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The Effectiveness of Work Hardening Program on Self-efficacy in Lifting and Carrying for Patients with Cardiovascular Diseases

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Introduction

The aim of this study is to examine the effect of self-efficacy in lifting and carrying objects after work hardening program for cardiac day patients

Objectives

The Self-efficacy of cardiac day patients towards lifting and carrying are measured before and after the Work Hardening Group and Non-Work Hardening Group.

Methodology

From 8/2014 to 8/2015, 74 cardiac day-patients were recruited into 16-session cardiac rehabilitation program in Tung Wah Hospital and received conventional education and exercise training in 2 months. 38 cases having functional demands in manual handling tasks were selected into work hardening group (WH group) and received additional work hardening training in Occupational Therapy Unit. The remaining 36 cases were served as control (non-WH group). Patients have to rate the self-efficacy in lifting different weights (10lbs, 20lbs, 30lbs, 40lbs) and carrying by using the visual analog scale ranging from 0 to 100 (100= full confidence) in pre and posttest for both groups. Paired t-test was used for analysis.

Result

Results: There were similar characteristics between two groups in age, gender, Metabolic Equivalent(MET) and Ejection Fraction(EF) in pretest. No significant difference in MET and EF between two groups in pretest indicated that the baselines were comparable. In WH group, self-efficacy scores increased in all loading in lifting and carrying, moreover; significant differences were shown between pre and posttest, especially in heavy lifting - 30lbs and 40lbs. In non-WH group, scores increase in lifting 20lbs, 30lbs, 40lbs and carrying but the results were not significant in all

loadings. In posttest, MET increased by 3.2(76.9%) for WH group and by 2.8(62.1%) for non-WH group, while EF increased 2.2(4.8%) and 2.7(7.3%) for WH group and non-WH group respectively. For both groups, outcomes in MET and EF showed improvement significantly. As concluded, the cardiac day patients increased self-efficacy in lifting and carrying especially in heavy lifting after participating in work hardening program. The physical capacity improves in both groups probably due to both groups received exercise training.