Author's response to reviews

Title: Do teachers have more health problems? Results from a French cross-sectional survey

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Manuscript #8491461486344175 – What about teachers’ health? Results from a French survey

Dear Editor,

Please find attached the revised version of our manuscript. As suggested, we have changed its title to be more descriptive of the study: “Do teachers have more health problems? Results from a French cross-sectional survey” by Viviane Kovess-Masféty, Christine Sevilla-Dedieu, Carmen Rios-Seidel, Eléna Nerrière, Christine Chan Chee. However, we are open to your suggestions.

The manuscript has been revised according to all reviewers’ comments. All changes are highlighted in the text. Please find below our point-by-point reply to the reviewers.

The manuscript has been copy edited and revised by a native English speaker.

Looking forward to receiving your final decision,

Yours sincerely,

Viviane Kovess-Masféty
Manuscript number : 8491461486344175

Point-by-point reply to the reviewers

Reviewer: Fumio Kobayashi

Major compulsory revisions

“Although the authors detected a significant interaction...”: A sentence has been integrated in the Results section ("Ageing in teachers was found...") in order to give more details on the sense of the interaction (page 13, line 2). Another sentence has been added in the Discussion section ("However, their level of psychological distress does grow...") ; page 15, line 16) to highlight the fact that in teachers only, we found that the level of psychological distress increases with age.

“A too conclusive expression...”: We have modified the sentence to be less categoric in presenting our results (“The results of this study would tend to indicate that teachers do not seem to have poorer mental health.” ; page 15, line 4).

“In addition, the authors should mention the validity and limitation of selecting the control group...”: On one hand, the advantage of selecting the control group from the MG EN population was already mentioned in the Background section (“...the remainder often being civil servants in schools or diverse ministries, who formed a quasi ideal control group since they are very similar to teachers...” ; page 7, line 7). On the other hand, the limitation of this selection has been integrated in the Discussion section (“Second, selecting the controls from the population of MGEN policyholders could introduce a source of potential bias...” ; page 16, line 15).

“What is your possible explanation for higher...”: A sentence has been integrated in the Discussion section to present the working conditions that have been shown in the literature to be possibly related to some of the health problems that were found in this study to be more prevalent in teachers (“According to the literature...” ; page16, line 3).

Minor essential revisions

“In Table 2, the mean age...”: The mean age of the subjects for each age class in each group was included in the legend of Table 2.

“In Table 3 and Table 6, age adjustment is needed to compare the lifetime prevalence...”: In Table 3 and Table 6, we decided not to present the prevalence by age class and gender in each group since there would have been too much data in these tables. So, Table 3 and Table 6 present the prevalence observed for each group by gender only. However, in this new version of the manuscript, the comparison of lifetime prevalence between teacher and control groups was carried out using Mantel-Haenszel chi-square test, which allowed us to integrate the distortion in some sociodemographic variables that existed between the two groups. The other reviewer of the manuscript suggested us we use an adjustment on educational level and age.
“Table 4 should be presented by gender.”: The results of the multiple logistic regression models are now presented by gender (Table 4a and Table 4b).

“The authors should clearly describe which items were adjusted in the multivariate analysis.”: A sentence has been integrated in the legend of Table 4a and Table 4b to clarify which variables were included in the different multiple models (“All variables included in the logistic regression analyses are mentioned in the table.”)

“Instead of distribution of BMI in Table 5...”: In this new version of the manuscript, Table 5 presents the mean BMI values by gender and age.

“The description of the first line of the page 14 about the prevalence...”: The description of the results on lifetime prevalence of physical health problems has been revised to be in accordance with the results presented in Table 6 (page 14).

Discretionary revisions

“The overall response rate of 66.5% is acceptable but not very high...”: A limitation has been added in the Discussion section to mention that non-respondents could bias the results (“Fourth, 33.5% of the persons selected for this survey decided not to complete... ; page 16, line 21).

“Is it possible to confirm the response rate of teachers at the same level...”: We have no means to check this point.

“Working conditions and occupational factors of teachers might vary...”: Table 7 has been included to give more details on the teaching level of the teachers who participated in this survey.

