

# The benefits of telemedicine for children awaiting surgery in the covid-19 era and beyond

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**ABSTRACT**

Before COVID-19, telemedicine was rarely used in paediatric surgery. Many institutions banned non-emergent clinic appointments to stop the virus' spread, which led to a rise in the usage of telemedicine. Before and after COVID-19, we looked at the value of telemedicine for patients who visited a paediatric surgical clinic. The perspectives of patients and their carers who were having in-person evaluations by general paediatric surgeons prior to COVID-19 and those whose telemedicine appointments with paediatric surgical providers were completed during the COVID-19 period were surveyed to determine the potential value of telemedicine. 57 participants completed the pre-COVID survey, while 123 participants completed the post-COVID survey. White carers between the ages of 31 and 40 made up the majority of responders. Prior Only 26% of respondents to COVID-19 were aware of telemedicine, 25% said they had travelled more than 100 miles, and more than 50% had travelled more than 40 miles to their appointment. At least one adult had to miss time from work in 43% of homes, and more than 25% projected additional travel expenses of at least \$30. Following a telemedicine visit during the COVID-19 period, 76% of patients said the care they received was excellent, 86% of them said they were extremely satisfied with their care, 87% said the visit was less stressful for their child than an in-person visit, and 57% said they would choose a telemedicine visit in the future. Telemedicine can be a better option than traditional in-person care for families looking for an alternative because it lessens the strain of travel without sacrificing quality of care. Level of care. Future study aimed at improving the experience for patients and physicians should consider telemedicine as a feasible alternative for children undergoing surgery.

**Keywords:** Pediatric surgery; Telemedicine; COVID-19; Caregiver; Satisfaction

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## INTRODUCTION

Over the past few decades, telemedicine has become more and more popular. In 2016, it was projected that > 60% of institutions has a telemedicine programme in place. Telemedicine presents a chance to alleviate discrepancies brought on by unequal access to experts, such as paediatric surgeons, based on a patient's capacity to travel and geographic location. Telemedicine is increasingly seen by many doctors as a helpful supplement to the conventional in-person clinic visit; nonetheless, its use in paediatric surgery is still uncommon and under researched. We polled carers about their opinions of the potential advantages and disadvantages of obtaining remote evaluation prior to the COVID-19 outbreak as part of our preparation for the deployment of telemedicine at our institution. Prenatal care was quickly added to telemedicine in response to the COVID-19 outbreak. In accordance with institutional norms banning in-person interaction during the initial phase of COVID-19, care for patients will continue to be provided through pre-operative clinic visits and post-operative clinic appointments. The purpose of this study was to assess carer perceptions of the possible benefits of telemedicine for children undergoing surgery, as defined by the burden of in-person evaluation on the carer and the caregiver's perception of telemedicine both before and after the COVID-19 period. Two surveys were used in this research, which included two phases. Before COVID-19, the initial survey was given out in person to parents who were waiting to visit a paediatric surgery clinic.

## DISCUSSION

Patients who conducted a telemedicine appointment with a paediatric surgeon during the COVID-19 period received the second survey electronically. While the post-COVID-19 survey was given out following a telemedicine consultation, the pre-COVID-19 survey was intended to be given to carers who had minimal prior experience with telemedicine. Both surveys sought to learn how carers felt about using telemedicine in paediatric surgery, but the questions were worded differently in order to take into account the various settings and stages of care in which they were conducted. The pre-COVID survey looked at how comfortable the carer felt using technology and having a surgeon perform an evaluation remotely, whereas the post-COVID survey looked at the actual experience of attending a telemedicine appointment. As Appendices A and B, the surveys are each accessible for perusal. A poll

was created prior to COVID-19 to learn how carers felt about using telemedicine to complete clinic visits with paediatric surgeons. In order to establish a baseline of carer knowledge regarding the use of telemedicine and to gauge potential interest in using telemedicine services to complete future appointments with a paediatric surgeon, the survey's objectives were to ascertain the perceived burden of attending in-person clinic appointments. All other questions were provided as categorical or ordinal responses, with the exception of the assessments of perceived cost and comfort utilising telemedicine, which both employed a 5-point Likert-type scale. At the end of the survey, participants were given option to provide any additional comments or clarifications. At response to input from attending surgeons at the Division of India, the second-most populous and seventh-largest country in the world, faces significant healthcare difficulties. Due to the negative impacts of the COVID-19 epidemic, the nation's healthcare system was on the verge of disintegrating. During these trying times, telehealth, which enables treating patients remotely, was essential. This comprehensive research explores the function of telemedicine during COVID-19 and its use after the pandemic. Studies on telehealth were found using database

searches on PubMed, Scopus, Science Direct, and Web of Science. Articles were included if they discussed any audio or video telehealth consultations during the epidemic in India. Applications, advantages, and problems of telehealth services were the three main topics that emerged from the findings.

## CONCLUSION

The value of the methodology was evaluated using JBI critical evaluation instruments. Initial database searches turned up articles. 19 of them were qualified, nevertheless. Results show that telehealth is effectively used in a variety of medical specialties. The successful implementation of telehealth in India is hampered by a lack of technology infrastructure and other obstacles brought on by virtual consultations, but it has the ability to close the healthcare gap between rural and urban areas by providing services that are affordable and simple to obtain. High patient/provider satisfaction highlights the necessity of incorporating telemedicine into standard healthcare procedures across the nation. To ensure high-quality treatment across the country even after the pandemic, the study advises the government and healthcare professionals to solve the telehealth difficulties immediately.

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