

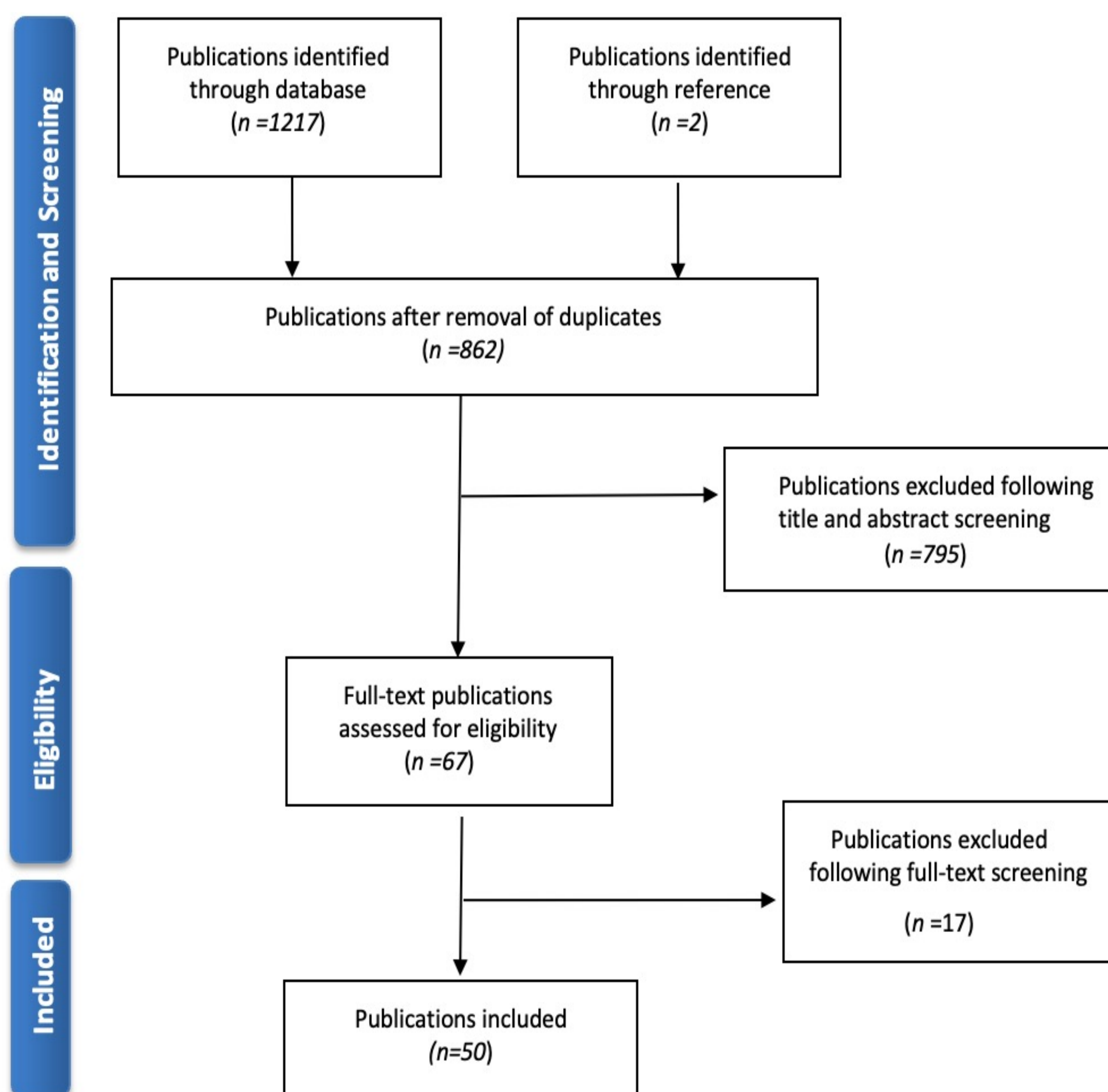
OBJECTIVES

There is no existing review that looks at mapping studies of broader quality of life instruments. This scoping review aims to explore the use of mapping (or cross walking) to estimate utility values derived from both health-related quality of life and broader quality of life instruments.

METHODS

The scoping review was conducted using the Arksey and O'Malley framework and aligned with the checklist of Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR). The quality of reporting in the studies was assessed using the Mapping onto Preference-based measures reporting Standards (MAPS) statement.

Figure 1: Study selection flowchart



Inclusion criteria

- ✓ Studies that reported statistical mapping to any of these instruments –
EQ-5D, SF-6D, AQoL (Oct 2018- May 2022)
ASCOT and ICECAP (2011-May 2022)
- ✓ Studies reporting a new mapping function derived from an adult population dataset (general or patient population).

Exclusion criteria

- ✗ Methodology studies where they did not provide a new mapping function.
- ✗ Conference abstracts, unpublished manuscripts and papers published in a language other than English.

Data Extraction

- Source and target instruments.
- Mapping method, study population, goodness of fit criteria.

