

# Validity of EQ-5D-3L and EQ-5D-5L Using the FACT-M in Patients with Advanced Melanoma

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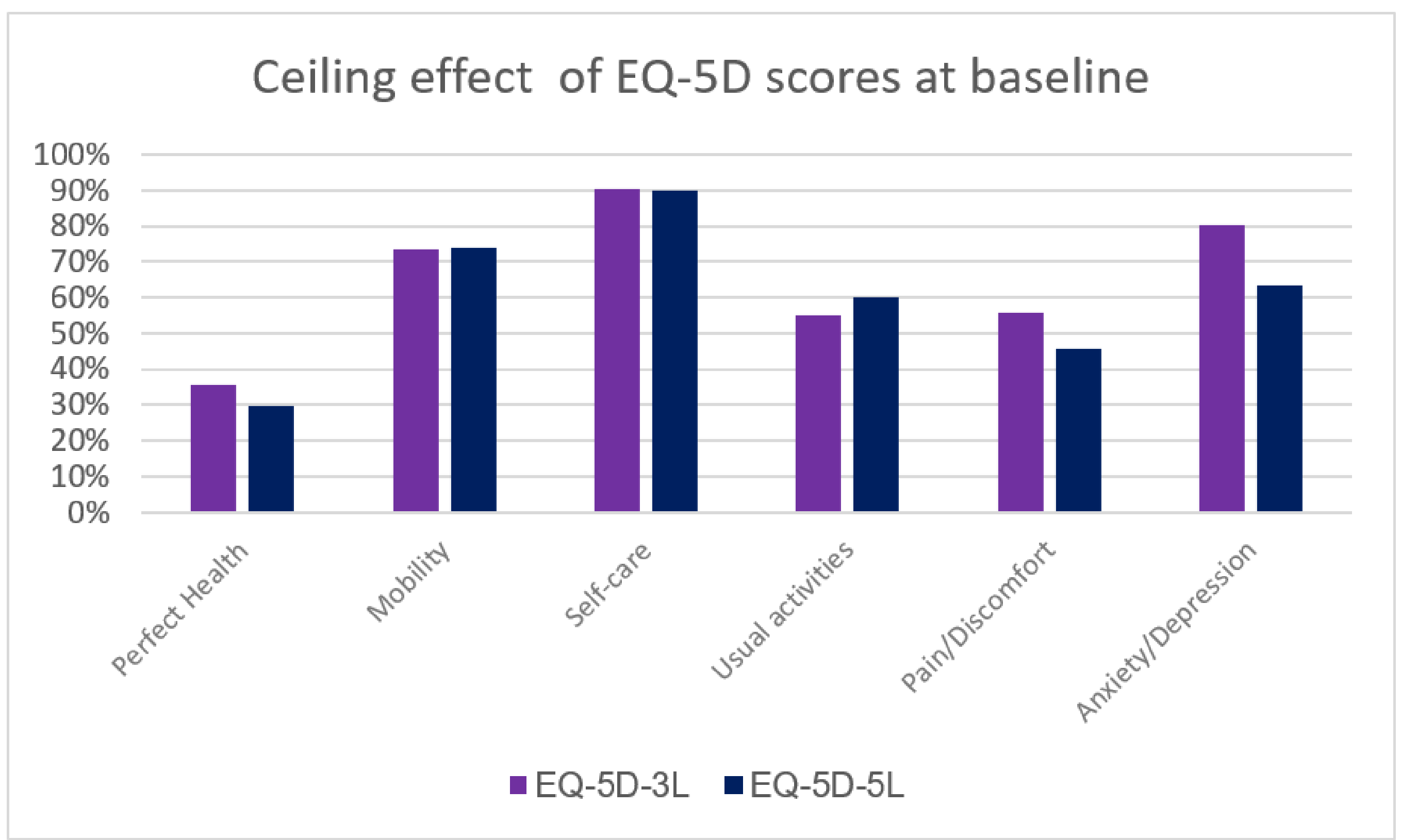
## Objective

Evidence on the validity of the generic, preference-based EQ-5D questionnaire in advanced melanoma is limited. Therefore, we evaluated the construct and content validity of both the EQ-5D-3L and EQ-5D-5L using data from the nationwide Dutch Melanoma Treatment Registry.

## Patient numbers

At baseline, 416 patients filled in the EQ-5D-3L and 668 patients the EQ-5D-5L. Of these patients, approximately 100% that filled in the EQ-5D-3L and 60% that filled the EQ-5D-5L version, also filled in the FACT-M disease specific questionnaire for melanoma.

