Reviewer's report

Title: Psychosocial Health Risk Factors and Resources of Medical Students and Physicians: a cross sectional study

Version: 1 Date: 3 April 2008

Reviewer: Patrick Bovier

Reviewer's report:

- Major Compulsory Revisions

There are three main problems with this paper. First, I strongly suggest that the authors revise their hypothesis, to exclude any possible conclusion that would suggest a temporal trend !!! (cf 1st and 2nd hypothesis…, p. 4) They should simply state that they have studied how health patterns vary across different groups of medical students and young physicians. As the authors acknowledge in the limitations, only a longitudinal study could show such a trend.

Second, as convenient samples were used in the study, this raises the issue of confounding and selection bias. The comparisons with physicians poses several problems, because a much lower participation rate was achieved (32% vs. 86% and 76% for 1st and 5th year medical students respectively…) and because socio-demographics characteristics were not alike. These differences do not preclude any possible comparisons, but every precautions should be taken to minimize confounding. Results should be at least adjusted for gender, age and marital status. The issue of differential response rates should also be discussed to adress this potential source of selection bias. Several statistical methods, such as post-stratification or propensity score to respond can be used to explore how responders differ from non responder (cf ref 21, Goehring et al.) and how these differences can affect the measures and results.

Third, I have some problems with the instrument used, the « AVEM »… The authors provide some information in the method section about this instrument, but only one published reference in German. In a rapid search on Google Scholar, I have retrieved some references to this instrument, but all in German… It is therefore difficult for an English speaking audience to judge if the use of this instrument is appropriate. The least the authors can do is to provide a copy of the instrument as an Annex, as well as a translation in english.

- Minor Essential Revisions

Abstract :

It is not clear in the Results section of the abstract whether the data corresponds to three distinct groups ; the results for each group should be clearly mentionned (1st year : 35%, 5th year…, etc…).

Page 6 : When the authors refer to Figure 1, it is not clear whether the data that are presented belong to ref. 15 (paper by Schaarschmidt et al, in German) or
not... If this is the case, this figure should not be included in the paper.

Page 8 & 9 : provide exact p-value (e.g. 0.049 and not <0.05...).

Page 4 : the authors mention that the survey had been conducted during a required course at the university. Which course ? How much time was left to them ? How were the participants informed about the study ? It seems to me that the students were a little bite « captive » during the survey... Could this have influencer their answers ? It surely influenced the answer rate ! It is also necessary to mention how was the survey presented to the physicians (was the AVEM the only intrument used, was it part of a longer survey, etc...).

Discussion, page 10 : The Risk type B is considered by the authors as equivalent to burnout syndrome, and therefore they use it in the discussion to compare the prevalence of burnout in their samples with the published litterature. This is not correct !!! This is really comparing « Apples and oranges ». Most published litterature about burnout used the three scales of the Maslach Burnout Index as the measure of burnout, and reported prevalence are generally a composite measure of this three scales, or sometimes of only the emotional exhaustion scale. However, I would be very interested to read to what extent these two different instruments are correlated !

Table 2 : the authors could include also results for each sample (mean), in addition to results by gender ; please mention also number in each groups (male (n=...) female (n=...)).

Figure 1 & 2 : the authors should explain what is a « stanine » score it twas used (e.g. a method of scaling test scores on a nine-point standard scale with a mean of five and a standard deviation of two) and why...

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interest.