# Paper #3

## Relationship between Patient Expectations, Satisfaction, and Patient Reported Outcomes in Total Knee Arthroplasty: A Prospective Multi-Center Study

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**Introduction:** The interaction between patient expectations, patient reported outcome measures (PROMs), and patient satisfaction in patients undergoing total knee arthroplasty is not well understood.

**Methods:** We prospectively evaluated patients who underwent TKA across four institutions. Patient demographics including age, gender, education, race, BMI, race, and work status were collected. Preoperatively, patients completed the Hospital for Special Surgery Knee Replacement Expectations Survey (HSS-KRES), the SF-12, the UCLA activity score, and the Knee Disability and Osteoarthritis Score (KOOS). Postoperatively at 6 months, patients completed the Hospital for Special Surgery Knee Replacement Fulfillment of Expectations Survey (HSS-KRFES), a satisfaction survey, and the same PROMs. Multivariate regression models were created to predict expectations based on demographics and preoperative PROMs, and then to predict postoperative PROMs, change in PROMs, and satisfaction based on preoperative expectations.

**Results:** There were 83 patients enrolled (age: 69.7 +/- 9.0 years; 45% F, 45% M; education: 1.2% some high school, 12.8% high school degree, 24.4% some college, 23.1% college degree, 38.4% postgraduate degree; race: 89.2% Caucasian, 2.4% Asian, 1.2%, Hispanic, 1.2% Native American; BMI: 29.9 +/- 5.4 kg/m2 ; 39% working, 61% not working). At 6 months postoperatively, the follow up rate was 84.3%. All PROMs significantly improved. No demographics or preoperative PROMs were predictive of HSS-KRES scores. Preoperative HSS-KRES did not predict postoperative satisfaction, fulfillment of expectations or final PROMs, but higher HSS-KRES did predict greater improvement in all PROMs, except SF-12 MCS (UCLA activity: B=0.031, p=0.013; SF-12 PCS: B=0.20, p = 0.004; KOOS B=0.43; p=0.011).

**Conclusions:** In patients undergoing TKA, demographics and preoperative function do not predict preoperative expectations of surgery. Higher expectations predict greater improvement overall physical function, activity and knee function postoperatively, but do not predict patient satisfaction or fulfillment of expectations. These findings have profound implications for counseling patients preoperatively.

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