



Service Priorities and Programmes
Electronic Presentations

Convention ID: 175

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Development of Videotaped Exercise Instruction in Orthopedic Rehabilitation Gym

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Keywords:

Orthopaedic rehabilitation

Physiotherapy

Hip fracture

Exercise

Videotaped

Introduction

Correct exercise techniques are important for patients to train the desired muscle groups and prevent unnecessary injuries. In a fully loaded rehabilitation gym, staff availability for supervising individual patients is often limited. Using a portable smart tablet to demonstrate exercise techniques and guide patients through different exercises could be beneficial to both physiotherapist and patient.

Objectives

This project intends to improve the effectiveness and efficiency of exercise delivery to hip fracture patients with an addition of videotaped exercise instructions

Methodology

Stepping and standing hip abduction exercises were chosen to be videotaped in this project. The total duration of the video is 10 minutes and it consists of the two exercises with 5 minutes each. The video was designed and edited to aid patients' understanding of the exercises. Text and verbal instructions were also included in the video to provide additional guidance.

Hip fracture patients that perform the two exercises were randomly assigned into two groups: (1) routine group and (2) videotaped group. Standardised live instructions were provided by a physiotherapist in both groups in the first session only. In the following sessions, patients in both groups were required to perform the instructed exercises without therapists' supervision, whilst videotaped exercise instructions were provided to the videotaped group only.

Patient's performance was assessed at the start of the second session, which was based on a checklist of correct techniques in performing the specific exercises.

Patients were then required to complete a self-reported questionnaire after the third session, so as to collect and compare their confidence level in performing the exercises between the two groups.

Result

28 patients were recruited in the project. 15 patients were assigned to videotaped

group and 13 patients were assigned to routine group. Average performance score of videotaped and routine group are 5.67 and 3.38 respectively. Average confidence score is similar in videotaped and routine, which are 15.67 and 15.92 respectively. Significant improvement in exercise performance is observed with the use of videotaped guidance when compared with routine group. It is believed that the video provides constant guidance and reduces the demand of patients' memory retention in the exercise techniques. However, the use of videotaped guidance does not affect the confidence level of patients in performing the exercises, which could be influenced by other factors.