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Original Research Article

Assessment of awareness and acceptance of teleconsultation among public: A cross sectional study

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ABSTRACT

Introduction: Telemedicine is the delivery of healthcare services, where distance is a basic factor, by all medical care experts utilizing information and communication technologies for diagnosis, treatment and prevention of diseases and infirmities. Telecommunications are used in doctor-patient interactions in telemedicine. It is a new way of delivering healthcare services across geographical boundaries, and it's being utilised to make healthcare services more accessible to those who don't have access to such services in their residential areas.

Objective : The study was done to assess awareness and acceptance of teleconsultation among public.

Materials and Methods: A total of 200 samples were selected for this study from Vaikom Taluk in Kottayam district. Convenient sampling procedure was used for this method. People who contacted doctors for their treatment during COVID-19 were included in the study. The participants were briefed about the study and informed consent was obtained from them. The questionnaire consisted of 10 questions. The questions were asked to assess awareness and acceptance of teleconsultation.

Conclusion: The study concluded that most of the participants are aware about teleconsultation and accepted this technology as treatment procedure.

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1. Introduction

The World Health Organization (WHO) elucidated telemedicine as “the delivery of healthcare services, where distance is a basic factor, by all medical care experts utilizing information and communication technologies (ICTs), for diagnosis, treatment and prevention of diseases and infirmities.”¹ Telecommunications are used in doctor-patient interactions in telemedicine.² Telemedicine refers to the use of ICTs by a healthcare provider to deliver clinical medical care administration.³ The major issues that healthcare systems around the world must address are accessibility, equity distribution, quality, and cost-

effectiveness. The current health issues in developed and developing nations can be greatly improved with the help of modern ICTs like smartphones, the internet, and computers.⁴ It is a new way of delivering healthcare services across geographical boundaries, and it's being utilised to make healthcare services more accessible to those who don't have access to such services in their residential areas.^{5,5} In medical education and research, telemedicine offers a wide range of uses. It enables the delivery of healthcare services through mobile health clinics and online consultations with experts for disease diagnosis, screening, and management (including follow-up).^{6,7}

The first telemedicine programmes were founded over 70 years ago, but the COVID-19 pandemic and lockdown lead the technology to grow significantly after 2019

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and become extensively interactive in all surgical and medical disciplines.^{8–10} Cost saving is one of the benefits of telemedicine because information transmission is less expensive than human transportation. Other advantages include rapid access to medical knowledge wherever it is needed, quicker diagnosis and treatments than might otherwise be possible, and the elimination of exhausting patient treks from rural areas to urban areas.^{11,12} Since it helps to reduce interaction with medical service offices, personnel, and patients and consequently minimises the risk of COVID-19 spread, telemedicine has been widely used throughout the COVID-19 pandemic.¹³

Patient's opinions and perceptions play a major role in the success of any healthcare delivery method, including telemedicine. Patients are the main source of information on whether healthcare is being provided effectively and whether the care they get satisfies their expectations.¹⁴ Dissatisfied patients may consider this treatment services unnecessary and expensive. It is crucial to maintain a major quality evaluation indicator of patient satisfaction, independent of delivery modality, given the increase in global telemedicine services during the COVID-19 pandemic.¹⁵ Patient satisfaction is an increasing concern in all facets of healthcare because it is the customer's voice in the industry. Telemedicine relies heavily on patient feedback, just like traditional modes of delivering medical care.^{16,17}

Despite the enormous promise of telemedicine in the delivery of health care, India, like other countries, has not been able to fully utilise it.¹⁸ Telemedicine necessitates a high-end ICT setup as well as extensive technical expertise, which limits its utilisation to its full potential.¹⁹ There are numerous legal concerns involving the patient's permission and privacy because there are no regulations governing the practise of telemedicine.²⁰

The study was done to assess awareness and acceptance of teleconsultation among public during COVID-19.

2. Materials and Methods

A total of 200 samples were selected for this study from Vaikom Taluk in Kottayam district. Convenient sampling procedure was used for this method. People who contacted doctors for their treatment during COVID-19 were included in the study. The participants were briefed about the study and informed consent was obtained from them. The questionnaire consisted of 10 questions. The questions were asked to assess awareness and acceptance of teleconsultation. Both male and female participants who were interested to participate in the study were included.

