

## Research Project

### Measurement properties of EQ-5D-3L and EQ-5D-5L in recording self-reported health status in older patients with substantial multimorbidity and polypharmacy

#### Third-party funded project

**Project title** Measurement properties of EQ-5D-3L and EQ-5D-5L in recording self-reported health status in older patients with substantial multimorbidity and polypharmacy

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**Organisation / Research unit**

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**Department**

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**Status** Completed

#### 0.0.1 Background

The EQ-5D-3L and EQ-5D-5L are two generic health-related quality of life measures, which may be used in clinical and health economic research. They measure impairment in 5 aspects of health: mobility, self-care, usual activities, pain/discomfort and anxiety/depression. The aim of this study was to assess the performance of the EQ-5D-3L and EQ-5D-5L in measuring the self-reported health status of older patients with substantial multimorbidity and associated polypharmacy.

#### 0.0.2 Methods

Between 2017 and 2019, we administered EQ-5D-3L and EQ-5D-5L to a subset of patients participating in the OPERAM trial at 6 months and 12 months after enrolment. The OPERAM trial is a two-arm multinational cluster randomised controlled trial of structured medication review assisted by a software-based decision support system versus usual pharmaceutical care, for older people (aged  $\geq 70$  years) with multimorbidity and polypharmacy. In the psychometric analyses, we only included participants who completed the measures in full at 6 and 12 months. We assessed whether responses to the measures were consistent by assessing the proportion of EQ-5D-5L responses, which were 2 or more levels away from that person's EQ-5D-3L response. We also compared the measures in terms of informativity, and discriminant validity and responsiveness relative to the Barthel Index, which measures independence in activities of daily living.

#### 0.0.3 Results

224 patients (mean age of 77 years; 56% male) were included in the psychometric analyses. Ceiling effects reported with the EQ-5D-5L (22%) were lower than with the EQ-5D-3L (29%). For the mobility item, the EQ-5D-5L demonstrated better informativity (Shannon's evenness index score of 0.86) than the EQ-5D-3L (Shannon's evenness index score of 0.69). Both the 3L and 5L versions of EQ-5D demonstrated good performance in terms of discriminant validity, i.e. (out of all items of the EQ-5D-3L and EQ-5D-5L, the pain/discomfort and anxiety/depression items had the weakest correlation with the Barthel Index. Both the 3L and 5L versions of EQ-5D demonstrated good responsiveness to changes in the Barthel Index.

#### **0.0.4 Conclusion**

Both EQ-5D-3L and EQ-5D-5L demonstrated validity and responsiveness when administered to older adults with substantial multimorbidity and polypharmacy who were able to complete the measures.

#### **Financed by**

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#### **Add publication**

#### **Published results**

4604333, Bhadhuri, Arjun; Kind, Paul; Salari, Paola; Jungo, Katharina Tabea; Boland, Benoît; Byrne, Stephen; Hossmann, Stefanie; Dalleur, Olivia; Knol, Wilma; Moutzouri, Elisavet; O'Mahony, Denis; Murphy, Kevin D.; Wisselink, Linda; Rodondi, Nicolas; Schwenkglenks, Matthias, Measurement properties of EQ-5D-3L and EQ-5D-5L in recording self-reported health status in older patients with substantial multimorbidity and polypharmacy, 1477-7525, Health and quality of life outcomes, Publication: JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)

#### **Add documents**

#### **Specify cooperation partners**