Reviewer’s report

Title: Distinctive subgroups derived by cluster analysis based on pain and psychological symptoms in Swedish older adults with chronic pain - a population study (PainS65+)

Version: 0 Date: 10 Feb 2017

Reviewer: Victoria Strauss

Reviewer's report:

Thanks the authors to respond my previous comments. I only have three suggestions.

1. Regarding my comments on LCA-LCA can be done in R, an open source software. LCA has been found to be superior to traditional cluster analysis due to many reasons e.g. its ability to accommodate different types of variables and missing data. LCA has statistical theoretical support to identify clusters while algorithms based approaches are "one-off" solutions.


If the authors do not plan to conduct LCA, could they discuss difference between cluster analysis and LCA and state this as a limitation and a recommend for further work.

2. Regarding my comment on the assumption of variables included, to my understanding, the use of Z scores cannot guarantee for Normal distributions. Skewed data will be still skewed after the standardisation. Can the authors provide evidence on the normal distribution check in an appendix. In addition, could the authors also provide z scores in Table 1 and discuss the four derived clusters using the z scores rather than raw scores.

3. Can the authors make sure that they did not use regression analysis when they mean multinomial logistic regression.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess
Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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

Acceptable

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