Author's response to reviews

Title: Psychometric properties of the abbreviated version of the Scale to Assess Unawareness in Mental Disorder in schizophrenia

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Author's response to reviews: see over
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To: BMC Psychiatry

Dear Editor,

Please find enclosed a copy of our revised manuscript entitled: “Psychometric properties of the abbreviated version of the Scale to Assess Unawareness in Mental Disorder in schizophrenia”.

We are honoured by the attention that you have given to our manuscript and are grateful to the reviewers for their meticulous review of the paper.

We responded point-by-point to the comments and requests of the reviewers, documenting any changes that we have made to the original manuscript.

We hope that the revised version of the manuscript is deemed worthy of publication in BMC Psychiatry.

Yours sincerely,

Pierre Michel and Laurent Boyer

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Reviewer’s point 1.

1. In the first paragraph – only negative consequences of low insight are mentioned. However, there is a rich developing research and theoretical discussions that shows insight to have both positive and negative consequences. For example: studies showed that insight is positive for persons with low self-stigma, while is has negative implications for persons with high self-stigma. Other studies showed insight to be positively related to reduced hope, shame proneness and quality of life. Few relevant references might be:


Authors

We thank the Reviewer for this important comment that we propose adding in our introduction line 55: “On the other hand, several studies reported that high levels of insight can impair functioning, hope and quality of life. It has been suggested that these associations occur via self-stigma {Ehrlich-Ben Or, 2013 #157; Hasson-Ohayon, 2012 #158; Lysaker, 2007 #156}.”

We also add the 3 following references as proposed by the reviewer:


Reviewer’s point 2.
2. Method- data was based on four studies from the same hospital – please explain how the researcher checked that there are no participants who participated in more than one study.

Authors
The researchers gave each participant a unique identifier, which allow us to check that there are no participants who participated in more than one study. In addition, we controlled the absence of potential duplicates by controlling patient initials and date of birth.

Reviewer’s point 3.
3. The rationale for the selected items in the abbreviated version is not clear. It seems that two of the three general items: awareness of need for treatment and awareness of consequences are missing. Please provide the rationale for the selection of items. This is important since studies showed that specific items are related to outcomes (e.g Hasson-Ohayon et al. 2006 in comprehensive psychiatry). In the discussion, authors refer to awareness of illness and awareness of positive and negative symptoms as the 3 dimensions of insight. However- they choose these 3 and not awareness to need for treatment and consequences. These choices might be better based and sentences referring to these 3 dimensions should not make the impression that these are the only three dimensions. The short version does not take into account the other dimensions.

Authors
We are sorry for this misunderstanding. In fact, we did not select items. The three general items (1. a mental disorder, 2. consequences of a mental disorder, 3. effects of drugs) were grouped in one dimension in accordance with the factor-analysis. The fact that we called this dimension “awareness of the disease” is confusing and we propose replacing it by “awareness of the disease, consequences and need for treatment” in all the manuscript.

Reviewer’s point 4.
4. Page 13- it is stated that one limitation of the short version of scale is the narrow definition of insight- which does not include attribution. It is also need to clearly mention that 2 general items- need for treatment and consequences are not included either in the short version.

Authors
As explained point 3, the first dimension includes the three general items (1. a mental disorder, 2. consequences of a mental disorder, 3. effects of drugs). We hope that our explanation is satisfactory.

Reviewer’s point 5.
Minor revisions: 1. In page 1: "Because improving insight in schizophrenia is one important goal of pharmacological and psychological treatments.."- this statement does not seem to reflect the complicated consequences of insight and is not necessarily true. Please provide relevant references to support this.

Authors
We agree with the Reviewer that this sentence is not always true, we propose correcting it line 57: “Because insight in schizophrenia is one important issue of pharmacological and psychological treatments…”
Reviewer’s point 6.
2. In the end of the introduction – please explain what does classical test theory mean?

Authors
The term "classical" contrasts with the more recent psychometric theories, generally referred to collectively as item response theory (IRT). Briefly, classical test theory (CTT) partitions observed item and scale responses into true score plus error. The person to whom the item is administered and the nature of the item itself influence the probability of a particular item response. A major limitation of CTT is that person ability and item difficulty cannot be estimated separately. In contrast, item response theory (IRT) yield item and latent trait estimates (within a linear transformation) that do not vary with the characteristics of the population with respect to the underlying trait, standard errors conditional on trait level, and trait estimates linked to item content.