2.1. Data collection

A structured questionnaire adapted from a previously published study was prepared in Google form and sent to

the participants through their WhatsApp and email. The data was collected and analysed statistically.

3. Results

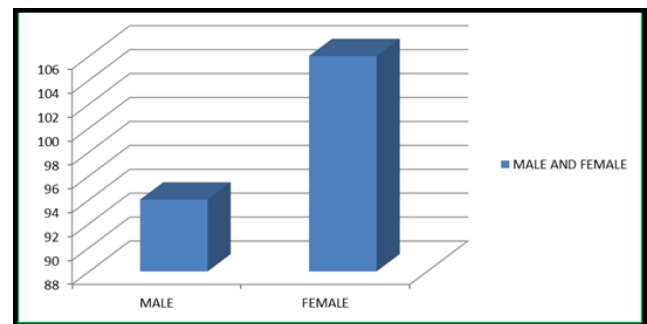


Figure 1: Comparison of male and female participants

Out of the 200 participating patients, the majority 106 (53%) of them were females.

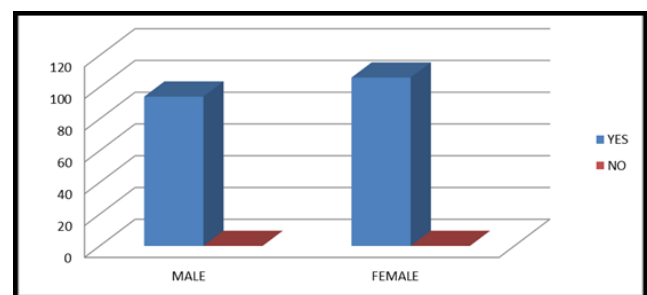


Figure 2: Was the scheduling of appointment appropriate?

All the participants reported that the schedule of the appointment was appropriate.

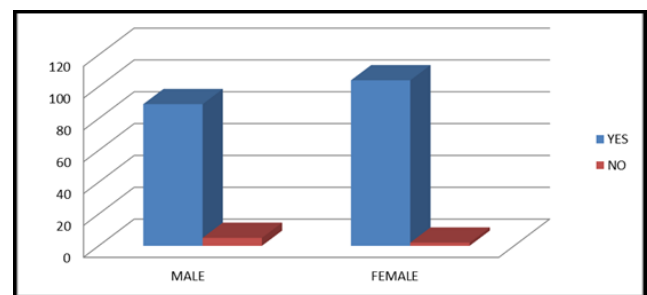


Figure 3: Was detailed medical history and consent taken before treating you?

Most of the participants (96.5%) reported that medical history and consent were taken before treating them and females reported more positive response.

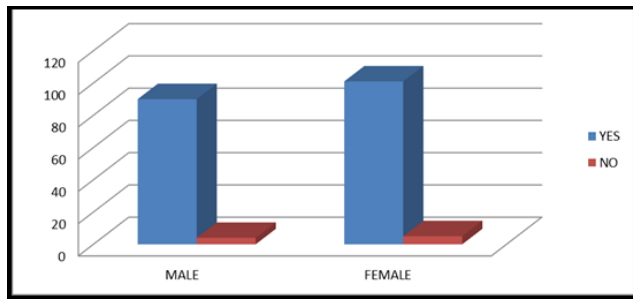


Figure 4: Are you satisfied with treatment given through telemedicine?

Most of the participants (95.5%) were satisfied with treatment given through telemedicine and females reported more positive response.

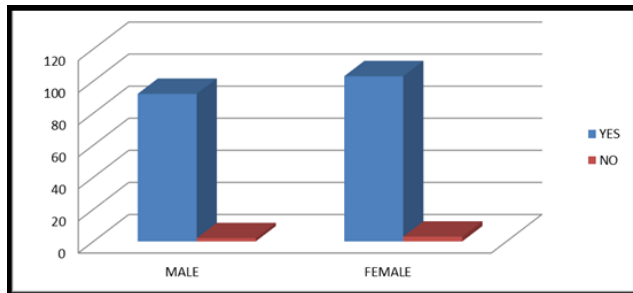


Figure 5: Did you find telemedicine service convenient?

