Reviewer's report

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

Version: 1 Date: 12 November 2007

Reviewer: Anna Hart

Reviewer's report:

General

The stated objective of this paper is to examine associations between quality of life and adherence to treatment in diabetic patients. Three methods are used to measure adherence. The results are more complex than this, and attempt to analyse sub-groups of the data. This makes the paper very difficult to follow, and potentially invalidates the sample size calculation.

The English needs editing.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. How was the questionnaire (page 6) developed and validated?

2. The 2 groups in Table 1 are described as ‘similar’, but this is debatable given the data in the table and the comments in the text.

3. Why is adherence treated as a binary variable (yes or no) rather than as an ordinal score? How are the cut-off values justified?

4. Why does table 3 present data for the 24 facets rather than just the 6 domains?

5. In Table 4 some values are identified as ‘statistically significant’, but it is unclear what is meant.

Most, if not all, of the differences identified in Table 4 are less than the value of 10 which was deemed at the start to be clinically important.

Some of the subgroups in Table 4 have very small numbers and so the tests are likely to be under-powered.

6. The results are presented as a list of tests which are very difficult to digest and to comprehend.

7. The final statement cannot be justified. It assumes that attitude and adherence affect quality of life, whereas the chain of causality may be the other way round;
people with high quality of life are more adherent. Alternatively, it may be that some other factor affects both adherence and quality of life. Association does not imply causation.

8. The results do not match the stated objective.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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1. Page 3 what is the relevance of childbearing women?
2. Tests, not data are parametric or non-parametric.
3. The footnote on Table 1 would be better as mean(SD).
4. The paper is inconsistent in the number of decimal places given for percentages. One decimal place is enough and this should be used throughout.

Discretionary Revisions (which the author can choose to ignore)

What next?: Reject because too small an advance to publish

Level of interest: An article of insufficient interest to warrant publication in a scientific/medical journal

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

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests