

## Author's responses to reviews

**Title:** The Mood Disorder Questionnaire improves recognition of bipolar disorder in psychiatric care

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Sophie McHugh  
Assistant Editor  
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Dear Sophie McHugh,  
Please find enclosed our revised manuscript "The Mood Disorder Questionnaire improves recognition of bipolar disorder in psychiatric care", which we submit for possible publication in the BMCPsychiatry as a Research article. We thank the reviewers (Professor Robert Hirschfeld and Dr. Franco Benazzi) for their constructive comments, and answer below point-by-point to their comments. We have also double-checked all numbers, and clarified some points.

Yours sincerely,

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#### A. Dr Franco Benazzi's comments

We thank Dr. Benazzi for constructive comments.

1. "Discretionary revision... I would suggest the author to try to see the results by deleting the "problems" question, how sensitivity and specificity change..."

This is a logical suggestion, given the DSM-IV criteria and the findings reported in our previous version of the manuscript. However, further lowering the threshold actually worsened the specificity with no improvement in sensitivity in our sample. Therefore we only mention this briefly in the end of the results section (page 6, second para, lines 4-5).

#### B. Professor Robert MA Hirschfeld's comments

We thank professor Hirschfeld for constructive comments and criticism.

1. "The manuscript is sometimes hard to follow in terms of what individual numbers refer to. For example, in the abstract... on page 5..."

We have now clarified the numbers throughout the manuscript, e.g. now give both the indicators and the denominators. Both the abstract (Abstract, results, lines 2-3) and page 5 (first para, lines 3-5) have been clarified. The figures on page 5 were overlapping, and this has been explicated.

2. "My most significant concern is the reported sensitivity and specificity... Therefore the authors really should not use the terms sensitivity and specificity... Alternatively, they could scheme to extrapolate back to the original sample... by weighing the results and then calculating sensitivity and specificity. The sensitivity and specificity of this subsample has relatively little utility."

After careful consideration, we have retained the terms sensitivity and specificity for purposes of discussion, but explicate very clearly the limitations of the ROC-analyses. The terms sensitivity and specificity are now not mentioned in the abstract, and in the results section (page 6, second para) the title of the ROC-analysis has been revised to stress that it concerns the diagnostic subsample, after which the same fact is reiterated in the text of the paragraph.

In the discussion (page 6, last two lines, p. 7, lines 1-2) we note that "The screen thus influenced whether a diagnostic interview was conducted. It is therefore clear that the ROC-analysis overestimated sensitivity and underestimated specificity, and cannot be compared with respective estimates from unselected samples [3]. It only shows that within this sample, the optimal cut-offs would have been different." The same issue is reiterated later in the discussion (page 8, first para, lines 3-4).

We agree that as such, sensitivity and specificity in this subsample has relatively little utility. However, we find the question whether the MDQ is sensitive in bipolar II disorder a most important one, and suggest it to be a question that should be further investigated in order to maximize the benefits of screening. In this respect we find our preliminary findings regarding bipolar II to have some, albeit limited value.