Figure 1: Proportion of patients reporting perfect health at baseline



## Methods

Data on the EQ-5D and Functional Assessment of Cancer Therapy-Melanoma (FACT-M; a disease-specific questionnaire) were obtained for patients who completed the EQ-5D-3L (between 2012 and 2015) or the EQ-5D-5L (from 2016) at baseline (i.e., after their diagnosis). EQ-5D utility values were computed using Dutch value sets. Content validity was assessed comparing the proportions of ceiling effect at baseline of the EQ-5D-3L and EQ-5D-5L in both the overall scores and in each dimension as well as the FACT-M scores (range 0-172) of the same patients. Spearman's correlation was used to assess construct validity, comparing the strength of the relationship between the dimensions of the two version of the EQ-5D and the dimensions of the FACT-M for these patients at baseline.

## Main findings

- The EQ-5D-5L showed a lower ceiling effect compared to the EQ-5D-3L (29.9% vs 35.8% reporting perfect health)
- Both versions of EQ-5D had the highest ceiling effect in the "Self-care" dimension
- Patients who completed the EQ-5D-5L had higher (better) FACT-M scores on average compared to those who completed the EQ-5D-3L (153.92 vs 146.77)
- The EQ-5D-5L scores showed less variation in FACT-M scores compared to the EQ-5D-3L (standard deviation 9.57 vs 11.43)
- Spearman's correlation coefficients indicated clearer relationships between EQ-5D-5L dimensions and FACT-M dimensions compared to EQ-5D-3L
- The dimension of "Emotional Well-Being" of the FACT-M showed the strongest relationship with multiple EQ-5D dimensions, and the dimension of "Self-care" of EQ-5D showed no strong association with any of the FACT-M

