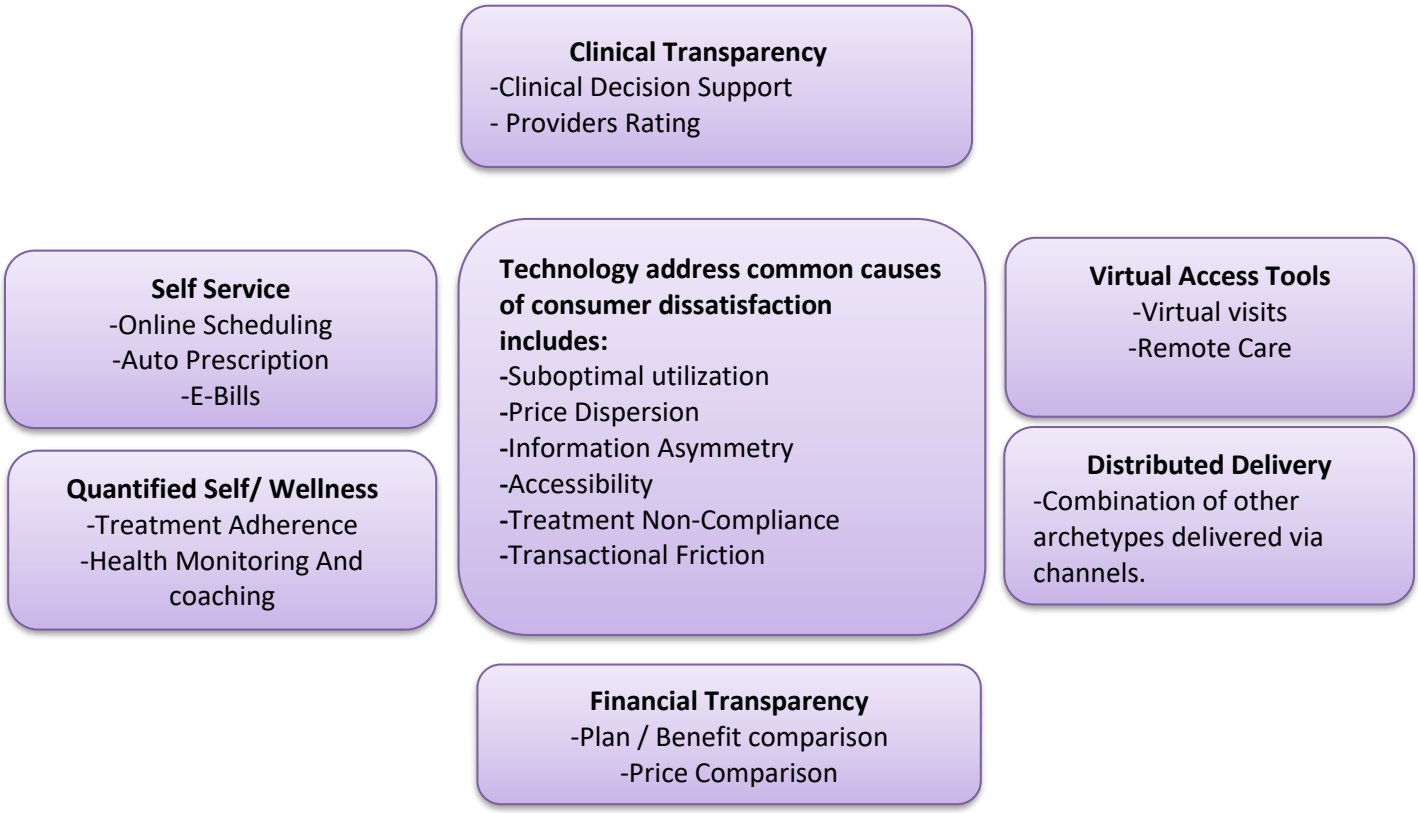


FIGURE 1 CATEGORIES OF DIGITAL/MOBILE HEALTHCARE

1.2) **Origin and History**

In April 1924 in the issue of radio magazine, was the first time when the concept of Telemedicine appeared. The magazine portrayed the use of microphone and television for a patient to contact the consultant. As people in US did not have the access to internet so the concept was just a vision for the future. In late 1950's and early 1960's was the first time when telemedicine was used to transfer images, complex medical data & video'. In 1959 telemedicine was used by university by university of Nebraska to transfer neurological examinations .Later on ,other programs followed in which telemedicine was used to transmit medical data such as fluoroscopy images , x-ray ,stethoscope sound and ECG in medical .setting . The main motive of the project was –

- Healthcare to be furnished in rural areas,
- In Critical medical situation in urban areas.

In 1960's various partners such as NASA, Us Indian Heath Service united to work on the STARPAHC Project. It was major break for the progress of telemedicine. STARPHAC gave the opportunity to American Indian Reservation to utilize the telemedicine service with the help of the same technology that are used by the astronauts on the space mission.

The increase in the internet service and access to the citizens in 1990 had a productive affect the telemedicine field. With the rise of internet building a healthcare software became easier and cheaper. By utilization, the available tools and framework for different software. The software could be used for interchanging and keeping medical information. Data can be stored and interchanged using new software introduced with the help of internet.

1.3) **Telemedicine during Covid19 crisis –**

During this COVID-19 pandemic, telemedicine has emerged as an integral part of the pandemic lifestyle and has also proven to be effective to prevent the spread of virus. Telehealth is helping the people, physicians, and health systems, enabling everyone, to stay at home while being able to communicate with the physicians. It is also helping the doctors to treat the quarantined patients, leading to more and more adoption of this service. Medical experts are now recommending the use of telehealth that includes telemedicine and teletherapy over the traditional in-person visit for non-emergency care. Having only an internet connection and a computer, tablet, or a smartphone for video chatting or in some cases just a phone call can help the person connect to the doctors or therapist.

Virtual visits are rapidly being replaced by in-office doctor's appointment for everything, may it be a routine check-up or a chronic disease management. Telemedicine is also bringing used to assess the patients for possible coronavirus systems, like cough, and to instruct whether COVID-19 testing is required, wherever available. In the time of outbreak of covid19, healthcare system throughout the world are working on the adoption and enhancement of telemedicine.

Ray Dorsey said, 'That there are numerous increases in the proportion of people who are contacting their consultant. Also there has been ten times increase in the utilization of telemedicine as compared to before is numerous.' This was the biggest change I telemedicine in US.

