The SMSQ

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Introduction

The SMSQ is a new self-completion measure designed specifically for studies investigating the value of medication for the prevention of HIV where participants do not have HIV. The SMSQ is suitable for use in both routine clinical care and clinical trials. The SMSQ was adapted from the widely used HIV Treatment Satisfaction Questionnaire (HIVTSQ: Woodcock and Bradley, 2001, 2006) in 2014 by the copyright holder of the HIVTSQ, Clare Bradley and her team in consultation with HIV specialist clinicians.

The HIVTSQ was designed specifically to measure treatment satisfaction for people infected with HIV (Woodcock and Bradley, 2001, 2006) and 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, Stewart and Bradley, 2001; Bradley and Gilbride, 2008).

Distinct from the HIVTSQ, the SMSQ refers to 'medication' in place of previous references to 'treatment'. The SMSQ also removes all wording referring to the treatment/medication being for HIV and excludes Item 2 of the HIVTSQ 'How well controlled do you feel your HIV has been recently?' but otherwise asks about convenience and other features of treatment, just as in the HIVTSQ (see Figure 1).

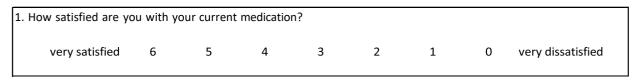


Figure 1: Example of an item included in the SMSQs

Description of the SMSQs and SMSQc

The SMSQ comes in a status (SMSQs) and change (SMSQc) version. The status version can be used at various time points during the study while the change version is usually used only once, perhaps at endpoint or at 12 months, where endpoint is more than 12 months after the study start. The SMSQs and the SMSQc also comes in two lengths. An 8-item short version and an 11-item full version. If brevity is paramount the 8-item short version should be chosen. If a more detailed analysis of

© Professor Clare Bradley, Health Psychology Research, Royal Holloway, University of London, Egham, Surrey, TW20 0EX. Summary 2.4.20 (from Guidelines prepared by Dr Jacquelyn Romaine and Prof Clare Bradley 3.1.2019 Revised 2.3.20)

medication satisfaction is required, the 11-item version is recommended. Both versions have undergone psychometric evaluation and both demonstrate a clean strong structure and excellent internal consistency reliability (>0.9).

SMSQs and SMSQc: Choosing which version to use and when

The SMSQs may be used without the SMSQc. It is anticipated that the SMSQs will be sensitive to change, however the SMSQc is designed to enhance that sensitivity by allowing those who were satisfied at baseline to express even greater satisfaction at follow-up, as has been found with the HIVTSQ (e.g. Woodcock and Bradley, 2006) and the DTSQ (e.g. Bradley et al., 2007). Because the SMSQc asks respondents to compare their current study medication with a previous medication, the SMSQc is only appropriate for use when study participants have been using another form of medication prior to the introduction of the study medication in use at the time of administration of the SMSQc. Study participants need to have at least 4 weeks' experience of any study medication before the SMSQs is first completed to ensure that they have sufficient experience of the medication and any side effects, inconveniences etc. before they respond to the questions.

Whether or not you use the SMSQc, you always need to use the SMSQs at least once during your study, preferably at 4 weeks after the introduction of the study medication. If a second study medication is subsequently introduced and you go on to use the SMSQc, the early use of the SMSQs will anchor your findings on the SMSQc. The SMSQc will tell you how people's satisfaction has changed; it does not tell you whether it was high or low to start with, or where it is at endpoint. We recommend that you use the SMSQs at baseline and endpoint (and at one or more interim points in a 12-month trial) and the SMSQc (if used) at one follow-up only.

Conditions of use of the SMSQs & SMSQc

The SMSQ status and change versions are made available to users by formal arrangement with the copyright holder, Professor Clare Bradley via Health Psychology Research Ltd, which licences her questionnaires. Requests should be made to Health Psychology Research Ltd [see *Contact Information*]. A user agreement is necessary to avoid breach of copyright and to ensure that the latest and most appropriate version of the questionnaire is used.

