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Predictors Of Successful Work Role Functioning Following Carpal Tunnel Release Surgery

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Importance and Purpose: Return to work (RTW) research has identified many predictors of RTW which, until now, have not been examined collectively in a single study. We developed a multidimensional model focused on six major predictor categories (demographic, clinical, psychosocial, economic/legal, job conditions, and organizational conditions) and consider significant predictors of successful RTW following carpal tunnel release surgery (CTRS). In addition, recent research suggests the transition from not working to working (i.e., RTW) may not be the most appropriate outcome. We introduce a newly validated measure of successful work role functioning which captures the impact of health on job functioning following return to work. We hypothesize that clinical, worker and economic/legal factors will be important predictors of successful return to work at 2 months following carpal tunnel surgery, but that the employment situation (job and organizational conditions) will be important at 6 months following surgery.

Methods: Patients with confirmed diagnosis of CTS and scheduled for CTRS from fifteen participating community-based physician offices completed questionnaires by mail preoperatively and postoperatively at two, six and twelve months. The two-month and six-month analysis samples were 128 and 122 respectively. Successful RTW was measured using a 3-level ordered measure of work role functioning (not working, working with limitations, working well) created from a 15-question subset of the 26-item Work Limitations Questionnaire. Predictor variables were grouped into six a priori conceptual categories: Demographic, Clinical, Psychosocial, Economic/legal, Job conditions, and Organization. Ordered logistic regression with robust estimation procedures was used to estimate risk transitions.

Principal Findings: Multivariate results for 2-months following CTRS found baseline work role functioning, OR 1.02; CI 1.01-1.04, being depressed, OR 0.32; CI 0.14-0.74, and being a workers' compensation claimant, OR 0.30; CI 0.14-0.66 were significant predictors of successful RTW. Multivariate results for 6-months following CTRS found baseline work role functioning, OR 1.04; CI 1.02-1.05, improved self-efficacy post-surgery, OR 7.11; CI 2.47-20.46, and a supportive organization, OR 5.20; CI 1.68-16.05 predicted successful RTW.

Conclusion: Physical health as measured by baseline WRF, depression and being a workers' compensation claimant were significant predictors of short-term return to work. Employment conditions such as working in a highly supportive organization were important at six months. Unexpectedly, self-efficacy change for CTRS was a strong predictor at 6 months.

Implications for Research and Improving Outcomes: This work highlights the importance of using multidimensional models in examining the return to work process and using multiple time points following an intervention. While further studies need to confirm our findings, the results suggest interventions targeting improving self-efficacy and developing highly supportive organizational policies and practices help promote successful return to work. These results further illustrate the importance of a new outcome measure of work role functioning.

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