

Patient Activation Correlates with Higher Patient Reported Outcomes After Total Hip Arthroplasty

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Introduction: Value-based care is predicated on patient buy-in and involvement in the co-management of chronic conditions. Those who exhibit higher levels of responsibility and participation in care are said to have higher levels of “Patient Activation,” a modifiable trait which may correlate with improved outcomes in Total Joint Arthroplasty. The purpose of this study was to examine if patient outcomes in primary Total Hip Arthroplasty (THA) are affected by patient activation and whether there was a divergence in outcomes based on level of activation.

Methods: The patient activation levels of 245 patients undergoing THA at a single center between March 2019 and March 2020 were measured using the Patient Activation Measurement 13-item questionnaire (PAM-13), stratifying patients into four categories of activation: 1) Disengaged and Overwhelmed; 2) Becoming Aware, Still Struggling; 3) Taking Action, Gaining Control; and, 4) Maintaining Behaviors, Pushing Further. PROMIS Mental Function (MF), Physical Function (PF), and HOOS Jr outcome scores were gauged preoperatively and at 28 days, 6 weeks, 12 weeks, 6 months, 1 year. A mixed effects modeling approach was utilized. Random intercepts and slopes models demonstrated the best fit for outcomes examined and were retained with linear and curvilinear treatment of time.

Results: Each successive category of activation (range: 1-4) was associated with a 2.32 point rise in PROMIS-PF (y-intercept=39.92, 95% CI: 1.41 - 3.23, $p < 0.001$), 3.91 point rise in PROMIS-MF (y-intercept=34.99, CI: 2.73 - 5.08, $p < 0.001$), and 1.70 point rise in HOOS Jr scores (y-intercept=42.96, CI: 0.03 - 3.38 $p=0.04$) after controlling for baseline demographic variables.

Conclusions: Higher patient activation levels led to significantly higher global function and hip-specific outcome scores after THA. Each successive level of activation portends significantly improved results in patient reported outcomes. Patient activation is a modifiable predictor of patient outcomes after THA