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Extended Utility of Functional Capacity Evaluations for Formulating Return-to-work Planning in Patients with Psychosocial Comorbidity and Complex Needs

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Introduction

Work-related musculoskeletal disorders (WMSDs) place significant burden on healthcare resources and worker productivity. Functional Capacity Evaluations (FCEs) provides objective means to facilitate early return-to-work (RTW).

Objectives

(1) To review findings from cohort of injured workers undergoing FCEs in Physiotherapy Departments of Kowloon Central Cluster (KCC); and (2) to extend applicability of FCEs results in WMSDs rehabilitation.

Methodology

All patients who suffered from WMSDs and referred for FCEs in Outpatient Physiotherapy Departments of KCC from April 2014 to March 2015 were included for retrospective review. Performance outcomes in FCEs protocol were compared to required Physical Demand Characteristics (PDC) of patient's job with review of Validity Criteria (VC) for consistency of performance. Subgroup analysis was conducted for extended utility of FCEs for patients with complex needs such as psychosocial comorbidity.

Result

Seventy-one FCEs were conducted during sampling period. Significant differences were found in physical performance of patients who passed versus those failed VC profile. These included lifting capacity from floor to knuckle level (Passed: 27.4±15.1 lbs., Failed: 14.0±8.3 lbs.; p<0.01), knuckle to shoulder level (Passed: 26.7±13.8 lbs.,

Failed: 14.7 ± 7.1 lbs.; $p < 0.01$), summed handgrip strength (Passed: 70.9 ± 42.4 kgf, Failed: 50.9 ± 38.2 kgf; $p = 0.04$) and pinch grip strength (Passed: 22.3 ± 11.4 kgf; Failed: 16.8 ± 9.7 kgf; $p = 0.03$). Sixty-three percent of patients passed VC profile of which majority (75.0%) were successfully RTW within 3 months. For those who were unsuccessful RTW, intensive work rehabilitation was offered to cater for deficient areas detected. For subgroup with failed VC profile presented with psychosocial comorbidity, corresponding management strategies including counseling on coping strategies and pacing techniques were formulated. Further 57% of these patients eventually RTW after enhanced targeted rehabilitation. FCEs provided reliable and valid data, which helped to formulate safe and structured RTW planning. Differentiated characteristics were found in patients with failed VC profile and presented with psychosocial comorbidity requiring different treatment strategies to achieve successful RTW. FCEs were well studied for its application in providing objective quantifiable evidences on readiness of RTW following work injuries. Our review demonstrated extended utility of FCEs as triage tool for work rehabilitation management catering for those patients presented with complex needs.