A COMPARISON OF THE DISCRIMINATIVE AND EVALUATIVE PROPERTIES OF THE SF-36 AND THE SF-6D INDEX

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Introduction

Generic health patient/patient reported outcome measures (PROMs) exist as either multi-dimensional profiles or single indices. Data from generic profile PROMs cannot easily be incorporated in economic evaluations. This is because most widely used profile measures use simple scoring methods and these scores do not take into account individual preferences. This has led to the move from the profile measures to index measures. An example is the development of the Short Form-6 Dimensions (SF-6D) preference-based PROM from the widely used non-preference based Short Form 36 (SF-36) in order to use this data in economic evaluations. However, moving from indices to profiles has been criticised as entailing a loss of discriminative and evaluative properties.

Aims & hypothesis:

To take advantage of the common descriptive system of the SF-36 and the SF-6D to test the hypothesis that a move from a profile to an index measure of health entails a loss of discriminative and evaluative properties for the measure.

Data: Retrospective analysis of data from 7 studies that had used the SF-36. Baseline and follow-up data across seven populations was used. These included Chronic Obstructive Pulmonary Disease (COPD), venous Leg Ulcers (LU), Migraine (MI) and Obesity (OB).

Methods

Differences in Longitudinal RVs: [SF-6 Dimensions - SF-6D RV]

Relative Validity (RV) = F_i,F

Relative Sensitivity (SRM) = μ_ī

where μ_ī = mean baseline, μ_ī = mean at follow up, δ_i = standard deviation of the difference between follow up and baseline. Cohen’s criterion for effect sizes was used to interpret the SRMs. The mean difference between the RVs and SRMs of the SF-6 scales and the SF-6D index represented the loss or gain in sensitivity.

Results Data were available from 7 studies (and 10,089 subjects). No single SF-6D scale consistently had the largest RV or SRM, and there was no largest RV or SRM consistently observed for the SF-6D index in any condition studied. Figures 3, 5 and 6 show the difference in magnitude between the SF-6D index (the zero mark line) and each of the SF-6D scales.

Results (cont’d)

Conclusions

The move from the SF-36 to the SF-6D index entails a loss in evaluative measurement properties and a gain in discriminative abilities. However, the losses and the gains are small and do not appear to have any clinical or practical importance.

References


