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CORR Insights®: PROMIS Pain Interference and Physical Function Scores Correlate With the Foot and Ankle Ability Measure (FAAM) in Patients With Hallux Valgus

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Where Are We Now?

In the current study, Nixon and colleagues found that Patient Reported Outcome Measurement Information System (PROMIS) function and pain measures correlated with Foot and Ankle Ability Measure

This CORR Insights® is a commentary on the article “PROMIS Pain Interference and Physical Function Scores Correlate With the Foot and Ankle Ability Measure (FAAM) in Patients With Hallux Valgus” by Nixon and colleagues available at: DOI: 10.1007/s11999-017-5476-5.

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Activities of Daily Living scores, highlighting the interrelationship of pain and function when assessing outcomes in patients with hallux valgus; to me, this study’s findings suggest a broader question: How might we best evaluate patient-reported outcomes (PROs) on patients with foot and ankle problems?

In major orthopaedic journals, only 18% of clinical studies on foot and ankle topics are Level I and II, while at least 70% are Level IV or V [4].

At present, there is considerable variability among the available PRO

instruments. Computerized adaptive tests (CATs), using item-response theories, offer a possible solution to this important problem. A CAT is a dynamically administered computer-based test in which responses to previous questions are used to select the most appropriate next question from an item bank, resulting in a measure that is both concise and precise. PROMIS enables administration of CATs in clinical research and contains a large repository of PROMs that can be scored in real time, including physical function, symptoms, social behaviors, and treatment experience [2].

A previously published study [2] validated the PROMIS Physical Function CAT in patients with foot and ankle conditions. Perhaps one of the most-interesting aspects of this outcome score is that it avoids the time-consuming classic scores, which can reduce the likelihood that a patient will complete the form, which is an important limitation when evaluating patients in everyday practice and in research settings.

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Where Do We Need To Go?

In order to determine whether patients improve as a result of treatment, physicians need disease-specific validation scores for foot and ankle disorders. Although the lack of consensus regarding appropriate PRO instruments [1, 5] is a fundamental barrier to improving evidence in orthopaedic surgery. The currently available patient-reported outcome instruments include generic instruments such as the SF-36, designed for broad use in a variety of medical conditions, and more specialized questionnaires such as the Foot Function Index and the American Orthopaedic Foot and Ankle Society Clinical Rating Systems. Most of these instruments were developed based on classical test theory and thus suffer from a number of problems that limit their utility in a clinical setting. Two of the most important limitations are that they are time consuming for patients and that they cover only a narrow range of clinical conditions and disease severities [2].

In order to establish stronger evidence, researchers should include in their studies wider ranges of foot and ankle conditions from different populations that represent a cross-section of patients seen in everyday practice.

How Do We Get There?

Cross-sectional studies comparing the responsiveness levels between the PROMIS Physical Function CAT and existing tools in addition to further support its use, would be a step in the direction of improving patients response rate to surveys [3].

Although there is evidence that CATs can increase the capacity to capture the upper and lower limits of ability [3], followup studies that address whether the tests can be sustained over time may add value as we move to an outcomes-based healthcare system.

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