

Effective Role of telemedicine in management of oral and maxillofacial surgery patients during COVID 19 pandemic - A surgeon's perspective study.

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Abstract

Background: The ongoing pandemic is having a collateral health effect on delivery of surgical care to millions of patients. Very little is known about pandemic management and effects on other services, including delivery of surgery.

Methods: This was a scoping review of all available literature pertaining to COVID-19 and surgery, using electronic databases, society websites, webinars and preprint repositories.

Conclusion: Telemedicine has increased access to care of surgical patients during the COVID-19 pandemic, but whether this practice will continue post-pandemic remains unknown.

Results: Several perioperative guidelines have been issued within a short time. Many suggestions are contradictory and based on anecdotal data at best. As

regions with the highest volume of operations per capita are being hit, an unprecedented number of operations are being cancelled or deferred.

Keywords: Telemedicine, Telehealth, COVID-19, Coronavirus.

Introduction

Telemedicine can be broadly defined as the use of telecommunications technologies to provide medical information and service. Telemedicine allows health care professionals to evaluate, diagnose and treat patients at a distance using telecommunications technology. Interest in the field has increased dramatically in the 1990s. Telemedicine is a medium that encompasses any medical activity involving an element of distance. Basically, it is a doctor-patient interaction involving telecommunication. A few years ago, the term telemedicine began to be supplanted by the term

telehealth, which was thought to be more “politically correct,” but in the past years, this too has been overtaken by even more fashionable terms such as online health and e-health. As telecommunication technology has advanced and costs have declined over the past decade, there has been a steady growth in telemedicine. Telemedicine is conceived of as an integrated system of healthcare delivery that employs telecommunications and computer technology as a substitute for face-to-face contact between provider and client. It has the potential for ameliorating seemingly intractable problems in healthcare such as limited access to care among segments in the population, especially the geographically disadvantaged uneven quality of care, and cost inflation.

The tele-communication is a bridge communication for the whole world. And they serve as a medium to connect people all over the world. They are the new and advanced technology to create a web of communication that can help us in difficult situations. They apply to the medical field too. Patients who have difficulty, but are unable to go to the doctor, people who have problems within them but cannot go to doctor because of reserved society or heaving situations like pandemic, telecommunication can play a major role.

Telemedicine is not applicable for severe complaints like major involvement of heart, lungs and brain, but they give an immediate remedy for all that. Telemedicine usually attends patients who have minor problems and counselling sessions. One of the best uses of telemedicine is the auto record history for each patient on their ID. hospitals keep track of their patients, but there is a high possibility that patients approach various hospitals for the best treatment. So, the interlinking of all these records is not available, which is provided in case of telemedicine. Telemedicine entered the market of

worldwide over the recent years, this is not well accepted by the people but patients who are aware of the technology initiated to approach this aspect. Telemedicine is used in some major hospitals to collect the primary data from the patients, followed by calling the patient over the hospital for the treatment.

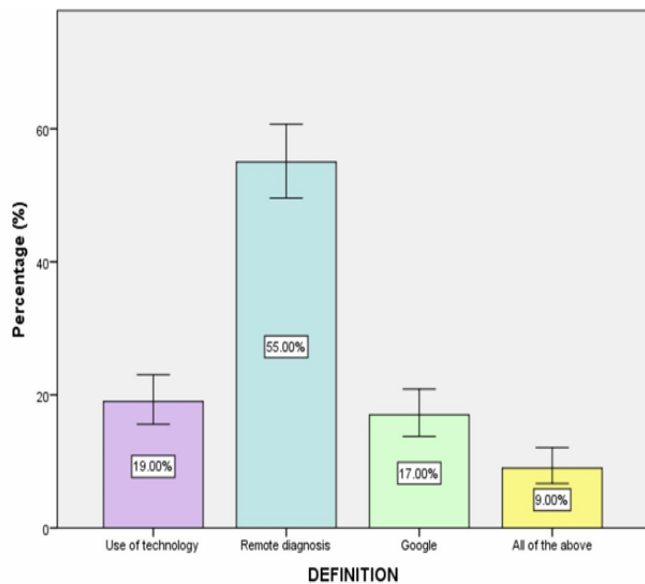
Review of Literature

The ongoing efforts of government for expanding use of telemedicine in the face of the COVID-19 pandemic, including the Sanjivani experience, along with private sector initiatives, offer promise for mitigating the dire limitations of healthcare. These telemedicine programs should be drawn into the mainstream even after the pandemic crisis, to improve access, equity, training, and quality of health services. Success will require prioritization of short-, medium-, and long-term goals. In the longer term, improving internet infrastructure is essential. Government programs to extend optic fibre to remote areas need to be coupled with linking the smallest administrative and healthcare units like the Public Health Centres (PHCs) and Health & Wellness Centres (HWCs), with larger hospitals and medical college hospitals.

