Reviewer’s report

Title: Assessment of fall-related self-efficacy and activity avoidance in people with Parkinson’s disease

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Reviewer: Alice Nieuwboer

Reviewer’s report:

Minor essential revision

Abstract
The abstract is very long and not sure whether this complies with Journal’s format. It reports on too much detail, such as gender differences in FOF. The addition in the conclusion, that further studies are needed to interpret the change scores, seems self-evident.

Background
First paragraph. The study of Latt et al 2009 is missing, which determined fall risk factors in PD.

Participants
Why were STN-patients included in this sample.

Methods
Both scales include items that may not have been relevant to the daily activity profile of the patients, such as cleaning and cooking. What happened if patients failed to fill in these items.

Discussion
Page 12, I would not recommend to use the Rasch as a “modern” psychometric analysis

Major compulsory revisions
The background does not explain or justify which aspects of validity were addressed in the study.

Participants and methods
It seems crucial to include patients that were non-demented as the study consisted of a postal survey. How and by whom was it decided that patients were ‘non-demented’.

It is stated that neurologists invited patients to participate, based on which inclusion criteria? A selected cohort has its drawbacks.
A major drawback of this study is that it is based on a postal questionnaire methodology, which makes it difficult to control for patients’ cognitive difficulties, true understanding of the scales and control for medication intake. Being in on or off may make a crucial difference in perception of FOF. However, reliability statistics were clearly not influenced by this problem, which is surprising. Please comment on these issues in the discussion.

One of the problems with the FES is that when people have to fill this in by themselves they easily interpret their ‘confidence’ to carry out the 13 activities as:” their ‘ability’ to carry them out. In my view this asks for an interviewer-based administration. I miss any interpretation about self-assessment via postal questionnaires in PD or any awareness in the discussion that this may have been a drawback. It questions the validity of these instruments.

Page 8 of the analyses section discusses which aspects of construct validity were under scrutiny. This and some of the hypotheses on subgroup differences may be better placed in the introduction.

The calculation of the SEM as a measure of error is limited. I would recommend to calculate responsiveness of the tests by using the Smallest Detectable Difference (SDD), the SDD is calculated on the basis of the standard error of measurement, (*1.96*#2) assuming that the measurement errors are constant across the range of possible scores.

In order to allow comparison of responsiveness between the 2 tests, the Reliable Change Index (RCI) can be determined for each measurement by calculating the SDD as the percentage of the maximal feasible score.

Discussion

There is no further interpretation of the Cronbach alpha results. What do the authors recommend, is summing the scores allowed and valid? And is further work needed?

There is no attempt made to compare the scales. Is it better to measure activity avoidance than feelings of insecurity? (see comment earlier on the difficulties to keep patients focused on their feeling of insecurity).

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**
No I declare to have no competing interest.