Title: Does burnout among doctors affect their involvement in patients' mental health problems? A study of videotaped consultations

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Author's response to reviews: see over
Dear Editor,

Please find attached our revised paper ‘Does burnout among doctors affect their involvement in patients’ mental health problems? A study of videotaped consultations’, which we would like to resubmit for publication in BMC Family Practice. We would like to thank the Editor and reviewers for their useful and detailed comments. Below you find a point-by-point response to the reviewers’ comments.

**Reviewer 1, Helen Winefield**

**Discretionary revisions**

**Comment reviewer**
The last sentence of the Abstract trivialises the issues faced by the conscientious but time-pressured GP. It can be interpreted as meaning that GPs who spend time enquiring about patient psychological problems are over-involved and also unskilled; as no information was collected about patient response or feelings of being cared about and supported, including to seek more specialised mental health care, this implication cannot be justified.

**Response authors**
We formulated our conclusions more conservative and presented our reflections about the meaning of the results only as part of the discussion.

**Comment reviewer**
It is desirable to explain how GPs were categorised as low, moderate or high in job satisfaction and satisfaction with time. Were the cut-off points based on inspection of the distribution or on an a priori split of the possible range of scores?

**Response authors**
The cut-off points are derived from group norms as published in de UBOS-manual (see Methods). We added box 1 to present these cut-off points.

**Comment reviewer**
The Appendix adds very little that is useful to the paper, with the exception that it shows that satisfaction is highest for the time available with patients. Data relevant to this result could be included in the text and the Appendix omitted.

**Response authors**
The Appendix is omitted and relevant results are integrated in the text.

**Comment reviewer**
Table 3 presents means corrected for age and gender of the GP and patients, but it would be of interest to readers to know what the relationships were between GP and patient age and gender, and the independent and dependent variables. This could be added to Table 2.

**Response authors**
We added a new table (table 3 in the revised version) in which the age and gender distributions of GPs with low and high scores of burnout and job satisfaction with the available time are shown. It was not possible to add age and gender to correlation table 2, as gender is a categorical variable.

**Minor essential revisions**

**Comments reviewer**
The first paragraph of the Results section refers to “the appendix to this chapter” – we need a statement by the authors that this paper has not been published elsewhere.
In the Discussion, the 4th paragraph needs to be changed to say “these GPs are less effective in their consultations”
Discussion 5th paragraph last sentence should read “is least caused by dissatisfaction with the available patient time”
Last but one paragraph should read “… plausible to think that GPs and patients influence each other …

**Response authors**
We took over these suggestions.

**Comment reviewer**
Needs some language corrections before being published

**Response authors**
A native speaker corrected the English in this revised version of our paper.

**Reviewer 2: Karin E Isaksson Rø**

**Major compulsory revisions:**

**Comment reviewer**
1. The authors draw firm conclusions of the implications of their study (they recommend an attitude of detached concern). The study does not have the potential to support this conclusion, although it can be part of a discussion (see Conclusion in Abstract and Conclusions)

**Response authors**
We formulated our conclusions more conservative and presented our reflections about the meaning of the results only as part of the discussion.

Comment reviewer
2. The Background should be more balanced:
(i) 2nd paragraph: Studies have shown that burnout is associated with more self-perceived medical errors (references 15-17 refer to two studies of self-perceived errors and one that does not have a measure of burnout - but of hours worked/day). Among the few studies that have been done using objective measures, doctors reporting burnout did not commit more errors, whereas depressed doctors did (Fahrenkopf AM, Sectish TC, Barger LK et al. Rates of medication errors among depressed and burnt out residents: prospective cohort study. BMJ 2008;336:488-91). This could support the findings in this study that self-reported burnout does not correspond with quantitatively or qualitatively poorer care for patients.
(ii) Regarding equity theory: Patient contact is often experienced by the GP as the rewarding part of the job – as stated. An alternative possibility is therefore that if a doctor feels tired or worthless in some respects, more patient focus might be a way of increasing the rewards (feeling of identity and value). This could also help explain the findings in this study.

Response authors
(i) We removed one of the references in the introduction and added the reference that was suggested by the reviewer.
(ii) This is an interesting point of view, we integrated it in the discussion of results.

