Reviewer's report

Title: Quality of life associated with treatment adherence in patients' with type 2 diabetes: a cross-sectional study

Version: 2 Date: 6 May 2008

Reviewer: John Rumsfeld

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The general topic of quality of life and treatment adherence is of high interest. And the authors were responsive to earlier reviews. However, the overall impact of this investigation is significantly limited by its cross-sectional design (making it 'hypothesis generating' only). Additional points that should be addressed by the authors include:

1. There must be a robust limitations section to any study, but particularly an observational, cross-sectional study like this (e.g. cannot conclude direction of association, which is really a major limitation). The authors should provide a limitations section in the discussion which, at the least, includes limitations related to the study sample, study design (cross-sectional; cannot conclude direction of association), and potential for unmeasured confounding. An additional potential limitation to note is that the visiting of patients could have influenced their adherence behavior.

2. Although it was brought up with the initial review and the authors say that it has been clarified, it was still not clear to this reader whether (or how) the two questionnaires were developed and validated.

3. While it was responsive of the authors to use multivariable regression in response to earlier reviews, stepwise selection should generally not be used. It has been shown by multiple statisticians (e.g. Frank Harrell) to be fraught with problems including inaccurate estimates of association. The authors are encouraged to run the multivariable regression either using all candidate variables (table 1) or using either backward or forward regression to be sure the results found with stepwise regression hold.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

'I declare that I have no competing interests'