Who Is More Likely to Leave Positive or Negative Comments in Orthopaedic Trauma? *Andrew Sibley, BS, BA*; Mai P. Nguyen, MD; Gaonhia Y. Moua, BS; Tim Carlson, BS; James Holmquist, MD; Sandy Vang, BA; Peter A. Cole, MD

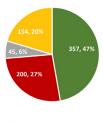
Purpose: Patient-reported outcome measures (PROMs) are quickly becoming a commonplace tool for capturing patients' perception of their own health. Patient-submitted free response comments associated with PROM survey data represent an underutilized source of context and nuance to supplement patient-reported outcomes data. This study seeks to better understand the patient characteristics and demographic factors that influence commenting behavior.

Methods: A prospectively collected orthopaedic trauma registry from a single metropolitan Level I trauma center from January 2018 to April 2020 was retrospectively reviewed for PROM data and associated patient-generated comments. Patient characteristics collected included age, body mass index, insurance type, hospital location, laterality of injury, documented history of chronic pain, illicit substance abuse, instances of psychiatric diagnoses, as well as averaged PROMIS (Patient-Reported Outcomes Measurement Information System)-10 mental and physical health inventory scores. Patients were stratified into different groups based on their commenting behavior: positive, negative, neutral, and mixed positive-negative. Analysis of variance (ANOVA) and logistic regression modeling were used to assess the relative influence of patient health and demographic factors in the likelihood of leaving positive, negative, or neutral comments. Patient commenting behavior was compared against averaged satisfaction scores using ANOVA and Tukey HSD (honestly significant difference) testing.

Results: 1770 comments from a group of 756 patients were found and categorized. 357 patients (47.2%) left positive and neutral comments only, 200 (26.5%) left negative and neutral comments only, 45 patients (6.0%) left neutral comments only, and 154 (20.4%) submitted a combination of both positive and negative comments during their history of completing patient-reported outcomes surveys. Higher PROMIS-10 physical health scores were associated with increased likelihood of leaving positive comments (odds ratio [OR] 1.057 with 95% confidence interval [CI] 1.024-1.090, P = 0.0005) and decreased likelihood of leaving negative comments (OR 0.956, CI 0.923-0.990, P = 0.0118). Patients with chronic pain demonstrated increased probability of leaving neutral comments (OR 2.878, CI 1.217-6.806, P = 0.0160). Patients who only commented positively had the highest mean satisfaction, followed by mixed commenters, neutral commenters, and negative commenters.

Conclusion: Patients' physical and mental health scores were shown to be stronger indicators of commenting behavior compared to demographic characteristics and health-related factors. Patient comments may be valuable as a means of qualitatively assessing PROM survey instrument validity.

Proportions of commenter categorizations



■ pos ■ neg ■ neutral ■ mix