

The RTSQ

Background

The Renal Treatment Satisfaction Questionnaire (RTSQ) was designed by Clare Bradley, Professor of Health Psychology at Royal Holloway, University of London, specifically to measure satisfaction with treatment for patients with chronic kidney disease (CKD), for use in routine clinical care and clinical trials. The original thirteen-item RTSQ was based on the format of the eight-item Diabetes Treatment Satisfaction Questionnaire (DTSQ) (Bradley and Lewis, 1990; Bradley 1994), used extensively with people with Type 1 and Type 2 diabetes (e.g. Bradley and Speight, 2002; DAFNE Study Group, 2002; Witthaus et al 2001, Bradley et al, 2007, Ashwell et al 2008; Bretzel et al, 2008; Bradley et al, 2011). Six items from the DTSQ appeared to be useful or readily modified to be appropriate for patients on renal treatment, confirmed by interviews (Barendse et al, 2005). Additional items were designed to measure satisfaction with other aspects of treatment specific to patients with CKD. Items were designed to be answered by patients receiving any form of treatment for CKD because individual patients may experience a variety of treatments for their condition. Psychometric development work on an earlier 12-item RTSQ showed that 11 items could be summed to form a Treatment Satisfaction score. The item that could not be combined concerned the demands of treatment.

This item has since been reworded and tested in the current version of the RTSQ (25.1.11) along with 11 unchanged items. Two versions of a potential new item concerning side effects were also tested:

- The Principal Component Analysis and Reliability Analysis showed that the new, re-worded item related to demands of treatment works well and can now be combined in the summation of the total treatment satisfaction score.
- One of the tested items related to side effects was selected for use in the latest 13-item version of the RTSQ (25.1.11).

Psychometric analyses conducted on data from the 5-centre UK STEPP study (Medcalf et al 2011) demonstrated Cronbach Alpha of the current 13-item version of the RTSQ was 0.912 (manuscript in preparation).

At present, psychometric evaluation has only been conducted on the status version of the RTSQ (RTSQs) in the cross-sectional STEPP study. A change version of the measure (RTSQc) is also available and is being used, together with the RTSQs, in a UK-wide national study: Access to Transplantation and Transplant Outcome Measures (ATTOM), which will allow for psychometric evaluation of the change measure for the first time. There is every reason to expect the RTSQc to work just as well as the RTSQs. The instructions, format and response options of the RTSQc are modelled on the DTSQc for diabetes (Howorka et al, 2000; Bradley et al, 2007) but with items as for the RTSQs.

The DTSQc was developed to overcome potential ceiling effects (i.e. where respondents score maximum or near-maximum satisfaction at baseline and can show little or no improvement at follow-up). Please refer to the DTSQ summary for guidance on use of a -TSQ change version.

RTSQ

1.1 Using the RTSQ

We recommend use of the RTSQs at baseline and follow-up to provide a 'difference' score.

You may wish to repeat the RTSQs between baseline and endpoint in order to have a picture of how satisfied people are during that period. The RTSQs can usefully be given at intervals throughout a treatment period and when steady increases in RTSQs scores are seen, this provides evidence that scores are determined by experience and are not simply an initially hopeful response to a new treatment, which subsequently declines.

Early on-treatment administration of the RTSQ 4-8 weeks after start of a new treatment in a clinical trial can be useful to ensure that there is a score available for use in Last-Observation-Carried-Forward analyses for patients who terminate the study early for whatever reason which might otherwise threaten the credibility of the findings.

1.2 Scoring the RTSQs

The latest status version has 13 items and produces the following measures:

- Total treatment satisfaction:
All the items are summed to produce a treatment satisfaction score (range: 0 to 78). The higher the score, the greater the satisfaction with treatment.
- Individual satisfaction with treatment can be considered separately for each item:
All rated: 6 (very satisfied, convenient, flexible, etc.) to 0 (very dissatisfied, inconvenient, inflexible, etc.). The higher the score, the greater the satisfaction with each aspect of treatment.

1.3 Scoring the RTSQc

It is anticipated that, as for the RTSQs, all the items can be summed to produce a Treatment Satisfaction (change) score. However, psychometric analyses including principal components analysis and reliability analyses need to be conducted on data from the ATTOM study which will be available in 2015 to confirm the optimal scoring.

1.4 Wording of the RTSQc instructions

The wording at the beginning of the instructions needs to relate to the particular intervention in your study. Thus it may need to be changed to be suitable for your particular study. We have produced a wording for the beginning of the introduction that is as generic as possible to minimise the need for changes, but you may need to adapt the wording to be suitable for the study duration and type of intervention. The wording has been based on the study design in which it is most commonly used (i.e. a randomised controlled trial). It may therefore need to be changed for use in an observational type of study. Please note that the last two sentences beginning "Please answer each question...", are the same for all occasions. These latter sentences should not be changed.

Please include in your protocol the details, in English, of any change to the wording of the RTSQc instructions for your particular study. If a run-in treatment period is included and involves a change of treatment for at least some people, the comparison is probably best made with treatment prior to commencement of the study. For crossover studies we would recommend that you make one comparison at the very end of the study, asking participants to compare their current treatment with the previous treatment¹.

¹ Example for a crossover design:

For the past N* weeks you have used either X** or Y**. Today we would like to know how your experience of this treatment for CKD (including medication and diet) has changed from your experience of the previous treatment, which you used in the N weeks before you changed to the treatment you are using now. Please answer...etc.

Where:

*N = the number of weeks/months in each treatment period

**X and Y = the two treatments being compared

Availability

For a licence for use of the RTSQs and c, information on licensing and general enquiries, please contact:

Address: Jonathan Gilbride
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Selected references

RTSQ and background references to the DTSQs and DTSQc

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See list of selected references to the DTSQ at www.healthpsychologyresearch.com (Guidelines tab) for further references to clinical trials using the DTSQ and to development and use of adaptations of the DTSQ for other conditions.