

# **Failure to Meet Expectations of Sport or Recreation Following Total Hip Arthroplasty is Associated with Younger Age, Heavier Weight, and Worse General Health**

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## **INTRODUCTION:**

Fulfilment of expectations is an important outcome following total hip arthroplasty (THA). Although THA has high rates of overall patient satisfaction, previous studies have shown the ability to do recreational and sporting activities as one of the most common areas in which patient expectations are not met. THA has the potential to restore a patient's ability to exercise and thus reduce their risk of comorbidities. To ensure the benefits of THA are maximized and patient expectations fulfilled, more needs to be known about patient perspectives on returning to physical activity after their surgery. This is especially important as the demand for primary THA is predicted to rise exponentially by 2030. Our study aimed to identify preoperative factors that predict whether patient expectations for sporting or recreational activity are met 12 months following THA.

## **METHODS:**

A prospectively recorded database containing preoperative, and 12-month postoperative patient reported outcome measures (PROMs) was established in June 2015 at a specialized orthopaedic hospital in Sydney, Australia. Eligible patients were all those undergoing primary elective THA for osteoarthritis between July 2015 and June 2018 who had consented to be included in the database and were a patient of one of the three investigating consultant orthopaedic surgeons. PROMs collected included the Hip Disability and Osteoarthritis Outcome Score (HOOS), the Oxford Hip Score (OHS), the EuroQoL (EQ) 5D-5L, the EQ VAS for general health and a hip expectations score derived from the Knee Society Score (KSS). Age, gender, postcode of residence, weight, and height were also recorded preoperatively. Univariate and multivariate data analyses were performed using Generalized Estimating Equations (GEE) with the hip expectations score used as the outcome variable. Predictor variables included: age, gender, BMI, Socio-economic Indexes for Areas (SEIFA) derived from postcode data, OHS, EQ-5D, and EQ-VAS.

## **RESULTS:**

A total of 1,019 participants were eligible and included in the analyses. Some 13% of participants reported that their preoperative expectations of sporting or recreational activity were not met at the 12-month postoperative timepoint compared to 87% who either had their preoperative expectations met or exceeded for sport and recreation at 12 months. In the multivariate analysis, older age was a significant predictor of having expectations met for sport or recreation with odds increasing by 2% for every year older a participant was (OR= 1.02, 95% CI = 1.00 to 1.04, p=.039). Higher preoperative EQ VAS was associated with expectations being met with odds increasing by 2% for every one point higher scored (OR=1.02, 95% CI = 1.01 to 1.02, p=.001). BMI was also a significant predictor with every one-point increase in BMI decreasing the odds of expectations being met by 4% (OR = 0.96, 95% CI = 0.92 to 1.00, p=.026).

## **DISCUSSION AND CONCLUSION:**

Our study findings revealed preoperative factors that may be predictive of whether or not patient expectations are met for sporting or recreational activity following THA. Those that were younger, had higher BMI, and poorer self-reported health had increased odds of failing to have their expectations met. It should be considered that these groups may require more explicit preoperative education on returning to physical activities so that their expectations can be managed, and outcomes maximized.