Figure 2: Spearman's correlation between FACT-M dimensions and EQ-5D

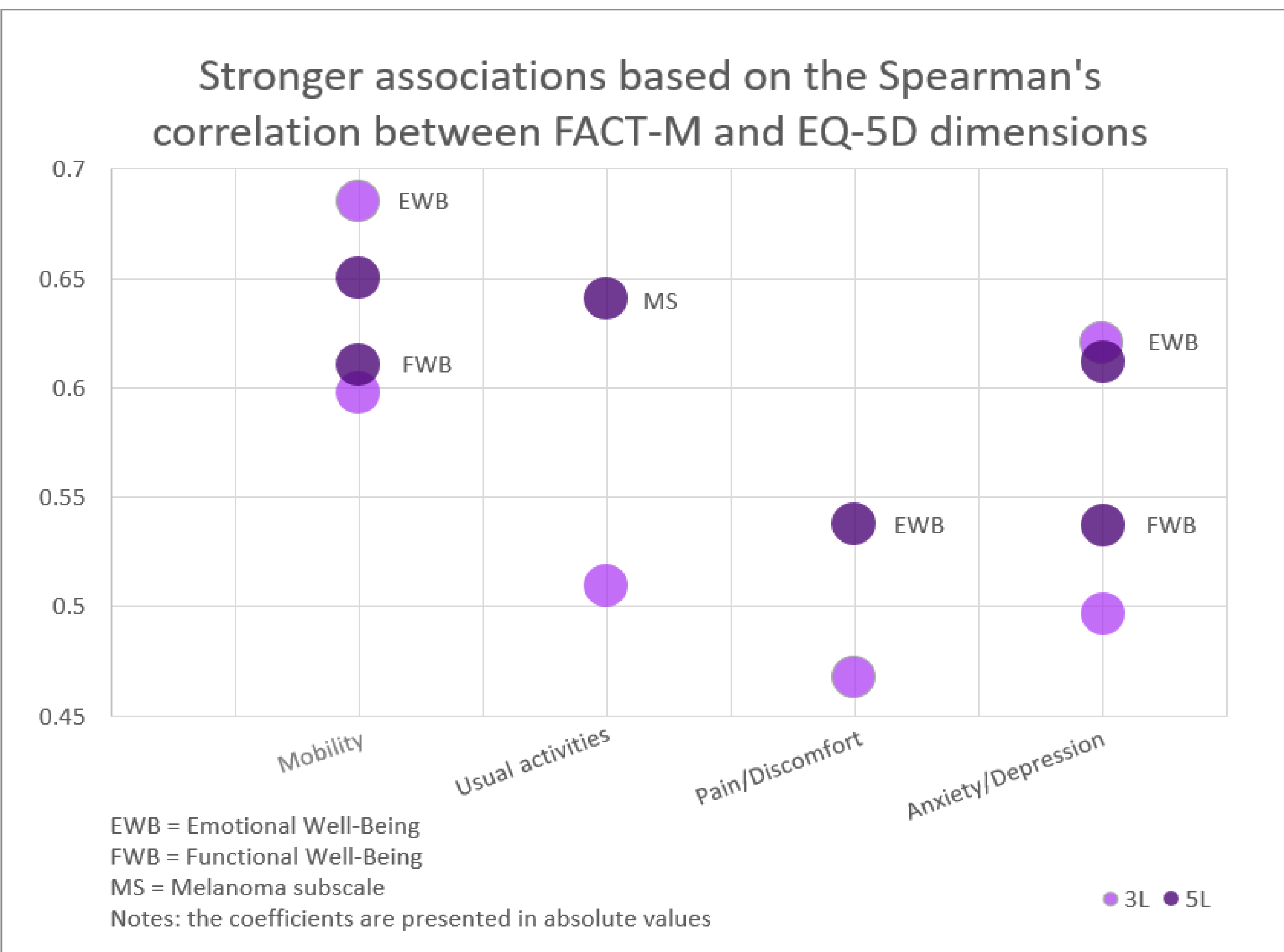
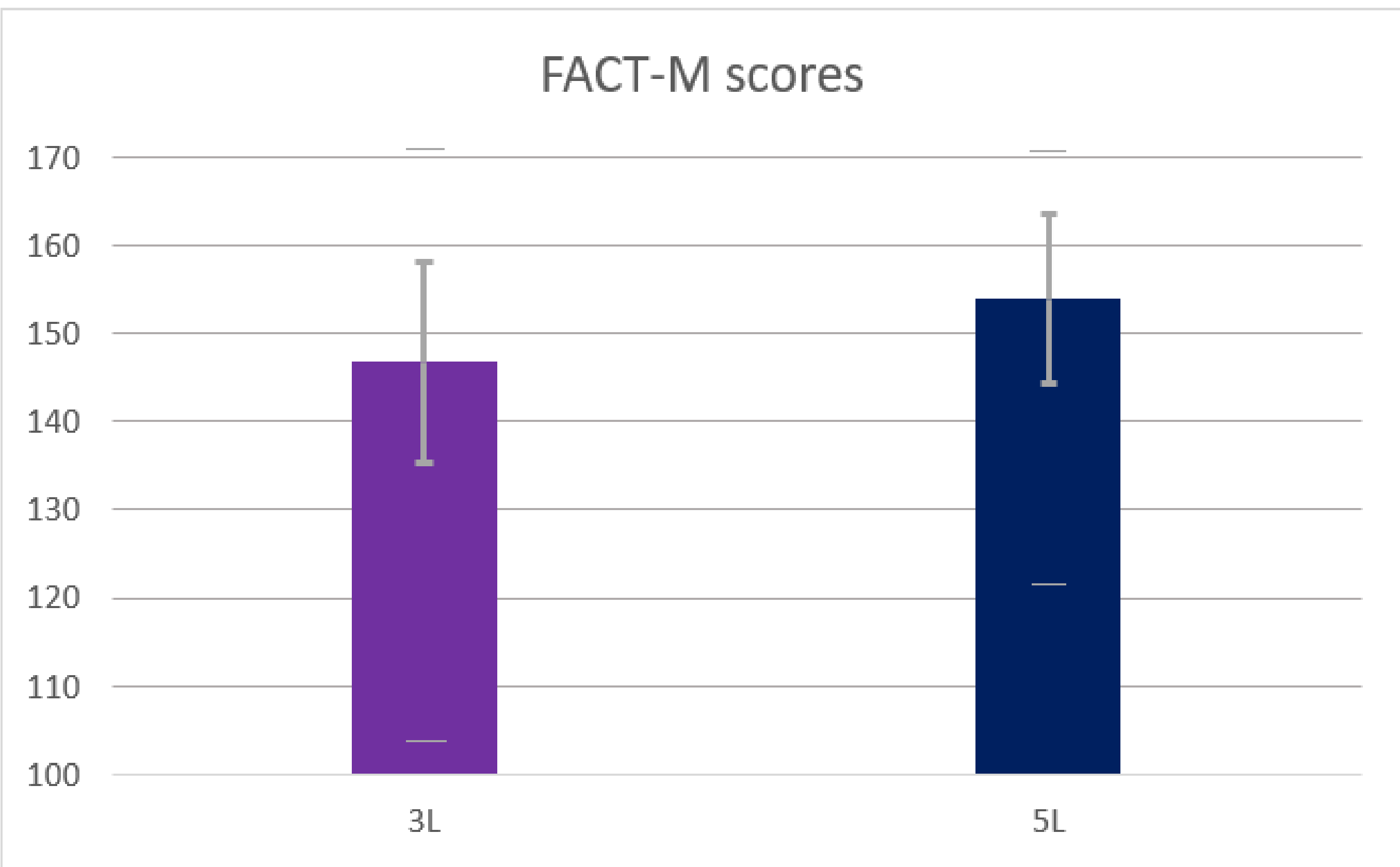


Figure 3: Mean FACT-M scores of patients reporting perfect health at baseline



## Conclusions

The EQ-5D-5L showed better content and construct validity than EQ-5D-3L in patients with advanced melanoma.