Comparison of the frailty phenotype and the Tilburg Frailty Indicator regarding the prediction of quality of life in a two-year follow-up

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Introduction

Frail individuals are highly vulnerable to minor stressful events, presenting a higher risk for adverse health outcomes (e.g. falls, disability, hospitalization), which can lead to a decline in quality of life (QoL). In this context, an early screening of elderly frailty is of crucial importance.

Objective

To compare how the Frailty Phenotype (FP) and the Tilburg Frailty Indicator (TFI) predict QoL in a two-year follow-up.

Methods

A longitudinal study was designed recruiting 110 community-dwelling elderly (\geq 65 years). The presence of frailty was assessed at baseline (FP \geq 3 and TFI \geq 6), whereas QoL was measured two years later with two different scales: the WHOQOL-OLD and the EUROHIS-QOL-8. Hierarchical regressions were conducted.

Results

The mean age of the participants at baseline was 77.7 ± 6.9 years, and most were women (75.5%). According to FP, 33.6% of the participants were classified as frail, while the TFI detected frailty in 50% of the elderly. After adjusting for age and gender, the TFI significantly predicted QoL (WHOQOL-OLD: $\beta = -18.9$, t(106) = -6.97, P < 0.001; EUROHIS-QOL-8: $\beta = -6.1$, t(106) = -6.71, P < 0.001), whereas the effect of the FP on the outcome measures was non-significant.

Conclusions

Frailty at baseline was associated with a lower QoL at follow-up. A multidimensional frailty operationalization (TFI) showed a stronger predictive validity than an exclusively physical one (FP). The option of which frailty measure to use in a clinical setting should take into account its ability to predict specific adverse outcomes, conducing to targeted and effective interventions.