Estimating a Preference-Based Index from the Recovering Quality of Life measure for economic evaluation in the area of mental health: Valuation of ReQoL-UI

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AIMS

The ReQoL is an outcome measure specifically developed and worded for use in mental health populations. Preference weights have been generated for the ReQoL-UI to allow the calculation of Quality Adjusted Life Years to better capture health benefits in the economic evaluation of mental health interventions.

METHODS

Health State Classification

Using Item Response Theory (IRT), six mental health (MH) items and one physical health (PH) item were chosen from ReQoL-10 :

MH1: I enjoyed what I did
MH2: I felt lonely
MH3: I felt unable to cope
MH4: I thought my life was not worth living
MH5: I felt confident in myself
MH6: I felt happy
PH: Please describe your physical health (problems with pain, mobility, difficulties caring for yourself or feeling physically unwell)

Selecting health states

- Using IRT analyses, we selected 57 states
- Conceptual considerations added 3 states
- The 60 mental health states were randomly combined with the physical health item

Valuation survey

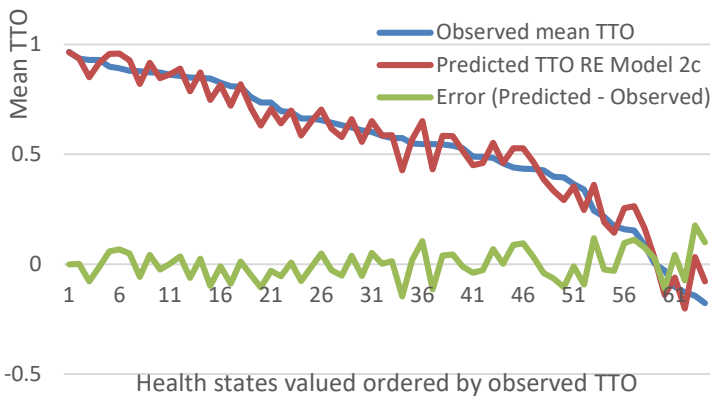
- Valuation used Time Trade Off
- 305 members of the general population, representative of the UK population
- Face- to face interviews. Each participant valued 8 health states and provided some demographic information

Modelling TTO data

- Items are highly correlated
- Hybrid model with dummies for physical health
- Regression models using OLS and random effects model

RESULTS

Fig 1. Preferred random effect model to predict utilities



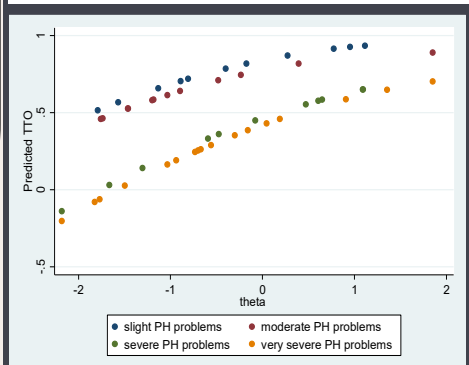


Fig. 2 Mean Predicted TTO modelled based on Random Effect Model, using rescaled IRT scores of the mental health state and the response level of the physical item

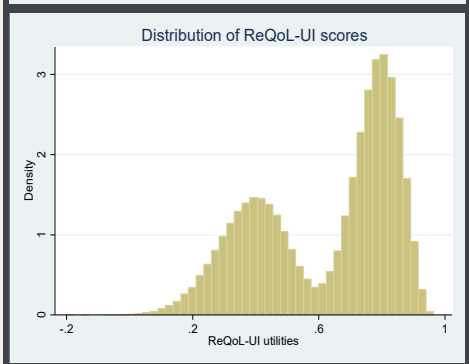


Fig. 3 shows a bi-modal distribution for all theoretically possible 15,625 health states. The lowest and highest ReQoL-UI scores are -0.202 and 0.964 respectively.

CONCLUSION

The valuation of the ReQoL-UI produced a valid model for use in cost utility analysis (CUA). Over half of the weight is attributed to the mental health of the individual alone which is likely to better capture benefits of interventions designed to improve mental health. Further research is recommended to compare the performance of ReQoL-UI with other preference-based measures commonly used in CUA of mental health interventions. The algorithm can be obtained from the developers.

This research is funded by the National Institute for Health Research (NIHR) Policy Research Programme (Ref:104/0001). The views expressed are those of the authors and not necessarily those of the NIHR or the Department of Health and Social Care.