APPLES AND ORANGES? ASSESSING THE RELATIONSHIP BETWEEN HEALTH AND VISION RELATED QUALITY OF LIFE

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**OBJECTIVE:** Cost-utility analysis is the preferred method of economic evaluation to support health policy decision-making in most developed nations. Utility estimation is based upon the untested assumption that a single universal construct, “health related quality of life” (HRQoL), is measured. We hypothesize that this is the case with vision related diseases. We test whether vision-related quality of life (VRQoL) is a distinct construct from HRQoL using two instruments: the SF-36 to measure HRQoL, and the NEI Vision Function Questionnaire (NEI-VFQ) to measure VRQoL.

**METHODS:** Over 16 months, 443 patients from 18 ophthalmic practices were interviewed. The relationship among item responses from the SF-36 and NEI-VFQ was assessed using exploratory factor analysis (EFA) and variable cluster analysis (VCA).

**RESULTS:** The results suggest that vision and non-vision related quality of life are indeed two distinct constructs. In EFA, no items from the NEI-VFQ loaded on constructs formed by the SF-36 items, or vice-versa. Variable cluster analysis confirms the EFA, with the SF-36 and NEI-VFQ items showing moderate correlation with items from their “home” instrument, but weak correlation with items from the other instrument.

**CONCLUSIONS:** Our preliminary results provide evidence that VRQoL and HRQoL are two distinct constructs that have modest association. While these analyses are based upon use of functional based measures as opposed to preference based measures such as the standard gamble (SG) or time trade-off (TTO), the results may have important implications for the validity of preference based measures for assessment of effectiveness. If the SG or TTO (or similar instruments) do not adequately measure all aspects of health, interventions addressing poorly measured problems (vision-related problems in this case) may be substantially underestimated. If this is the case, health policy makers relying on cost-effectiveness studies using these instruments might incorrectly reject health programs for treatment of important medical conditions.