Most of the participants (97.5%) reported that telemedicine service is convenient and females reported slightly more positive response.

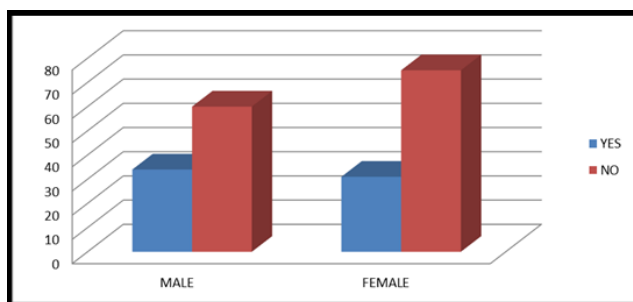


Figure 6: Did you find any problems in understanding the process of telemedicine?

About 67.5% participants reported that they didn't find any problems in understanding the process of telemedicine with females reported more positive response. But 32.5% participants reported that they found problems in understanding telemedicine. Both the genders reported that they found problems in understanding telemedicine.

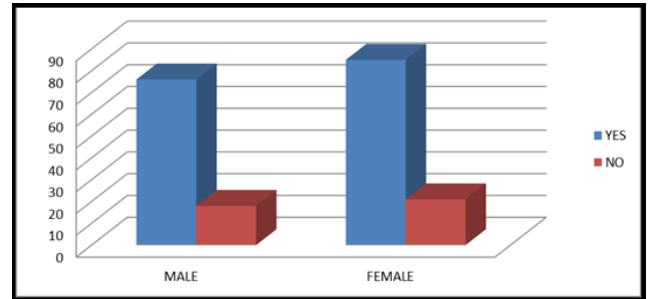


Figure 7: Did you find telemedicine is effective for dental problems?

Most of the participants (80.5%) reported that telemedicine effective for dental problems. Almost both genders reported that telemedicine is effective for dental problems.

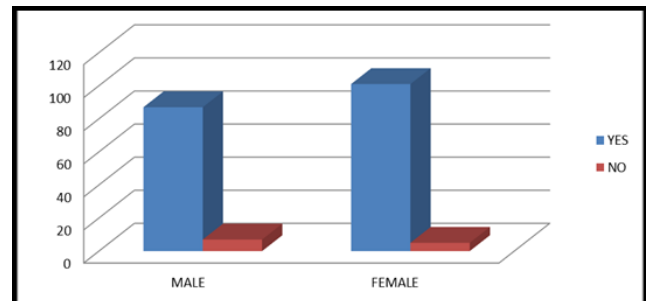


Figure 8: Did you find telemedicine is accessible for old aged patients?

Most of the participants (94%) reported that telemedicine is accessible for old aged patients. Almost both genders reported that telemedicine is accessible for old aged patients.

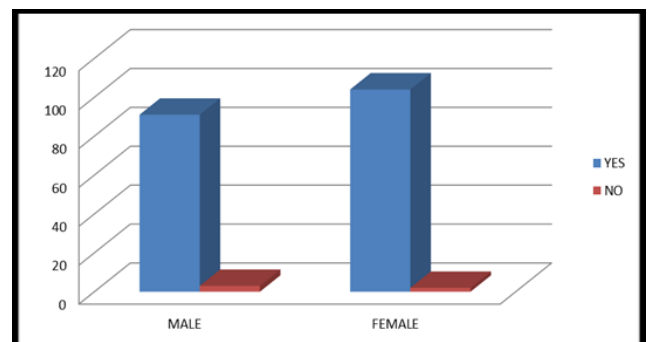


Figure 9: Do you think telemedicine is legal in India?

Most of the participants (97.5%) reported that telemedicine is legal in India with females reporting more positive response.