Contact Information

For permission to use the HIVTSQ and to ensure that you have the most up-to-date versions, please contact:

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Selected References

- Arbuckle, J. L. (2012). Amos (Version 21) [Computer Program]. Chicago: SPSS.
- Bentler, P. M. (1990). "Comparative Fit Indexes in Structural Models. *Psychological Bulletin, 107*(2), 238-46.
- Blunch, N. J. (2008). *Introduction to structural equation modelling using SPSS and AMOS*. London: Sage.
- Bradley, C. (1994). The Diabetes Treatment Satisfaction Questionnaire: DTSQ. In Bradley, C. (Ed) Handbook of Psychology and Diabetes: a guide to psychological measurement in diabetes research and practice (pp. 111-132). Abingdon: Routledge (formally published by Harwood Academic Publishers).
- Bradley, C. (1999). The Diabetes Treatment Satisfaction Questionnaire (DTSQ): change version for use alongside status version provides appropriate solution where ceiling effects occur. *Diabetes Care, 22*, 3, 530-2.
- Bradley, C. & Gilbride, C.J.B. (2008) Improving treatment satisfaction and other patient-reported outcomes in people with Type 2 diabetes: the role of once-daily insulin glargine. *Diabetes, Obesity and Metabolism 10* (Suppl.2), 50-65
- Bradley, C. & Lewis, K.S. (1990) Measures of psychological well-being and treatment satisfaction developed from the responses of people with tablet-treated diabetes. *Diabetic Medicine 7*, 445-451.
- Bradley, C., Plowright, R., Stewart, J., Valentine, J. & Witthaus, E. (2007). The Diabetes Treatment Satisfaction Questionnaire change version (DTSQc) evaluated in insulin glargine trials shows greater responsiveness to improvements than the original DTSQ. *Health and Quality of Life Outcomes* 5:57
- Bradley, C. & Speight, J. (2002). Patient perceptions of diabetes and diabetes therapy: assessing quality of life. *Diabetes Metabolism Research and Reviews 18*: S64-S69.
- Byrne, B. M. (2010) *Structural Equation Modeling with AMOS Basic Concepts, Applications, and Programming*. New York: Lawrence Erlbaum Associates.
- DAFNE Study Group* (2002) Training in flexible, intensive insulin management to enable dietary freedom in people with type 1 diabetes: the dose adjustment for normal eating (DAFNE) randomised controlled trial. *British Medical Journal*, 325, 746-749 (full 6 page version: http://bmj.com/cgi/content/full/325/7367/746).
- Howorka, K., Pumprla, J., Schlusche, C., Wagner-Nosiska, D., Schabmann, A. & Bradley, C. (2000). Dealing with ceiling baseline treatment satisfaction level in patients with diabetes under flexible, functional insulin treatment: assessment of improvements in treatment satisfaction with a new insulin analogue. *Quality of Life Research 9*: 915-930.
- Hu, L.-T. & Bentler, P. M. (1995). Evaluating model fit. In R. H. Hoyle (Ed.). *Structural equation modelling: Concepts, issues and applications* (pp.76-99). Thousand Oaks: CA: Sage.
- Hu, L.-T. & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*, 1–55.
- Jackson, D. L., Gillaspy, J.A. & Purc-Stephenson, R. (2009). Reporting practices in confirmatory factor analysis: An overview and some recommendations. *Psychological Methods*, *14*(1), 6-23.
- Kenny, D. (2011). Measuring Model Fit [online] Available: http://davidakenny.net/cm/fit.htm. Accessed: 18.08.2015.

Mitchell, J. & Bradley, C. (2001). Psychometric evaluation of the 12-item Well-Being Questionnaire for use with people with Macular Disease. *Quality of Life Research 10*, 465-473. http://www.springerlink.com/content/xj7l4444p36q78j2/

- Muthén, L. K. & Muthén, B. O. (1998-2011). *Mplus User's Guide. Sixth Edition.* Los Angeles, CA: Muthén & Muthén.
- Schumacker, R. E. & Lomax, R.G. (2004). *A beginner's guide to structural equation modelling* (2nd Edn.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Tabachnick, B.G. & Fidell, L.S. (2007). *Using Multivariate Statistics* (5th ed.). New York: Allyn and Bacon.
- Ullman, J.B. (2001). Structural equation modelling. In B.G. Tabachnick & L.S. Fidell, *Using multivariate statistics* (4th ed. pp 653-771). New York: Allyn & Bacon.
- Witthaus, E., Stewart, J. & Bradley, C. (2001). Treatment satisfaction and psychological well-being with insulin glargine compared with NPH in patients with Type 1 diabetes. *Diabetic Medicine* 18, 619-625.
- Woodcock, A. & Bradley, C. (2001). Validation of the HIV Treatment Satisfaction Questionnaire (HIVTSQ). *Quality of Life Research*, 10, 517-531.
- Woodcock, A. & Bradley, C. (2006). Validation of the Revised 10-Item HIV Treatment Satisfaction Questionnaire Status Version and New Change Version. *Value in Health 9*(5), 320-333.