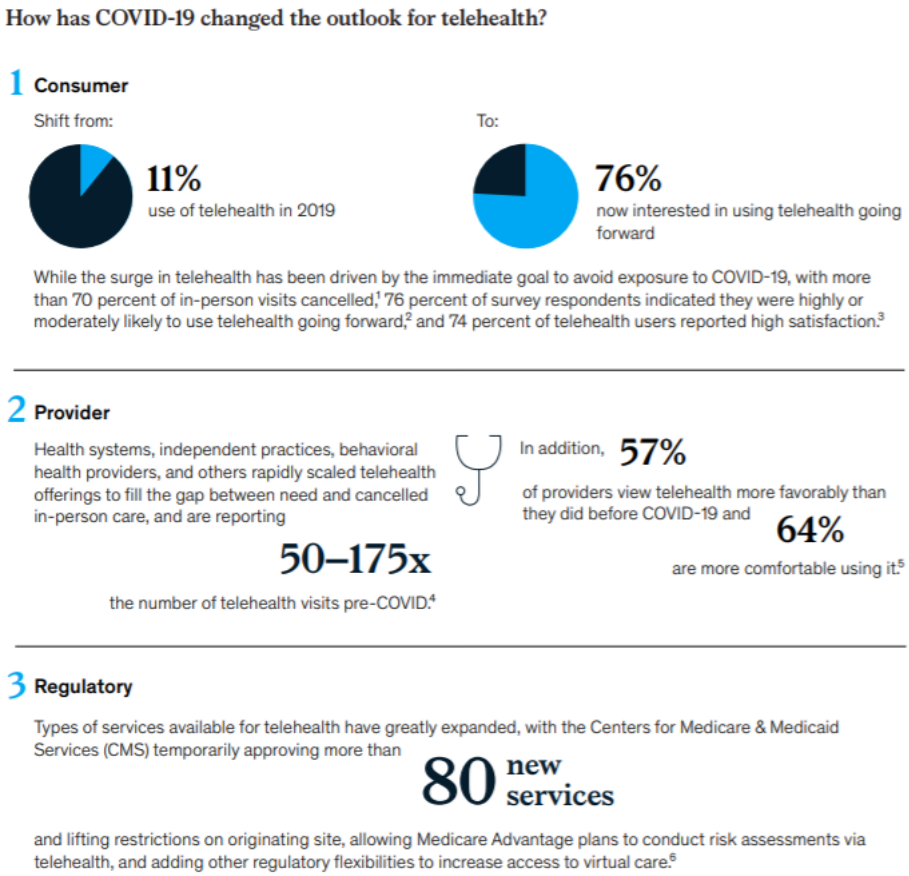
In adaptation of virtual healthcare in response to covid19 ,Medical professional throughout the world are learning from China's experience .In China, after the pandemic first emerged in Wuhan in December, the residents of china were advised to take consultation for their consultants with the help of telemedicine rather than seeking traditional care.

China's insurance system has adopted digital consultation. In China for the first time the physicians have really embraced virtual health care. So, in China there has been a rapid growth in telemedicine.

After China, U.S. also followed the same culture by replacing the traditional care by virtual care many new services were added to enhance the telemedicine service, with the utilization of telemedicine every citizen can seek consultation beyond geographical boundaries.

In Italy, 20 provinces executed national guidelines on telemedicine in the year 2018. Due to the pandemic, the hospital management faced a massive increase in virtual demands. Various Italian hospital do not have the required equipment's and technology. There is a need to ramp up telemedicine capabilities as there is an enormous increase in the utilization of telemedicine by the general population.

In New Delhi, Anubhav Agrawal, director of the council of scientific and Industrial Research's Institute of Genomics and Integrative Biology says, "Indian health care providers have become preoccupied with virtual health care while the country is in near total lockdown." He adds, "Suddenly, after years of resistance to virtual healthcare, our physicians keenly want it."



1.4) **Guidelines for Telemedicine by Medical Council of India**

On March 2020 Medical Council of India issued guidelines for telemedicine practices in India for (registered medical practitioners to provide healthcare using telemedicine). These guidelines were prepared in partnership with NITI AYOG. These guidelines were published under ICT Act. These guidelines were designed so that registered medical practitioner can use telemedicine effectively and to enhance healthcare service and access to all

- The guidelines are meant for RMPs under the IMC Act 1956
- The guidelines cover norms and standards of the RMP to consult patients via telemedicine
- Telemedicine includes all channels of communication with the patient that leverage Information Technology platforms, including Voice, Audio, Text & Digital Data exchange.

The guidelines include **TYPES OF TELEMEDICINE** application to be used-

Telemedicine application can be categorized into 4 basic types based on the mode of communication timing of the information transmitted the purpose of the consultations and also the interaction between the individuals involved -it can be RMP to patient / caregiver or RMP TO RMP .

ACCORDING TO MODE OF COMMUNICATION– The mode of communication used to deliver information it could be –

1) Video (Telemedicine facility, Apps, Video on chat platforms, skype / Face time etc)

2) Audio (Phone / VOIP, apps etc)

3) Text Based:

- Telemedicine chat-based applications (specialized telemedicine smartphone apps, Website other internet base systems etc)
- General messaging / text /chat platforms (WhatsApp, Google Hangouts, Facebook, message etc)
- Asynchronous (Email, Fax etc)

GUIDELINES FOR TELEMEDICINE IN INDIA –

There are 7 elements that needs to be considered before starting a telemedicine consultation-

Context – Medical professional should correctly decide whether teleconsultation is required or in person consultation is needed. RMP should carefully analize the complexity of patient health condition.

1) **Mode –** There are various technologies that can be used to deliver telemedicine consultation. Each technology has its own strengths and weakness and they must be kept in mind while beginning the virtual consultations.
2) **Patient Consent –** To deliver any telemedicine consultation patient consent is must and a prime objective.
3) **Patient Evaluation –** The RMP collect all the information about the patient's condition before making any judgement.
4) **Types of Consultation –** There can be two type of consultation –
    - First Consultation
    - Follow up Consultation
5) Patient Management – If the condition of the patient can be managed via telemedicine based on the type of consultation then the RMP may proceed and give professional judgement.

GUIDELINES FOR TECHNOLOGY PLATFORM ENABLINING TELEMEDICINE-

1) Technology platform such as mobile application, website should ensure that consumer is consulting a Registered Medical Practitioner with national medical council or respective state medical council.

