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## **Factors that impact expectations before total knee arthroplasty.**

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### **Abstract**

This study examined the effect of patient attributes on expectations before total knee arthroplasty (TKA). A total of 1943 patients completed an Expectations Survey before TKA. Demographics, surgical history, baseline Medical Outcomes Study Short Form 36 (SF-36) score, Knee injury and Osteoarthritis Outcome Score (KOOS), and Lower Extremity Activity Scale score were obtained. On univariate analysis, expectations (mean score, 77.6) correlated with SF-36 General Health, age, SF-36 Vitality, KOOS Quality-of-Life, and Lower Extremity Activity Scale. Living alone and history of joint arthroplasty were associated with significantly lower expectations, whereas male sex and white race were associated with higher expectations. On multivariate regression analysis, age, living situation, history of joint arthroplasty, SF-36 General Health, and KOOS Quality-of-Life remained significant predictors of expectations. Our results suggest that high, possibly unrealistic, expectations of TKA are common and should be moderated to maintain patient satisfaction.

# Introduction

- Higher expectations, better outcomes
- Unrealistic expectations, dissatisfaction
- Information can influence expectations

# Objective

Examine the effect of patient  
attributes on expectations before  
TKA

# Materials and Methods

- Prospective study
- Exclusion criteria
  - Refusal or inability to complete study
- 1943 patients (1st may 2008/30th april 2009)
- Variables
  - Knee expectations survey, VAS, SF-36, KOOS, LEAS
  - Demographic parameters
  - Questionnaires 2 weeks before surgery

# Statistics

- SAS software package
- Pearson correlation coefficients ( $r$ )
  - $r > 0,6$  strong correlation
  - $0,3 < r < 0,6$  moderate correlation
  - $0,1 < r < 0,3$  weak correlation

# Results

- 3035 patients operated in that period
- 1943 study population
- Mean age 67 +/-10 years
- 51% over 80 in KES (High expectations)
- Younger, male and white patients had **significantly** higher expectations ( $p < 0.05$ )
- No relationship with level of education

# Results

- Living with a partner, higher expectations
  - Higher expectations of return to *sexual function*?
  - The difference remained when question was removed
- Healthier patients, higher expectations
- Higher quality of life, higher expectations
- More active patients, higher expectations
- History of TJA, lower expectations

# Discussion

- Patient satisfaction may be dependent on managing expectations
- Patients with low expectations, less likely to elect surgery
- Statistically significant effect of race, when multivariate analysis the difference disappeared (confounding factor)
- Live alone, lower expectations, no family support

# Discussion

- No influence of pre-op knee pain or function
- No modulation of their expectations based on pre-op status of the knee
- Patients higher expectations than their surgeons
  - Experience leads to more accurate expectations
- Identifying and addressing unrealistic expectations, more satisfaction

# Discussion

- Correlations observed were small
  - They don't explain the observed variability
  - Other factors (influencing the expectations):
    - Large sample size (eliminate significant variables of small studies)
    - Psychological profile
    - Life experience with surgery
    - Perception by friends or family

# Conclusion

- High potentially unrealistic expectations are common and not confined to young or active patients, highlighting the need for discussion of realistic expectations with all patients

# Limitations

- Using a validated measure, but
  - Subjective expectation survey (frame-of-reference)
    - 50 years old patient who climbed Everest
    - 75 years old patient who expects a full return to bowling
  - Future measures should be more specific
- Specific center with specific population