Reviewer’s report

Title: Development and initial validation of an instrument to measure novice nurses’ perceived ability to provide care in acute situations – PCAS

Version: 0 Date: 31 Aug 2019

Reviewer: Roksolana Starodub

Reviewer's report:

Thank you for the opportunity to review your work. The purpose of the study was to develop and evaluate a psychometric scale to measure novice nurses' self-reported perception of their "ability to care in acute situations". The Perception to Care in Acute Situations scale (PCAS) was developed and the construct validity testing along with other psychometric testing of an instrument was conducted. The topic is original and relevant to nursing.

Overall, the manuscript would be strengthened by, 1) connecting the construct of the "novice nurses' ability to care in acute situations" to a specific theory, e.g., Bandura's self-efficacy theory or other, and 2) presenting the statistical findings in a more concise summary, explained in laymen terms to make it more accessible to clinician-readers who may not be familiar with the statistical testing of an instrument.

More detailed comments are as follows.

Abstract: The aim of the study could have been further refined; specifically, it is unclear what the authors mean by "the perception of their ability to care in acute situations" because it offers some variability in the interpretation of the phrasing. Some of the abbreviations were not defined, e.g., EFA (line 25, no page number). The name of the scale should be defined the first time it is used. The method section in the abstract could have included the information on how the tool was developed, piloted and how many items were included in the final instrument along with how the instrument was evaluated, e.g., number of participants who responded using this tool. In the abstract's Results section, some numerical data should be reported, e.g., numerical value of the Cronbach alpha indicating good internal consistency, quantitative result of the confirmatory factor analysis. In the abstract's conclusion section, it would be helpful if the authors can comment on the instrument's reliability if this was tested.

In the Background, the authors stated that novice nurses are poorly prepared for clinical work (lines 7-8). Although this statement is supported with a reference of a recent systematic review, it would be helpful to know whether this is in reference to one specific country or a global statement. In the Background section, it would have been helpful to know how "an acute situation" is defined. It would be helpful to include the information about the construct that's being studied in the Background section; some of this information is presented in the section on "scale development" in the Methods section. With that being said, the Background section would benefit from some explanation of how "ability" fits within a certain theory. For example, how is "ability", defined in the manuscript as "perceived performance", different from Bandura's self-efficacy construct? It would also be important to consider factors that influence the nurse's "ability", supported by evidence. What was/were the reason(s) for choosing only novice nurses with less than a year of professional experience?
In the Methods' section on "Item generation", it would have been helpful to know what recommendations the authors are referring to when addressing item generation (line 46). Was there any framework used for the instrument? The information about the panel of experts should be made more succinct and include objective information about the panel, e.g., number of years of experience relevant to the topic. It would be helpful to know what the authors mean by "cognitive interviewing" (pg. 4, line 34). Was the "research group" (pg.4, line 47) the same as the panel of experts? The reason for choosing a 4-point scale could be better supported (pg. 4, line 51). In the section on Sample Selection and Recruitment, the sample size calculation could be more clearly explained (pg. 5, line 23). The section on Data Analysis should be presented in a more cohesive, succinct way, including some 'laymen terms' explanations to make the presented statistics more understandable to the clinicians reading this paper. In the section on Ethical Considerations, perhaps the authors can provide a reason(s) for this study not meeting the requirements of the Ethical Review Act 2003:460.

In the Results, the information should be presented in full paragraphs and explained in a way that would promote understanding of the content among clinicians and researchers not familiar with statistical testing of an instrument. The aim presented in the Discussion section (pg. 9, lines 13-18) is different from the one stated in the Background section. The term of "reliability" is mentioned in the aim in the Discussion section, however, only face and construct validity were explored in the study. As both validity and reliability of an instrument is multidimensional, the authors should be clear and consistent throughout the manuscript as to what type of validity and reliability they are referring to.

At times, the phrasing is a bit awkward and may not be completely understood by international readers; for example, pg. 4, line 29, "somatic care" - unclear what is meant here and needs to be clarified; pg. 4, line 45, "augmented clarity". There are some inconsistencies with the in-text referencing (e.g., pg. 9, line 26). There were some grammar and punctuations errors. Finally, the names of the authors should not be included in the manuscript considering the blind review process.

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

Unable to assess

**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.

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