Multimedia caregiver empowerment program in physiotherapy department for postsurgical hemi and total hip arthroplasty

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Introduction
Approximately 20% of cases admitted to Kowloon West Cluster Orthopedic Rehabilitation Centre in Caritas Medical Center are with hemi-arthroplasty and total hip arthroplasty. Most elderly patients often are unable to adequately follow post-surgical precautions and manage self-care, necessitating the importance of educating and empowering their caregivers for the transition of care from hospital to home. With the manpower saving strategy in clinical situation, the use of multimedia instruction programs constitutes a widely available and cost-effective medium of instruction that may help to complement conventional caregiver education.

Objectives
To evaluate a caregiver empowerment program using multimedia based instruction to complement conventional caregiver education by a physiotherapist for caregivers of elderly patients that have undergone hemi or total hip arthroplasty.

Methodology
Caregivers of patients that had undergone hemi or total arthroplasty from November 2014 to April 2015 were invited to attend an empowerment session. The session includes the use of multimedia education materials in the form of auto-play slideshow and pamphlet and an interactive practical section. The multimedia materials provides information on the pathophysiology of the fracture, anatomy, management of symptoms, post-surgical precautions, patient handling, transfer technique, fall prevention and home exercises. In the interactive practical part, the physiotherapist discussed with the caregiver the patient's rehabilitation condition and teach caregivers
to assist the patient in mobility and transfer. At the end of the session, the performance of caregiver skills was rated using a scale of 5. A survey using a 5 point like scale was given to assess the caregiver satisfaction, self-efficacy and confidence. A mini quiz was given to assess caregiver's retention of knowledge on key content.

**Result**

Forty four caregiver sessions were conducted with data collected for analysis in the study. The scores rated good to excellent for in self efficacy (4.58 +/-0.41), caregiver skills (4.66+/ 0.57), and retention of knowledge (5.00 +/-0.00) after receiving the empowerment session. Multimedia based instructions improved caregiver’s knowledge before meeting the physiotherapist. This allowed more dedication of time to discuss details specific to individual patient’s need. This session empowered caregivers by improving their self-efficacy, knowledge, and skills necessary for transition of care to the home setting. This study would be expected to proceed in a long run to constitute as a continuous quality improvement program.