Research study reveals prevalence of mental health disorders among injured workers with upper extremity complaints

By Michael H. Weier ▪ July 14, 2016

Employers, workers’ compensation insurers and third party administrators have long-noted what appears to be an association between industrial musculoskeletal injuries and pre-injury mental health disorders. The anecdotal associations, however, raise the question: What is the prevalence of pre-injury symptoms of depression or panic disorders among injured workers with cervical radiculopathy, epicondylitis or carpal tunnel syndrome? The *Journal of Orthopaedic & Sports Physical Therapy* reported a study that addresses the question.1

RM Degan and colleagues of the St. Joseph’s Health Care, Hand and Upper Limb Centre (HULC)² conducted a cross-sectional research study of the prevalence of symptoms of mental health disorders among workers with upper extremity complaints. The cross-sectional cohort consisted of 418 patients that presented to an upper extremity injured-worker clinic for initial assessment of arm, wrist or hand complaints. Upon intake, each patient completed a Patient Health Questionnaire (PHQ) to identify any relationships between the musculoskeletal complaints and symptoms of a mental health disorder. Patients with PHQ scores exceeding threshold values for symptoms of depression, panic disorder or Post Traumatic Stress Disorder (PTSD), were compared against patient-reported outcome measures (PROM), including the Disabilities of the Arm, Shoulder and Hand (DASH) questionnaire. Based upon PHQ, PROM and DASH data, the researchers calculated the prevalence of symptoms of mental health disorders and their associations with presenting upper extremity and hand complaints.

The results were quite remarkable. Nearly one-third of patients scored above the threshold for at least one mental health disorder. Of patients with scores revealing a mental health disorder, 67 percent screened positive for depression, 50 percent for panic disorder, and 44 percent for PTSD. The data also revealed 43 percent of patients with symptoms of a mental health problem screened positive for multiple disorders.

In a comparison of initial presentation of complaints, patients with neck pain (e.g., cervical radiculopathy) screened three times higher for depression and panic disorder than patients with other complaints. Patients with complaints of chronic pain had scores that were more than twice for depression and...
PTSD and five times higher for panic disorder as compared to patients that presented with other complaints.

The research could not determine the length of time the injured workers had symptoms of mental health disorders. It is important to note, however, the data are directed to symptoms of mental health disorders that existed at the time of initial presentation of the upper extremity and hand complaints. In other words, the research focused upon pre-injury mental health disorders.

Additional research may be needed to expand the results to other physical conditions, such as low back or knee pain. Nonetheless, application of the research results to workers’ compensation claims for upper extremity complaints, including cervical radiculopathy, should be strong.

Workers’ compensation administrators and claim examiners should, therefore, take note of the significant prevalence of symptoms of depression, panic disorder and PTSD among injured workers with upper extremity complaints and plan accordingly.

If you have any questions how to manage and administer the claim or prepare for potential future litigation, contact one of the attorneys at Reinisch Wilson Weier PC for assistance and advice.


2 HULC currently has 12 surgeons and 4 PhD research scientists on staff. All surgeons are certified by the Royal College of Physicians and Surgeons of Canada in Plastic or Orthopaedic Surgery and have completed advanced upper extremity surgical fellowships. Most surgeons have additional graduate degrees (MSc, MEd, MHPE, or PhD). All staff hold faculty positions at the Schulich School of Medicine and Dentistry at Western University in London, Ontario, Canada.