DEVELOPMENT AND VALIDATION OF AN INSTRUMENT TO PREDICT FUNCTIONAL RECOVERY IN TIBIAL FRACTURE PATIENTS: THE SOMATIC PRE-OCCUPATION AND COPING (SPOC) QUESTIONNAIRE

Jason Busse,1 Mohit Bhandari,1 Gordon Guyatt,1 Diane Heels-Ansdell,1 Abhaya Kulkarni,2 Scott Mandel,1 David Sanders,3 Emil Schemitsch,4 Marc Swiontkowski,5 Paul Tornetta III,6 Eugene Wai,7 Stephen Walter1 1McMaster University, Hamilton, Canada; 2Hospital for Sick Children, Toronto, Canada; 3London Health Sciences Centre, London, Canada; 4St. Michael’s Hospital, Toronto, Canada; 5University of Minnesota, Minneapolis, USA; 6Boston Medical Center, Boston, USA; 7Ottawa Hospital, Ottawa, Canada

10.1136/oemed-2011-100382.92

Objectives To explore the role of patients’ beliefs in their likelihood of recovery from severe physical trauma.

Methods We developed and validated an instrument designed to capture the impact of patients’ beliefs on functional recovery from injury, the Somatic Pre-occupation and Coping (SPOC) questionnaire. At 6-weeks post-surgical fixation, we administered the SPOC questionnaire to 359 consecutive patients with operatively managed tibial shaft fractures. We constructed multi-variable regression models to explore the association between SPOC scores and functional outcome at 1-year, as measured by return to work and short form-36 (SF-36) physical component summary (PCS) and mental component summary (MCS) scores.

Results In our adjusted multivariable regression models that included pre-injury SF-36 scores, SPOC scores at 6-weeks post-surgery accounted for 18% of the variation in SF-36 PCS scores and 18% of SF-36 MCS scores at 1-year. In both models, 6-week SPOC scores were a far more powerful predictor of functional recovery than age, gender, fracture type, smoking status, or the presence of multi-trauma. Our adjusted analysis found that for each 14 point increment in SPOC score at 6-weeks the odds of returning to work at 1-year decreased by 40% (OR = 0.60; 95% CI = 0.50 to 0.73).

Conclusions The SPOC questionnaire is a valid measurement of illness beliefs in tibial fracture patients and is highly predictive of their long-term functional recovery. Future research should explore if these results extend to other trauma populations and if modification of unhelpful illness beliefs is feasible and would result in improved functional outcomes.