Reviewer’s report

Title: Testing compliance to WHO guidelines for physical activity in Flanders insights from time-use diaries

Version: 1 Date: 17 Dec 2018

Reviewer: Mylène Aubertin

Overview Comment:

Even if the authors adressed the comments of the reviewers, the article needs more changes before to be accepted.

Overall, the aim of the article is very interesting. However, the main interesting point (originality) which is to use the time use diaries to estimate the physical activity adherence is not well develop throughout the article and need to be improved.

For example, is not clear what is the addition to use this tool since is time consuming (less than 10% of the sample completed it (3260/39756)). Based on this comment, it would be interesting to know if the time use diaries allow the pratican to know if morning are better than evening or afternoon ? or if week end are more active than week ? etc… what are the exact advantages for health professionals ?

In addition, the authors did not discussed very well about the discrepancies from their results (>80%) and those of previous studies (~50%) regarding adherence level ??
Moreover, it is very surprising that authors focussed only on physical activity level and not on sedentariness also. In fact sedentariness is another important and recognized factor of adverse healths. It is nowaday more accepted that people could be considered physically active (>150min/week) but in a same time sedentary … thid data needs to be reported as it is very relevant.

The threshold of 300 min and it is importance to study it is not very well explained and need to be more discuss in the background question.

Finally and more importantly, why the authors focussed on flanders and not belgian population. Are the population more at risk ? This notion needs to be adressed.

Comments in the introduction section:

In the introduction (background section), the link between the section from line 46-54 p1 to the other section (line 58p1 to line 9p2) is not clear . Please reorganise it .

The section research on complying WHO PA guidelines in flanders need to be shorten to help the reader to focuss on the other important points and the others not yet addressed.

P3 line 26-28, the statement about the different results need to be develop about what is the problem or the impact of theses discrepancies.

More importantly reorganise the section p3 « time use and physical activity »

For example the section starting at line 43 p4 «time-dairy data provides ….. » until « sedentary behavior (14) » (line 29p5) need to be place at the beginning of this sub-section since it defines what is the concept .

Please add more literature to extend the importance to use this type of data
Finally the subsection influence on PA could be removed from the introduction and can be added in case of needs on methods or discussion section...

Comments in the result section:

The major comments are the following:

1) why are you presenting only 3028 respondents since you mentioned in your methods section than 3260 completed all the data requested.

2) why the population age over 65 yrs old are not in your analysis and results

In my opinion the authors didn't explored enough the data collected.

For example, it will be interesting to present the prevalence of PA during each season and according to age, gender, marital status and/or occupation …

In addition the authors didn't presented any data about the sedentariness

The authors did not compared the PA level data according to the 7-day recall between non responders (90% of his sample) and responders… This last comment is very important because if the 2 samples are very different, the use of this type of tool induced a bias in your conclusion.
Comments in the discussion section:

The discussion needs to be reinforce by discussing what is the adding value of this tool (information versus feasibility (only 10% of responders)). Why the practician or helath professional need to use it more ???

The authors did not adressed the point that the high rate of prevalence could be influence by the responder's profile itself. May be only the active people completed all the questionnaire.

In addition every point that influence the level of PA need to be develop. For example what about the «cultural habitus » which is linked to the social-economic status and martial status.

Overall, the discussion is not discussed extensively according to the litterature. In fact, the authors reported only 5 references throuhgout 2 pages and ½.

Comments in the conclusion section:

Please do not repeat your data but point out more what is the key messages
**Level of interest**
Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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