

# Calculate Patient-Reported Scores as Recommended so as Not to Threaten the Validity of the Measure: Response

## Authors' Response:

As authors of the article “Comparison of 3 Knee-Specific Quality-of-Life Instruments for Patients With Meniscal Tears,”<sup>11</sup> we intend with the following letter to respond to the criticisms raised by Ewa M. Roos in her letter to the editor. First, we thank Dr Roos for reading our article, for the letter containing constructive criticisms, and for stimulating an interesting scientific debate.

The aforementioned letter criticizes the method of evaluation utilized in our study—specifically, that in evaluating the results of the Knee injury and Osteoarthritis Outcome Score (KOOS) questionnaire, we performed comparative analyses based on the total scores and not, as recommended by Roos et al,<sup>10</sup> on the subscores of the 5 subscales. To support this, Dr Roos cites her own, already published, studies.<sup>4,10</sup>

The purpose of our study was to compare the ability of 3 commonly used knee assessment tools to measure the impact of meniscal tears on knee function and quality of life: the WOMAC (Western Ontario and McMaster Universities Osteoarthritis Index),<sup>1</sup> the KOOS,<sup>10</sup> and the WOMET (Western Ontario Meniscal Evaluation Tool).<sup>7</sup> As the letter from Dr Roos mentions, to achieve this, a comparative analysis among the aforementioned questionnaires was undertaken. Given that the 3 analyzed questionnaires have very different constructions and structures, the best way to do this was, in our opinion, to directly compare the 3 tools. To achieve this, we calculated and compared their relative and total scores. Therefore, the results were based not only on the total scores of the KOOS, as stated by Dr Roos, but also on a “relative score.” This was a mean composite score, similar to KOOS5, that included all the subscores of the KOOS according to their specific weights. In this way, similar weighting from all subscales in the composite score was guaranteed.

We are aware that this will not completely satisfy the recommendations of Dr Roos. Nevertheless, as Dr Roos stated, this method of employing the KOOS “has been reported in many orthopaedic papers.”<sup>2,3,5,6,8,9,12-14</sup> Moreover, taking into account the study’s purpose and setting, to report the results of the subscores of the KOOS would not have given any relevant information in those respects.

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The criticism raised by Dr Roos is certainly relevant and represents a weakness of the aforementioned study, one that we are aware of. But we also see, in a reinterpretation of the study’s results based on the subscores, no additional benefit in terms of the study’s purpose.

We again thank Dr Roos for her interest in our study and for the constructive criticism.

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