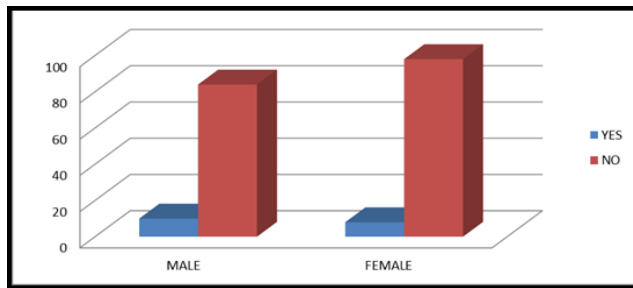


Figure 10: Did you experience technical difficulties that might affect quality of care delivered by telemedicine?

Most of the participants (91%) reported that they don't experience any technical difficulties that affect quality of care delivered by telemedicine. Almost both genders reported that they don't experience any technical difficulties that affect quality of care delivered by telemedicine.

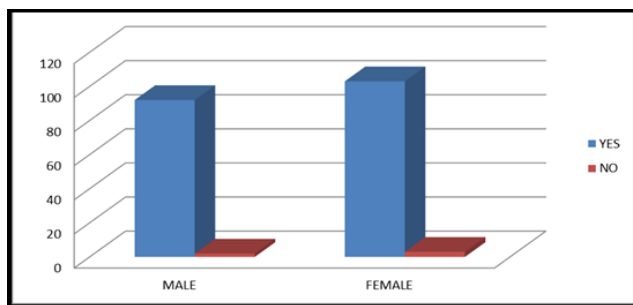


Figure 11: Would you like to recommend this service to your friends?

Most of the participants (97.5%) reported that they would recommend this service to their friends. Almost both genders reported that they would recommend this service to their friends.

4. Discussion

COVID-19 has been a difficult test for nations to control its spread and protect the population. Due to the mutant and extremely deadly strains, the pandemic spreads quickly in successive waves, placing a heavy burden and leading to professional burnout on healthcare workers. In these situations, telemedicine has become a practical tool for controlling the crisis. When COVID-19 patients are isolated at home, telemedicine was employed to provide online consultations and telemonitor their test results, oxygen saturation, blood pressure, and sugar levels.^{21,22}

With a dramatic rise in virtual care, the COVID-19 pandemic has caused a paradigm shift in healthcare delivery on a global scale. According to the Centers for Disease Prevention and Control, telemedicine promotion could

have a substantial impact on how virtual care and other telehealth services are provided and used during public health emergencies like the COVID-19 pandemic.²³

The study was done to assess awareness and acceptance of teleconsultation among public during COVID-19. From the results it is apparent that most of the participants are aware about teleconsultation and accepted this technology of treatment procedure. Several studies were done to assess awareness and acceptance of teleconsultation among public during COVID-19.

Naik et al. in 2021 done a study to understand the behavioural attitude and perceptions of the population regarding telemedicine during COVID-19 pandemic and concluded that majority of patients are keen to embark on the utilization of telemedicine as a safety-net approach during the pandemic.²⁴

Cruz et al in 2021 conducted a study to assess people's willingness and determinants to use selected teleconsultation public health services. The study concluded that the majority of the participants (69%) were highly willing to use tele-consultation public health services in the case of mild illness, cheaper prices and follow-up consultation.²⁵

Especially during the COVID-19 pandemic and the isolation period, videoconferences became a common occurrence in people's daily lives.²⁶ "Practo" is one of the most commonly used mobile application used for telemedicine. It has gained its popularity more during COVID-19 period. The main disadvantage of this application is that it can be used only with smartphones. So, people not using smartphones are not able to access this application.²⁷

The main disadvantage of the study is its small sample size. If this study is further extended to district hospitals, community health centres and rural health centres, a broader picture of patient's acceptability toward telemedicine in routine use can be gained.

5. Conclusion

Most the participants have good knowledge and awareness of telemedicine, and they expressed a favourable response and readiness to use this novel technology as a part of their medical practice. For telemedicine to be successful in India, it is crucial to establish appropriate and efficient communication channels as well as awareness among the general public and healthcare professionals.

6. Source of Funding

None.

7. Conflict of Interest

None.

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