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Patient-centered surgical outcomes: The impact of goal achievement and urge incontinence on patient satisfaction one year after surgery

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Objective: The purpose of this study was to assess factors that influence patient satisfaction 1 year after pelvic reconstructive surgery.

Study design: We previously reported the objective success, goals, and expectations of a cohort of 78 patients 3 months after surgery. A second blinded independent physician investigator contacted the same patients by phone to reassess these items 1 year after surgery. Data were analyzed with the Spearman correlation, the Mann-Whitney test, the chi-squared test of association, and the Friedman test.

Results: Seventy patients (89%) of the original cohort completed the second assessment. Although group satisfaction and goal achievement were stable ($P < .01$), 70% of patients reported a change in their satisfaction ratings between 3 months and 1 year (rho = 0.3). Reduced satisfaction between 3 and 12 months after surgery was strongly associated with decreased goal achievement (rho = 0.47; $P = .006$). Fifty-six percent of patients reported urge incontinence symptoms after surgery (44% de novo and 12% persistent). Urge incontinence was the most common reason for patient dissatisfaction after surgery ($P = .04$).

Conclusion: Symptoms of urge incontinence and reduced achievement of subjective surgical goals are associated with decreased long-term patient satisfaction after reconstructive pelvic surgery.

Over the last 20 years, outcomes research has transformed the assessment of surgical practice. Although originally focused on the improvement of the allocation of medical care regardless of geographic and socioeconomic variations, outcomes research has expanded to reform the practice of medicine and our perceptions of success and failure. Differences between patient and physician perceptions of outcomes have become apparent throughout medicine. Recent focus on quality-of-life measures and patient-centered outcomes has transformed many procedure-based specialties, including neurosurgery, orthopedics, plastic surgery, and gastroenterology.[1,2] Traditional physician-determined measures of treatment success appear to be insufficient to determine the quality of surgical outcomes. Instead, they must be

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integrated with patient-centered expectations and quality-of-life measures.[3]

Recent research in reconstructive pelvic surgery reflects the trend towards outcomes based research. Hullfish et al[4] first noted the significance of patient-centered goals in patients who had undergone reconstructive pelvic surgery. At 12 weeks after surgery, patients' personal social/self-image goals for surgery were more difficult and required greater time to achieve than physician-determined goals that were related to activity, health, symptom relief, and appearance. Following these patients long term, Hullfish et al[5] contacted 50 of 112 women an average of 2 years after surgery. Despite high dropout rates, long-term goal achievement did not vary significantly with the type of goal or time from surgery. Women whose preoperative goals had been met scored better on quality-of-life measures, which suggests a relationship between goal achievement and the impact of pelvic floor dysfunction.

Our division previously has demonstrated a statistically significant correlation between patient perceptions of surgical success at 3 months after surgery and the achievement of self-described preoperative surgical goals.[6] Physician measures of surgical success did not correlate with patient satisfaction 3 months after surgery. Instead, the achievement of the patient's self-described goals for surgery, which were centered primarily on quality of life and the resumption of previous lifestyle, determined patient perceptions of surgical outcomes. The achievement of physician-determined cure did not predict patient satisfaction in our previous publication.

The aim of this study was to assess the relationship between patient achievement of self-determined surgical goals and satisfaction with surgical outcomes 1 year after pelvic reconstructive surgery.

Material and methods

The Loyola University Hospital Institutional Review Board approved the continuation of our previous study to follow patients who had undergone reconstructive pelvic surgery at Loyola University Medical Center. Exclusion criteria included only language barriers that prevented adequate telephone assessment.

Methods of patient recruitment, enrollment, and assessment were reported previously.[6] In our original study, the participants were contacted before surgery by a single investigator who was not the primary surgeon and were asked to list her personal goals for surgery. Goals that were unrealistic in the physician's opinion were clarified but not removed from the list. The number and type of goals were organized into 10 categories that included urinary/leakage, pelvic organ prolapse, general health/lifestyle, activity, pain/pressure, healing/recovery, anorectal problems, urgency/frequency, sexual function, and urinary retention.

In this follow-up study, a second investigator contacted patients approximately 1 year after their original surgical date. This second investigator was aware of the patients' self-identified surgical goals but was blinded to their procedures, surgical history, and previous 3-month postoperative assessment. In a telephone interview, patient perceptions of goal achievement, satisfaction, and the surgical experience were again assessed by the same standardized interview format that had been used at the 3-month postoperative interview (Table I). Patients were asked to give a percentage (0-100%) that described their overall satisfaction with the surgery. All questions were open-ended, and the percentage satisfaction data were obtained as a continuous variable. Patients were also asked whether they were satisfied with surgery (yes or no), which allowed them to be self-identified as happy or unhappy with their surgical outcomes independent of the percentage of satisfaction given. Any patient with satisfaction $<100\%$ was asked to explain what negatively impacted their experience. Patient responses were categorized by the interviewer who used categories that had been established in the original study. Incontinence that was associated with urgency and/or frequency and in the absence of stress maneuvers by history was identified as urge incontinence. All patients who reported urge incontinence symptoms at 1 year after surgery were asked whether they experienced similar symptoms before the operation. No comparison was made with symptoms that were reported at 3 months after surgery. On the basis of patient history alone, patients who reported preoperative and postoperative urge incontinence were categorized as having persistent urge incontinence, and those patients with new symptoms after the operation were categorized as having de novo urge incontinence.

Successful achievement of a preoperative goal was defined as patient self-description of goal completion as a 4 or 5 on a 5-point Likert scale. Each self-identified preoperative goal was read, and the patient was asked to assign a score with a 5-point Likert scale to identify the degree to which she believed that this goal had been accomplished at 1 year after surgery (5 = completely; 0 = not at all). The Likert scores for the accomplishment of each goal were compared with results at 3 months after surgery to assess a change in goal achievement. Current feelings of pain, fatigue, and depression 1 year after surgery were also assessed with a 5-point Likert scale. Patients were asked about the memories of the "worst" and "best" aspects of surgery in an open-ended fashion, and responses were categorized by the interviewer. The categories that were used to describe patient responses were expanded from those that were used at the 3-month interview to include the new complaint of incomplete symptom resolution/needing further surgery. Additional information was obtained regarding patient feelings of preparedness for surgery and discharge home and residual problems, and they