Author's response to reviews

Title: Complementary and alternative medicines (CAMs) and adherence to mental health medications

Authors:

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Author's response to reviews: see over
3rd January 2014

Title: Complementary and alternative medicines (CAMs) and adherence to mental health medications
Author: Ennis, E.

Dear reviewer,

Please find outlined below the manner in which I have addressed the recommended revisions. I have provided your comments, and how these have been dealt with. I hope this is to your satisfaction. However, if it is not, please feel free to let me know and I will endeavour to rectify this.

Best
Edel

Major compulsory revisions
1. Issue number 1

Reviewer comments on the first version:
The categories of mental health problems seem quite broad and psychotic disorders are not included. Within each category, the range of severity is potentially large. For instance, an affective disorder may manifest itself as a mild depressive episode at one end of the spectrum and as a bipolar I disorder at the other. The authors take account of severity to a degree since they control for individuals with or without a manifest diagnosis of a mental health problem. Medication count may again constitute a marker for severity of illness or an expression of conventional medicines not working.

Reviewer comments on the revision:
I suggest that the method is expanded to account for how disorder and categories were chosen rather than adding this in a short endnote. Severity of illness and non-inclusion of psychotic illnesses: The author addressed both points, but they should be moved to the paragraphs on limitations.
Authors’ response

Inclusion of disorders was based on a leading paper from the World Mental Health (WMH) team and this has been made explicit (page 10). A limitations section has been made more explicit within the discussion (see page 15).

2. Issue number 2

Reviewer comments on the first version:
In this model, BMI is included as a marker of physical health. But in the realm of mental health problem, an increased BMI could be associated with adherence to psychotropic medication. Many (but not all) are associated with weight gain.

Reviewer comments on the revision:
P12: Sentence beginning with: “Based on the Wald statistics, results partially rejected hypothesis one as neither chronic physical health conditions (absence versus presence) nor clinical mental health diagnosis (presence versus absence) nor CAMs (use of herbal remedies / supplements, use of nonpharmacological CAMs, use of both herbal remedies / supplements and non-pharmacological CAMs) significantly (Table 1)” Change to”reduced adherence significantly”.

If I have then understood the sentence correctly, the question would arise why physical health problems do not affect adherence to conventional medications. With severe acute physical health problems, I would expect the likelihood of adherence go up. With chronic problems, adherence may possibly go down. Again, not only the nature but also the degree of a respective physical health problem most likely matters.

Authors’ response
You were correct in that the specified sentence contained a typo. The sentence structure has now been made correct. With regard to your suggestions about the possible connections between physical health and medication adherence, the current data does not allow for any
further in-depth investigation of this. However, your points are valid and I have included them within the discussion as suggestions for future research (page 14/15).

3. Issue number 3

Reviewer comments on the first version:
Other variables than included in the current model may affect adherence. Such might include ethnicity, social and educational status, family relations and severity and chronicity of mental health problems. Type of CAM may also play a role. Herbal remedies or supplements may impact on adherence to conventional medications in a different way than acupuncture or other non-pharmacological CAMs. Also the potential for interactions and adverse events would differ. That is why it would be helpful statistically to explore how much of the variance the model with the currently included variables actually explains (R2). From the odds ratios, it seems that age and medication count –albeit statistically relevant- may be of limited clinical significance.

Reviewer comments on the revision:
I understand from the author’s comments that variables like ethnicity cannot be accounted for. I should like to point out in response to the author’s letter of amendment that it is not a matter whether I mind personally, but whether the choice of variables compromises the scientific validity of the model. This point becomes clearer when looking at the R2, which gives the percentage of variance explained by this model. The model only explains 4% of the variance. Thus, there are likely other variables, which could yield a better explanation, but are not captured by the NCSR dataset. The low R2 unfortunately raises questions about the relevance of the current model and the included variables. Unless other variables from the NCSR dataset can be included in this model, which can increase R2, the scientific relevance of the model remains extremely limited.

Authors’ response
Advice was sought on the issue of ethnicity and as you will see, this has now been integrated into the analysis. As you will see, many other factors specified by the World Health Organisation (WHO) as potentially influential in relation to adherence in general have also been integrated into the model. You will see that the variance explained did not increase substantially. However, this has been made more explicit in the paper and it is considered
important to highlight the fact that the factors which appear to be important in explaining adherence to physical health medications may not necessarily explain adherence to mental health medications (page 18).

Minor essential revisions

3. Issue number 4

Reviewer comments on the first version:
The paper would benefit from a clearer structure and simplification. The statement that “Classification was unimpressive with a success rate of 62%” needs explanation.

Reviewer comments on the revision:
The classification sentence is still difficult to grasp, the question arises what an “impressive” rate would be. In my view, it may be advisable to report neutrally in the result section and then move on to comments.

Authors’ response
This has been amended (page 12).