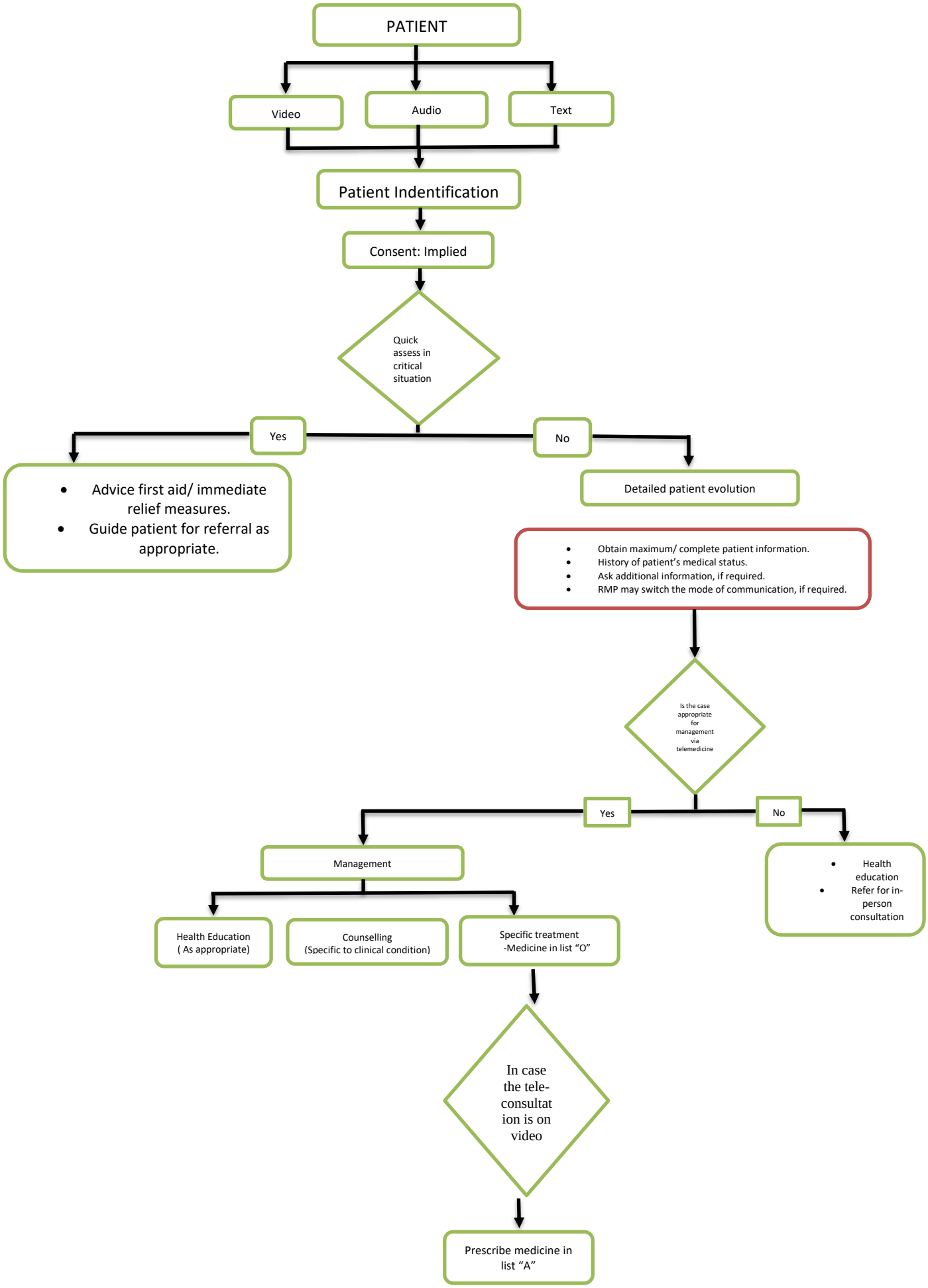
2)Technology platform should provide name, qualification and registered number and contact details of every RMP.

3) If there is any non-compliance the technology platform is required to report the same to BOG.

4) Any Artificial Intelligence / Machine Learning technology platforms are not allowed to council the patient or prescribe any medicine. RMP can use artificial intelligence or machine learning on patient evaluation, diagnosis, or management of final prescription.

5) Technology platform should ensure proper mechanism to address quarries or grievances that end customer may have.

6) If technology platform is found in violation then the platform can be backlisted.



FLOW CHART 2- TELE CONSULTATION OF PATIENT FOR THE FIRST TIME

2) LITERATURE REVIEW

Higor Leite and Ian R. Hodgkinson in their research paper discussed about the advantages of telemedicine and it can play a crucial role at the time of covid19 pandemic .In utmost situation like the Covid-19, existence of patient in hospital, emergency department becomes indefensible . To cope up with the covid19 outbreak healthcare professionals and organisation worldwide believe that technology is a crucial platform. This research paper lays out the advantages for serving service provision, also it focuses on the enhancement of telemedicine service and the triage system can be digitalised. This study lays out the opportunities and challenges to telemedicine practices.

The study elucidates how patient, medical staffs and healthcare systems can benefit through telemedicine and other e-health care technologies. Lack of regulations in various countries is one of the major challenges for telemedicine. The authors urge the policy makers to spread the idea of implementation of e-health care technologies, but keeping in mind the issues of data shielding, privacy, and inclusiveness. This research paper suggests the healthcare professionals regarding the utilization of the latest technology. Instances are given of telehealth technologies that are executed

According to Gerald-Mark Breen and Jonathan Matusitz as the IT Sector evolved with time and the demand for it increased the enhancement in the telehealth field increased as well and the enhancement led to increase in the acceptance of telemedicine. To recognize telemedicine diverse utilities, the authors also described some of the important hazardous combats. They also laid some of the methods by which telemedicine service can be improved. A section based on discussion of future utilization of telemedicine has also been added with new ideas of researchers that how communication and technology can bring more enhancement to the telemedicine service.

Challenges to providing cost effective and accessible high-quality service can be solved by Information and communication technology and has a great potential. To address issues related to health in rural and undeserved communities in developed countries ICT can be great use to overcome such challenges .WHO established Global Observatory for E-health to review the benefits that ICT can bring to healthcare and patient wellbeing .When the Global Observatory was formed in 2005 it conducted a survey to obtain general information about e-health among member states .

Observatory was set up by the WHO to show, how IT Sector can be used for the ease of telemedicine service. The states that were in collaboration with WHO were a part of survey that was conducted by WHO's Global Observatory. The survey comprised of questions related with common details of telehealth. Based on the surveys data collection in in 2009, it analysed the position of enhancement in the four fields of telemedicine- Teleradiology, Teledermatology, Telepathy and Telepsychiatry. In the survey, the largest service acquired was in the field of teleradiology, that is about 33 percent. Only 30 percent of the countries have an agency for enhancement and encouragement of telemedicine and 20 percent already had an enhancement and encouragement national telemedicine policy. In the upper-middle and the lower-middle and low-income countries the development of telemedicine very low as when compared to the development in the high-income countries. The survey also examined the factors that result in the enhancement of telemedicine and as well as the barrier to enhancement of telemedicine.

According to Forbes report published by John Osborn: With the help of telemedicine reaching to medical professionals its access has become prompt and convenient through laptop and computer and it has also help in avoiding the risk. Amwell, a leading telemedicine provider has seen a huge growth after the virus became pandemic. Amwell president Dr. Peter Antall said that they experienced more than 1000% increase in virtual visit overall. Now, their partners are using telehealth as a frontline for screening and triaging patient. There has been an increase in inquiry from the patient who suffer from chronic condition such as asthma.

A telemedicine company name Plush Care has seen a rapid increase in their visit service since the pandemic occurred. When it comes to maintaining a safe distance between patient and provider, platform such as telemedicine should be the first choice. In United States a small % of people prefer telemedicine service and telemedicine also has reimbursement and regulatory challenges. On March 6, President Trump ordered to lift the restrictions on Medicare Beneficiaries using telehealth services. Now, when the pandemic recedes, various stakeholders will agree that telemedicine is not only helpful in emergency cases such as pandemic but also an integral and permanent part of modern healthcare delivery.

Alexander E. Loeb, MD, Sandesh S. Rao in their report discussed about the ideas of orthopaedic surgeon on telemedicine . Despite the virtual technology in the field of healthcare, the telehealth was not willingly acquired. In the time of COVID-19 crisis, the healthcare department started efficient crisis management arrangement. By the orthopaedics

surgeon the robust telemedicine program was introduced within the five days period. It would congruously distribute the resources and avert the disclosure of virus, as well as maintain the well-organized and productive patient care. it would help to congruously distribute resources also prevent virus exposure while maintaining efficient and effective patient care. After the implementation educating the patient about the various technological resources plays a very important role. Also, the regulatory bodies should be educated regarding the same.

The study lays out directives formulated on the worldlines of the doctors who desire to execute telemedicine service in the times of COVID-19 outbreak. The healthcare staff will be able to get about more 50% of the clinic volume in the traditional in-person visit in just 2 weeks. In the traditional in-person meeting. There is a large volume of patient in the clinic / hospitals, it becomes difficult to attend all and may lead to delays. It is crucial to recognize the importance elements related to enhancement of telemedicine for the effective, efficient, and safe running of telemedicine service has the outbreak persists.

