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Technology Acceptance as a Psychosocial Determinant in the Telerehabilitation of Patients with Metabolic Syndrome

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Abstract

The increasing prevalence of metabolic syndrome and its associated complications, in particular cardiovascular risks, place a significant burden on health systems and negative impact on the quality of life of patients and their environment. The advent of telerehabilitation has created new opportunities for the care of such patients. In distant rehabilitation technology acceptance is particularly important because home-based project is based on digital devices and the older patient population is less familiar with the use of them. Our aim was to explore technology acceptance among patients undergoing telemedicine-supported metabolic rehabilitation. 145 patients participated in a questionnaire survey, which measured the impact of several latent variables (such as expected performance, openness to innovation, supports from family and friends, or technological anxiety, etc.) on the intention to use rehabilitation devices. To investigate the relationship between latent variables, the statistical software SMART PLS 4 was used. The intention to use is most influenced (0.379) by the expected performance, i.e. the perception of how useful the rehabilitation programme and the tools used in it will be in achieving the set goals. Nearly the same effect (0.359) on intention to use are facilitating conditions, which includes the conditions in the participant's home and the knowledge needed to use the rehabilitation tools. Also significant is the effect of safety (0.300), which means that the perception of the safe use of devices, and the inaccessibility of the data generated to unauthorised persons. The results of the project could contribute to the more effective design of telerehabilitation programs.

Keywords: expected performance; design of rehabilitation; patient behavior; PLS regression; technology use