Reviewer’s report

Title: Quality of life of parents raising children with pervasive developmental disorders

Version: 1 Date: 12 January 2012

Reviewer: Nori Takei

Reviewer’s report:

The authors examined whether social support, in particular from spouses, and personality traits would predict the QOL in those parenting a child with PDDs. They report that mothers have poorer QOL in a wide range of its domains as ascertained with SF-36 than fathers, and that diminished QOL in mothers caring for children afflicted with PDDs is associated with lack of support from their spouse and their high magnitude of neuroticism.

This study has merits in shedding light on personal traits per se, as well as spouse’s active support and care, contributing to QOL in the parents who have a PDD child.

However, there are some points that the authors may merit paying attention to:

One concern about this study is employment of the general population as a comparison group. To judge the appropriateness of this choice, some information on the characteristics needs to be provided. For instance, was the location of sampling in this study within the geography where the data on QOL from the general population were obtained? Do characteristics in the sample (a population of parents) represent the general population in the community? Or, if data on background characteristics at the individual level, such as age, education and socio-economic status, are available from the study of the general population, these variables ought to be adjusted for in comparing SF scores between the sample in this study and the general population. At least, the general population used as a comparison group should comprise those who have parenthood with children aged from 6 to 15 years. The authors may have done so but no information is provided.

The authors compared any differences in QOL between mothers and fathers who have a child or children with PDDs. In this sense, it is optimal that both parents share similar situations or family environment. Thus, additional analyses are required after restricting the subsample of complete pairs of parents: probably, 122 pairs of mothers and fathers. It is possible that mothers alone who participated in the study had poorer QOL than mothers and their husbands who were both cooperative in the study. In this context, to compare the difference in QOL between a pair of mother and father in a stringent fashion, paired t test rather than unpaired test would be preferable.

Some redundancy in the text is noticeable. The same phrases appear; e.g.,
“social support has been identified as one of important moderators ...ameliorating the stress” (p.5). On the next page (the last paragraph), “social support has been identified as one of important moderators ...ameliorating the stress of parents of children with PDDs”. If the similar findings are extant in the literature, one could state something like ‘regardless of the diagnostic subcategories (ie, autistic disorder or a more broad definition of PDDs), social support has been reported to be an important factor...........’. Although there appear two separate paragraphs, one for autistic disorder and the other for the broad definition of PDDs, these can be simply amalgamated into one paragraph. If the diagnostic or severity issue is emphasised, one may anticipate that data will be analysed separately for subcategories of PDDs, which is, in fact, one of interesting questions that can be tested using the current data (see comments below).

Although two factors, ie, relationship with the spouse and personality traits in parents, are described in relation to QOL, the reasons for considering other factors such as time spent (by the way, erroneously spelt ‘spend’ in the text) with children, labour time in parents and living with grandparents of the children with PDDs are not adequately dealt with in the Background section. This (some underlying essence) should be stated.

Minor points:
Scoring is not comprehensible for some scales (Methods). The total score of 36 for IBM appears odds as it comprises 24 items and denotes a 4-point Likert (?) scale (p. 9). The NEO-FFI is composed of 12 items with each scored on a 5-point scale as stated on page 10. The maximum score is described as 48, incompatible with the account. Precise scoring (e.g., 0-4?) should be provided, perhaps in the footnote of the relevant tables.

The following comments are optional:
There are a number of variables for explanatory factors (2 for IBM; 5 for NEO personality traits) and 8 outcome measures (for QOL) involved in the study. Accordingly, many tests were carried out; for example, 136 correlations were computed each for tables 3 and 4. Even in the analysis with multiple regression, 16 tests were performed for parents as a whole (tables 5 and 6). This raised a problem attached to multiple testing: ie, type I error. To reduce the number of tests, one way is to use summary scores (that is, PCS and MCS) for QOL instead of 8 domains. In fact, the authors place much weight on these two aspects in their interpretations of the results: namely, impairment in either physical or psychological domains. Or one can use factor analytic approaches to yield a few independent outcome measures of QOL by utilizing original 8 measures. Then, the number of tests could be reduced and presentations of the results made more concise and simpler. Depending on the results, further analyses will proceed to identifying which subdomains contribute to the results (ie, exploring each of the original 8 subcategories in subsequent analyses). One would also prefer applying multiple regression analyses in a more flexible way; in the framework of this model, one can examine interacting effects of explanatory
factors (spouse’s support and personality) and gender on QOL, or interactions of predictor variables and diagnostic category (autism vs other PDDs). With this approach, whether the association between predictors and QOL varies according to gender and diagnostic subcategory can be easily handled.

**Level of interest:** An article of importance in its field

**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.