Letters

Author Response: Validation of the National Eye Institute Visual Function Questionnaire-25 (NEIVFQ-25) in Age-Related Macular Degeneration

We appreciate the opportunity to respond to the letter written by Khadka, McAlinden, and Pesudovs.[1] They are correct that we do not report all aspects of validity of the NEI VFQ-25 and, in particular, we did not perform Rasch analyses.[2] The scope of our article, as mentioned in the objective, was to address the relationship between patient-reported data from the NEI VFQ-25 and more objective measures of visual function and performance, such as visual acuity, reading speed, and contrast sensitivity. By demonstrating convergent validity of these measures, we have additional evidence that when a patient states that she/he has difficulty performing vision-related everyday functions (such as reading newspaper print), she/he does have difficulty reading an eye chart or performing well on a reading speed test. To our knowledge, this is the largest study ($N = 90$) of this type of convergent validity among a group of patients diagnosed with age-related macular degeneration (AMD).

Because the NEI VFQ-25, we believe, is the most widely-used patient-reported instrument in AMD studies,[3,4] we believe it is important to confirm these relationships in an appropriate patient-specific population. We support the value of Rasch analyses and believe that they represent another way of validating and understanding how instruments work. However, we believe that the traditional psychometric analyses, some of which are presented in our work, still have a place in providing evidence regarding the validity of measures. Of note, the composite scale of the NEI VFQ-25 has shown satisfactory psychometric properties in Rasch analyses[5] and, in a recent study comparing the scoring techniques of the Rasch analysis, the standard scoring method of the NEI VFQ-25, and the Massof technique, all three scoring methods were very highly correlated (>0.99), notwithstanding evidence of ceiling and floor effects in the standard scoring.[6,7] In addition, when the relevant appendix items are added to the near vision activities scale, its properties improve dramatically.[6] Note that in our study we used the 3 additional appendix items for the near and distance activities subscales.[2]

In summary, we believe that our report does provide evidence to support the validity of the NEI VFQ-25. Validation of a patient-reported measure is an ongoing process involving accumulating evidence on the psychometric characteristics from various sources, and with additional evidence there is more confidence in the measurement properties of the instrument.

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