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CORR Insights®: Which Factors Are Associated With Satisfaction With Treatment Results in Patients With Hand and Wrist Conditions? A Large Cohort Analysis

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Where Are We Now?

Several editors of orthopaedic journals [8, 9], including the Editor-in-Chief of this journal (in an Editorial that I coauthored [19]), have questioned the use of patient satisfaction measures in orthopaedic research. The concerns among the editors varied, but generally included ambiguity in whether the process or outcome of care is measured, the absence of measures that are specific and rigorously developed, dependence on context and expectations, the potential for satisfaction measures to provide misleading information, susceptibility of satisfaction measures to symptoms of worry or despair, and perhaps most importantly, limited correlation with effectiveness and value of the care provided [6].

When I've studied satisfaction and experience in the past, I've found small correlations with symptoms of despair, health anxiety, and catastrophic thinking [2, 3, 11, 14, 18, 22, 25]. My research group found notable correlations with other measures of experience (trust, empathy, met expectations, communication effectiveness, and shared decision-making) [10, 12, 16-18, 20, 23, 24]. So notable, in fact, that I'm nearly ready to conclude, based on evidence to date, that the various measures of experience may all be measuring a single underlying construct that we currently refer to as "relationship."

The efforts of De Ridder and colleagues [5] in the current study have contributed greatly to our understanding of hand and upper extremity healthcare as it relates to patient satisfaction. Many of the authors in the research group come from the Xpert Clinics in The Netherlands. These private hand specialty clinics, in a country mostly covered by a national health service, make routine measurements so they can learn and improve. This is a humble and curious group of surgeons, ready to tell it like it is.

In their study, De Ridder et al. [5] observed a 43% rate of poor, moderate, and fair satisfaction. The lower ratings might relate to the relatively early postoperative evaluation, when people are still in the midst of healing. But they also seem like a good reflection of what I've seen in my practice, and may reflect, in part, what one obtains with routine measurement. The authors observed a Gaussian curve of satisfaction ratings that is lacking in most other studies. Given this, useful information may have been lost by dichotomizing satisfaction.

Still, De Ridder et al. [5] found that satisfaction was associated with measures in three categories: experienced improvement, a good relationship with the clinician, and a positive outlook. Considering the known interrelationship of various patient experience measures, it's likely these three categories are interrelated without clear cause and effect relationships. The strong intercorrelations and the notably high variance accounted for in the

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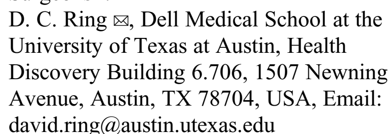

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multivariable models support the notion that experience measures may be colinear. Nevertheless, measuring the quality of communication might be useful as a measure of a person's "readiness" for surgery. Put another way, negative reactions to counseling and less positive regard for one's illness might be reasons for surgeons to put offers of discretionary surgery on hold.

The vast majority of the relatively unsatisfying treatments (43% neutral or dissatisfied) in this study were discretionary, which suggests that such treatments are not reliably helping patients achieve their goals. Based on these observations, surgeons can be humble about the role of discretionary surgery in upper extremity health and cautious with offering surgery. Surgeons may also benefit from an awareness that aspects of their relationship with the patient and the patient's involvement in decision-making might be clues to future dissatisfaction, along with unhelpful thoughts and symptoms of distress, which were associated in bivariate analysis.

Where Do We Need To Go?

Given the evidence that people who have more unhelpful thoughts about symptoms may be more likely to choose discretionary surgery [4], comprehensive strategies that address mental and social health factors along with pathophysiology could prove more effective and might be also be associated with better patient experience. For what it's worth, discussion of mental health does not diminish satisfaction [15].

If future research confirms preliminary findings that the various patient-reported experience measures address a single underlying factor (relationship), then researchers could perhaps focus on developing a better measure of that factor with a more Gaussian distribution of scores. A single, more normally distributed measure of patient experience might help us learn about factors associated with a better experience. The knowledge gained can help us develop treatment strategies associated with better experiences.

How Do We Get There?

Studies are underway to confirm that patient-experience measures address a single underlying factor. There are also ongoing efforts to develop measures of experience that have a better spread in scores (more Gaussian distribution) with the aim of capturing more information at the top end of the experience ratings. Greater variation in scores facilitates statistical analyses that can improve understanding of the nuances in the scores.

In the current study, the authors speculate that decision-support tools and other tools to relay expert information (the content aspect of communication [1]) might improve experience. There is evidence that suggests content alone may not be sufficient to help people arrive at decisions consistent with what matters most to them [7, 13, 26]. Qualitative and quantitative research suggests that patients might benefit more from the relational aspects of communication such as feeling heard, being regarded as credible, and experiencing the relationship with the clinician as one of compassion, companionship, and restored hope [21]. Communication strategies with a renewed emphasis on prioritizing genuine interest in the patient, leading to greater trust, and a compassionate, soothing presence merit investigation, perhaps first in observational studies and studies that help develop effective strategies by testing what lands well. Researchers could then develop studies in which clinicians are trained in the communication strategies developed using experimental techniques such as randomized trials.

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