

**Social Relationships Are Strained Following Common Orthopaedic Trauma**

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**Purpose:** Social strain has been demonstrated to act as a trigger of psychological distress and decreased quality of life. The purpose of this study was to investigate the prevalence and longitudinal improvement of patient-reported problems with family and friends following 4 common orthopaedic fractures.

**Methods:** The functional status of patients with fractures of the tibial plateau, ankle, proximal humerus, and distal radius were prospectively followed. Patients reported if they experienced social strain (problems with their family and friends) at baseline and at 3, 6, and 12 months post treatment. The functional outcomes of patients were obtained using the Short Musculoskeletal Function Assessment (SMFA) for tibial plateau and ankle fractures. The Disabilities of the Arm, Shoulder and Hand (DASH) survey was used to assess functional outcomes in proximal humerus and distal radius fractures. Student t tests were used for continuous variables. Chi-squared analysis was used to assess differences between categorical variables. Spearman's correlation was used between functional outcomes and social strain.

**Results:** 1314 patients were included in this study. Overall, the prevalence of social strain was highest at the 3-month time point and subsequently improved. Social strain was demonstrated in 20.7% of patients at 3-month follow-up and in 7.6% of patients at 12-month follow-up. Strong correlations exist between social strain and functional outcomes ( $P < 0.001$ ). Patients who reported social strain were of older age, at 6-month ( $P = 0.011$ ) and 12-month follow-up ( $P < 0.001$ ). Non-Caucasian ethnicity was associated with social strain at 3-month follow-up ( $P = 0.025$ ).

**Conclusion:** Strong social circles have been well documented as contributing to increased longevity and quality of life. This study demonstrated that social strain is prevalent following common orthopaedic trauma, yet it decreases as time goes on. Problems with family and friends following orthopaedic trauma were more common in older patients at all time points. In addition, female patients experienced more social strain at short-term follow-up. Patients who experienced problems with family and friends had worse functional outcomes at short and long-term follow-up. This study should allow orthopaedic trauma surgeons to counsel patients regarding expectations of their relationships after common fractures.