Materials and Methods

This cross-sectional study was conducted in November 2020 to November 2021 among 100 dentists. A questionnaire consisting of 10 questions to assess the knowledge, attitude and practices regarding telemedicine among dentists were prepared and circulated among the dentists using google forms. The dentists were requested to answer, data was collected and then tabulated. Later data was exported to SPSS software. Frequency, percentages were ascertained and association with gender was done using chi square analysis with $p < 0.05$ as statistically significant. Bar graphs were used to depict the results obtained.

Fig 1: This bar graph represents the responses of dentists regarding the definition of telemedicine.



X axis represents the various responses and Y axis represents the percentage of respondents. Responses follows -- use of technology-19%, remote diagnosis-55%, usage of google-17% and all the above-9%.

Fig 2: Bar graph represents the responses of dentists regarding promotion of telemedicine in day-to-day work style.

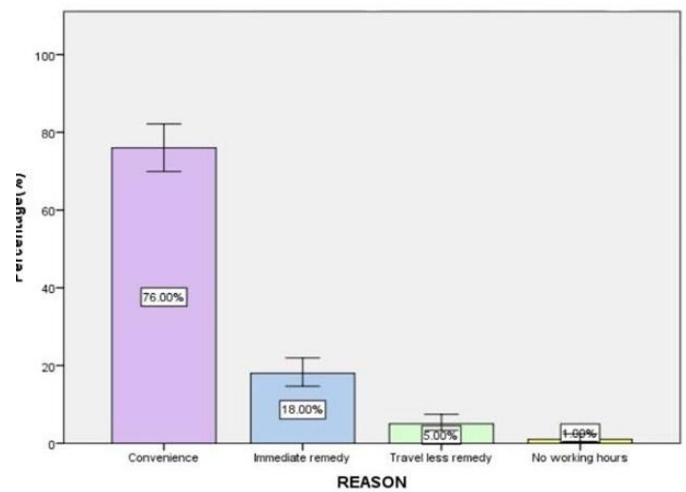
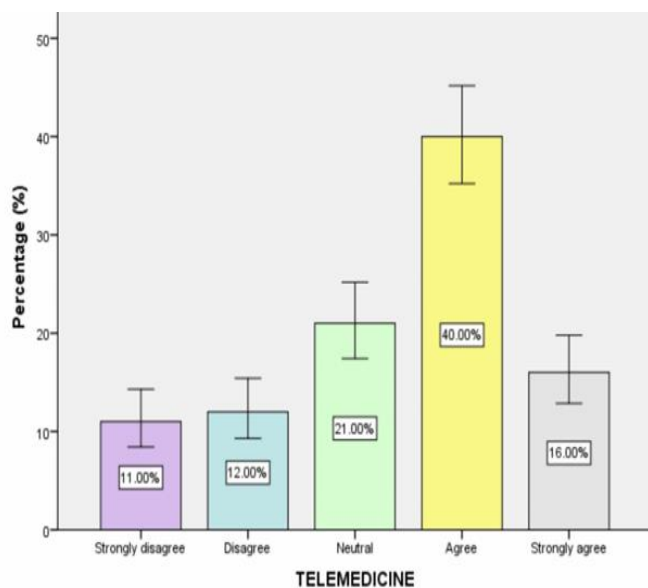


Fig 3: Bar graph represents the responses of dentists regarding the reason for practicing telemedicine. X axis represents the various responses and Y axis represents the percentage of respondents. Responses whereas follows -- convenience-76%, immediate remedy-18%, travel less working-5% no recognized working hours-1%.