3) METHODOLOGY

Objective –

1) To understand the acceptance of virtual healthcare in Indian citizens at the time of covid-19 crises.

2) To understand the satisfaction level of Indian citizens towards virtual healthcare.

Nature and scope of study

The study is associated with the acceptance of telemedicine during the covid19 outbreak, also it is an exploratory study. The entire study focuses on the behaviour of respondent towards the telemedicine service also the awareness and acceptance of telemedicine service, the type of service most of the people prefer and what they prefer more currently.

Sampling

- Population Size – 150
- Age group – 18 -50 (Diversity the age of respondent gives knowledge about their behaviour towards telemedicine service and insight about their usage pattern of telemedicine service.
- Questionnaire Based survey distributed among the population through Email, WhatsApp, and Text Message.
- Time period of the study – 3rd February 2020 to 3rd May 2020
- Data analysed Using Excel.

Data Collection Process

- It is quantitative and descriptive cross-sectional study in nature.
- Population between 18-50 were provided a questionnaire based on the survey.
- Sampling Technique – Non-Probability Convenient “Sampling
- Pilot study done on 20 people to check the validity of study
- The questionnaire was distributed among 180 people out of which 150 responded.
- Also, the participant was contacted vis text message or calls to check the validity of the response.

Research Tool

The question in the questionnaire was based on different aspects of the study that included consultation, awareness about the telemedicine consultation, most used telemedicine service and their preference at the time of lockdown. This study also focuses on different challenges related to telemedicine consultation. The questionnaire was developed on the basis of the objective of the study and various literature review

Data Analysis

Through MS-EXCEL data was analysed and presented in the other part of the study.

4) RESULT

The objected of the questionnaire included-

1) 1) To understand the acceptance of virtual healthcare in Indian citizens at the time of covid-19 crises

2) To analize the satisfaction level of people towards the telemedicine consultation.

The questionnaire consisted of 15 close ended question to fulfil all the requirements of the study. The content of the questionnaire comprises key parameter such as awareness about telemedicine consultations , services provided by the hospital , number of respondents who have taken teleconsultation , type of telemedicine consultation mostly used , quality of the services provided , will the services will be demanded after the lockdown .

The graphical representation of results of the survey given below.

1) Gender

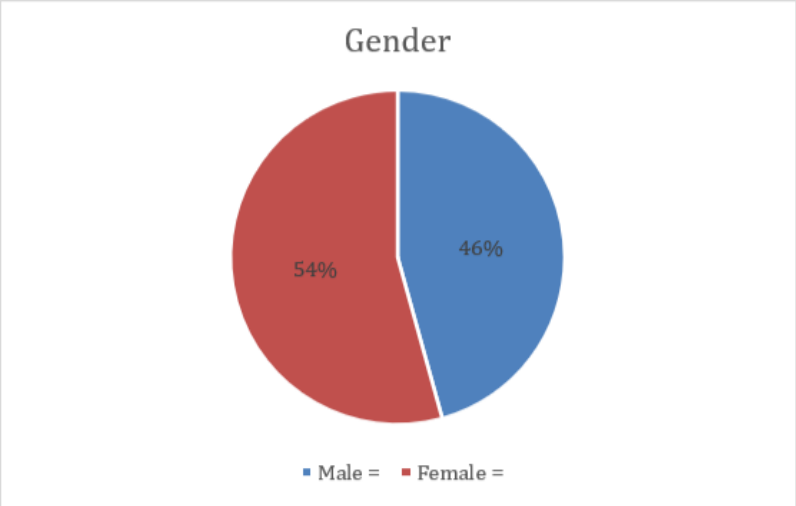


Figure 3) Gender of Respondent

The above graph depicts that among the 150 respondents 82 were females (54.7 %) and 68 were males (45.3 %).

2) What is your age?

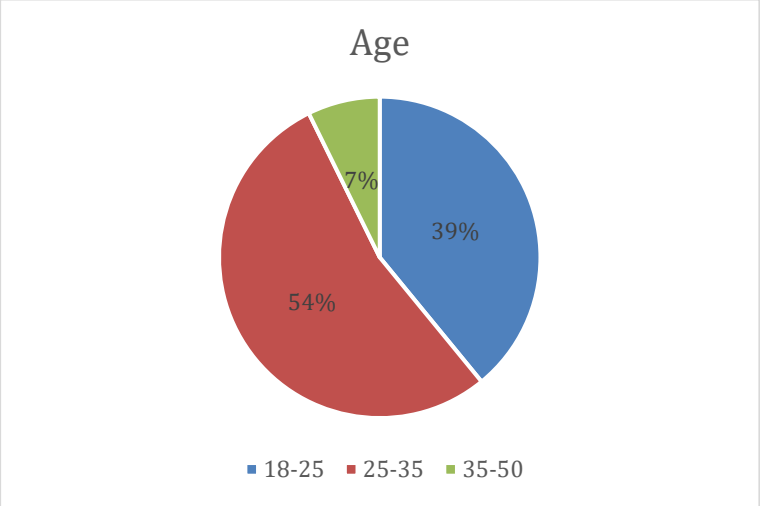


Figure 4. Age of Respondent

The above graph depicts the age of respondent. The age is divided between 18-25, 25-35, 35-50, 35-50. In the age group of 18-25 there was 39 % respondent. In the age group of 25-35 there was 54 % respondent and in the age group between 35-50 there was 11% respondent.

3) Are you aware about the telemedicine service provided by the hospitals?

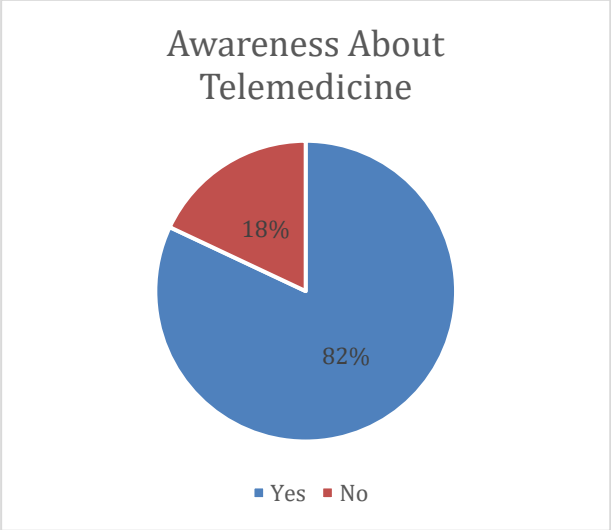


FIGURE 5. Awareness About Telemedicine Among the Respondent

In the above graph it is shown that out of 150 participant 123 respondent (82%) are aware about the telemedicine services. Only 27 respondents (18 %) are not aware about such services.

