

# 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  $77.7 \pm 6.9$  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, conducting to targeted and effective interventions.