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Evaluating Patient Readiness for Spine Surgery: A Cross-Sectional Study

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BACKGROUND

Surgical innovation has outpaced patient preparation

Spine surgery volumes are rising, and technique & recovery pathways (ERAS) have modernized — but no standardized protocol exists to prepare patients mentally & physiologically. This readiness gap may drive unrealistic expectations and dissatisfaction.

OBJECTIVES

Three study aims

1. Quantify satisfaction with preoperative preparation.
2. 2. Test its association with overall surgical satisfaction.
3. 3. Identify modifiable predictors of preparation satisfaction.

METHODS

National cross-sectional survey

U.S. adults with prior spine surgery, recruited via national online outreach. Anonymous questionnaire: 3-item ACSI-adapted satisfaction framework, demographics, surgical characteristics & 11 preparation elements. Chi-square testing & adjusted logistic regression.

COHORT

300

75% response · median age 66 · 63% female · 67% lumbar

PREPARATION SATISFACTION

Satisfied 43.0% — **Unsatisfied 48.7%**



p = 0.305 — no significant difference

SURGERY SATISFACTION

Satisfied 41.7% — **Unsatisfied 52.7%**



p = 0.050 — significant

28.5×

STRONGEST PREDICTOR IN THE STUDY — ADJUSTED ODDS RATIO, 95% CI 12.4–65.3, P<0.001

Patients satisfied with preoperative preparation were ~28× more likely to be satisfied with surgery — an association that held after adjusting for age, gender, education & prior surgery.

STRATEGIC SCHEDULING

Elective surgery status – higher odds of satisfaction

OR 8.1 · p = 0.006

EXPLICIT EDUCATION

Surgeon / team education – higher odds of satisfaction

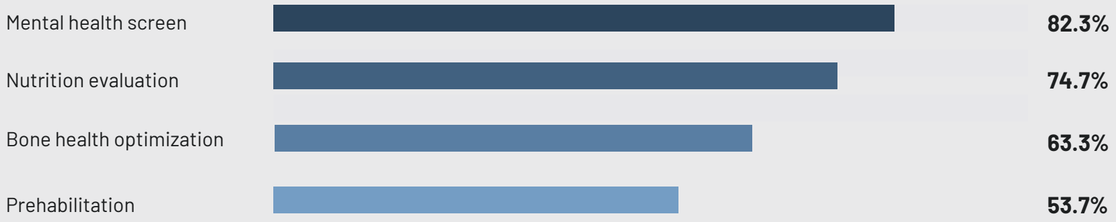
OR 6.4 · p = 0.004

EXPECTATION MANAGEMENT

Pain / weaning plan – higher odds of satisfaction

OR 3.9 · p = 0.003

MISSING LINKS IN PREOPERATIVE CARE — % OF PATIENTS NOT RECEIVING



CUMULATIVE EFFECT

Comprehensive care wins

Patients reporting 6–11 preparation elements (vs. 0–5) showed significantly higher preparation satisfaction ($\varphi = 0.418$, $p<0.001$).

Conclusions

Nearly half of spine surgery patients report dissatisfaction with preoperative preparation — a vulnerability strongly linked to overall surgical satisfaction (adj. OR 28.5) and driven by modifiable factors: education, pain-plan clarity, and comprehensive readiness elements. **Investing in the preoperative phase is the highest-leverage opportunity to improve patient satisfaction and surgical success in spine care.**

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