LETTER TO THE EDITOR

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Comment on: Functional outcomes of minimal invasive percutaneous plate osteosynthesis (MIPPO) in humerus shaft fractures: a clinical study

To the Editor,

I have read the article by Gazi Huri et al.[1] with great interest. The authors concluded that minimally invasive percutaneous plate osteosynthesis (MIPPO) appears to be a successful technique for the treatment of humerus shaft fractures based on plain radiographs, range of motion (ROM) assessments, and patient-reported outcome (PRO) measures: American Shoulder and Elbow Society (ASES); University of California, Los Angeles (UCLA); Mayo elbow performance index (MEPI); and Disabilities of the Arm, Shoulder and Hand (DASH) scores. However, before a PRO measure can be used in a society other than the one in which it was developed, it must be translated and culturally adapted. Additionally, the psychometric properties of the translated version of the PRO measure need to be assessed and compared to those of the original version.[2] Even though ASES and DASH have been translated and culturally adapted to Turkish and the psychometric properties of these outcomes were provided, the authors did not use them in their study.[3,4] UCLA and MEPI, in contrast, have not been translated and culturally adapted to Turkish yet, and there is insufficient evidence regarding the psychometric properties of the original versions of UCLA and MEPI. Gazi et al.'s results primarily depended on PROs. Thus, reliable, valid, and responsive PROs are required in order to enable accurate and complementary examination of patients' function. Finally, I advise the authors to make use of available PROs which have been proven translated, culturally adapted, reliable, valid, and responsive in their future studies.

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QR (Quick Response) Code

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Authors' reply

To the editor,

Thank you for the chance to respond to the letter addressing our paper, "Functional outcomes of minimal invasive percutaneous plate osteosynthesis (MIPPO) in humerus shaft fractures: a clinical study."[1]

Although we were advised "to use the available PRO's (patient reported outcome) which are proven culturally adapted, reliable, valid and responsive in our future studies," American Shoulder and Elbow Surgeons (ASES) and Disabilities of the Arm, Shoulder and Hand (DASH) tests were used and reported in the materials and methods, in both the abstract and the manuscript.

It is true that the majority of the functional assessments depended on measurements mostly reported in English, but it is also true that "official reports about disabilities of the patients" were assessed and reported

depending on the "translated and probably misspelled" patient reported outcomes (PROs).

Wild et al. reported the main problems of translation and cultural adaptation of PROs.[2] According to the Translation and Cultural Adaptation (TCA) group, a framework should be followed in the translational and cultural adaptation process of PROs: Preparation, Forward Translation, Reconciliation, Back Translation, Back Translation Review, Harmonization, Cognitive Debriefing, Review of Cognitive Debriefing Results and Finalization, Proofreading, and Final Report.[3,4] Neglecting to perform any of the steps may result in a number of issues:

1. Lack of consistency in terminology,

2. Lack of terminology in methodology, especially when omitting the Back Translation step. While most practitioners agree that the overall aim of translation is to produce a new language version which is both conceptually equivalent with the original and relevant to the new target culture, the actual methods employed differ.

Furthermore, the use of different terminology to refer to the same aspects of the translation process increases the difficulty in achieving clarity. Poorly translated scoring systems threaten the validity of research data and the safe aggregation of global data sets. There are no practical means to assess the validity and conceptual equivalence of new or existing translations, except by post hoc psychometric validation. Quality assurance is therefore heavily dependent on the methodology employed.

In the literature, several studies have been published regarding the Turkish adapted versions of PRO measures which were originally produced in English.[5–7] In their paper addressing the Turkish version of ASES, the authors reported a high coefficient alpha value (Cronbach's alpha=0.88) and 0.95 for the test-retest reliability analysis of the total ASES scores. However, we believe that the failure to report responsiveness and minimal clinically important differences (MCID) is the limitation of the Turkish version of the ASES questionnaire. In addition, the small patient group and absence of statistical power measurements in the Turkish versions of both DASH and ASES may also impair the results. Furthermore, compared to the original version of the DASH scoring system, the Turkish version may be interpreted differently, possibly affecting clinical outcomes.

We used two methods of assessment to compensate for perceived deficiencies in the translated versions of the questionnaires, with the aim of improving our study.

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