Author's response to reviews

Title: The Hospital Anxiety and Depression Rating Scale: A cross-sectional study of psychometrics and case finding abilities in general practice

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Author's response to reviews: see over
Dear Editor

We thank you for the positive response to our manuscript MS 1366645392726452: “The Hospital Anxiety and Depression Rating Scale: A cross-sectional study of psychometrics and case finding abilities in general practice”. We have revised the manuscript according to the comments of the reviewer. The actions taken to the various comment of the referee are enclosed.

Based on these actions and the revision of the manuscript, we hope you find it worthy of publication in BMC Psychiatry.

On behalf of the authors

Ingrid Olssøn, M.D,
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cc. Enclosures
COMMENTS TO THE REVIEWER’S REPORT

Major Compulsory revisions:

Introduction

1. Page 1, first paragraph: References are not sufficient Reference [2, Wittchen et al 2002] has been used to document that GPs’ skills to diagnose common mental disorders, such as the MDE and GAD are moderately good. This is just one study form Germany. To state “The literature shows…” clearly more references are needed.

Action taken:
We agree with the reviewer and have supplied and updated the references concerning this issue. They are reference no 3-8 in the revised manuscript.

2. Page 1, first paragraph: The authors mention a prospective cohort study that showed three brief questionnaires had higher sensitivity than GPs’ diagnoses on MDE. Some more information would be adequate, what questionnaires were used, how valid are those instruments?

Action taken:
We have followed the reviewer’s recommendations and given more detailed information about this prospective cohort study, supplemented with some new information from Henkel et al. as a reply to rapid responses in the BMJ 2003;326:200-1.

Aims of the study

3. What the study does is to compare four imperfect case-finding instruments (DSQ and GAS-Q) with no real gold-standard. It seems that they tend to regard the GAD-P screening as the diagnostic standard and describe how the others compare. This should be discussed carefully!

Action taken:
In this study DSQ and GAS-Q ratings of the patients are regarded as the diagnostic reference standard. In ”Methods/Diagnostic criteria and instruments” we describe that psychiatric classification systems like DSM-IV and ICD-10 are based on the presence/absence of operationalized diagnostic criteria. When structured interviews are used, the patients are asked for the presence of the diagnostic criteria by an interviewer. In contrast this study patients rate themselves on the DSM IV diagnostic criteria for GAD on the GAS-Q and for MDE on the DSQ, and these ratings are used as diagnostic reference standard.
Methods

4. The design is overall obscure: If the GAD-P screener is the standard that should be one focus. If the doctors` diagnosis is another, make this a separate question

Action taken:

We are sorry that the reviewer does not get a clear impression of our study design. We agree that the design could have been more clearly described, and we have revised the text in order to obtain that as stated in the aims. “This study from Norwegian general practice has the following aims: 1) To examine the psychometric properties of the HADS rated by patients in the GP/primary care setting; 2) To test the case-finding abilities of the HADS in relation to the diagnoses of GAD and MDE based on patient-rating of their diagnostic criteria according to DSM-IV as reference standards; and 3) To compare the case finding abilities of the HADS rated by patients to that of GPs using the Clinical Global Impression-Severity (CGI-S).”

We hope it is now clear that the comparison of the doctors’ diagnoses to the patient-rated diagnoses is the crux of the design.

5. Methods are interesting but clearly more information is needed:

In general see 4.

a. The design of the study should be described in more detail.

Action taken:

We have added a figure (flow-chart) of the study design. The chart makes clear that GAS-Q and DSQ are reference standards.

b. How many GPs took part, what was the response rate?

Action taken:

The reviewer is quite correct that number of participating GPs was not described in the original manuscript. We have now used the opportunity and made supplements in the text and in the flow-chart. It is a weakness of the study that our data are not satisfactory concerning response rate among the participating GPs. We give arguments about representativeness of the sample in the discussion part of the manuscript.
c. A detailed sample description would be preferable. Some information of the sample is provided at the beginning of the result section. I would present details information in the methods-section.

*Action taken:*

*We have followed the reviewer’s recommendations and given more detailed description of the samples in the methods-section in addition to a new table (Table 1). We present the obtained prevalence rates of MDE and GAD for the three different instruments at the beginning of the result section.*

d. Page 3, second paragraph: Add reliability and validity of the HADS as far as given:

*Action taken:*

*We have followed the reviewer’s recommendations and described concurrent validity of the HADS compared to other commonly used questionnaires for anxiety and depression. As far as we know test-retest reliability findings of the HADS has not been published.*

e. Statistical methods: page 5, first paragraph: Why has structure of the HADS been explored by Principal Component Analyse? If this “as a psychometric property” was an aim of the study it should be mentioned in the Aim section.

*Action taken:*

*The Principal Component Analysis was performed to explore if the HADS confirmed the two factor solution of the scale (as one of the psychometric properties) in our sample from general practice. After revision we have now described “psychometric properties” in the introduction, page 1, second paragraph: Until now the factor structure, the internal consistency, and the intercorrelation and homogeneity of the sub-scales have not been described in the context of general practice.*

**Minor Essential Revisions**

**Introduction**

6. The next paragraph deals with the HADS, why? The psychometric properties are established

*Action taken:*

*The next paragraph deals with the HADS because we want to explore the HADS (psychometric properties and case finding abilities) in the context of general practice. We*
agree that the wording “psychometric properties” needed a closer description and have done so.

Aims of the study

7. What exactly is meant by psychometrics of the HADS

Action taken:
As described above we by now have described what is meant by psychometrics of the HADS in the Introduction, second paragraph.

8. Name instruments of patient-rated GAD and MDE

Action taken:
In our opinion describing the patient-rated reference instruments with their proper names in the aim section makes the aims more difficult to catch for the reader. As long as it gets clear which instruments are patient-rated, which are GP-rated and which are reference standards, full names of instruments are better to be described in the Methods section.

Results

9. Results on prevalence rates according to the different instruments should be presented in detail (table) first

Action taken:
We have followed the reviewer’s recommendations and made a new table (Table 1) presenting socio-demographic variables and prevalence rates according to the different instruments. In addition a new Table 1 gives prevalence-rates for the different instruments.

10. Do age and gender have a certain influence? Findings for the several instruments separately for age and gender would be of further interest.

Action taken:
We have examined the influence of age and gender on caseness on the HADS-A and HADS-D, the CGI-S, the DSQ, and the GAS-Q by logistic regression analyses, and we found significant influences which we describe in the revised version of the manuscript.
Discussion

11 Caseness of GAD and MDE was defined by a CCI-S score of ≥3. How does this cut-off affect the results, why not 2?

*Action taken:*

*We have tried out a CGI-S score of ≥ 2 also, and the findings are shown in the revised Table 2.*

Tables/graphs

12. Table 1: Table should be described with more information on e.g. number of cases.

*Action taken:*

*We have followed the reviewer’s recommendations and added number of cases to the table. This table is labelled Table 2. in the revised paper.*

Discretionary Revisions

Aims of the study

13. Name instruments of patient-rated GAD and MDE

*Action taken:*

*This is taken care of in point 8.*

Discussion

14. How do you explain the lower rate of “true positive healthy” cases of the HADS-A compared to the GPs`?

*Action taken:*

*We have stated in the manuscript that the specificity of GPs CGI-S scoring at 3 is better than the dichotomization of the patients’ HADS-A at score 8.*