

## Perspectives on the Use of Telegenetics Services in the Philippines

The Philippines is a densely populated nation faced with multiple challenges in the healthcare field given its geographic, cultural, and socioeconomic barriers. Due to the geographic limitations of medical services in the country, many patients must travel a great distance to referral centers. This was further exacerbated by the Coronavirus disease 2019 (COVID-19) pandemic, which spread across the world and upended lives. This pandemic triggered a public health crisis that impacted healthcare systems, healthcare workers, and communities worldwide. It compounded current difficulties with the provision and accessibility of medical services, necessitating the employment of alternative methods of providing health coverage. As a result, advanced technological methods for patient diagnosis, monitoring, treatment, and counseling were rapidly implemented.<sup>1</sup>

Interest in these technological advances began prior to the COVID-19 pandemic, though primarily in developed countries. However, during this global outbreak, telehealth practices – which refer to online health care services provided by all health care professions – have seen a rapid increase in popularity.<sup>2,3</sup> Telehealth was brought to the forefront in all countries in order to surmount lockdown constraints, allow continuous provision of health care for patients, and limit exposure to health systems and health providers.<sup>4</sup>

Traditional medical education and training were likewise disrupted during this time, resulting in the incorporation of telehealth into medical education. To reduce the risks associated with more personnel in the hospital, medical students were withdrawn from clinical environments during the COVID-19 outbreak. This created an environment of uncertainty and limited clinical exposure, with concerns surrounding progression through the medical course and training program.<sup>5</sup> Continuing medical education, which has traditionally been based on clinical knowledge and skills, now requires online technical communication skills. Innovative services were rapidly developed with health professionals embracing this new technological competence, enabling general consultation for patients, remote patient monitoring, and self-directed patient care, thereby decreasing the burden on health facilities. Digital learning platforms also provided an effective way to address the learning gaps caused by the pandemic.

The restriction of “in-person” delivery of healthcare services due to the global outbreak has prompted physicians, including clinical geneticists and genetic counselors, to investigate alternative methods of providing health care to patients. A telehealth innovation for online delivery of clinical genetic and genetic counseling services is the Philippine General Hospital’s Telegenetics Service. Despite being launched in 2013 to serve genetics patients across the country, this service has since been upgraded and capitalized resulting in patient appreciation for its COVID-19 exposure prevention, increased access, and time and cost efficiency. However, the telegenetics service has its limitations.<sup>6,7</sup> Despite the expanding scope of telehealth/telegenetics and its immediate application, issues such as data/patient privacy, organizational readiness, digital maturity, regulatory impediments, access and acceptance of the technology, geographical and digital disparities, and its integration with traditional medical services have emerged.<sup>8</sup> Lack of a detailed physical examination is also lost in a virtual visit, with focused questions leading to fragmented, impersonal interactions.

Even when restrictions were lifted, telehealth usage nonetheless remained significantly higher than it had been prior to the pandemic. This may indicate a shift in public opinion in favor of this innovative medical practice.<sup>9</sup> With the expansion of genetic services in the country, there is now a greater need for telegenetics due to the increased demand for clinical genetic and genetic counseling expertise. Therefore, evidence on the safety and efficacy of this technology in comparison to the traditional healthcare delivery approach is required. If the technology has the potential to improve health care, we must guarantee its availability in all resource-limited areas. Future efforts should thus focus on establishing solutions to address the aforementioned issues and concerns within our healthcare and education systems, thereby ultimately enhancing the standard of medical care.

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