Reviewer's report

Title: Neuroleptic-induced movement disorders in a naturalistic schizophrenia population: diagnostic value of actometric movement patterns

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Reviewer: Jong-Hoon Kim

Reviewer's report:

General
The authors evaluated movement patterns for each neuroleptic-induced movement disorder (NIMD) using actometry. They found that patients with neuroleptic-induced akathisia showed different patterns in actometry compared to those of the other patients. The study appears to be carefully conducted, and the methods are sound. The topic of the article is of importance in the field of movement disorders in neuropsychiatry. Several shortcomings should be revised.

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

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

1. The phrase “----with objective symptoms like akathisia” should be revised as “---with objective signs of akathisia”.

2. The authors stated that they aimed to do “qualitative analysis of movement patterns”. What is the difference between “quantitative” and “qualitative” analyses of movement patterns using actometry? It would be useful to clarify.

3. The subjective questioning was just single question, “Do you have disturbing movement problems?” This is definitely not enough to evaluate the various subjective discomforts associated with movement disorders including akathisia. It is extremely hard to assess the subjective symptoms associated with NIMD using this single question. The authors should have used the more comprehensive standardized subjective questionnaires employed by previous studies. These limitations should be described in the discussion section.

4. It is necessary to add the legends of the Tables where appropriate (What is IQ in Table 3 and in the results section?).

5. It seems that the present study is another follow-up investigation of previous reports (reference 24) by the authors. In this regard, it would be necessary to describe the purpose and the distinguishing feature of the present study more clearly.
Discretionary Revisions (which the author can choose to ignore)

1. It could be necessary to describe which ankles the actometers were attached to.
2. It would be useful to add the definitions of actometry variables briefly.
3. In ROC analysis, it would be necessary to present the AUC values of the actometric activity for each NIMD (besides PsA and pooled akathisia).
4. It would be useful to add the results of the statistical comparison of NIP-tremor vs. NIA/PsA.
5. The results of the study are mainly focused on akathisia and pseudoakathisia. It would be useful to add the recent literatures on pseudoakathisia (objective akathisia) and the various subjective symptoms of akathisia.

What next?: Accept after minor essential revisions

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.