

POSTER PRESENTATION

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The feasibility and validity of a preference-weighted composite endpoint to establish value in geriatric care

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Background

As part of the Dutch National Care for the Elderly Programme, The Older Persons and Informal Caregivers Survey Minimum Data Set (TOPICS-MDS) was developed to gather uniform information on outcome measures. Furthermore, to combine the outcome measures into one single index and to promote comparability between studies, a preference-weighted Composite End Point (called: TOPICS-CEP) was developed [1]. The aim of this study was to validate TOPICS-CEP in a large heterogeneous sample of older persons aged ≥ 65 years.

Materials and methods

Data from 17,603 older persons were derived from TOPICS-MDS (www.TOPICS-MDS.eu); a public data repository. Feasibility was evaluated by the prevalence of missing values among TOPICS-CEP scores. To assess convergent validity, TOPICS-CEP scores were cross validated against the Cantril's ladder life satisfaction scale and the EuroQol-5D utility score. Known-group validity of TOPICS-CEP was investigated across socio-demographic and clinical characteristics. To assess whether TOPICS-CEP scores were generalizable across different settings, we conducted pooled and subgroup analyses: older persons in the general population, general practitioner setting, and hospital.

Results

In the complete sample, TOPICS-CEP scores could be calculated for the majority of the participants (88.7%). There were no floor and ceiling effects found and the

distribution was slightly skewed to the left. The correlation between TOPICS-CEP and Cantril's ladder was 0.43 (95%CI [0.39-0.48]) and the correlation between TOPICS-CEP and EuroQol-5D was 0.63 (95%CI [0.58-0.67]). Expectedly, mean TOPICS-CEP scores differed significantly ($p < 0.05$) across marital status (married or cohabiting: 7.50 versus partner deceased: 7.13), living arrangements (independent living with others: 7.56 versus dependent living: 6.37), dementia (no: 7.43 versus yes: 6.30), depression (no: 7.42 versus yes: 6.26), and dizziness with falls (no: 7.49 versus yes: 6.42). When stratified by subgroups, similar results were found for feasibility, convergent and known-group validity.

Conclusions

The TOPICS-CEP was able to accurately reflect general wellbeing in a large pooled dataset as well as across subgroups. Our data support that the TOPICS-CEP score is an objective and robust measure for researchers interested in investigating the general well-being of older persons. The TOPICS-CEP guideline version 1.1 is now available online <http://www.TOPICS-MDS.eu>.

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Reference

1. Hofman CS, Makai P, Buurman BM, de Craen AJM, Boter H, OldeRikkert MGM, Donders ART, Melis RJF: **Establishing a composite**

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endpoint for measuring the effectiveness of geriatric interventions based on older persons' and informal caregivers' preference weights: A vignette study. *BMC Geriatrics* 2014, **14**:51.

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