Reviewer's report

Title: High inter-observer agreement of observer-perceived pain assessment in the emergency department

Version: 1 Date: 01 Oct 2017

Reviewer: Yves Chaput

Reviewer's report:

Thank you for again giving me the opportunity to review this revised manuscript.

I previously made a series of comments to the authors, both major and minor. Overall I feel the authors have done a splendid job responding to my queries. More specifically regarding my first major comment, that concerning the writing style they have made great strides here. There has been a complete rewrite and clearly for the better. The manuscript now flows quite well from the background to the conclusion section. Still not perfect but more that acceptable in terms of publication standards. My second major point, that concerning the use of references, was also addressed by the authors, as was my third major point, that concerning the "not too clear" stated aims of the present study and the lack of variable definitions in the Methods section. My statistical concerns about the methodology used were clearly answered by the authors also.

As such I only have 2 minor points to ask the authors to comment on. Also, I have raised a few "style" comments that the authors a free to look at (or not) that might help further improve their manuscript. These latter are mere suggestions though.

General Minor point 1:

I still have a bit of difficulty with the fourth paragraph of the Discussion section. First, the authors state that the nursing perceived pain assessment in the Ed is 'quite independent' of the observer. Here again if we go strictly back to the Kappa this conclusion is somewhat inaccurate. It at best moderate and one could even state that this is a bit surprising given the level of staff training. If one goes by the "category" score (a lager definition of inter rater reliability) then the phrase appears to be quite accurate. As for the following phrase "For the vast majority of patients, the triage level would not have been depending on the observer assessment". I have no idea what this phrase means. Overall my suggestion would be to rework this paragraph in terms of clarity.
General minor point 2:

Pertains to the word "relative". In North American EDs patients are often accompanied by a significant other (common law partner for instance, girlfriend/boyfriend or a care giver who knows the patient for many years). These are not "relatives" in the classic sense. I'm just wondering whether the authors are using the word "relative" in a broad sense here or in a strictly limited sense. If in the broad sense then perhaps "significant other" may be a better term.

Style comments:

1st style point:

in the background section, third paragraph, I would slightly rephrase the passage beginning with "In the Danish Emergency Process Triage), which has been implemented in most Danish EDs (9), patient-reported pain is validated by a nurse to ensure that patients do not deliberately exaggerate their pain in order to receive a higher priority as well as ensuring that patients are not overlooked in the ED…"

For political correctness it may be better to rephrase to something like "In the Danish Emergency Process Triage (DEPT), which has been implemented in most Danish EDs (9), patient-reported pain is validated by a nurse to ensure that it is neither over nor underreported, resulting in a patient receiving a higher triage priority than warranted or, alternatively, that a patient might be overlooked in the ED."

2nd style point:

Still in the background section I would combine the last 2 paragraphs in the following way

However, observer-perceived pain assessments in the triage process require a certain level of agreement between ED nurses when rating patient pain. Thus far, no studies have examined the inter-observer agreement of perceived pain among nurses in an ED setting, which is the primary aim of this study. As a secondary aim we assessed whether patient location (emergency room or a ward room), type of pain or the presence of a relative would affect this inter-observer agreement.
3rd style point:

In the first paragraph of the Methods section "This was a cross-sectional, single…conducted at the ED of the Southern Jutland Hospital, Denmark,…".

4th style point:

In the third paragraph of the Methods section "Two project assistants identified… and received the informed consent form to…".

5th style point:

In the first paragraph of the Results section "Most of the data (76%) was collected during the daytime hours (9 am to 6 pm) with 57% of inclusions performed before 2 pm".

6th style point:

In TABLE 1 there is a grammatical error in the title (af 162 patients). Perception may also require an 's' as it is the perceptions on 162 patients by a series of 2 nurses (but I would check on this one as I'm not quite certain).

7th style point:

In the Discussion section, third paragraph, "Few studies have compared the inter-observer…. " there is an "in" missing before "emergency departments".

8th style point:

In the Discussion section, third paragraph, "Furthermore, pain assessment tools….or other conditions that might alter a patient's perceptual awareness"
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.

Yes

Are the conclusions drawn adequately supported by the data shown?
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