Comment reviewer
3. The last sentence in the Background section belongs under Methods.

Response authors
We removed this sentence in the Background section.

Comment reviewer
4. The Design (under Methods) should be split into two sections, one describing the design of the study and one describing the Subjects. The design is a bit hard to follow. (Could be improved by adding a flow chart? – see under discretionary revisions). Gender and age distribution as well as a more direct description of the representativity of the 126 doctors who participated in the video registration should be given.

Response authors
We limited the amount of information that we presented in the Design section and made a distinction between ‘design’ and ‘subjects’.
Gender and age distributions are presented in table 3. The representativity of the doctors is described in the Design section; for more detailed information we refer to an earlier publication about the National Survey of General Practice.

Comment reviewer
5. Burnout measure (under Methods). Psychometric testing of UBOS and distinct cut off points should be given. Low, middle and high as well as very low and very high are referred to without clearer definitions. Describe which cut-off points low and high in Table 3 refer to?
Response authors
We mentioned the reliability of the UBOS and we refer to the UBOS-manual for details. The cut-off points are derived from group norms as published in de UBOS-manual (see Methods). We added box 1 to present these cut-off points.

Comment reviewer
6. Measure of GPs communication (under Methods): What is the unit of the subscales in RIAS, number of utterances or seconds spent with each type of utterance? (i.e. what do numbers in first part of Table 3 denote?)
Response authors
We clarified this in the Methods section and the title of the table (table 4 in the revised version).

Comment reviewer
7. Inter-rater reliability is mainly given as Intra-Class-Coefficient ICC.
Response authors
The reviewer is right that inter-rater reliability is often presented as ICC. We reported Pearson’s correlations to make it possible to compare our correlations with other studies using RIAS observations. Earlier studies often report Pearson’s correlations.

Comment reviewer
8. The first paragraph of the discussion is written as if the two models described are the only models possible? What about influence on burnout from other sources?
The connection between the first paragraph and subsequent paragraphs starting with “secondly, thirdly…” is difficult to follow. Are they alternative explanatory models to the one presented in the first paragraph?
Response authors
We restructured this discussion section to make it more easy to follow. Of course, there are other important sources that influence the central relationships. We mentioned this explicitly in the discussion section.

Comment reviewer
9. In paragraph 3 of the discussion: Is there a reference to support this way of reasoning? Other studies have found that self criticism (closely related to
neuroticism) is associated with a higher capacity for empathy (Firth-Cozens J. Emotional distress in junior house officers. BMJ Clinical Research Ed. 1987;295:533-6.).

Response authors
To the best of our knowledge, there are no other studies focussing on mental health problems that support this way of reasoning. Therefore we mention this idea only as discussion point.

Comment reviewer
10. In paragraph 5 in the Discussion the major causes of stress and lack of job satisfaction for GPs are said to be “organization and paper work” and the results in this study confirm that doctors primarily are dissatisfied with time for managing the practice, time for education etc – which are problems on a system level. “Patient care contributes positively to their job satisfaction”. I miss a discussion of the implications of this. Could changes at the system level be important – parallel to individual changes?

Response authors
The reviewer mentions very interesting discussion points but we think it exceeds the subject of this paper. Our focus is not to resolve GPs’ dissatisfaction, but to study the associations with GPs’ communication in consultations.

Comment reviewer
11. The second and the beginning of the third paragraph in the Conclusions are part of the discussion. Conclusions should be made shorter and spring directly out from the discussion.

Response authors
We restructured the conclusion and made it more to the point.

Comment reviewer
12. In the second paragraph of Conclusions there is a discussion of the patient perspective – longer consultations being a benefit for patients with mental health problems. I miss a discussion of the “long” consultations in this study that are only 11.4 minutes on average - actually a very short time. What implications does this have for good care from GPs, when the study show that talk about psychological and social problems increase with only this little longer consultation?

Response authors
Also an interesting discussion point, but we did not add it to the discussion because the discussion already contains a lot of extra reflections and discussion points that are not directly related to our results. We try to avoid to present to much information.

Comment reviewer
13. Methodological considerations:
(i) The authors have commented that the findings are unusual with respect to the
distribution of doctors with emotional exhaustion compared to the two other dimensions. Is it possible to comment on what differences another cut-off (more commonly used?) would mean for the analyses? Or does this sample differ from other samples in ways that could explain the low percentage above cut-off on emotional exhaustion?