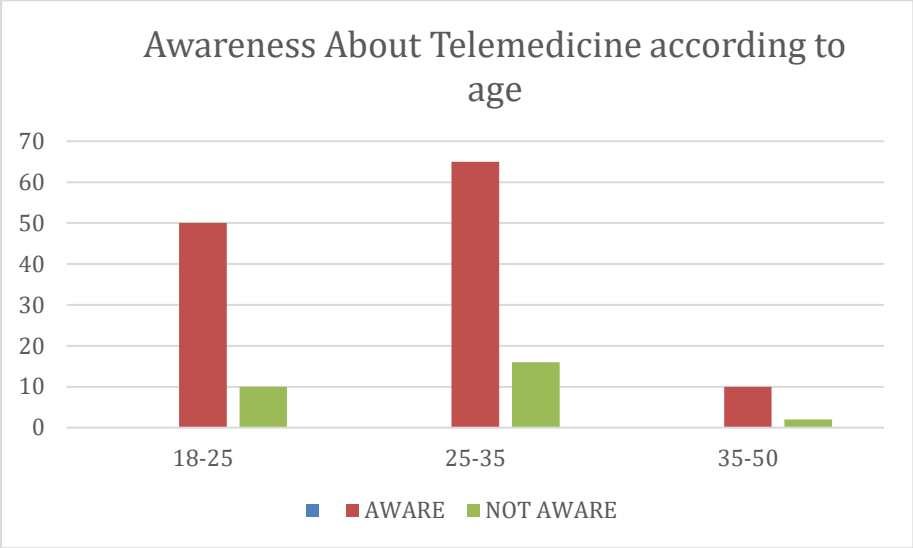


FIGURE 6. Awareness About Telemovie According to Age

This graph is also derived from the above questions and it depicts the awareness about telemedicine according to age. Between the age group of 18-25, 50 respondents are aware about telemedicine and 10 respondent are not aware about telemedicine, between the age group of 25-35 ,60 respondent are aware about the telemedicine service and 16 respondent are not aware about telemedicine service. Between the age group of 35-50, 10 respondents are aware about the telemedicine service and 2 are not aware about telemedicine services.

4) Does your hospital/consultant provide telemedicine facility during the lockdown period?

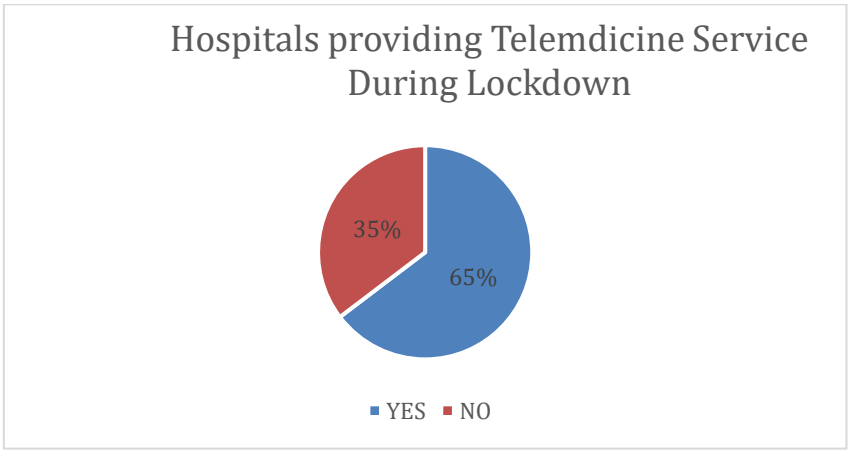


FIGURE 7. Hospitals / Consultants Providing Telemedicine Service

This graph depicts the Number of hospitals/ consultants that are providing telemedicine consultation during the lockdown. Out of 150 respondents, the consultants/hospitals of 97 respondent (65%) provide telemedicine consultation during lockdown. The consultants/hospitals of 53 respondent (35%) does not provide telemedicine consultation.

5) Has your hospital/doctor encouraged you to opt for telemedicine service to reduce the risk of infection?

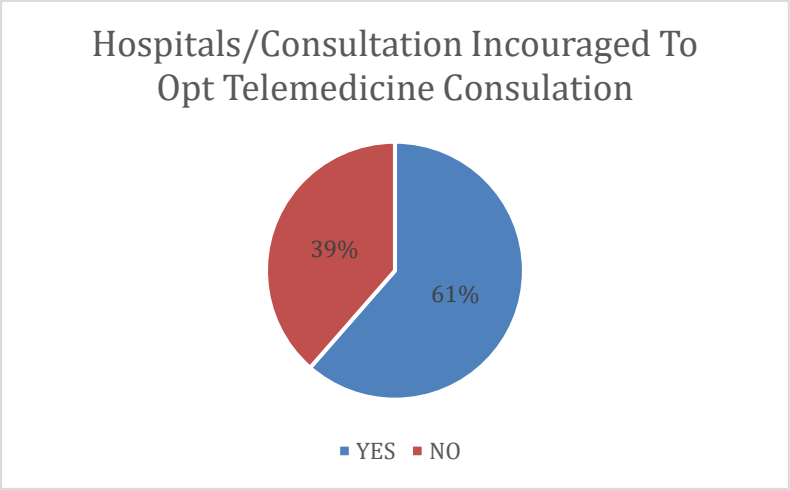


FIGURE 8. Hospitals/Consultants Encourages to Use Telemedicine Service During Lockdown

Among 150 respondent 97 respondent (61%) were encouraged by their consultants/hospitals to take telemedicine consultation during lockdown to avoid the risk of infection .59 respondent (39%) were not encouraged by their consultants/hospitals to take telemedicine consultation .

6) Have you taken any telemedicine service during the lockdown period?

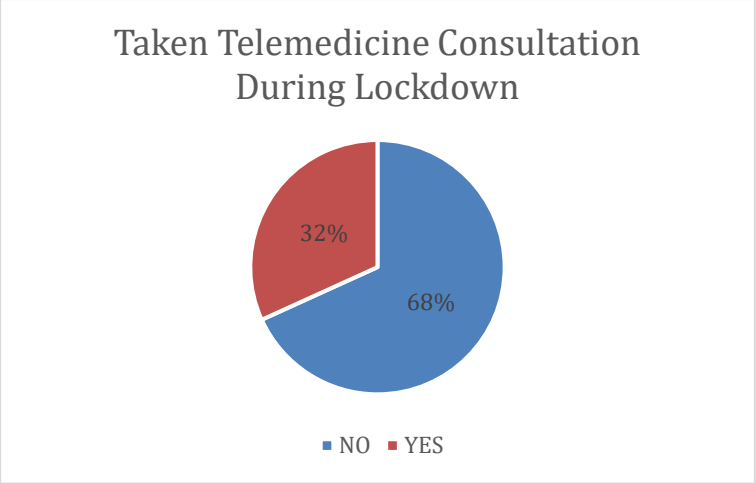


FIGURE 9. Telemedicine Users During Lockdown

This graph shows that out of 150 respondent 103 respondent (68%) has not taken telemedicine service during lockdown and 48 respondent (32 %) have taken telemedicine services during lockdown .