RESULTS

Study Population

Cancer patients accounted for 28% (14 studies) of all study populations included in the mapping studies. All studies included in the review had an adult study population with sample sizes between 61 to 21,854. Only three studies (6%) had a sample size of less than 100. Thirteen studies (26%) stated that they followed the MAPS criteria for reporting the mapping study.

Figure 2: Proportion of reported target measures

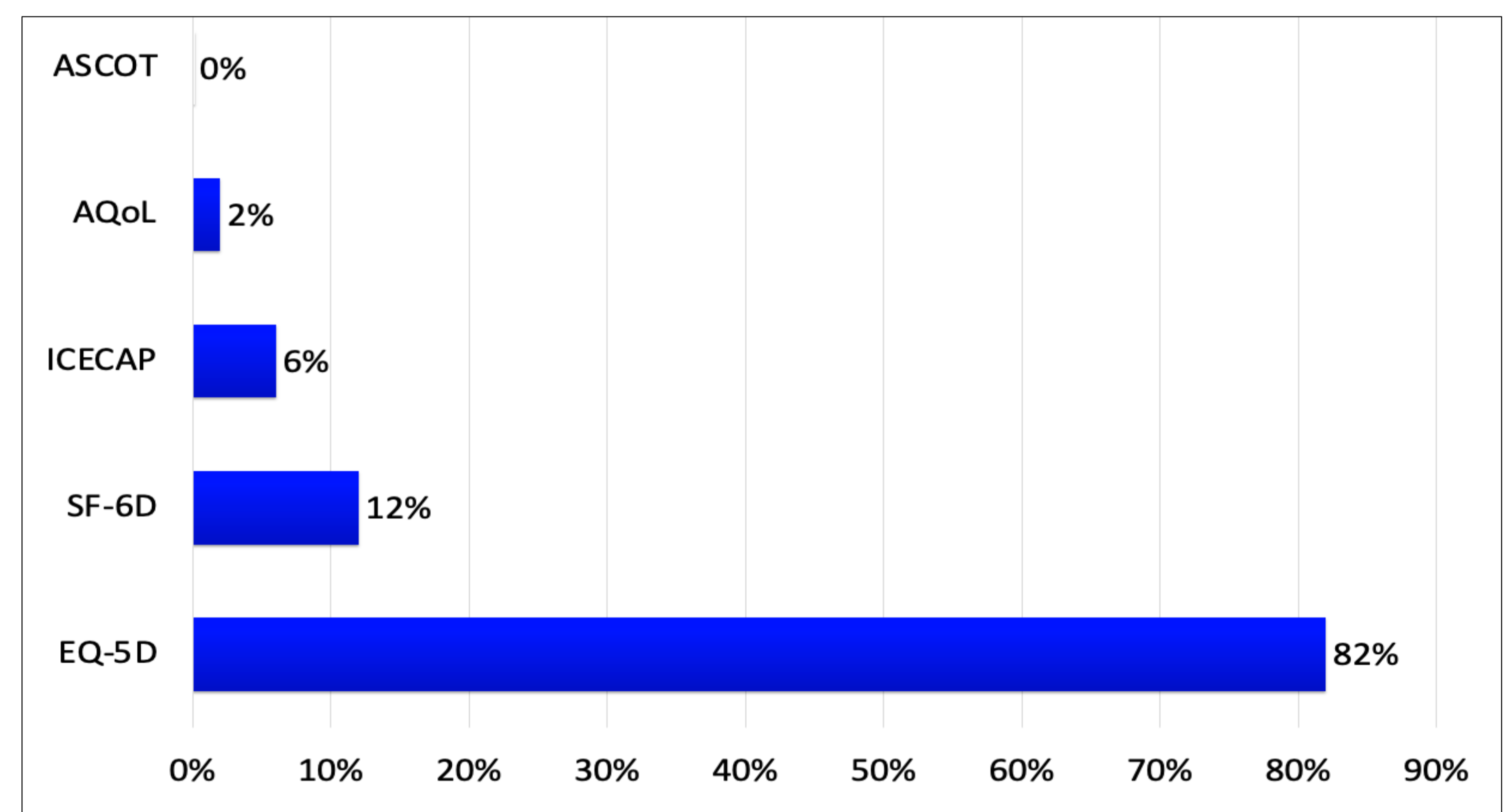


Table 1: Mapping methods and predictive performance

| Estimation method | Number of studies that reported it. |
|---|-------------------------------------|
| Direct mapping method | |
| Ordinary least squares | 39 |
| Tobit | 21 |
| Generalized linear model | 14 |
| Generalized estimation equation | 4 |
| Beta regression | 16 |
| MM estimator | 7 |
| Censored least absolute deviations | 8 |
| Adjusted limited dependent variable mixture model | 11 |
| Indirect/response mapping method | |
| Ordered logit | 10 |
| Multinomial logit | 5 |
| Ordered probit | 6 |
| Predictive performance | |
| Mean average error | 43 |
| Mean squared error/Root mean squared error | 43 |
| Intraclass correlation coefficients | 8 |

CONCLUSIONS

Mapping is a popular method for attaining utility scores where target measures have not been directly applied. EQ-5D is the most popular target instrument. There is a lack of mapping studies looking at broader QoL measures.

ACKNOWLEDGMENTS

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