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Exploring The Role of Virtual Reality Rehabilitation in Enhancing Recovery after Hip Arthroplasty: A Narrative Review

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ABSTRACT

Total hip arthroplasty minimises symptoms and greatly enhances hip function and functional independence, making it one of the most significant surgical operations of the past century. It is among the most economical medical procedures in terms of both financial capabilities and the health advantages. Based on current epidemiological data and future forecasts regarding osteoarthritis and other degenerative bone and cartilage conditions, Virtual Reality (VR) system recreated authentic and artificial environments where patients can interact with (concentration) and experience as real (existence) using advanced software as well as equipment. The aim of the study is to determine the feasibility and acceptability of virtual reality rehabilitation in the context of hip arthroplasty recovery. A thorough literature search was conducted using key databases such as PubMed, Google Scholar from December 2000 to December 2024 comprising. The search utilised terms such as “virtual reality”, “hip arthroplasty” and “osteoarthritis” employing Boolean operators (AND, OR).“After applying the exclusion criteria,a total of six studies were identified as meeting the required standards and were subsequently selected for the study. The non-English articles were excluded in this study.This study suggested the VR rehabilitation in enhancing recovery after hip arthroplasty. The potential advantages of VR rehabilitation in improving hip arthroplasty recovery are highlighted in this narrative review. VR rehabilitation offers significant advantages over traditional methods including improved functional outcomes, reduced pain, muscle strength, and discomfort and enhanced patient motivation to restore their functional capabilities making it an effective and innovative approach to rehabilitation.

Keywords: Functional capability, Osteoarthritis, Pain.