Reviewer: Pascal Wild

Major compulsory revisions

“The population of teachers and controls are not comparable as shown in Table 2...”: In order to know if the inclusion of the subjects without a baccalaureate could introduce a bias in our results, we carried out all the analyses with and without this population. No difference in the results was observed. As we observed that even without this population, differences in educational level between the two groups remained, we decided not to remove subjects without a baccalaureate from our sample. Moreover, differences in educational level were taken into account in all our analyses through adjustment (Mantel-Haenszel chi-square test adjusted on age and educational level to compare ratios or prevalence rates, multiple logistic regression models adjusted on all sociodemographic and employment features found to be different between the two groups (i.e. for example, educational level and age) and linear regression analyses adjusted in particular on educational level and age to compare means).

“It is not clear what the authors mean by weighting the population...”: In order to clarify the weighting method, a sentence has been integrated in the Methods section (“The sample was weighted for all issues related to sample design...”; page 8, line 7).
“Anyway given the distortion in education level and to a lesser extent in age, the crude comparison of symptom rates...”: For this new version of the manuscript, we did all the statistical analyses again, taking into account this time at least an adjustment on age and educational level (see the Data analysis section on page 10).

“A description of the occupational characteristics of the two populations is missing”: The Table 7 has been added in order to give more details on the profession of the subjects of the two groups.

“If indeed a significant proportion of the controls are former teachers...”: Two sentences have been introduced in the Discussion section to address this issue (“Second, selecting the controls from the population of MGEN policyholders...”; page 16, line 15).

“Also, at least in the multiple (multivariate is a commonly used but wrong terminology) analyses...”: First, the adjective “multivariate” has been replaced in the text by the adjective “multiple”. Second, because there were many job categories, we decided not to present the prevalence rates by gender for each job category.

“Given the above-mentioned weaknesses of the statistical analysis and description of the occupational characteristics...”: The statistical analysis was carried out again, taking into account the distortion in the sociodemographic and employment features. This new version of the manuscript presents these new results. What we called “seniority” was in fact “the number of years in current profession”, so we have changed the terminology to clarify the variable we used for the analysis.

Minor essential revisions

“The terminology is not clear. What is a lifetime prevalence of symptom?... Similarly, what is the definition of one year symptom?...”: Two sentences have been added in the Methods section to define these two measures (“To measure disease frequency, we used period prevalence... ; page 10, line 6).

“The lifetime prevalence of MDE is about the same than the lifetime prevalence of rhinopharyngitis/laryngitis which includes theoretically a running nose. Does this make sense?”: The lifetime prevalence of MDE was measured through several questions based on the CIDIS, which allows us to make diagnoses of mental disorders according to DSM-IV criteria, whereas diagnoses of lifetime rhinopharyngitis/laryngitis were reported by the respondents themselves. The questions aimed at collecting data on physical problems, however, insisted on the fact that all reported diagnoses should have been real, but also made for a physical health problem that was lasting and irritating.

“Why were rhinopharyngitis and laryngitis regrouped?...”: These two diseases were regrouped in the questionnaire. The issues related to the self-report of health problems were discussed in the Discussion section (“First, health problems are self-reported. Reporting minor or old events is likely to be prone to anamnestic error...”; page 16, line 9).

“All tables should report not only percentages but also raw numbers...”: Raw numbers have been included in the tables.
“Also neither raw numbers nor percentages are presented for the “One year” symptoms.”: As one-year prevalence rates were available for mental disorders only, we decided to present lifetime prevalence rates only. However, one-year data were used in the multiple logistic regression analysis analyses to check if results could differ when changing the prevalence period.

“In the multiple analyses presented in Table 4, I do not think that seniority…”: As the term “seniority” was confusing, we decided to replace it by “number of years in current profession”.

“The English should be revised”: The English has been revised by a native English speaker.

“The discussion should include a discussion of the response rates…”: Two sentences have been added in the Discussion section to discuss the potential bias induced by the non-respondents (“Fourth, 33.5% of the persons selected for this survey decided not to complete the questionnaire. Their health status may be different from that of the respondents…; page 16, line 21).

“The authors mention…”: A sentence has been included in the Discussion section to present the results of our review of the literature concerning the possible link between some physical health problems found to be more prevalent in teachers and certain working conditions (“According to the literature…” ; page 16, line 3).

“The possibility of false positive associations based on large number of tests…”: A sentence has been added in the Discussion section in order to address this point (“On the other hand, as regards physical health, an approximate knowledge of medical terms, together with long lists of physical disorders…; page 16, line 12).