

Multimorbidity Treatment Burden Questionnaire (MTBQ) User Guide

Introduction

This guide has been developed to assist researchers in how to use the MTBQ.

What is the MTBQ for?

The Multimorbidity Treatment Burden Questionnaire (MTBQ) is a 10-item questionnaire designed to measure treatment burden (the effort of looking after one's health) in patients with multimorbidity (multiple long term conditions).

Is the MTBQ suitable for my purposes?

The MTBQ has been developed and validated for use in research to assess the effects of interventions that might increase or decrease treatment burden for patients with multimorbidity. Further work is needed to validate use of the MTBQ in a clinical setting.

There are three additional questions, including one question about the cost of treatment, which were not relevant to many participants of our study population but may be relevant to other populations and can be considered as optional.

Review copies of the 10-item and 13-item MTBQ questionnaire are available at: <http://www.bristol.ac.uk/primaryhealthcare/resources/mtbq/>

How do I register to use the MTBQ?

The MTBQ is available free for non-commercial use only and is licensed under a *MTBQ licence (link)*. The terms of this licence state that the MTBQ must not be adapted, translated or otherwise adjusted without first seeking prior approval from the authors. The University of Bristol will retain rights to any adapted or translated versions.

If you would like to use the MTBQ, please complete the *MTBQ registration form (link)* and return this to: polly.duncan@bristol.ac.uk. You will then be sent a licensed copy of the MTBQ. In the meantime, you can access the *MTBQ review 10-item version (link)* and the *MTBQ review 13-item version (link)*.

How do I score the MTBQ?

An overall 'global' MTBQ score can be calculated by completing the following steps:

- Step 1:** Recode all "does not apply" and "not difficult" scores as 0, "a little difficult" scores as 1, "quite difficult" scores as 2, "very difficult" scores as 3 and "extremely difficult" scores as 4.
- Step 2:** Exclude participants if more than 50% of their responses are missing
- Step 3:** Calculate each participant's average score from the questions answered.
- Step 4:** Multiple the average score by 25 to give a global MTBQ score from 0-100

Please note that a Stata "do-file" which automatically calculates a global MTBQ score is available at: <http://www.bristol.ac.uk/primaryhealthcare/resources/mtbq/>

How should I interpret the global MTBQ score?

To aid interpretation of the MTBQ, we grouped global MTBQ scores greater than 0 into tertiles. This generated four categories of treatment burden: no burden (score 0), low burden (score <10), medium burden (10-22), high burden (≥ 22).

How should I report global MTBQ scores?

We recommend that, due to the skewness of global MTBQ scores, researchers should report the median or interquartile range rather than the mean and SD, and report the proportion of patients with high, medium, low or no treatment burden (global MTBQ scores ≥ 22 , 10-22, <10 and 0 respectively).