

Service Priorities and Programmes Electronic Presentations

Convention ID: 692

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The acceptability of elder patients in using interactive computer game training in rehabilitation

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Keywords:

interactive computer games rehabilitation neurological elderly balance upper limb motor function

Introduction

The use of interactive computer game training for rehabilitation in Geriatric Day Hospitals of Hong Kong is a novel approach. The training provides opportunities for elder patients to have active motor learning with high level of enjoyment. However, not many elder patients are familiar with computer games. Thus, it is important to gain subjective feedback from elder patients on their acceptability in the use of interactive computer game training in rehabilitation.

Objectives

(1)To assess the acceptability of patients and (2) preliminarily estimate the applicability of the interactive computer game training in rehabilitation of elder patients in Geriatric Day Hospital (GDH) of Shatin Hospital.

Methodology

Neurological patients of GDH in Shatin Hospital were recruited to participate in the trial of the interactive computer game training in addition to 60 minutes conventional physiotherapy rehabilitation. Participants received 30-minute computer game training that challenges their balance or upper limb motor function. Interviewer-administered questionnaires were given to the participants after receiving eight sessions of the computer game training.

Result

A total of 15 participants completed eight-session of interactive computer games training. All the questions answered received high scores with positive rating. The positive rating reflected that the use of computer games as part of the rehabilitation was interesting and challenging. More than 90% of the participants opined the computer games were easy to operate and the level of difficulty was suitable for them. They also reflected the training program could improve their limbs function (86% agreed), eyes-limbs coordination and reaction (100% agreed), balance (92% agreed)

and the ability of problem solving and attention span (100% agreed). Conclusions: The preliminary results from the subjective feedback showed very high level of acceptance by the elder patients in using the interactive computer game training. The results implied that the training is applicable in GDH and use of appropriate level of games could motivate patients to participate in rehabilitation. The subjective findings of the participants about their improvement in balance and upper limb motor function after the eight-session training also reflected the possible clinical effectiveness in using the computer game training. It is worth conducting a randomized controlled clinical trial for further investigation of the clinical efficacy and ascertains whether the interactive computer game training could be integrated into geriatric rehabilitation.