We propose adding in our introduction that classical test theory means traditional psychometric methods such as factor analysis and cronbach’s alpha line 74: “This abbreviated version has not been validated using modern psychometric methods, commonly used for item reduction, in addition to those of the classical test theory (i.e., traditional psychometric methods such as principal component analysis and Cronbach’s alpha).

Reviewer’s point 7.
3. Please avoid writing "schizophrenic patients". It is more appropriate to write patients/people with schizophrenia.

Authors
We have now replaced schizophrenic patients by patients with schizophrenia in the manuscript.

Reviewer’s point 6.
4. I find the two scoring methods very interesting and relevant. However, a rationale for viewing "not applicable" as having a better insight is lacking. Please explain.

Authors
We agree that there is not clear rationale to affirm that "not applicable” should be considered as less severe: “The first model of scoring (model 1) considered the response ‘not applicable’ to be ‘0’, thereby classifying an individual as less severe than an individual with a response of ‘1’ (aware).” Replacing ‘not applicable’ with 0 was proposed by the authors of the SUMD and that’s why we chose to test this model. We propose completing our sentence as follows line 122: “As proposed by the authors of the SUMD [5], the first model of scoring (model 1) considered the response ‘not applicable’ to be ‘0’, thereby classifying an individual as less severe than an individual with a response of ‘1’ (aware).

However, because this choice can be criticised (0 does not correspond to the measure of insight but rather to the absence or presence of symptoms), we decided to remove zero values and replace them with MVs in the second model. This issue is already detailed in the discussion line 284: “Although replacing ‘not applicable’ with 0 was proposed by the authors of the SUMD [5], this choice may be criticised because 0 does not correspond to the measure of insight but rather to the absence or presence of symptoms. We have thus chosen to remove zero values and replace them with MVs.”
Reviewer’s point 7.
5. Page 9-"All of the details are provided in Table 3."- Details concerning what? please write the sentence more fully.

Authors
We have completed this sentence as follows 204: “All the dimension characteristics of the SUMD are provided in Table 3.”

Reviewer’s point 8.
6. Second line in the discussion- it seems better to write analyses than projects.

Authors
As suggested, we replaced projects by analyses line 251.

Reviewer’s point 9.
7. Page 12- it is not clear: "Older patients presented a lesser degree of insight regardless of disease duration (data not shown, no interaction; p>0.05) suggesting a specific effect of age on insight." Results were significant or not? Please be clear.

Authors
We agree with the Reviewer that this sentence is confusing. We adjusted our analysis between age and insight on duration of disease. The link between age and insight remained significant after the adjustment. However, there was no interaction between age and duration of disease (p>0.05).

We propose correcting this sentence as follows line 261:
Older patients presented a lesser degree of insight regardless of disease duration (data not shown, no interaction between age and disease duration) suggesting a specific effect of age on insight.

Reviewer’s point 10.
8. Page 12- please explain what is meant by "We speculate that items of the SUMD behave in the same way according to the patients’ characteristics."

Authors
The term “behave” is not clear in this sentence. We used Differential item functioning (DIF) methods in our study to determine whether the likelihood of responding to an item between the groups (gender, age, education level, disease duration, and living arrangement) is the same or not conditioning on the same level of the underlying insight.

We propose correcting this sentence as follows line 272: “We speculate that items of the SUMD have equivalent measurement properties according to the patients’ characteristics (i.e., the same probability to answer a same response to an item, for a same level of underlying insight).”
Reviewer 2

Reviewer’s point 1.
Regarding Table 1: Data collection and contents of the four databases – this table does not provide much new knowledge compared to the content already written in the methods section. Why not exchange the x with data? Even though the statistical analysis is calculated with the total sample, the characteristics of the participants from the four studies could be in the interest to readers.

Authors
We agree with the Reviewer that a description of the characteristics from the four studies would be interesting for the readers. Instead of removing the table 1 which is not clearly described in the method section for the 4 sites, we propose completing the table 2 which already presents the characteristics of the whole population (page 22).

Reviewer’s point 2.
Regarding Figure 1 and Figure 2: LISREL Confirmatory structural model (1+2) – the figures are a bit blurred and hard to read, the quality could be improved. And the headline is in the last box in the left side in both figures. It might be mine printer that causes this low reading quality, but it must be addressed regarding publication to provide the paper with readable figures.

Authors
The quality of the figures 1 and 2 is now improved and they are available in format docx.