

Does Preoperative Resilience Correlate with Postoperative Regret and Patient-Reported Clinical Outcomes following Total Knee Arthroplasty?

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INTRODUCTION: Patient psychosocial parameters are of increasing interest in total knee arthroplasty (TKA). Resilience, defined as the ability to recover from or adjust easily to misfortune or change, is one patient characteristic that has received limited attention. The purpose of this study was to assess if patients' preoperative resilience correlated with postoperative treatment decision regret and clinical outcomes following TKA.

METHODS: A total of 1,269 patients who underwent a primary unilateral TKA were included. Average age was 71 and 60% were female. Preoperative resilience was measured using the Brief Resilience Scale. Postoperatively, patients completed the Decision Regret Scale, Knee Injury and Osteoarthritis Outcome Score Joint Replacement (KOOS JR), and Patient-Reported Outcomes Measurement Information System (PROMIS-10).

RESULTS: Preoperatively, 8% of patients had low resilience, 67% had normal resilience, and 25% had high resilience. Females were more prone to report low resilience compared to males (11% and 4% respectively, $p < 0.001$). At one month postoperatively, 13% of patients had moderate/severe regret regarding their decision to undergo TKA. Patients with low resilience were more likely than patients with normal and high resilience to have moderate/severe regret (23%, 15% and, 5% respectively, $p < 0.001$), and this association continued throughout the first postoperative year. Patients with high resilience had higher postoperative KOOS JR scores ($p < 0.05$) and PROMIS-10 mental and physical scores ($p < 0.001$) than patients with low and normal resilience.

DISCUSSION AND CONCLUSION: Among patients undergoing TKA, preoperative resilience was associated with postoperative regret and clinical outcomes. Patients who had high resilience had less treatment decision regret throughout the first postoperative year, as well as higher outcome scores measuring knee stiffness, pain, function, and activities of daily living, as well as global physical and mental health. Patient resilience is a psychosocial parameter that may be used by surgeons to counsel patients regarding postoperative expectations.