Author’s response to reviews

Title: Occupational burnout and lifestyle in Kazakhstan cardiologists

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Version: 1 Date: 07 Feb 2019

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RE: Manuscript AOPH-D-18-00239
Archives of Public Health

To the Editor:

We thank the Editor and the reviewers for thorough evaluation of our manuscript. In the following detailed response, we address each critique calling for changes point-by-point, indicating where relevant additional text has been added to the body of the manuscript and its location.

Firstly, to properly address the issues raised by the reviewers, we had to perform additional conceptual discussions with the team including a newly addressed author, Dr Gainel Ussatayeva,
who helped us better understand what is needed to compile the relevant response. Therefore, we would like to include her as the last author, and the authorship form was submitted to the Editorial Office prior to this rebuttal letter submission.

Reviewer 1.

although the topic is of interest but the article needs major revisions as the objective of the study does not match the results and conclusion.

We thank the reviewer for the suggestion to match the aim of this analysis with the results and conclusions. In fact, we believe that we have described the prevalence of burnout in doctors and nurses as claimed in the aims, but we may have not made it succinct and clear. Therefore, we have elected to swap sentences in the Results section in order to emphasize the prevalence of high burnout in both doctors and nurses. Additional sentence on the overall high burnout scores was added in the beginning of the second paragraph.

moreover the tables need a major revision.

We certainly agree with the fact that the tables originally were a poor representation of the results. We have amended the tables to make it clearer for a reader to follow them. Detailed corrections are listed with regard to another comment concerning the Tables (below).

you also need to get an english language expert as there are certain grammatical mistakes for i.e. "their" instead of "there".

We thank the Reviewer for letting us know that English needs more attention in this manuscript. We have asked a native speaker to review the manuscript, and a number of typos along with grammar mistakes were corrected all over the manuscript.

In the beginning, the researchers talk about questionairre and then later it becomes interviews.
The term “interviewed” is now deleted.

Moreover, the researchers do not specify that how were they able to draw a comparison between results of women and men respondents, owing to the fact that female respondents formed 82% of the sample.

This is indeed true that women prevailed in this sample. However, in the first paragraph of Results we address sex differences and show that even such relatively small sample of men was sufficient to verify statistically significant differences in selected demographic comparators. Since we used statistical tests to compare men with women, we believe that our comparisons are valid. Nevertheless, we have elected to add this as a new limitation to this analysis, and the relevant sentence is now present in the Limitations to read: “Finally, in such predominantly female sample, small number of men may limit the power of comparisons of sex differences in burnout scores”.

The tables do not give a clear picture of results, what do the researchers try to depict in brackets?

We have corrected Table 1 to better describe what is shown and make it easier for a reader to follow. Thus, we have added N(%) where relevant, provided a better explanation in the footer on the means+/std. deviation as opposed to medians with interquartile ranges. We also added the explanation of asterisk, which was missing. In Table 2, we have clarified the content of brackets. Similarly, we have improved Table 3.

Reviewer 2:

1. How do you see stressful life events and work-family conflicts, which may affect the outcome of burnout?

Stress and work-family conflicts are indeed a very important part of burnout. We are sorry to admit this issue has been somehow omitted in the older version of our manuscript, although we
should have paid more attention to this. In order to fill the gap, we have decided to add a new paragraph in Discussion in order to cover the issue of work-family conflicts:

“In addition to occupational workload and stress, social support and work-family conflict may modify the effect of stress on burnout. Although the role of work-family conflict may be less pronounced than of job satisfaction itself [12], it has been shown to raise the odds of burnout up to 6-fold in emergency physicians [13]. Studies with such positive association conclude the need to consider work-family conflict and even family composition as important determinants of burnout. Since family size can been seen as a moderator between burnout and recovery [14] and more kids in family are associated with slower burnout [15], families as part of more general term of social support can take some action in the mitigation of the occupational burnout in medicals. In other words, the issue of burnout spreads beyond the workplace only, and the potential of good and balanced family relations in controlling occupational burnout in families should be kept in mind”.

2. Burnout in cardiologists has serious negative personal and professional consequences and is associated with suboptimal healthcare outcomes for patients so what is your recommendation based on this result?

This is true that burnout may lead to serious loss in healthcare quality and some dissatisfaction on the part of beneficiaries. We believe that significantly higher prevalence of DP in our sample should guide the preventative activities. Much higher DP burnout in cardiologists may be very serious and reflects some disappointment in medicine and positive treatment outcomes. From our perspective, the list of recommendations may include a range of activities listed as follows:

“High DP scores in cardiologists may reflect overall growing disappointment in medicine and positive treatment outcomes and therefore may results in poorer healthcare outcomes. A range of preventative interventions should be reviewed by the hospital management, and we would recommend to reduce the overall doctors and nurses’ workload, optimize professional rewarding system, including salaries, and some motivational support, such as providing more opportunities for doctors to interact with their peer abroad at conferences and other meetings”.

3. Do you think you can generalize the result obtained from this study since participants were from a single hospital?
This is certainly a very pertinent aspect of this study. Since this is the tertiary level facility, which accumulates the pool of best doctors from all over the country, and the doctors would normally have a background of working in periphery prior to being invited to the City Cardiological Centre, the staff of the facility is pretty much representative of the overall cardiologists’ pool in the country. Indeed, there may be some differences in the way central facilities work in comparison with their counterparts in a countryside, however, we believe that this particular sample is a pretty good portrait of the average cardiologist in Kazakhstan.

4. Burnout among cardiologists may be best mitigated by organizational strategies complemented by individual stress reduction and reflection techniques under the resilience based approach measures of other relevant concepts (professional fulfillment, engagement, fatigue, stress), how do you assess this things?

We definitely agree with the approach to mitigate burnout with organizational issues combined with individual stress reduction. Guided by Pangioti’s review (“How to prevent burnout in cardiologists? A review of the current evidence, gaps, and future directions”, 2018), and the proposal to address psychological aspects of resilience in (Resilience to emotional distress in response to failure, error or mistakes: a systematic review, 2017), we have elected to add the following two sentences in the end of Discussion:

“Additionally, positive psychology now offers some potential to improve cardiologists’ well-being as both a professional and individual [21]. Resilience-based approach is gaining popularity in recent years, and such approach may include the combination of high self-esteem, a more positive way of explaining events and low perfectionism [22].”

Once again, thank you for these reviews. We believe that the manuscript is substantively improved with these changes.

Sincerely,

Dr Denis Vinnikov, Corresponding Author