Outcome Scores Predict 1-Year Satisfaction After Only 6 Weeks

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Hypothesis: Despite ongoing technical advances, many patients remain dissatisfied after upper extremity surgery. A number of studies have attempted to identify risk factors for dissatisfaction using patient demographics, comorbidities, or diagnostic criteria. This study utilized a novel approach of examining hand surgery registry data to predict patient dissatisfaction at 1 year based on the early post-operative QDASH trajectory.
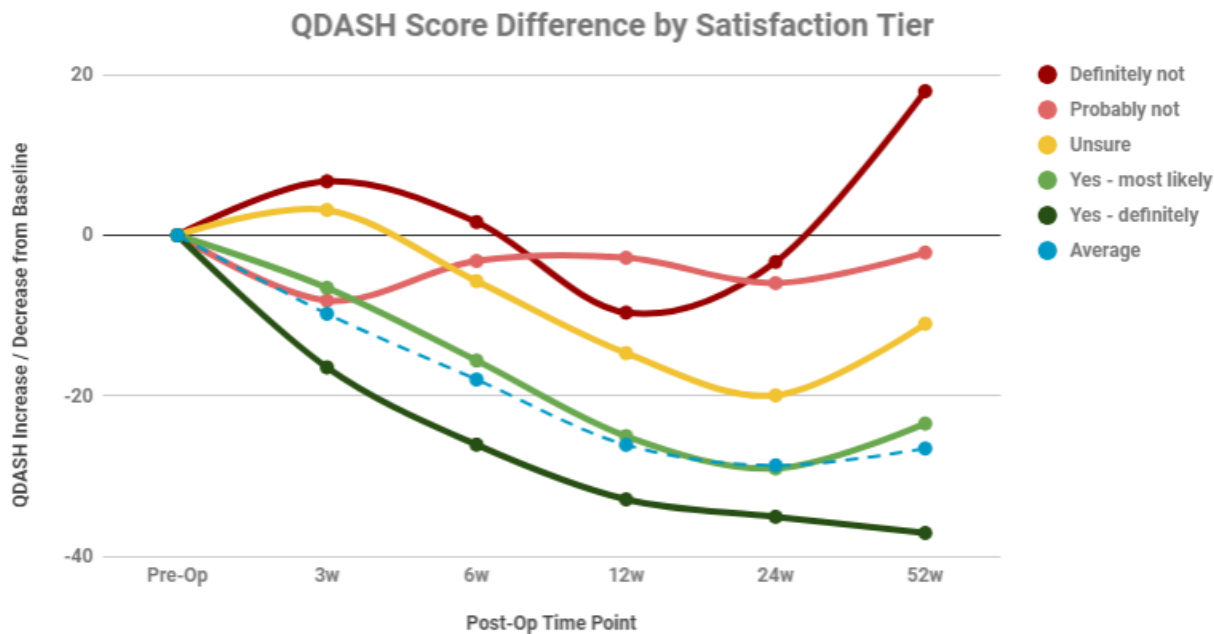
Methods: An on-going prospective hand surgery database among US-based surgeons was queried for patients responding to the question "Would you repeat surgery?" at post-operative time points of 3, 6, 12, 24, and 52 weeks. The following responses were considered to be separate satisfaction tiers: definitely not, probably not, unsure, yes-most likely, and yes-definitely. Results were graphed against mean QDASH scores for each time point resulting in a recovery curve for each satisfaction tier. Recovery curve slopes were calculated for 3 and 6 weeks to predict overall patient satisfaction.

Results: All patient satisfaction tiers had statistically similar initial QDASH scores of 41.2-47.9 (range 0-100). At 52 weeks there was a significant stratification amongst satisfaction groups ranging from 8.9 to 64.0 (Table 1). We found that the recovery trajectory at 3 and 6 weeks were predictive of 1-year satisfaction tier. At 6 weeks, the reduction in QDASH scores from "definitely not" to "yes-definitely" were -1.6, 3.2, 5.7, 15.6, and 26.2, respectively (Figure 1).

Summary Points: Patient satisfaction, defined as the likelihood of repeating surgery at 1 year, correlates with a patient's recovery trajectory only 6 weeks after surgery. By regularly monitoring post-operative recovery trajectories, surgeons and staff can potentially intervene and change the recovery course for patients at risk of being dissatisfied with their procedure. This study serves as a basis for future studies to further explore this relationship, its causes, and the effect of subsequent post-operative interventions.

Repeat Surgery?	0w QDASH	3w QDASH	6w QDASH	12w QDASH	24w QDASH	52w QDASH
Definitely not	45.5	52.8	47.7	36.5	42.8	58.4
Probably not	41.2	33.1	38.0	38.4	35.3	39.1
Unsure	47.8	50.6	41.9	32.9	28.4	36.6
Yes - most likely	47.9	41.3	32.3	22.7	18.9	24.4
Yes - definitely	45.8	29.4	19.8	13.0	10.9	8.8
Average	46.5	36.7	28.6	20.5	18.0	19.9

*Data normalized to represent change from baseline.

QDASH Score Difference by Satisfaction Tier

*Raw data values shown.

QDASH Scores by Satisfaction Tier