Reviewer’s report

Title: Do health care professionals' perceptions help to measure the degree of overcrowding in the emergency department? A pilot study in an Italian University Hospital

Version: 0 Date: 24 Mar 2019

Reviewer: Giovanni Improta

Reviewer's report:

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In the article "Do health care professionals' perceptions help to measure the degree of overcrowding in Emergency Department? A pilot study in an Italian University Hospital" by Andrea Strada et al, the authors present a pilot study which scope is to compare the degree of overcrowding (Not Busy, Busy, Very Busy, Overcrowded, Seriously Overcrowded, Dangerously Overcrowded) subjectively perceived by the health care professionals (Physician, Nurses, Nurses Assistant) to the NEDOCS score, which is an objectively validated measurement tool used to manage ED overcrowding.

Major revisions are needed to consider the manuscript for publication.

1. Please, carefully checked the English language, it is very difficult to follow the author's logical flow of this manuscript due to poor English.

2. Please organise in a more schematic way your result section. In particular, state clearly which is the statistical analyses you are presenting, why you performed this kind of test and what kind of results you obtained. At the moment is difficult to follow your logic.

3. Concerning figure 1, you state:
"Figure 1 compares the distribution of the two 6-point scales, NEDOCS and VAS, stratifying the objective scale according to categories of healthcare professionals. An examination of the last three classes of overcrowding suggests that the NEDOCS overestimates the subjective values of the healthcare professionals, which, for the "overcrowded" class, have virtually identical values. Regarding "seriously overcrowded" and "dangerously overcrowded" classes, physicians have a lesser perception of overcrowding than nurses (7% vs. 15% p=n.s. and 4% vs. 15% p=n.s.) when EDs are seriously or dangerously overcrowded. Nurses' and nursing assistants' perceptions do not show statistically relevant differences in situations of dangerous overcrowding."

- The graph has no SD bars
- You state "they have high / less perception of... if compared to" OR "do not show statistically relevant differences"; did you do a one way ANOVA test between and among the groups to support your statements? If you did, which are the p values? Why I can't see the asterisks on the graph? It is very important to perform ANOVA test in cases you want to find differences among and between groups, that is what you want to do when you give the conclusion that the NEDOCS gives more accurate information about the degree of overcrowding if compared to VAS.

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

No

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

Yes

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 recommend additional statistical review
Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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