(ii) Could include a comment concerning the degree of overlap between being high on emotional exhaustion, depersonalisation and low on personal accomplishment and dissatisfaction with available time. Do we see the same consultations rated several times according to the different dimensions in Table 3?

Response authors
(i) We made an extra remark about the sample of GPs in our study.
(ii) In table 2 correlations between burnout scales and dissatisfaction with the available time are shown. There is some overlap but not so much that we cannot distinguish between GPs scoring high on burnout or dissatisfaction with the available time. Moreover, a lot of research underlines the basic assumption that burnout consists of a pattern of three different aspects.

Minor Essential Revisions:

Comment reviewer
1. The title is “heavy”. Should be reformulated?
(e.g. Does doctors´ burnout affect involvement with patients´ mental health problems? A study of videotaped consultations in general practice.)

Response authors
We took over this suggestion and changed the title.

Comment reviewer
2. Abstract: Results: Last sentence difficult to understand. Should it be “….psychological evaluations of patients…”?

Response authors
We clarified this sentence.

Comment reviewer
3. Tables:
(i) Appendix: Labels to the columns are missing. (Is it the same as in Table 1 with first column showing levels for all GPs and second and third column showing levels for GPs with high levels of burnout/dissatisfaction?)
(ii) Table 3: The table needs to present what units the figures represent and the range of the scales. That N means number of consultations should be defined in the table. The Confidence Intervals for the data should be presented.

Response authors
(i) The appendix is omitted (see comments reviewer 1).
We clarified the title of table 3 (table 4 in this new version). The range of scales is described in the method section and not in the table because the table is already very extensive. Therefore confidence intervals are also not presented in the table.

**Comment reviewer**

4. Language: Needs some language corrections before being published. There are several language mistakes or “confusions”:

Some examples:
(a) In Background: 4th paragraph: “This principle can, except for interpersonal relationships…” What does “except for” mean in this context?
(b) Under Discussion: Main findings:
(i) Main findings and Discussion subheadings should be merged. (Now discussion is used as a sub-heading under Discussion).
(ii) First sentence: “Against the expectations” should be “Contrary to the expectations”
(iii) Last paragraph: “scoring low” should be “with low scores”

(c) Under Discussion: discussion.
(i) Second paragraph: The last sentence (“On the other hand, this group of….”) is difficult to understand in the context. Can it be rephrased?
(ii) One does not say “fourthly” or “fifthly”. This should be rephrased.
(iii) Fourth paragraph, first sentence. “…these GPs are less effectively…” should be “….less effective..”
(iv) Fifth paragraph, first sentence, “GPs who are dissatisfies with the available patient time”. As I understand the text the word “patient” should be omitted.
(v) Fifth paragraph under Discussion: Discussion, last sentence: Phrased in a way to mean exactly the opposite of what the meaning is. “at least” should not be used in that way. This should be rephrased.

(c) Under Discussion: methodological considerations, second paragraph, last sentence:
“It is plausible to think that both GPs as patients influence” should be “..to think that GPs as well as patients..”

(d) Heading Table 3. Should be “adjusted for” (not corrected)…

**Response authors**

We took over the suggestions to improve the language. Furthermore a native speaker corrected the language in this paper.

* Discretionary Revisions:

**Comment reviewer**
1. Methods: “Secondary analyses were performed…” Could say what the first analyses were.

Response authors
‘Secondary analyses’ is an expression, to explain that the data are not specifically collected for this study. We made use of existing data.

Comment reviewer
2. Methods: A flow chart of the participation of GPs and number of consultations would be easier to follow.

Response authors
We shortened and restructured this method sections, and we think it is clear now.

Comment reviewer
3. References: Usually presented with Authors, Title of the paper, Journal, Year, Volume and pages. Here year has been put after authors.

Response authors
We adapted the reference style to the BMC Family Practice standard.

Hopefully our explanations are clear. If not, don’t hesitate to contact us for further explanation. We hope the revision makes the manuscript acceptable for publishing in BMC Family Practice.

In anticipation of your reaction,
with kind regards,

Else M. Zantinge
Peter F.M. Verhaak
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