Assessment scales in PRM

Oral communications

CO44-001-e

Validation and calibration of a health-related quality of life questionnaire for patients suffering from slowly progressive neuromuscular disease

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Introduction

Medical care and treatments of patients suffering from slowly-progressive neuromuscular disease (NMD) mainly aim to improve health-related quality of life (HRQOL). To date there is no French HRQOL-measurement tool specifically designed for these patients. Recent works allowed developing a new questionnaire of 26 items named “Quality of Life in Neuromuscular Diseases” (QoL-NMD). It is structured in 3 domains and was constructed using focus groups: Delphi method and exploratory statistical analysis. Our objectives are to validate QoL-NMD using an independent sample and to calibrate the scoring system.

Methods

The QOL-NMD and a validated questionnaire (WHOQOL-BREF) were administered to 153 patients recruited in 8 tertiary hospitals dedicated to NMD. Confirmatory statistical analysis included methods derived from both Items Response Theory (IRT) and Classical Test Theory.

Results

Data confirmed the results of the exploratory analysis. The 3 domains of QoL-NMD met IRT assumptions (i.e. unidimensionality, parameter invariance and monotonicity) and showed adequate psychometric properties (Cronbach > 0.7, H > 0.3, test-retest ICC > 0.7). Each domain was calibrated using a parametric IRT model. Comparison to WHOQOL-BREF allowed investigating similarities, discrepancies and putting forward QoL-NMD psychometric superiority.

Conclusion

This study led to the validation and calibration of a new HRQOL questionnaire specifically designed for NMD patients. It can now be used in various clinical settings. QoL-NMD has been translated and culturally adapted to English but still require a psychometric validation abroad.

Keywords

Health-related quality of life; Neuromuscular disease; Item response theory; Validation; Psychometrics

Disclosure of interest

The authors have not supplied their declaration of conflict of interest.

Further readings


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Cross-cultural adaptation and validation of the Amputation Body Image Scale (ABIS®) and its shortened version (ABIS-R®) for French speaking patients with lower limb amputation

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Introduction

The Amputation Body Image Scale (ABIS®) is self-administered questionnaires addressing the patient’s perspective, only available in English [1] and Turkish. The aim of this study was the French cross-cultural adaptation and validation of the ABIS (ABIS-F) and its shortened version ABIS-R (ABIS-R-F). Psychometrics properties: internal consistency, test-retest reliability, construct validity.

Method

One hundred and twenty-nine patients (23% women), with a mean age of 62 years, with lower limb amputation for at least 1 year (vascular 75%, traumatic 25%) were recruited in 5 clinical centers. Translation and cross-cultural adaptation (ABIS 20 items; ratings of 1-5; high score indicating high body disturbance, and ABIS-R 14 items, ratings of 0–2) were made according to international guidelines. Internal consistency was calculated by the coefficient of Cronbach. Test-retest reliability was assessed by intraclass correlation in a subgroup who completed the ABIS on 2 occasions with an interval of 5 to 7 days. Construct validity was estimated through correlations with SF-36 mental component...
Cross-cultural adaptation, reliability, internal consistency and validation of the Trinity Amputation and Prosthetic Experience Scales-Revised (TAPES-R) for French speaking patients with lower limb amputation

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Aim The aim of this study was the French cross-cultural adaptation and validation of The Trinity Amputation and Prosthetic Experience Scales-Revised (TAPES-R-F), in a lower limb amputation population. This self-reported multidimensional amputee-specific questionnaire [1] evaluates with 33 items psychosocial adjustment (3 subscales), activity restriction (1 subscale) and satisfaction with prosthesis (2 subscales).

Patients and methods One hundred and twenty-nine patients with a mean age of 62 years and with lower limb amputations for at least 1 year were recruited in 5 clinical centers. Translation and cross-cultural adaptation were made according to international guidelines. Internal consistency of each subscale was measured with Cronbach’s alpha. Test-retest reliability was assessed by intraclass correlation in a sub-group of 24 subjects who completed the TAPES-R twice with an interval of 7 days. Construct validity was estimated through correlations with 2 main components of SF-36 (MCS, PCS). Correlations were also calculated with 3 scales of the Brief Pain Inventory (BPI).

Results Cronbach’s alpha was high, ranging from 0.85 to 0.95. Reliability was acceptable to high (ICC = 0.72 to 0.91) for all subscales with the exception of the Social adjustment (ICC = 0.67) and Adjustment to limitation (ICC = 0.42) subscales. The second component of SF-36 was significantly correlated with all subscales (PCS: r = 0.24 to 0.66); MCS: r = 0.30 to 0.58), except with aesthetic satisfaction and adjustment to limitation. Regarding the BPI, significant correlations were found for all subscales (r = -0.20 to –0.68) with the exception of adjustment to limitation. Ceiling or floor effects (>15%) were found for all but Activity Restriction and Functional Satisfaction Scales.

Discussion The TAPES-R-F has acceptable psychometric properties for most of its subscales. Our results may suggest that the French version is more useful in a population research perspective than in an individual perspective. Other studies are necessary to clarify the role and the psychometric properties of this measure.

Keywords Cross cultural adaptation; French; TAPES-R; Psychometric properties; Internal consistency; Reproducibility; Lower limb amputation population

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Reference

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