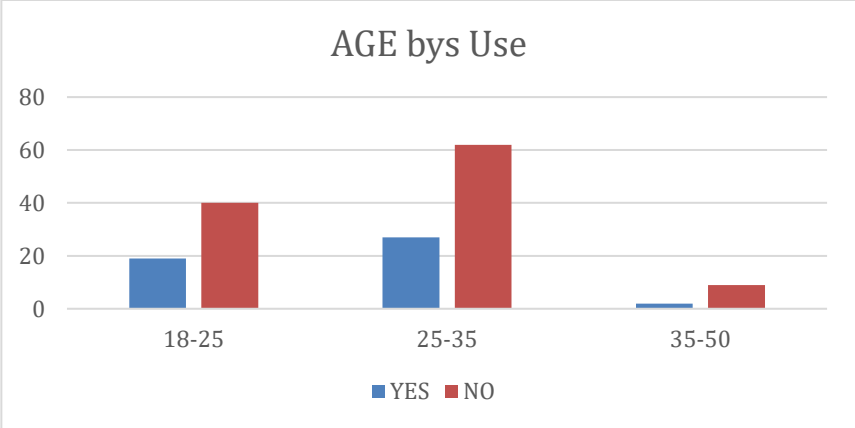


FIGURE 10. Age Wise Users of Telemedicine

The above graph depicts that between the of 18-25, 19 respondents have used telemedicine service and 40 respondents have not used telemedicine service during lockdown. between age group of 25-35, 27 respondents have used telemedicine service and 62 has not used such service. Between the age group of 35-50 out of 10 respondent 2 has used the telemedicine service.

7) If yes, have you ever:

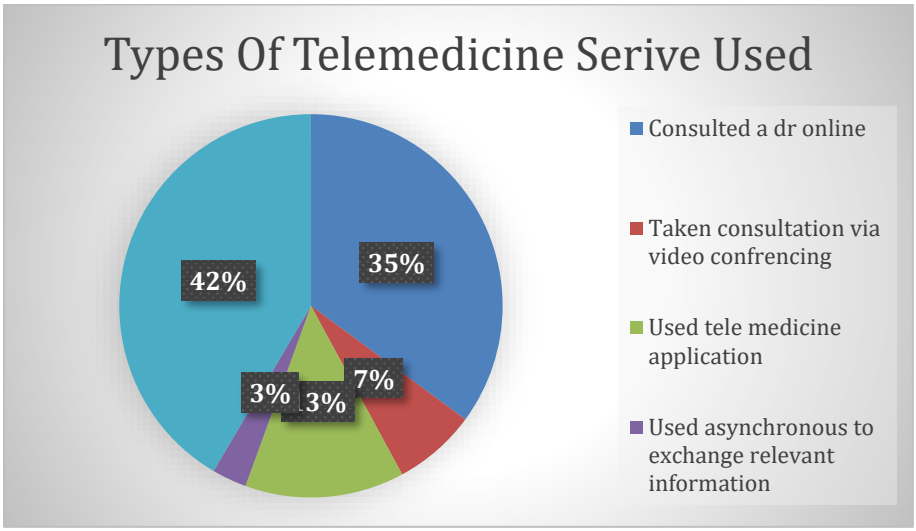


FIGURE 11. Different Types of Telemedicine Service Used By Respondents

The above figure depicts that mostly respondent have consulted the doctor online which is 35 %. 13 % of the respondent have used a telemedicine application, 7 % respondent have taken telemedicine consultation via video consulting, 3 % respondent have used asynchronous to exchange relevant information.

8) The ease of getting to telemedicine service.

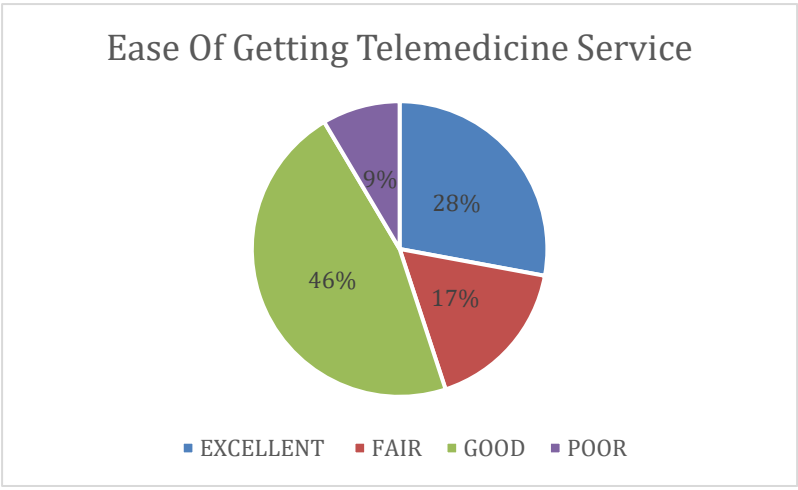


FIGURE 12. Ease of Getting Telemedicine Service

The above graph depicts that out of 150 respondent 36 respondent (28 %) had excellent experience in ease of getting telemedicine service , 60 respondent (46 %) had good

experience in ease of getting telemedicine service , 22 respondent (17%) had fair experience in ease of getting telemedicine service .

9) The length of time for getting an appointment for telemedicine service.

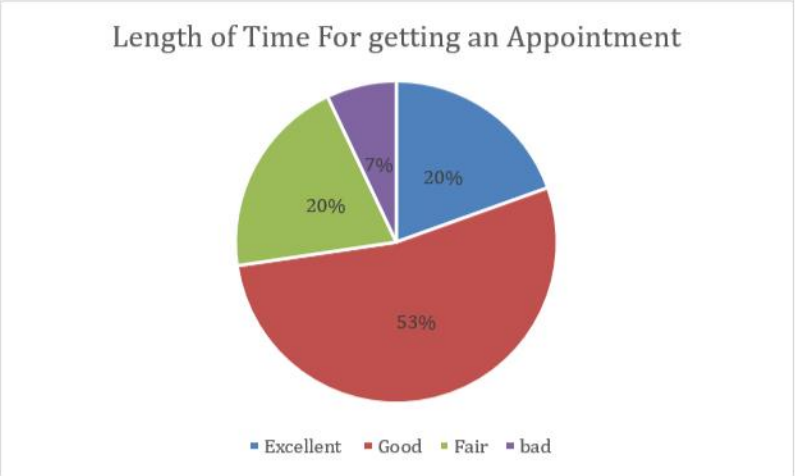


FIGURE 13. THE LENGTH OF TIME IN GETTING AN APPOINTMENT FOR TELEMEDICINE SERVICE.

The above graph depicts that 25 (20%) respondents have excellent experience in getting the appointment through telemedicine. 68 (53%) of respondent have good experience in getting appointment through telemedicine. 26 (20%) of respondent have fair experience in getting appointment through telemedicine and 9 (7%) respondent have a bad experience in getting appointment through telemedicine.

10) Were you comfortable during the telemedicine consultation?

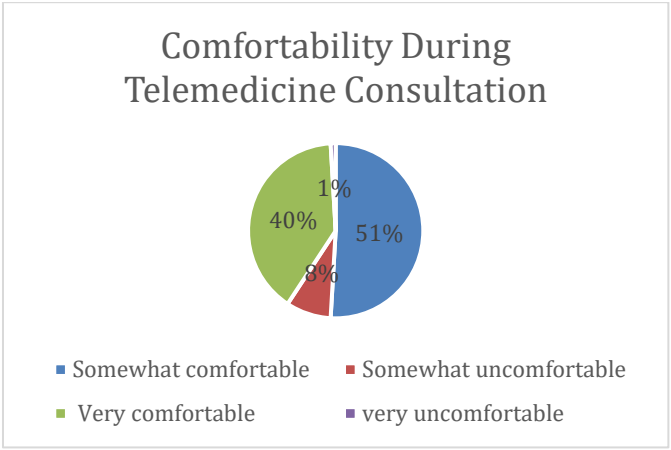


FIGURE 14. Comfortability During Using Telemedicine Service

The above figure depicts that 55 (51%) respondents were very comfortable during the telemedicine consultation , 43% (40 %) respondents were comfortable during the telemedicine consultation , 9 (8%) respondents were somewhat uncomfortable during the telemedicine consultation and 1(1%) respondent was very uncomfortable during the telemedicine consultation .

