

The outbreak of the SARS-CoV-2 Omicron variant make imperative the adoption of telerehabilitation in the Bulgarian health care system

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Abstract

The rapid spread of the highly contagious Omicron variant of SARS-CoV-2 globally will challenge the accessibility and the delivery of physical and rehabilitation medicine (PRM) services. Many health care systems throughout the world performed effective reforms such as the transition to telerehabilitation (TR). In Bulgaria, TR is still not regulated by law, and terms such as teleconsultation and tele-education have not yet been introduced. The adoption of TR in the Bulgarian health care system will undoubtedly increase the accessibility to rehabilitation treatment for a larger group of Bulgarian patients with various neurological, cardiorespiratory, musculoskeletal, and oncological conditions and will significantly contribute to the PRM services modernization in Bulgaria.

Key Words: Bulgarian Society of Physical and Rehabilitation Medicine (BGSPRM); Omicron variant of SARS-CoV-2; Telerehabilitation (TR); TeleHealth Center.

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The rapid spread of the highly contagious SARS-CoV-2 Omicron variant, even among highly vaccinated populations, will challenge the accessibility and the delivery of physical and rehabilitation medicine (PRM) services in many countries throughout the world as well as in Bulgaria. The currently prevalent SARS-CoV-2 Omicron variant will continue to create collateral damages and negative consequences to both, people with disabilities and rehabilitation facilities^{1,2} Many health care systems throughout the world performed effective reforms such as the transition to telerehabilitation (TR) in response to the call for action of World Health Organization (WHO) and several PRM scientific organizations, for strengthening the affected rehabilitation services during the COVID-19 pandemic.³ TR is a subfield of telemedicine (TM), defined as the provision of rehabilitation services to patients at a remote location via telecommunication technologies and teleconference apps such as Skype (Microsoft Co), Facebook Messenger (Facebook Inc), Viber (Rakuten Group Inc), and WhatsApp (Facebook Inc).⁴ TR can

play an important role in public health emergencies, such as the current outbreak of SARS-CoV-2 Omicron variant, while promoting flexibility and allowing greater continuity of rehabilitation care for patients with spinal cord injuries,² as well as patients with cardiorespiratory, musculoskeletal, and oncological conditions.^{5,6} Recent studies suggest that TR visits are safe and effective treatment approach for people with disabilities,² and has several advantages over in-person rehabilitation such as early access to rehabilitation, reduced health care costs, improved treatment adherence, and health-related quality of life.⁷ TR can be provided in a variety of different ways, including two-way real-time visits with audio, video, or both, asynchronous e-visits, virtual check-ins, remote evaluations of recorded videos or images and telephone assessment and management services.⁸ Moreover, it can be combined with in-person rehabilitation or used alone as a comprehensive hybrid approach even in case either of COVID-19.⁹ A clinicaltrials.gov search shows over 340 clinical trials on TR, which confirm the increased scientific and

research interest regarding TR globally.¹⁰ Interestingly, in a resource-limited country such as Bulgaria with almost 250 PRM physicians,¹¹ and a total of 6.365 beds for inpatient PRM services (9.0 beds per 10.000 population (NCPHA, 2017),¹² TR is still not regulated by law, and terms such as teleconsultation and tele-education have not yet been introduced.¹³ Unlike the response of several PRM scientific societies and academies worldwide^{4,9} that recommended the TR as an effective alternative way on delivery of rehabilitation, no activities (e.g., webinars, online references) supporting the TR, were provided by the Bulgarian Society of Physical and Rehabilitation Medicine (BGSPRM) during the pandemic.¹¹ Recently, an evidence-based position statement issued from PRM experts suggesting the integration of TR in the new developed clinical pathway No. 267, regarding the rehabilitation of post-COVID-19 syndrome was rejected by the Bulgarian Ministry of Health (BMoH)¹⁴ and the National Health Insurance Fund (NHIF).¹⁵ Nonetheless, we identified several barriers such as the lack of legislative framework, data privacy, patient safety, reimbursement, and NHIF coverage, as well as the lack of established national TR guidelines, which limiting its implementation in the Bulgarian rehabilitation practice. We acknowledge that COVID-19 is not a short-term problem and the emergence of the SARS-CoV-2 Omicron variant, may accelerate the reorganization and modernization of rehabilitation services in Bulgaria, assessed as less effective and less digital.^{12,13} Therefore, Bulgarian Regulation amendments (BG) No. 9/2019, laying down the package of medical activities reimbursed by the NHIF are crucial and will enable the use of telecommunication tools for diagnosis, treatment, and rehabilitation in Bulgaria. We advise the BGSPRM to take the leadership role in the establishment of a National Telehealth Center which will be dedicated to the development and implementation of TM solutions adapted to all types of rehabilitation. Bulgarian health policymakers, and experts from BGSPRM must consider TR as a new approach to common rehabilitation practice, not only in specific situations like the COVID-19 emergency. In this context, a step forward by the BGSPRM should be the establishment of TR national guidelines which must be broadly supported also by other Bulgarian scientific and professional organizations such as the Bulgarian Orthopedic and Traumatology Association (BOTA), Bulgarian Society of Neurology (BSN), Bulgarian Society of Cardiology (BSC), Bulgarian Society of Lung Diseases (BSLD), and Bulgarian Cancer Scientific Society (BCSS). Faced with new waves of the COVID-19 pandemic and the prospect of new restrictions, TR in rehabilitation practice is mandator in Bulgaria to increase accessibility to rehabilitation treatment for patients with various neurological, cardiorespiratory, musculoskeletal, and oncological conditions who are often disadvantaged by several barriers and will

contribute significantly to the modernization of PRM services in Bulgaria.

List of acronyms

BCSS - Bulgarian Cancer Scientific Society
BGSPRM: Bulgarian Society of Physical and Rehabilitation Medicine
BMoH - Bulgarian Ministry of Health
BOTA - Bulgarian Orthopedic and Traumatology Association
BSC - Bulgarian Society of Cardiology
BSLD - Bulgarian Society of Lung Diseases
BSN - Bulgarian Society of Neurology
COVID-19: SARS-CoV-2 disease
NHIF: National Health Insurance Fund
PRM - physical and rehabilitation medicine
SARS-CoV-2: Severe acute respiratory syndrome coronavirus-2
TR – telerehabilitation
WHO - World Health Organization

Authors contributions

JP, YK, HB, IP, SM were involved in the conception, drafting and critical revision of the manuscript. All authors approved the final edited typescript.

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Conflict of Interest

The authors have no conflicts of interest to report.

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