

Correlation of Patient Confidence in Attaining Treatment Goals and Outcomes after Knee Arthroplasty

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Introduction: Total knee arthroplasty (TKA) outcomes drive assessment of quality and reinvestment; therefore a risk stratified assessment is paramount for fair evaluation. Stratification can be affected by multiple factors including patient motivation. This study attempted to identify the correlation of patient's preoperative confidence in their ability to return to desired activity level after TKA and improved function and outcomes.

Methods: A continuous series of TKA procedures from 2008 to 2010 in a healthcare system was reviewed retrospectively. Patients included reported pre- and postoperative knee injury and osteoarthritis outcomes scores (KOOS), SF-12 scores, and responded a question regarding the desired activity level, including the level of confidence (0-10 scale) in attaining such goals, after surgery. Gender, age, body mass index, education level, smoking status, length of stay (LOS), 30-day readmission and reoperation, and 1-year infection rates were collected. Correlation of patient confidence in attaining treatment goals and the outcomes collected was established using multiple linear and logistic regression models adjusted for baseline mental and functional scores.

Results: A total of 1020 primary, 18 bilateral and 177 revision TKA patients completed their postoperative questionnaires and had an average follow-up of 430, 411 and 376 days, respectively. Patients were confident in achieving treatment goals with an average score of 7.7 ± 2.1 , 9.3 ± 0.5 and 6.4 ± 2.6 for primary, bilateral and revision TKA, respectively. There was direct correlation of level of confidence and shorter LOS ($p=0.005$), and no correlation with readmission, reoperation and infection. Moreover, confidence was correlated with improved function and pain KOOS ($p<0.001$) and SF-12 physical scores ($p<0.001$) after primary TKA. Only physical function ($p<0.044$) was affected by patient confidence after revision TKA.

Conclusion: Patient confidence in attaining treatment goals after primary TKA has a direct correlation with shorter LOS and improved function. Patient motivation should be weighted when measuring TKA outcomes.

