Reviewer’s report

Title: The introduction of the Practice Nurse Mental Health in general practices in The Netherlands: effects on number of diagnoses of chronic and acute alcohol abuse

Version: 0 Date: 25 Oct 2017

Reviewer: Gert-Jan Hendriks

Reviewer's report:

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In general the manuscript is well written, focusing on an important subject, namely improving mental health care in primary by collaboration between both primary care psychologists, mental health care nurses and general practitioners. Improving mental health care in primary care is important, e.g. for managing growing healthcare costs, increasing treatment for mental health care problems in primary care and decreasing waiting lists in specialized mental health care organisations.

Although the results and conclusions of the authors are very promising I have some difficulties in interpreting the findings of this study.

My main problem is that I do not understand exactly how the authors analysed the data. In Table 2 the prevalence rates for both a chronic and acute alcohol diagnosis are presented. These rates are different between the four types of practices and the six time periods. For example, the prevalence in the PCP/PN-MH practices in the first year is lower, i.e. 1.76 per 1000 patients and 1.92 per 1000 patients, compared to the PCP-practices, i.e. 2.45 and 1.66 (see also page 10-line 10). These prevalences do not correspond with the conclusion of the authors that the combination of PCP/PN-MH is superior in detecting an alcohol diagnosis compared to the other PCP- PN-MH- and control practices. Because prevalence is also presented as a rate (n/1000 patients) I would expect an overall higher prevalence rate in the PCP/PN-MH practices. In time periods 1, 3, 4, 5 and 6 these prevalence rates are lower in the PCP/PN-MH practices compared to the other practices. I assume the authors used a sophisticated way of analysing the data and this issue is easy explainable. Therefore I do not understand the conclusion that PCP/PN-MH practices are superior in detecting an alcohol diagnosis. Please clarify, and add some sentences in the both the paragraph- and results-section for explaining the method of analysing, the finding that PCP/PN-MH practices are superior in detecting an alcohol diagnosis and the contrast of the lower prevalence rates of the PCP/PN-MH practices in almost all time periods in Table 2.

Additional minor remarks:
The authors argue that "Our results show that specifically PNs-MH in addition to PCPs in general practices had more alcohol abuse diagnoses. These results may be due to the fact that, first, practices that have a PCP, probably already have more attention for mental health care and alcohol problems."

This seems not logic to me and is contrasting the conclusion of the authors that the combination PCP/PN-MH is superior. It could be explainable if mental health care for alcohol problems is delegated by the PCP to the PN-MH. However, so far as I know is mental health care in general practices with a PN-MH and PCP delegated directly by the GP to the PN-MH or the PCP. In other words, The GP performs a triage of the mental health problem and on the basis of this triage he decides whether he refers to the PCP, PN-MH or directly to specialized mental health care.

The authors argue that "As increasing numbers of patients with psychological or social problems visit general practices [12] it can be assumed that after a certain time period within a general practice, most patients with alcohol problems are detected and diagnosed, and therefore new cases and new detections decrease."

However, incidence is not the same as prevalence, you can't conclude that new cases and new detections decrease. It is an observational study to detect both prevalent and incident alcohol diagnosis, the saturation effect is the summation of the decreasing prevalence of undetected cases and the actual incidence (which will be comparable between different time periods).

Table 3: Why is time period 6 not included?

Figure 1: Adding the numbers of the practices will make the figure more easy to interpret.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
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