

Plowright R, Witthaus E and Bradley C (1999) Evaluating the 12-item Well-being Questionnaire for use in multinational trials. *Quality of Life Research*, **8** (7) 650.

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Background: The 22-item Well-being Questionnaire (Bradley, 1994), measuring Depression, Anxiety, Energy and Positive Well-being, has been translated into 20+ languages, including most European languages. The factor structure of the W-BQ22 often shows overlap of Anxiety and Depression subscales, and very high reliability coefficients indicate redundancy. Development work on a Japanese translation (Riazi et al, 1999) suggested a 12-item version (W-BQ12) would improve the structure and eliminate redundancy, and this was confirmed with a Dutch translation (Pouwer et al, 1998). Both W-BQ versions were evaluated in a recent multinational clinical trial in English (UK, S.Africa, USA), French (France, Switzerland), German (Germany, Austria, Switzerland), Dutch, Danish, Norwegian, Swedish (Sweden, Finland) and Finnish.

Method: 2,282 patients (44% in USA) with insulin-treated diabetes (Type 1 and Type 2), participating in Phase 2 and Phase 3 multinational randomised-controlled trials of a new longer-acting insulin, provided data for psychometric analyses on the 8 translations.

Results: As expected, factor analyses of the W-BQ22 showed an unclear structure with Depression and Anxiety subscales overlapping. W-BQ22 loadings were driven as much by negative vs. positive wording of the items as by the particular aspect of well-being. Whole-scale reliabilities for the W-BQ22 in this study were very high, suggesting some redundancy ($\alpha = 0.88$ to 0.92). The W-BQ12 results showed the expected clear 3-factor structure (Positive Well-being, Negative Well-being and Energy) in English, French, German, Danish, Norwegian and Swedish. Dutch has already been confirmed with a larger sample. Finnish requires further evaluation with a larger sample. Reliabilities for the W-BQ12 varied from $\alpha = 0.81$ to 0.86 (all languages). Significant differences found using the W-BQ22 were also found with the W-BQ12.

Conclusions: Validity and reliability of the W-BQ12 are confirmed for all countries except Switzerland and Finland, in English, French, German, Danish, Norwegian and Swedish, plus Dutch. Preliminary evidence suggests the W-BQ12 is at least as sensitive to change as the W-BQ22.

* Change of presenter at ISOQOL: presentation made by Prof Clare Bradley