Response Shift or Recall Bias?

Abstract:

Background: Response shift is a concern in the repeated measurement of health-related quality-of-life. It confounds the measurement of disease impact and healthcare intervention effectiveness alike. Recall bias can also affect how much people believe their health has changed over time. This paper aims to examine the relative contributions of response shift and recall bias to problems with the repeated measurement of health-related quality-of-life.

Design: Repeated measures (baseline, 3 months, 6 months) observational study nested within randomised controlled trial.

Participants and setting: Women (n=49) following surgery for breast cancer at the Princess Alexandra Hospital, Brisbane.

Measures: EQ-5D & VAS for measurement of health-related quality-of-life (baseline and 3 & 6 month follow-up), then-test using EQ-5D & VAS for measurement of response shift (3 & 6 month follow-up), memory test of baseline EQ-5D & VAS for measurement of recall bias (3 & 6 month follow-up).

Procedure: Face-to-face completion with assessor verbal and written explanation of then test and memory test.

Results: Memory tests administered at 3 and 6 month follow-up demonstrated lower health-related quality-of-life than baseline results and wide variability when considering the VAS. Considerable response shift was also evident when comparing then test results to those of the baseline assessment. However, when then tests were compared to memory tests there was little difference evident.

Discussion: These results indicate that much of what is traditionally considered to be response shift as measured by a then test may actually be attributable to recall bias. Conceptually, the challenge of identifying “true” change in repeated measures of health-related quality-of-life must take into account both response shift and recall bias.