



Investigating employment status and education level as factors in patient outcome following lumbar surgery: Single surgeon N2QOD sub-analysis

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Introduction

Socioeconomic factors influence outcomes following lumbar surgery. We examined level of education, and employment status were significant factors in overall patient satisfaction following lumbar spine surgery.

Methods

A single-surgeon sub-analysis (n=124) of the N2QOD outcomes analysis based on employment and education was performed. Patient satisfaction, ODI and EQ-5D questionnaires were completed preop, 3 and 12 months postop. Education categories included: Less than high school, High school or GED, 2-year college degree, 4-year college degree, and post-college. Employment categories included: Full-time employment, Part-time employment, Retired, Homemaker, Student, Unemployed, on Disability due to a spinal problem, and on Disability due to a problem other than the spine. Chi-squared and/or ANOVA analysis was performed.

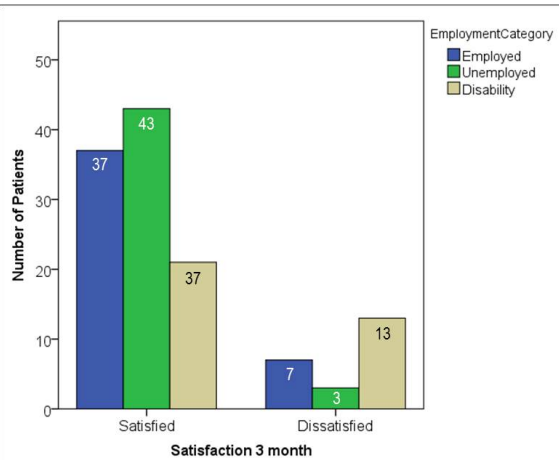


Figure 1: Employment status and patient satisfaction

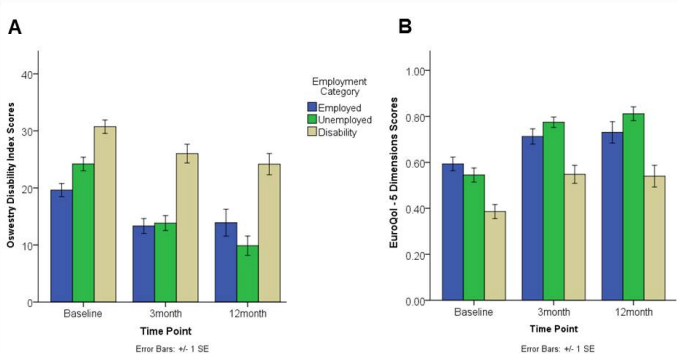


Figure 2: Employment category and ODI and EQ-5D scores

Results

Comparison of “High school or less”, and “More than high school”, there were no significant differences in ODI or EQ-5D scores, or Satisfaction groups (data not shown).

Employment status was a significant factor in patient Satisfaction at the 3-month time point (Chi-squared, p=0.001), with the Disability group having greater number of Dissatisfied patients than expected (Figure 1). Employment is also a significant factor in ODI and EQ-5D scores (ANOVA, p<0.001), with Disability patients having the worst scores (Figure 2). When comparing the amount of score improvement at 3- and 12-month time points, improvement in ODI scores from Baseline to 3 months, and Baseline to 12 months, employment status was a significant factor (ANOVA, p values less than 0.006). Employment status is also a significant factor in the improvement of EQ-5D scores between Baseline and 12-month scores (ANOVA, p=0.032) (Figure 3).

Conclusions

Highest level of education is not a significant factor in patient satisfaction, ODI or EQ-5D scores following lumbar spine surgery. Patients not on disability leave had significantly better outcomes. Employment status is a significant factor in patient satisfaction. Unemployed patients, including homemakers, students, and retirees, showed the greatest amount of improvement in ODI and EQ-5D scores.

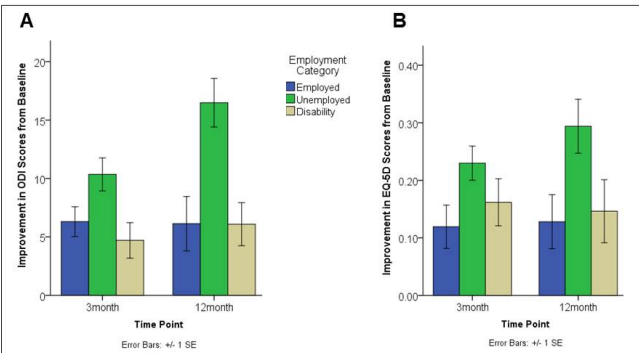


Figure 3: Improvement in ODI and EQ-5D scores from baseline
Patients who are unemployed (retirees, students, homemakers) make larger improvements following lumbar spine surgery.

Learning Objectives

Patients tend to do less well after lumbar spine surgery if:

- They are on disability leave at the time of surgery

Patients tend to do better if:

- They are unemployed, including retirees, students, and homemakers