




Guest Editorial

The need for standardization in foot and ankle outcome measures: Implications for evidence-based medicine in orthopedics

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Orthopedics is a field that offers numerous interventions for various musculoskeletal conditions, and the cost and potential risks associated with these interventions can be significant. In this context, evidence-based medicine (EBM) is an essential tool for clinicians to evaluate the effectiveness of different interventions and make informed decisions about patient care.^[1] EBM emphasizes the use of the best available evidence to inform clinical decision-making.^[2]

To evaluate the effectiveness of interventions in orthopedics, clinicians and researchers need to use outcome measures that are valid, reliable, and responsive to changes in patient health status.^[3] Patient-reported outcome measures (PROMs) are widely used in clinical practice and research to evaluate the effectiveness of treatments and interventions.^[4]

The field of foot and ankle surgery has developed many PROMs.^[5] However, some of these outcome measures, including the American Orthopedic Foot and Ankle Society (AOFAS) scores, have been shown to lack an appropriate level of evidence for their psychometric properties.^[6] In fact, it is recommended that the AOFAS scores should not be used as outcome measures in foot and ankle surgery.^[6]

Our recent article, "Foot and Ankle Outcome Instruments: Missing the Target,"^[6] highlights the lack of evidence and the need for standardization of PROMs in foot and ankle surgery. We found that the significant gap in the literature makes it extremely challenging to perform systematic reviews comparing data across foot and ankle studies, and it is almost impossible to pool such data into high-quality meta-analyses. Moreover, journals with rigorous peer-review processes still publish studies using these existing scales, and clinical recommendations are made based on these studies. This underscores the need for standardization of outcome measures in foot and ankle surgery.

Despite the current call by the AOFAS to use the PROM Information System in clinical practice and research,^[7] further research is required to validate region-specific PROMs to compare foot and ankle treatment precisely.

The lack of standardized outcome measures in foot and ankle surgery is not unique to this field.^[8] However, the need for standardization is perhaps more pressing in this area due to the

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high prevalence of foot and ankle injuries, the wide variety of surgical procedures, and the complexity of the anatomy and biomechanics of the foot and ankle.

To address this challenge, there is a need for standardized foot and ankle outcome measures that are valid, reliable, and responsive to changes in patient health status for both adult and pediatric populations. Furthermore, it is important to have a foot and ankle score for measuring trauma-related outcomes, a score for measuring elective procedure outcomes, and a score for measuring pediatric foot and ankle.

Such standardized outcome measures would enable clinicians and researchers to compare treatment outcomes consistently and generate high-quality evidence that can be used to inform clinical practice. The use of standardized outcome measures would also ensure that the evidence generated is of high quality and can be used to inform clinical practice.

Finally, as we write this editorial to the Saudi orthopedic society, we think that the development of PROMs in the Arabic language is crucial for providing quality healthcare for Arabic-speaking patients. PROMs enable patients to express their experiences and satisfaction with treatments in their own language and cultural context, leading to better patient-provider communication and improved outcomes. In addition, it is essential to consider cultural differences and modify existing validated scores accordingly to ensure that they are appropriate for the Arabic-speaking population. Developing culturally appropriate and validated PROMs can provide valuable insights into the effectiveness of treatments and ultimately improve the quality of care for Arabic-speaking patients.

USE OF ARTIFICIAL INTELLIGENCE (AI)-ASSISTED TECHNOLOGY FOR MANUSCRIPT PREPARATION

The authors confirm that there was no use of Artificial Intelligence (AI)-Assisted Technology for assisting in the writing or editing of the manuscript and no images were manipulated using the AI.

ETHICAL APPROVAL

This editorial does not contain any studies with human participants performed by any of the authors.

DECLARATION OF THE PATIENT'S CONSENT

Patient's consent not required as there are no patients in this study.

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REFERENCES

1. Bhandari M. Evidence-based medicine: Why bother? *Arthroscopy* 2009;25:296-7.
2. Poolman RW, Petrisor BA, Marti RK, Kerkhoffs GM, Zlowodzki M, Bhandari M. Misconceptions about practicing evidence-based orthopedic surgery. *Acta Orthop* 2007;78:2-11.
3. Farrugia P, Goldstein C, Petrisor BA. Measuring foot and ankle injury outcomes: Common scales and checklists. *Injury* 2011;42:276-80.
4. Bhandari M, Petrisor B, Schemitsch E. Outcome measurements in orthopedic. *Indian J Orthop* 2007;41:32-6.
5. Goldstein CL, Schemitsch E, Bhandari M, Mathew G, Petrisor BA. Comparison of different outcome instruments following foot and ankle trauma. *Foot Ankle Int* 2010;31:1075-80.
6. Al-Mohrej OA, Petrisor B. Foot and ankle outcome instruments: Missing the target. *Curr Rev Musculoskelet Med* 2023;16:246-54.
7. Kitaoka HB, Meeker JE, Phisitkul P, Adams SB, Kaplan JR, Wagner E. AOFAS position statement regarding patient-reported outcome measures. *Foot Ankle Int* 2018;39:1389-93.
8. Orr MN, Klika AK, Gagnier JJ, Bhandari M, Piuze NS. A call for a standardized approach to reporting patient-reported outcome measures: Clinical relevance ratio. *J Bone Joint Surg Am* 2021;103:e91.