

Review of: "The Pandora Box from 12 Countries: Who Benefits More from Modern Interventions?"

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Potential competing interests: No potential competing interests to declare.

Dear Author,

Thank you for your interesting work; your manuscript addresses an extremely important subject and appears to be quite original. The SHARE study, upon which this paper is based, appears to be very interesting and full of information; your results are numerous, well detailed, and interesting, however not always presented in a clear way. The fact that the structure is not the classical one makes it harder to understand the results at first.

I have a few more specific considerations regarding your article:

- Title: I think the title does not appear to be quite captivating; maybe the Author could insert some information about the study or the results.
- Abstract: The methods and the results are not presented clearly; I would suggest reporting them more extensively so that the abstract could provide an idea of the results of the study. Also, the conclusions in the abstract differ quite a bit from the ones in the paper.
- Background: I would suggest the Author add in the last part some more information about the study object of the article and also specify more clearly the aims of this paper.
- Materials and methods:
 - I would suggest the Author place this paragraph before the results;
 - I think that some more details about the SHARE study are missing; what kind of survey was it? Was it distributed in all of Europe? How was it distributed? Who was it distributed to? Who are the participants? Were there some inclusion and exclusion criteria? I suggest the Author describe the study and the population in more detail.
 - Were there any ethical issues regarding the questionnaire?
 - Were the *Variables from I to V* the only ones considered in the multivariate analysis?
- Results:
 - I think that the results are quite difficult to understand without having read the methodology first;
 - In the first paragraph, the first table that the Author mentioned is "Table 3", while Table 1 and 2 are brought up later in the text; maybe the Author could change the order so the first table mentioned is "Table 1";
 - At line 18 of page 5, I think the Author meant *the participants who were aware*;
 - At line 20 of page 5, isn't the HR for male-only current smokers 1.02 in Table 1? It is 0.97 (1.00) in Table 2;
 - At page 7, the figure is 2b, and the caption belongs to figure 3, but the two seem related.

- Discussion:
- When the Author wrote about *Healthcare*, it would be useful to insert a part on the differences between healthcare systems in different countries, as citizens' health is profoundly related to the efficiency and the organization of the system. In particular, prevention is not provided in every country.
- When the Author wrote *gender-based mortality differentials have been extensively documented*, it would be helpful to add some recent references, as well as when the Author wrote *though there have been instances of males exhibiting a distinct hazard-risk trend compared to females, two contradictory trends diverging from existing literature warrant discussion*;
- At line 31 of page 9, the Author wrote about HR and risk and protective factors according to gender; however, the confidence interval is never mentioned, and it is actually very important for a correct understanding of the results.
- Conclusions: Throughout the article, the Author mentioned many times *age-specific mortality rate ratios between genders*, but it is not referred to in this paragraph; are there any conclusions on this topic?
- References: The references are numerous but maybe a bit outdated; I would suggest the Author insert some recent ones.

In general, the article supplies an interesting sight about the subject, with numerous results and an interesting analysis; however, it appears a bit confusing as it does not have the classical structure. I would like to suggest to the author these papers as I think they would be useful for your work:

1. Boccia A, Damiani G, D'Errico MM, Farinaro E, Gregorio P, Nante N, et al. Age- and sex-related utilisation of cardiac procedures and interventions: a multicentric study in Italy. *Int J Cardiol*. 25 maggio 2005;101(2):179–84.
2. Nante N, Messina G, Cecchini M, Bertetto O, Moirano F, McKee M. Sex differences in use of interventional cardiology persist after risk adjustment. *J Epidemiol Community Health*. marzo 2009;63(3):203–8.
3. Golinelli D, Toscano F, Bucci A, Lenzi J, Fantini MP, Nante N, et al. Health Expenditure and All-Cause Mortality in the «Galaxy» of Italian Regional Healthcare Systems: A 15-Year Panel Data Analysis. *Appl Health Econ Health Policy*. dicembre 2017;15(6):773–83.
4. Kundisova L, Nante N, Martini A, Battisti F, Giovannetti L, Messina G, et al. The decomposition of gain in life expectancy in Tuscany Region (Central Italy) for age-group and cause of death. *Epidemiol Prev*. 2020;44(4):295–303.