



Telemedicine integrated in medical rehabilitation

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Abstract

Introduction. Medical experts predicted as early as 10 years ago that starting with 2010, at least 15% of worldwide health care services would be provided at a distance using telemedicine. The expansion of the fields of medicine at a distance has been possible due to the progress made in the area of communication and information technologies. These can increase the capacity of health care services, improve service provision and allow people to better take care of their health.

Material and method. For our research, we used the PubMed database; we selected and evaluated all articles retrieved following a systematic search. The search was aimed at finding articles published over the past 20 years, from 2000 to 2020, using a certain combination of words. The search terms included telemedicine, telerehabilitation, medical rehabilitation.

Results and discussion. There are many medical specialties that benefit from telerehabilitation: orthopedics (rehabilitation of patients after total hip or knee arthroplasty, etc.), rheumatology (rehabilitation of patients with chronic joint disorders or persistent lumbar pain, for example), neurology (recovery of speech, rehabilitation of the limb motor function lost following vascular accidents or traumas, multiple sclerosis – studies). From the point of view of technology, classical vocal and visual communication methods using the computer, as well as new technologies, where the therapist can guide treatment from a distance via the Internet (verbal communication connection), or even automated devices (robots) allowing the user to develop motor commands followed by the feedback of their execution are used. By using the communication technology during medical consultations, rehabilitation at a distance or at the patient's home can be provided for persons with physical disabilities whose access to such services is difficult for various reasons. However, rehabilitation at a distance raises other barriers such as the lack of standardized criteria for inclusion of patients in a telerehabilitation program depending on the specificity of their disorder, as well as the absence of clinical criteria for evaluating patients at a distance.

Conclusions. Telerehabilitation plays a major role in providing remotely guided rehabilitation for patients with chronic neurological diseases in the future, and has the potential to fill the gap existing in health care services.