

078 Which psychosocial measures are correlated to physical function and pain in patients with knee conditions?

Jeffery Houck, Tanya Beiswenger, Patrick Barber, Kostantinos Vasalos, Alex Karman, Christopher Short, Judith Baumhauer

University of Rochester, Rochester, USA

Objective: Clinical approaches in physical therapy recognize psychosocial factors as barriers to improve physical function and pain reduction. PROMIS® measures can identify patients with knee problems who have elevated psychosocial factors that may impair physical improvement. Furthermore, psychosocial factors in patients with knee pain remain poorly studied compared to other conditions. This analysis examined the prevalence of elevated PROMIS psychosocial domains in physical therapy patients with knee conditions and their relationship with physical function (PF) and pain interference (PI).

Methods: De-identified patient records (n=1,213) included a sample with the following characteristics: age: 44.3 ± 17.5 years, sex: 59.9% female, body mass index: 30.5 ± 8.1 , PF t-score: (n=1139), 39.7 ± 8.3 , PI t-score: (n=1108), 59.8 ± 7.9 . The knee specific ICD10 codes included anterior cruciate ligament (n=346), knee osteoarthritis (n=506), knee pain (n=228), and patellofemoral (n=133) conditions. The first available PROMIS measure during each physical therapy care episode was used. Psychosocial measures included Anxiety (n=198), Depression (n=879), Self-efficacy of symptom management (SEsm) (n=447), Sleep Disturbance (SD) (n=640), and Ability to Participate in Social Roles (APSR) (n=225). PROMIS PF and PI measures defined physical function and pain. The frequency of low psychosocial scores and their association with PF and PI determined their utility as screening tools.

Results: The prevalence of significant psychosocial symptoms (>1 SD worse than 50) in patients attending physical therapy for knee complaints was 14.6-20.2% (Depression: 14.6%, Anxiety: 20.2%, SD: 19.5%, SEsm: 19.9%, APSR: 19.1%). The prevalence of minor symptoms (within 1 SD worse than 50) was 27.3-56.2% (Depression: 27.3%, Anxiety: 35.4%, SD: 36.3%, SEsm: 56.2%, APSR: 45.3%). Significant Spearman rho coefficients with PROMIS PF/PI were: Depression (-0.34/0.39), Anxiety (-0.37/0.45), SD (-0.39/0.49), SEsm (0.51/0.57), and APSR (0.69/-0.73).

Conclusions: The high combined prevalence of minor and significant psychosocial symptoms (41.9% to 76.1%) in patients with knee diagnoses supports using PROMIS measures as screening tools to help measure and manage these concurrent symptoms. All PROMIS psychosocial measures were associated with PF and PI. However, SEsm and APSR showed the highest combined prevalence and strongest associations. Prior research suggests incorporating cognitive-behavioral strategies in patients with psychosocial symptoms can maximize improvement.