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The Bull or the Horn - What Are Outcomes Data?

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Editorial



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See the article "Lower Extremity Motor
Deficits Are Underappreciated in Patient-
Reported Outcome Measures: Added
Value of Objective Outcome Measures" via
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The Bull or the Horn – What Are Outcomes Data?

The authors are commended on this very well-done analysis, as well as their research into the very complicated and evolving field of patient outcomes. They utilize a 2-center prospective database and perform retrospective analysis to assess how patient-reported outcome measures correlate to lower extremity weakness.¹

Spine surgery has evolved over the last several decades to appreciate that the most important outcomes are based on what the patients' desire. In their analysis, the authors noted that 28% of the patients had a lower extremity motor deficit. However, there arises the question whether some relative weakness is actually a disability. The American Disability Act defines a disability as "a physical or mental impairment that substantially limits one or more major life activity."² Thus, it is unlikely that over a quarter of the patients in the studies were actually truly disabled. This is illustrated in that 82 of 125 (78.1%) were a grade 4/5 weakness. The majority of patients, I have encountered do not even appreciate a neurologic deficit with this grade of weakness. For example, with anterior tibialis weakness, patients are able to still elevate their foot with ambulating. Their foot swing does not get caught and they do not trip or stumble, therefore, most often this "weakness" is not appreciated by the patient. Such that this degree weakness would not be defined as a disability.

The authors do discuss the differences of various patient-reported outcomes. For example, the Timed Up and Go test most likely had the best correlation in that this test which specifically looks at functional assessment of the patient. This is as opposed to the visual analogue scale (VAS) which would not be expected to correlate with weakness in that it is purely a pain assessment tool.

The authors also illustrate another concern with various patient-reported outcome metrics. Many have what is described as a "floor" effect. Meaning that with the patient scores are very low changes or improvements will not be significant enough to be detected. In their case example, the patient has an Oswestry Disability Index of 12, VAS back 2, VAS leg 1 but the minimum clinically important difference for these are 12.8, 1.2, and 1.6, respectively.³ Therefore, it is not possible to have a successful operation in this patient since we are unable to obtain negative number.

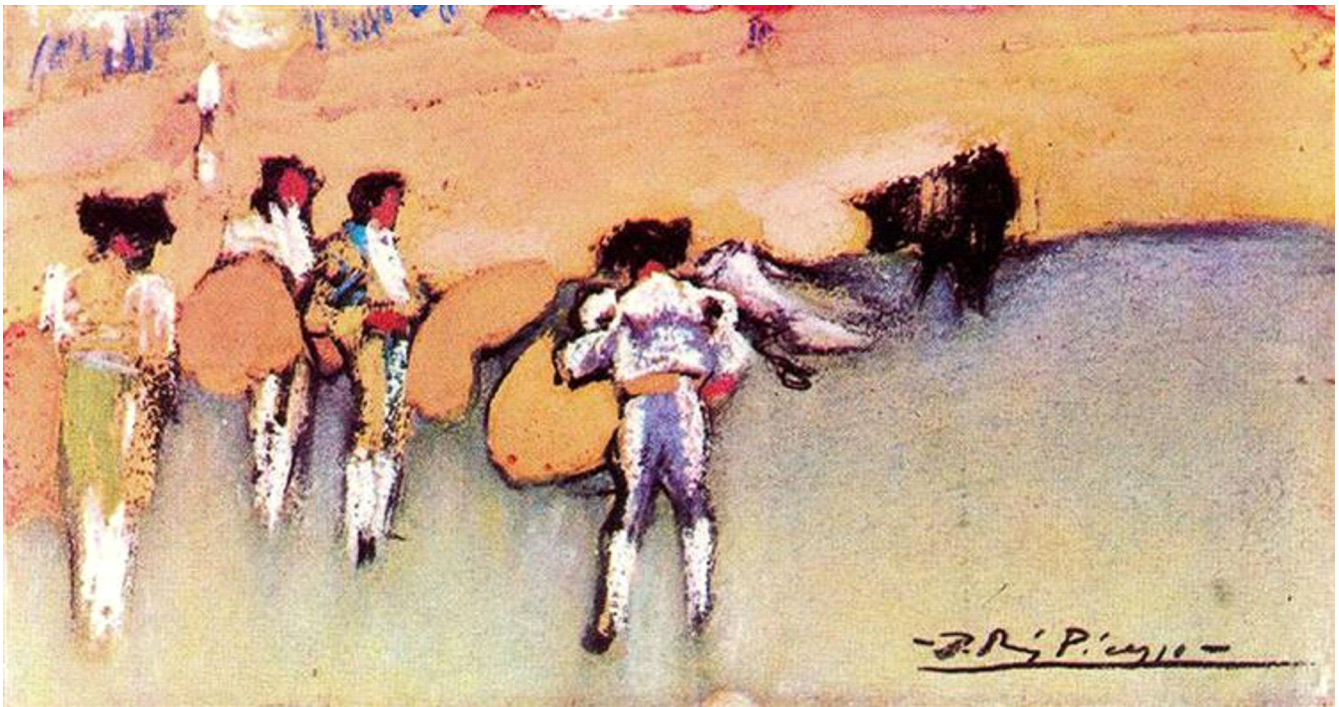
I appreciate the authors' point that there are deficiencies in many of the patient-reported outcome measures. I further agree with their conclusions that presently our patient-reported outcome measure is not as broad and specific as we need. For example, often many factors are not appreciated by these focal and very specific metrics. If the patients have an operation and do not meet the minimal clinical important difference, but the patient gets off all opiates is the operation not a success?

In summary, the authors again are congratulated for their work on this very difficult topic. Their insight and appreciation for how disabilities are manifested in patient's outcome are "ahead of the curve." However, it was relatively recently in spine surgery that surgical success was defined only by the presence or absence of a successful fusion on radiographs.

Therefore, I encouraged them to continue this work and look forward to reading their advances in this field.

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Title: Bullfighters and bull waiting for the next move
Artist: Pablo Picasso
Year: 1900
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