

## Influence of Racial Disparities on Short- and Long-Term Perception of Health Status and Patient Reported Satisfaction After Elective Lumbar Spine Surgery

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### Introduction

The influence that racial disparities have on short- and long-term PROs and satisfaction after spine surgery is relatively unknown. The aim of this study was to investigate the impact of racial disparities on 3- and 12-months and one-year PROs and patient satisfaction after elective lumbar spine surgery.

### Methods

This was designed as a retrospective analysis of a prospectively maintained database. The medical records of 345 adult (=18 years-old) patients who underwent elective lumbar spine surgery for spondylolisthesis(Grade 1), disc herniation, or stenosis at a major academic institution were included in this study. We identified 53(15.4%) African-American patients and 292(84.6%) Caucasian patients. Patient demographics, comorbidities, post-operative complication and 30-day readmission rates were collected. Patients had prospectively collected outcome and satisfaction measures. Patient reported outcomes instruments (ODI, VAS-Back Pain, and VAS Leg-Pain) were completed before surgery, then at 3- and 12-months after surgery along with patient satisfaction measures.

### Learning Objectives

By the conclusion of this session, participants should be able to: 1) Describe the importance of racial disparities on patient reported outcomes and satisfaction, 2) Discuss, in small groups, why racial disparities may influence patient reported outcomes and satisfaction, 3) Identify an effective method to assess patient reported outcomes and satisfaction of patients with different backgrounds.

### Results

Baseline patient demographics and comorbidities were similar between both cohorts, with AA patients having increased BMI (33.1? 6.6 kg/m<sup>2</sup> vs. 30.2? 6.4 kg/m<sup>2</sup>, p=0.0005) and diabetes (35.9% vs. 16.1%, p=0.0008). Surgical indications, operative variables, and post-operative variables were similar between both cohorts. Baseline and follow-up PRO measures were worse in the AA cohort, with patients having a greater ODI(p<0.0001), VAS-BP(p=0.0002) and VAS-LP(p=0.0007). However, the mean changes from baseline to 3- and 12- months and one-year PROs were similar between both cohorts for all measures, except for three-month VAS-BP(p=0.046). Patient reported satisfaction measures at 3- and 12- months demonstrated a significantly lower proportion of AA patients stating that surgery met their expectations (3-months: 47.2 vs. 65.5,p=0.01) and (12-months: 35.7 vs. 62.7,p=0.007).

### Conclusions

Our study suggests that there is a significant difference in perception of health, pain and disability between African-American and Caucasian patients at baseline, short- and long-term follow up which may influence overall patient satisfaction.