Dear editor-in-chief,

Thank you for the valuable referee comments on our manuscript. We have revised the manuscript according to their suggestions. We are happy to make any further changes or clarifications if requested. Here are the comments to each reviewer.

Reviewer 1 (Caligiuri):

Major Compulsory Revisions:

1. The referee is right, we had omitted some papers that contain data addressing the validity of the SAS; we added the suggested references, and discussed them in the introduction part of the manuscript (p 3, paragraph 2, lines 22-26).

2. Bivariate correlation analysis was performed and there indeed was correlation between age and SAS mean score in whole group (p 5, paragraph 1, lines 17-18).

3. The referee is right in that although we found some effect of age on SAS, this sample size does not allow reliable analysis of different subgroups (based on age or NIP chronicity) (p 7, paragraph 6, lines 41-43). However, the authors believe that the naturalistic sample and setting adds valuable information on the utility of the SAS. Furthermore, the amount of subjects suffering from SAS measured NIP-symptoms was more than 23 subjects, which was only the amount of DSM-IV-diagnosed NIP-patients.

Minor Essential Revisions:

1. Actometry is a wireless device (p 4, paragraph 2, line 27).
2. We added the requested table, and discussed the requested issue (Table 1; p 7, paragraph 3, line 19).
3. The referee is right about the better trade-off of cut-off-point 0.75. However, in screening purposes making the cut-off 0.65, no sensitivity will be lost compared to the cut-off point 0.3. We discussed the issue in the discussion part (p 7, paragraph 1, lines 3-5).

Reviewer 2 (Simpson):

Major Compulsory Revisions:

1. High- and Low dose neuroleptics are widely used concepts in psychiatry, and we did not explain them. We added a brief explanation in the text (p 5, paragraph 1, lines 6-9).

2. We added the number of anticholinergic users into Results part of the manuscript (p 5, par 1, lines 15-17).

Minor Essential Revisions:

1. State nursing home in Estonia is a state mental hospital for chronic patients with facilities for rehabilitation.
Reviewer 3 (Jong-Hoon Kim):

Major Compulsory Revisions:

1. The referee is right. The ROC analysis can be used for different purposes which we did not explicitly define in the original version of the manuscript. We used the ROC analysis more for diagnostic purpose i.e. to check, how the SAS compares as a diagnostic tool to the golden standard, the DSM-IV NIP diagnosis. We added a brief discussion on the issue, and referred to Leentjens (p 7, par 1 lines 3-5).

Minor Essential Revisions:

1. The referee is absolutely right about the issue of golden standard as there is limited data on the validity of the DSM-IV NIP diagnosis, and an expert consensus would probably have been a more reliable standard. However, as the DSM-IV diagnosis (made by one clinician usually) is the main diagnostic tool in psychiatry, we used it. We added the issue of cross scale contamination in the limitations part of the discussion (p 7, paragraph 5, lines 36-39).

Discretionary Revisions:

1. We agree with the referee that presenting the three dimensions mentioned by the referee, would probably have made the table more comprehensible. However, we chose not to revise the table as averanging rigidity items into one single item worsened SAS case detection capacity. Also, we did not choose to omit actometry from the study as, although we considered it to bring an objective dimension to the study. Furthermore, negative result on the usefulness of actometry in this kind of naturalistic population is of value for future research.

On behalf of the Authors,

Sven Janno