11) During the lockdown period, what would you prefer more?

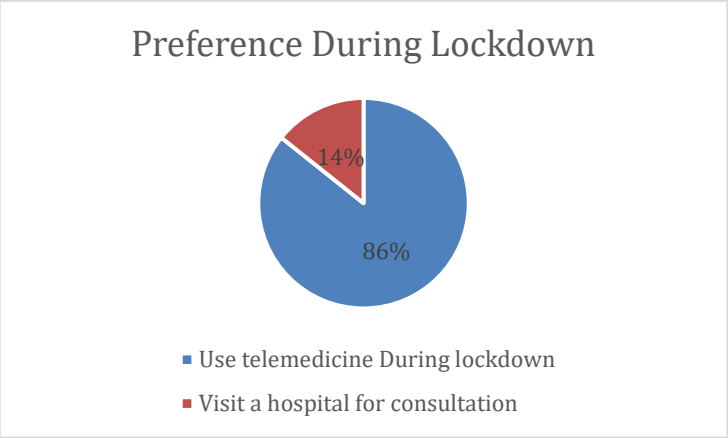


FIGURE 15. Preference During Lockdown

The above graph depicts that 132(86%) respondent will prefer using a telemedicine survive during lockdown and 22 (14%) will prefer going to visit hospitals during lockdown.

12) What rating would you like to give to the quality of care delivered by the telemedicine service when compared to the quality of traditional care?

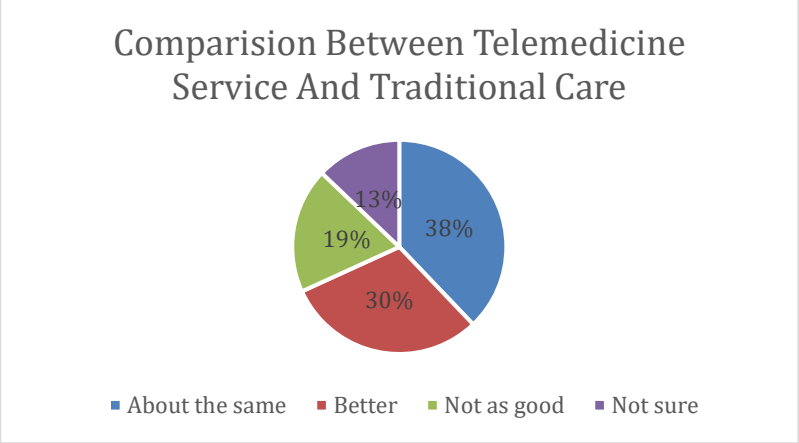


FIGURE 16. Comparison Between Traditional Care and Telemedicine Service

The above graph depicts that 50(38%) respondent believe that quality of both the service are about the same. 40 (30%) respondent believe that the quality of service of telemedicine is better as compared to traditional care. 25 (19%) respondent believe that quality of service of telemedicine is not as good as traditional care and 17 (13%) respondent believe that they are not sure with comparing both the type of service.

13.) How do you rate the overall Quality of Telemedicine Consultation?

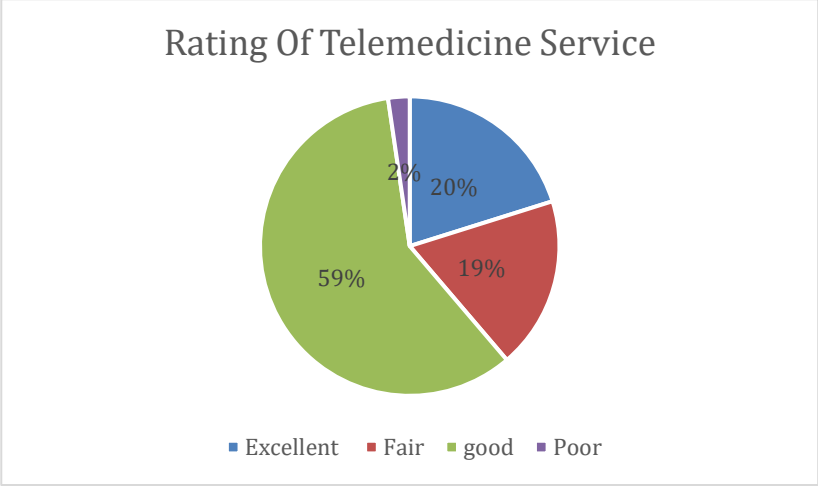


FIGURE 17. Rating of Telemedicine Service

The above graph depicts that 26 respondents (20%) have rated the telemedicine service excellent. 76 (59%) respondent have rated the telemedicine service good. 24(19%) have rated the telemedicine service fair and 3 (2%) respondent have rated the telemedicine service poor.

14. Would you like to continue the use of Telemedicine service in future?

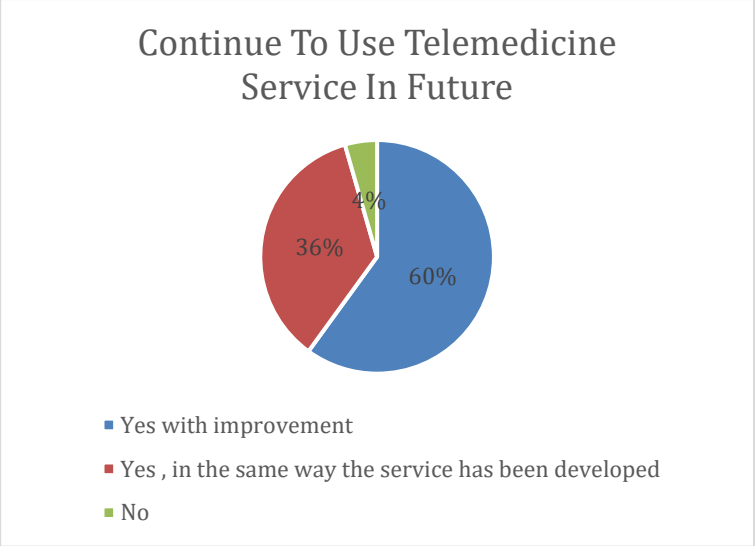


FIGURE18. Continue Using Telemedicine Service

The above graph depicts that 81(60%) respondent will continue using telemedicine but with improvement. 48 (36%) respondent will continue to use telemedicine but only when it is in the same way as the service has been developed and 6 (4%) will not use telemedicine service in future.

5) DISCUSSION

Based on the questionnaire following inferences were made –

1) Out of 150 participants much of. the respondent of the study was female contributing to the 55% of the study while the male participant was 46 %.

2) The respondent was in the group of 18-50 years with the 54 % of the respondent belong to the age group of 25-35 many of this group of respondents are telemedicine users.

3) Among the various motive of the study one of the motives was to see the awareness of telemedicine among the respondents. Out of 150 participants 82% of the respondent were aware about the telemedicine services and only 18 % of the respondent were not aware about telemedicine services. Between the age group of 25-35 maximum respondent are aware about the telemedicine service. This shows that maximum number of people are aware of such services available.

