Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Letter to the Editor

Telemedicine against CoVID-19 crisis

Introduction

With the outbreak of coronavirus and the disease known as CoVID-19 in 211 countries, the disease has become a global crisis. Various ways to spread and prevalence the disease, including person-to-person transmission in the everywhere, have been announced. On the one hand, the low ratio of the number of medical centers and medical staff to the people at risk in the community, and on the other hand, the unreasonable visits of some people in these centers have caused to contact CoVID-19 patients and increased the risk of contaminating them. In this situation, one of the effective methods to monitor individuals in the community without referring to limited health care centers is the use of telemedicine, which prevents the unnecessary referral of healthy and suspicious people to medical centers.

Zhai et al. described in their article how telemedicine was able to help the Chinese government fight COVID-19. The Chinese government has set up a teleconsulting center on Chinese mobile phones and Huawei technologies to prevent and control coronavirus called the Emergency Medical Counseling System. The results showed that out of 654 patients with coronavirus who received counseling from this center, 420 were discharged from the hospital after 20 days. Another benefit of this counseling center is the prevention of direct physical contact between physicians, nurses, and patients, thus preventing the possible transmission of infection to caregivers. Also, because of specialized treatment groups limitation through this center, it is possible to communicate with patients through technologies such as video conferencing [1].

Au said in his study the elderly patients with a variety of subspecialty medical needs are one of the most important client group in hospital, where high-risk area for them. From the first confirmation of CoVID-19 in Hong Kong on January 23, 2020 to February 4, 2020, the number of patients not attending clinics at the specified time has increased from 4% to 42.1%. During this period, 586 patients (29.4%) canceled their appointments for various reasons. The results of this study showed that the main reason for this (52%) was the concern about being in the hospital environment and the possibility of the risk of CoVID-19 disease. Also, 61.8% of these 586 patients were elderly people aged 65 and over. Therefore, in quarantine days, hospitals with telemedicine, not only to save their resources and manpower to help infected people, but also prevented the further transmission of the disease from person to person. In addition, the elderly and patients with chronic diseases who need regular visits to health care centers can go to e-service kiosks during quarantine, receive their medications and health care services [2].

Boehm et al. assessed telemedicine from patients' perspectives. They interviewed 399 outpatients with appointments at a center between October 2019 and February 2020. Their studies showed valuable information from patients' perspectives on teleconsulting during CoVID-19 epidemic. Overall, 54.1% of patients were eligible for telemedicine and wished for teleconsultation. A total of 338 patients (84.7%) wished for a telemedical consultation in case of pandemic and 252 patients (63.2%) were eligible for telemedicine however, 2.5% of patients wanted to have personal contact with their doctor. Therefore, given that the CoVID-19 epidemic puts significant pressure on hospital resources, and also from the perspective of patients on telemedicine, this technology seems to be a good solution for providing care [3].

In their research, Rao and Vazquez emphasized the need to identify patients with the coronavirus through mobile-based machine learning algorithms [4]. Moazzami et al. noted that telemedicine can be used by smartphones or computers with webcams, allowing physicians to diagnose patients with early signs of COVID-19 disease. They are evaluated effectively before they get to the hospital [5]. In another study by Wernhart et al. an e-visit to primary health care using a cell phone could provide an accurate monitoring of the condition of patients with coronavirus [6].

Conclusion

Thus, with the outburst of the COVID-19 crisis, the importance of telemedicine has become increasingly clear, and one of the future goals of health care centers seems to be to focus more on the development of this technology. It also facilitates communication between community members, hospitals, and health care providers by implementing apps that can be installed on mobile phones. Healthcare officials need to address some of the challenges, such as the cost of building the infrastructure needed for telemedicine technology, as well as training clients to prepare for emergencies that may occur in the future. In addition, those who live in remote areas and are not able to access to health care centers will be provided with healthcare services.

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