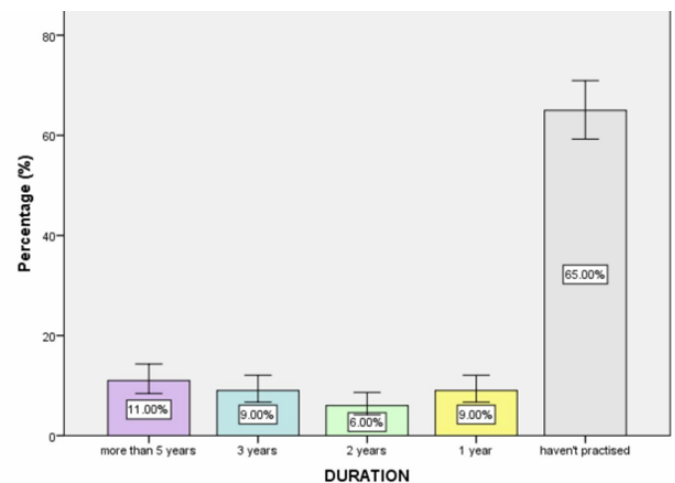
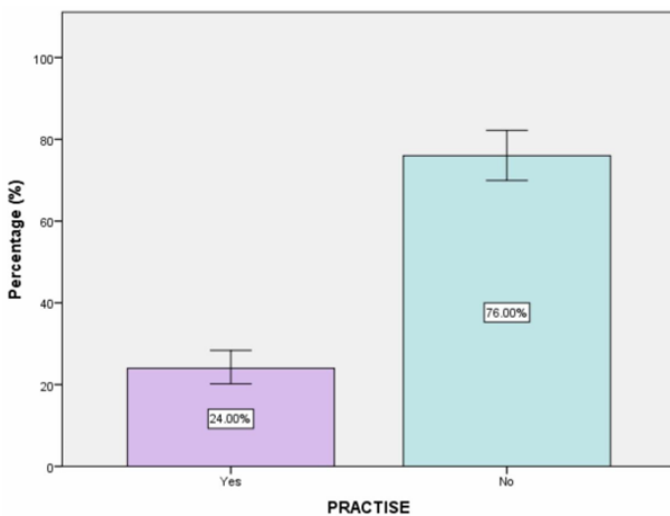


Fig 4: Bar graph represents the responses of dentists regarding their duration of practicing telemedicine. X axis represents the various responses and Y axis represents the percentage of respondents. Responses whereas follows -- more than 3 years-11%, 3 years-9%, 2 years-6%, 1 year-9% and not practicing - 65%.



Discussion

Depending on your healthcare provider’s setup, doctors can use telemedicine for your consultation. The consultation required basic vital analytic instruments and specific diagnostic instruments; hence they refer you to the nearest doctor. The doctor can forward diagnostic images such as X-rays and your medical history to the telemedicine doctor for them to review. The telemedicine doctor may have enough information to make a diagnosis and even create the appropriate treatment plan. If not, they can contact you or your doctor for more information. Together you all can decide on the best treatment plan.

Some healthcare professionals have remote patient monitoring systems set up. These remote systems are constantly collecting and sending data to other healthcare agencies for interpretation. This is an important step in telemedicine because even if you are homebound, you can easily get your latest health information over to your doctor. A nurse can come, set up all the equipment in your home, conduct the needed tests, and transmit the data to the doctor before the close of business. Telemedicine is great for doctors and people seeking medical treatment when it comes to treatment and diagnosis. It can also be a great support system.

Online peer discussion groups not only provide helpful information, but also, more importantly, support. Meeting other people going through the same thing as you can help you feel less alone. It can be encouraging and offer peace of mind.

This type of telemedicine technology is even more important for healthcare officials volunteering in distant places or currently serving in the military. Medical facilities are not always nearby. Receiving treatment or information can be almost impossible. Telemedicine can help save a life.

Our study results state that the reason for practicing telemedicine, most of the dentists say that telemedicine is convenient for approaching the patient and diagnosing them. They determine the severity of the case and schedule them accordingly. The severity of the case may vary from high risk to low risk, they analyse the case online and they would prepare for it accordingly. The second favorable reason is provision of immediate remedy. The people who are in need of immediate action but they are unable to travel or they live in a remote area, the provision of immediate remedy or lifesaving remedy is needed. In our study, the responses for the duration of dentists over telemedicine, 65% of the dentists don't practice telemedicine, and among the people who practice telemedicine, 11% of the dentists practice telemedicine more than 3 years, 9% of the dentists practice telemedicine for 3 years, and 15% of the dentists practice telemedicine less than 2 years. So we can say that very limited people practice telemedicine, but in recent years there is improvement in the practice of telemedicine.

Our study results state that of dentists who practice telemedicine, from the graph we can see that only 23% of the dentists practice telemedicine. People are aware of telemedicine, but they don't practice because of the

lack of awareness over the patients. They rarely get an online case to attend, hence they discontinued. The build of trust and bond between the dentist and patient determines the case handling and length. But the inability to get cases is purely the lack of awareness of the patients.

Conclusion

From the study, can conclude that the dentists have an adequate knowledge of telemedicine, and positive attitude towards telemedicine but they seldom practice telemedicine. Male dentists practice telemedicine more when compared to that of female dentists. People are aware of telemedicine, but they don't practice because of the lack of awareness over the patients. They rarely get an online case to attend, hence they discontinued. The build of trust and bond between the dentist and patient determines the case handling and length. But the inability to get cases is purely the lack of awareness of the patients.

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