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Service (sector) Refractive Surgery N° CEP

**Validation of a Portuguese-language version of the NEI-RQL-42 (National Eye Institute Refractive Error Quality of Life) instrument in refractive surgery candidates**

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Purpose: To evaluate the reliability and validity of a Portuguese-language version of the NEI- RQL-42, a questionnaire developed to measure self-reported vision-related quality of life, in patients with refractive error. Methods: After the standard translation process, a pilot study with 20 individuals was performed for cultural adaptation. Then, the final version of the questionnaire was self-administered by 122 patients (102 refractive surgery candidates and 20 emmetropic patients) at the Refractive Surgery Sector of Federal University of São Paulo. Statistical analysis addressed internal consistency, test-retest reliability and validity of the instrument. Results: Cronbach's  $\alpha$  was 0.95 for the overall scale, and ranged from 0.71 to 0.96 for the NEI-RQL subscales, indicating excellent internal consistency. The test-retest reliability demonstrated high reproducibility for the overall scale (intraclass correlation coefficient ICC=0.93) and for all the subscales (ICC ranged from 0.86 to 1.00). Statistically significant correlation between the overall scale and the subscale "satisfaction with correction" was observed. Construct validity was demonstrated by statistically significant differences between the scores of all scales when compared the emmetropic patients with the refractive surgery candidates ( $p < 0.01$ ; Mann-Whitney test). Individuals with worse uncorrected visual acuity (VA of worse eye logMAR > 1.00) had significant lower (worse) scores for the overall scale and for the subscales "expectations", "activity limitations" and "dependence on correction", than the individuals with better uncorrected visual acuity (VA of worse eye logMAR less than or equal to 1.00). Conclusions: The Portuguese-language version of the NEI-RQL-42 is reliable and valid for assessing vision-related quality of life of refractive surgery candidates.