4) During the lockdown period a lot of Hospitals/ Consultants have started using the telemedicine consultation to avoid the risk of infection. 65 % of the respondent's hospitals / consultant are providing telemedicine service while 35% does not provide. This shows that the telemedicine services are increasing at a good rate.

5) It is important to understand that the hospitals/Consultants are encouraging the patient to use telemedicine service during this covid 19 crisis as a lot of people are not aware about such services being available. 69 % of the respondent answered that their hospitals/ consultant has encouraged them to use telemedicine service while 38% of the respondent were not encouraged by their hospitals/consultants.

6) One of the aims of the study was to show the use of telemedicine service during the covid19 crisis. 68% of the respondent have used telemedicine service during the lockdown period while 32% have not used such service. This shows that a good number of people have opted for telemedicine service.

7)Mostly between the age group of 25-35 are maximum users of telemedicine service which is 62% followed by the age group between 18-25. Also, female users are more which is 64% and the male users are 36%.

8) Based on the answers of respondent majority of the respondent (77%) have consulted a doctor online while the second most used service is telemedicine application. Other type of service such as video conferencing and any asynchronous to exchange any relevant information are less used.

9) 48% of the respondent have good experience in ease of getting telemedicine service while 28% respondents have excellent experience and 17% of the respondent have fair experience. This shows that majority of the respondent could avail the telemedicine service easily.

10) Based on the participants choice it could be seen that 50 % of respondent were somewhat comfortable during the telemedicine consultation while 41% were very comfortable during the consultation and only 9% were somewhat uncomfortable during the consultation. This shows that maximum respondent is comfortable in using telemedicine service.

11) According to the 86% of the respondent they will prefer using telemedicine consultation during the lockdown period to avoid the risk of infection and only 14 % of the respondent will still prefer visiting hospitals/consultants during the lockdown period. This clearly shows that the demand of telemedicine service has increased during the covid 19 crisis as previous report says that patient prefer less using such kind of service.

12) According to the 38% respondents they feel that telemedicine service and traditional care service are about the same, but 30% respondent finds the telemedicine service better whereas 19% respondent does not find it as good as traditional care service. This is a good indication that majority of the respondent are comfortable with the telemedicine consultation.

13) Based on the participant's choice it can be identified that the quality of telemedicine service is good and excellent. Since 80 % respondent felt the service to be as per satisfaction.

14) One of the motives of the study was to understand that people will continue to use telemedicine service even after lockdown. This aspect is important to know the demand and changes to be brought in the service. 37% respondent answered that they will still use telemedicine service if it is in same way it has been developed now. 69% answered that they think that there should be improvement in the quality of service. This states that there is a requirement of improvement in the quality of service being provided.

6) CONCLUSION

Conclusion pertaining to telemedicine service were drawn from the result of the analysis-

- According to the Survey, the demand of the telemedicine services has increased rapidly because of the covid19 pandemic. Many of the patient have shifted their hospital visits virtually. India Prime Minister Narendra Modi have given a message to leverage telemedicine as telemedicine have momentary benefits. Also, telemedicine has emerged as a frontline weapon against coronavirus. India can save 30 to 40% of in person OPD consultation if there is digitalization in overall healthcare industry.

- Hospital/Consultant should bring their services virtually so that patient does not face any difficulty at the time of lockdown to get healthcare services.

- 20% of the emergency room visit could potentially be avoided via virtual care offering, 24% of healthcare office visit and OPD volume can be delivered near virtually. 35% of regular home health attendant service could be virtualised.

- The gap between the consumer interest and awareness about telemedicine should be reduced as a greater number of hospitals/consultants should encourage patient to use telemedicine service. Doctors and hospitals play important role in educating and encouraging patient regarding telemedicine.

- The awareness and use of telemedicine service should be increased among the geriatric population more.

- It is important to understand the risk of infection in visiting hospitals /consultant high as coronavirus cases are more than 2 lakhs. So, to avoid getting at risk people should adopt telemedicine service.

- Web and mobile based platform can be utilised for the use of telemedicine service. Patient should be made about the telemedicine application and the services provided by those applications.

- Telemedicine service must ensure that patient is comfortable while taking such service and the confidentiality of data should be maintained.

- Telemedicine can increase access to necessary care in areas with shortage such as behavioural health, improve patient experience and patient outcome

- The quality of the service should be as good as the traditional care service so that the patient is satisfied with such services which will be a motivating factor for increase in telemedicine service even after the lockdown.

7) RECOMMENDATION

- Increasing Telemedicine service is the need of hour.

- According to the survey 38% of the hospitals are still not providing telemedicine service, as the corona virus cases have increased a lot it is difficult for anyone to visit hospitals because the risk of getting infected is very high. So, to tackle this situation all the hospitals/ consultants should start providing telemedicine service to avoid the risk of infection.

- The ease of receiving telemedicine service should be increased that is telemedicine service should be easily available to anyone.

- Technology is the core strength so hospitals/consultants should upgrade their services with better technological features. Example – Mobile application, Video Conferencing.

- Regular emails/ text message phone calls should be done to make the patients aware about the telemedicine services provided by the hospitals/ Consultants.

- Geriatric population should be made more aware about the services as according to the findings only few respondents are using. They should be encouraged more as not only during the lockdown period but also after post lockdown these types of services can be very beneficial for them.

- The consultants/doctors should make the patient very comfortable during the telemedicine consultations as such type of services are new to some people.

- Doctors should carefully examine the patient condition as; the patient's condition can sometimes be more critical as it seems, and the doctor should recommend visiting the hospital.

8) SUPPLEMENTARY

This section includes the different questions that was in the questionnaire

Q.1. Would you like to take part in the study?

a. Yes

b. No

Q.2. What is your gender?

a. Male

b.Female

Q.3. Age?

Q.4. Are you aware about the telemedicine service provided by the hospitals?

a. Yes

b. No

Q.5. Does your hospital/consultant provide telemedicine facility during the lockdown period?

a. Yes

b. No

Q.6. Has your hospital/doctor encouraged you to opt for telemedicine service to reduce the risk of infection?

a. Yes

b. No

Q.7. Have you taken any telemedicine service during the lockdown period?

a. Yes

b. No

Q.8 If yes, have you ever:

a. consulted a doctor online.

b. taken consultation via video conferencing.

c. used a telemedicine application.

d. used any asynchronous to exchange relevant information.

Q.9. The ease of getting to telemedicine service.

a. Excellent

b. good

c. Fair

d. Poor

10.The length of time for getting an appointment?

a. Excellent

b. Good

c. Fair

d. poor

11. Were you comfortable During the Telemedicine Consultation?

a. Very Comfortable

b. Somewhat Comfortable

c. Somewhat uncomfortable

d. Very uncomfortable

12. During lockdown what would you prefer?

a. Visiting hospital for consultation

b. Use Telemedicine Service

13. What rating would you like to give to the quality of care delivered by the telemedicine service when compared to the quality of traditional care?

a) Better

b) About the same

c) Not as Same

d) Not Sure

14. How do you rate the overall quality of telemedicine service?

a) Excellent

b) Good

c) Fair

d) Poor

15. Would you like to continue the use of telemedicine service in future?

a) Yes, in the same way it has been developed

b) Yes, but with some improvement

c) No

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