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PCR212

Comparative Study of TTO-based and DCE with duration Value Sets for EQ-5D-5L in Qatar

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RATIONALE

The study will add to the body of evidence on the comparative performance of the cTTO/EQ-VT approach vs. DCE with duration for generating a value set for the EQ-5D-5L, which will have significant implications of the valuation protocol in the future.

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BACKGROUND and OBJECTIVE

The EQ-VT approach has traditionally used composite Time Trade Off (cTTO) and discrete choice experiments (DCE) to develop value sets for the EQ-5D-5L instrument.

Recently, discrete choice experiments with duration (DCEd) have been introduced as an alternative method for the development of such value sets.

Studies in the Netherlands and Trinidad and Tobago showed that EQ-VT and DCEd can produce similar results. However, such tests were **between samples**.

This ongoing study aims to test whether EQ-VT and DCEd can produce similar results (in terms of consistency, correlation and agreement) **within sample**, when valuing the EQ-5D-5L instrument in Qatar.

This may help better understand whether these methods can be used interchangeably to develop EQ-5D-5L value sets.

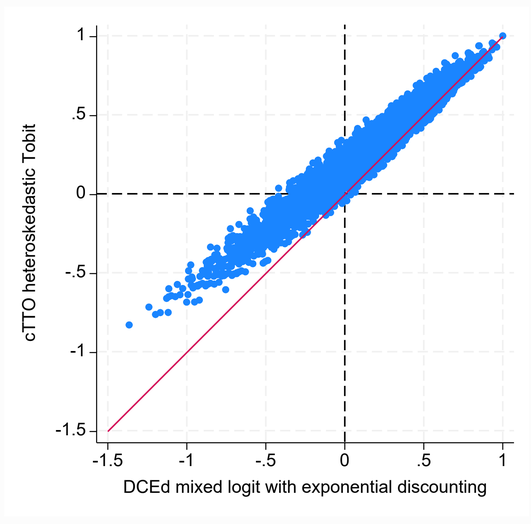
METHODS

- The study is being conducted as part of the EQ-5D-5L valuation study in Qatar (Poster ID: PCR 97).
- The study follows a modified version of the EQ-VT 2.1 valuation protocol, whereby DCEd replaced the traditional latent scale DCE.
- Each respondent completed a set of 10 cTTO tasks, 15 split triplet DCEd tasks where they first choose between two health states of the same duration, followed by a choice between one of those two lives and being in full health for a shorter duration. Afterwards, participants complete 8 time preference DCE tasks.
- The cTTO data were analyzed using a heteroskedastic Tobit model while the DCEd data were analyzed using a mixed logit model with exponential discounting.
- Agreement between the methods was assessed using Lin's Concordance.

