Physical Therapy using VR (Virtual reality) for Geriatric population during COVID-19

Vidhi Patel

University of San Diego

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Dr. Brenda Boone

Introduction

Over the last decade, as information technology has evolved and costs have decreased, the usage of virtual reality (VR) in health care has steadily increased. Medical VR inventors will be challenged to improve technological efficiency while also increasing physical and psychological comfort and capabilities while lowering healthcare expenses. The requirement is complicated, but the possibilities, like VR technology itself, are intriguing and enticing. "VR compromised of many features that are ideal for surgical simulation training, rehabilitation, pain management, behavioral therapy, such as: VR medical care training, allowing users to interact with VR, as if immersive in the actual scene, can reduce the technical operation Health care caused by negligence."(Hsieh & Lee, 2018).

It has the potential to improve the efficacy and efficiency of nursing and medical health care services, in addition to reducing the inconvenient nature of traditional medical procedures and education. Virtual reality (VR) can aid in the fight against the pandemic by providing audiovisual-based virtual communication. Virtual reality technology creates a platform to lessen clinicians' face-to-face interactions with infected COVID-19 patients. It helps to strengthen monitoring systems on the ongoing scenario by using live video streaming. During the therapy process, this technology is useful for physical rehabilitation and pain management of an infected patient. "Several studies have demonstrated that VR technology can improve motor functioning. VR can also be used to improve upper limb function, gait and balance, global motor function, and cognitive function in patients with stroke. A combination of basic home exercises with VR implemented by video game consoles such as Wii may also be a feasible technique for maintaining physical balance and protecting functional deterioration." (Wang et al., 2020). The use of virtual reality (VR) exercise to improve physical, cognitive, and psychological results (e.g., better motor function, reduced obesity). Virtual reality exercise has also been shown to be an effective intervention technique for preventing falls in the elderly. The effectiveness of virtual reality-based exercise programs in lowering gereatric patient's fear of falling and, as a result, enhancing their motor skills and general quality of life.

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