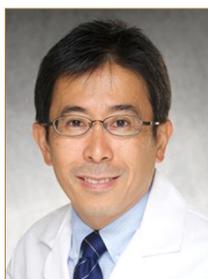




Editorial



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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 <https://doi.org/10.14245/ns.1938368.184>.



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Does the Rise of Objective Measure of Functional Impairment Mean the Fall of PROMs?

Even if postoperative X-rays show restoration of lumbar lordosis after extensive spine fusion surgery, it is very discouraging when the patient reports persistent severe pain. We then realize that the judge of the outcome of the surgery is the patient, not the surgeon. In the last few decades, the mainstream outcome measurement has actually been shifting from the surgeon's assessment to the patient's subjective judgment, i.e., the patient-reported outcome measure (PROM).¹ The increasing importance of PROMs in the neurosurgical field is seen not only in spinal surgery but also in cranial surgery.² It is well known that technically successful spine surgery does not always mean a satisfactory surgical outcome to the patient. There is a certain gap between the surgeon and the patient with regard to the interpretation of the surgical outcome. The reason for this gap is the fact that most symptoms from spinal disorders are subjective, invisible, and unquantifiable. PROMs work as a messenger from the patients to the surgeons by converting what patients are feeling into visible and quantifiable outcomes. PROMs also make it possible for us to compare the effectiveness of certain procedures performed in different areas and groups. Falavigna et al.³ conducted a worldwide questionnaire survey of members of AOSpine to determine the prevalence of the use of PROMs by spinal surgeons. This study disclosed that 71.1% of spine surgeons were familiar with generic health-related quality of life questionnaires (i.e., EuroQol-5D, Short Form-36), and 84.6% with specific health-related quality of life questionnaires (i.e., Oswestry Disability Index, Neck Disability Index).³ It is not an overstatement that outcomes of surgical treatment cannot be properly discussed without deploying PROMs.

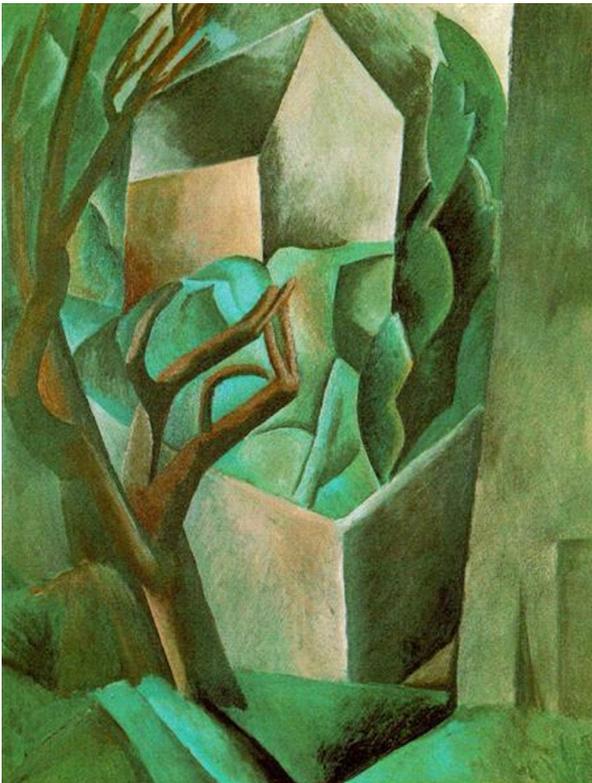
However, certain parts of symptoms and functional impairment deriving from spinal disorders are not completely interpreted and quantified in PROMs. I read a manuscript by Stienen et al.⁴ from the current issue of *Neurospine* with great interest. They studied the impact of lower extremity motor deficits (LEMDs) on PROMs and evaluated the validity of the Time Up and Go (TUG) test as an objective outcome measure of functional impairment. It was concluded that PROMs were not sensitive enough to represent LEMD-associated disability in patients with lumbar degenerative disc disease. While an objective measure of functional impairment, the T-score that was transformed from raw TUG test times was more sensitive to this disability. They found it reasonable to use the objective functional measure for evaluation of LEMD. As shown by this article, the objective measure of functional impairment has been getting more attention recently. A previous systematic review of Stienen et al.¹ showed that the number of publications dealing with objective measures of function has been increasing at a rate of 0.12 per year since 1989. Objective measures such as the TUG test and the Five-Repetition Sit-To-Stand test are able to quantify a patient's functional impairment without the need for interpretation by the examiners. The test re-

sults indicated by time are easy to understand and compare, not only for medical personnel but also for patients. Even though the outcome of objective functional impairment might be affected by the patient's motivation and comorbidities, the results are more straightforward to patients compared to the results of PROMs because the numerical score of PROMs does not make sense to the patient. Moreover, it was also reported that objective measure of functional impairment is more easily accepted by patients compared to PROMs, which consume more time.^{1,5} Now we find that objective measure of functional impairment and PROMs are not competitive, but more likely to complement each other. The rising demand for objective measures does not mean the value of PROM is falling. It implies that we are reaching a new era in quantifying the outcome of spinal surgery in a more desirable way.

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1. Stienen MN, Ho AL, Staartjes VE, et al. Objective measures



Title: Small house in the garden
Artist: Pablo Picasso
Year: 1908

Here Picasso presents a humble scene, a small house fenced off from a pathway and framed by two trees. In the background a third tree appears silhouetted against a bluish-grey sky. It is the absence of detail and the solidity of the forms that relates most closely to Cezanne's work.

More information: <https://www.pablocicasso.org/small-house-in-the-garden.jsp>
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