Examining Patient Goal Quality, Patient Activation, and Patient Reported Outcome Measures in an Orthopaedic Surgical Population

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Introduction

Musculoskeletal procedures are prevalent in the United States and are expected to increase in demand multiplyfold as the population ages. Despite the increasing frequency of such procedures, patients continue to report high levels of dissatisfaction. Goal setting and achievement provides many benefits to patients and may improve patient outcomes. However, few studies have investigated the effect of goal quality on patient outcomes. SMART criteria, which are already used in many orthopedic specialties, may improve patient outcomes and satisfaction due to their personalized and calibrated nature, which may manage expectations and identify targeted actions most appropriate for achieving the identified goal. The aims of this study are to: 1) investigate pre-operative patient goal quality, clarity, and specificity, 2) determine the association between goal quality and patient activation, and 3) determine the correlation between goal quality and scoring on patient reported outcome measures.

Methods

- Retrospective observational study of 600 randomly selected patient goals from surgical patients across many orthopedic subspecialties
- Chi-square or one-way ANOVA used to analyze relationship between patient characteristics and SMART criteria
- Binary logistic regression for each of the SMART criteria and patient activation
- Ordinal logistic regression for aggregated SMART criteria score and patient activation
- Mixed effects model for patient demographics or SMART criteria and PROM score in THA and TKA

Hypotheses

- H1: ≥50% of goals will meet the specific, measurable, relevant, or time-bound SMART criteria
- H2: <25% of goals will meet the specific, measurable, relevant, and time-bound SMART criteria
- H3: Baseline demographic data will not significantly differ across goal quality
- H4: The relationship between each applicable SMART criteria and patient activation will be significant and positive
- H5: The relationship between each applicable SMART criteria and patient reported outcome measure will be significant and positive

Results

- Preoperative Goal Quality and Relation to Patient Demographics
- Results
- Conclusions
- References

Results (Cont.)

Goal Quality and Relation to Patient Reported Outcome Measures

- PROM # SMART Criteria Met
- Estimates CI p
- H1: 1 - 1.73 <0.001 0.573
- 2 - 0.02 -0.74 0.774
- 3 - 1.96 -11.51 0.687
- PROMS-PGH
- 1 - 2.00 -5.58 0.320
- 2 - 0.06 -4.18 0.976
- 3 - 3.61 -6.89 0.164

Figure 4. Random Intercepts and Slopes Mixed Effects Model Predicting PROM Outcomes Over time for THA

Figure 5. Random Intercepts and Slopes Mixed Effects Model Predicting PROM Outcomes Over time for TKA

Conclusions

- Intervention is needed to define goal relevance to the patient's quality of life and time period in which expected to be met
- Patient activation is not related to goal quality, further study is needed
- PROM scores are not related to goal quality, except for PROMS-PGH in THA patients, further study is needed

References