RESULTS

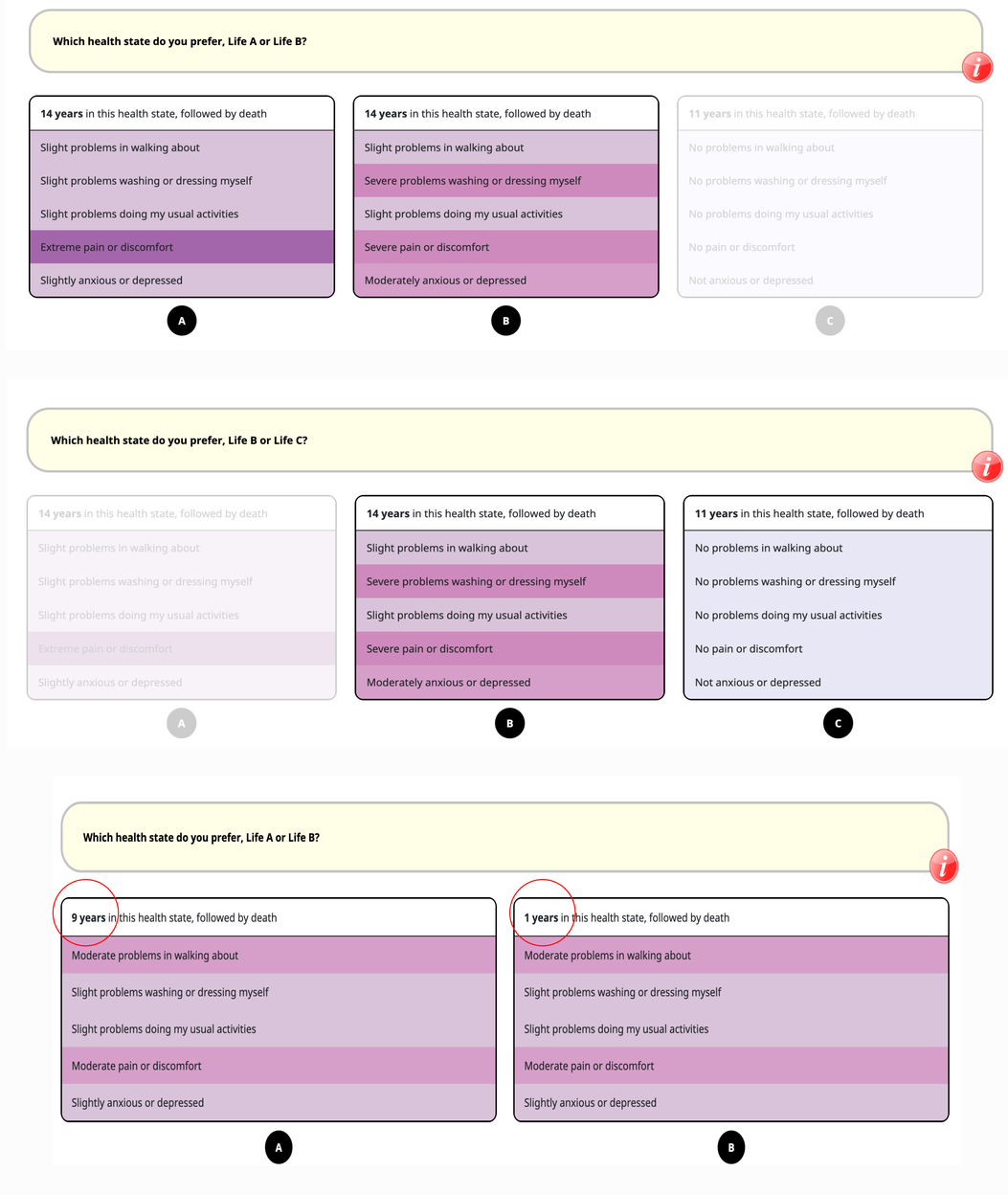
- As of 27 October 2026, 589 participants have completed the interviews, with a mean (SD) age of 31.9 (10.1) years; 42.6% are female and 3.5% are Qatari nationals.
- Based on interim analysis, the correlation between the cTTO and DCEd estimates was high (r=0.973), while agreement was good (CCC=0.869).
- The ordering of dimensions was similar between the two methods (MO5=0.428, SC), while the DCEd produced a longer scale range than cTTO (v(55555)=-0.825 in cTTO, while v(55555)=-1.364 in DCEd).

CORRELATON AND AGREEMENT



Estimates for all possible 3125 EQ-5D-5L health states based on a heteroskedastic Tobit model for cTTO, and a DCEd mixed logit with exponential discounting model. The red line is a 45 degree reference line.

EXAMPLES OF DCEd CHOICE TASKS IN EQ-VT



CONCLUSION

- EQ-VT and DCEd showed excellent correlation and good agreement between the two methods.
- DCEd values seem to be somewhat lower than EQ-VT values, and this difference is more pronounced for more severe health states.
- The results therefore suggest that while the agreement is good, the DCEd method assigns somewhat lower values to health states, even if the same respondents complete both methods.
- Agreement needs to be assessed further once sampling is completed.

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Acknowledgements

The authors declare no conflicts of interest.

Disclosures

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