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## The DTSQ

# **Background**

The Diabetes Treatment Satisfaction Questionnaire (DTSQ) was first developed in the early 1980s. It is now widely used, particularly in clinical trials, but also for routine clinical monitoring. It is available in more than 100 languages. The original DTSQ is now referred to as the status version (DTSQs) in order to distinguish it from the DTSQ change version (DTSQc), which has been 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).

# DTSQs and DTSQc: Choosing which version to use and when

People often use just the DTSQs. The DTSQc is relevant for studies involving an intervention (such as a change in insulin, tablets or education / training). Whether or not you use the DTSQc, you should always use the DTSQs at least once during your study, preferably at the beginning. This will anchor your findings on the DTSQc, if you do go on to use the change version as well as the status version. The DTSQc will tell you how people's satisfaction and perceived hyper- and hypoglycaemia has changed; it doesn't tell you whether it was high or low to start with, or where it is at endpoint. We recommend that you use the DTSQs at baseline and endpoint (and at one or two interim points in a 12-month trial) and the DTSQc (if used) at one follow-up only.

#### 1. DTSQs

## 1.1 Using the DTSQs

We recommend use of the DTSQs at follow-up to provide a 'difference' score for comparison with the many earlier studies that used the DTSQs alone. However, if you use the DTSQs and the DTSQc at follow-up, it is important to administer the DTSQs before the DTSQc.

If you are having a long gap between baseline and endpoint (e.g. a year or more), you may wish to repeat the DTSQs in order to have a picture of how satisfied people are during that period. The DTSQs can usefully be used at intervals throughout a treatment period and when steady increases in DTSQs scores are seen (e.g. Witthaus et al 2001), this provides useful evidence that scores are determined by experience and are not simply an initially hopeful response to a new treatment, which subsequently declines.

### 1.2 Scoring the DTSQs - Scoring Instructions are available to Licencees

## 2. DTSQc

## 2.1 Choosing the DTSQc

If you have a study with a series of follow-ups over a long period (say 2 years), we recommend that you use the DTSQc just once. It is possible that one year is as long a gap as can be managed before there is too great a risk of the patient forgetting what the experience of the previous treatment was like. Thus, it is recommended that the DTSQc is used at 12 months in a study that is of 12 months duration or longer. The status version, DTSQs, can nevertheless be used at any later time point.

Please state clearly in your protocol when you plan to administer the DTSQs and the DTSQc.

## 2.2 Scoring the DTSQc – Scoring Instructions are available to Licencees

### 2.3 Wording of the DTSQc 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

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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 and any other language to be used) of any change to the wording of the DTSQc 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 treatment<sup>1</sup>.

#### 3 Contact Information

For permission to use the DTSQs and/or DTSQc and to ensure that you have the most up-to-date versions, please contact:

Jonathan Gilbride

Address: Health Psychology Research Ltd

Orchard Building Royal Holloway University of London

Egham Surrey TW20 0EX

UK

Tel: 01784 497343 Fax: 020 8181 7733

E-mail: info@healthpsychologyresearch.com Website www.healthpsychologyresearch.com

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 diabetes (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:

Example for a crossover design:

<sup>\*</sup> N = the number of weeks / months in each treatment period

<sup>\*\*</sup>X and Y = the two treatments being compared

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### Selected references

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