Reviewer's report

Title: Assessment of data quality in a European multi-centre cross-sectional study of quality of life of children with cerebral palsy

Version: Date: 21 September 2006

Reviewer: David L Streiner

Reviewer's report:

General

A nice illustration of factors affecting response rates

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

1. A large number of analyses were run, leading to the problem of some results possibly being significant just by chance. Some correction for multiplicity should be incorporated (e.g., Bonferroni, Holm, Hochberg).

2. Many of the analyses involve variables that are highly correlated with variables in other analyses. For example, country is correlated with socioeconomic status, educational level, and so forth. It is misleading to do separate analyses on these without recognizing that country, for instance, is confounded by SES and education. In order to draw conclusions about country, those other variables must be entered as covariates. Similarly, when SES is examined, country and education should be covaried. Otherwise, there is the impression that each of these variables are independent predictors of compliance.

3. The problem with stepwise regression is that variables may not enter because of two reasons: (a) they are not important, or (b) they are important, but are correlated with variables already in the equation. Without examining the full-rank solution, and the correlations amongst all of the predictors, it is impossible to determine which is the case. I would suggest not using stepwise regression.

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

Discretionary Revisions (which the author can choose to ignore)

1. The Background says that, because children with CP have a range of impairments, they are "representative of the wider population of disabled children." I would disagree with this; they are not representative of, for example, children with epilepsy, or other more specific disorders. I would suggest dropping this sentence.

2. Because the children in North West Germany were the only ones not part of a register, I would suggest dropping them from the analyses. The numbers are small (n = 75), but the methodological differences between the way they were found and the rest of the sample are large.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No
Declaration of competing interests:

I declare that I have no competing interests.