

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	A Qualitative Descriptive Study to Explore Nurses' Perceptions and Experience on Pain, Agitation, and Delirium Management in a Community Intensive Care Unit
AUTHORS	Tsang, Jennifer; Ross, Katie; Miller, Franziska; Maximous, Ramez; Yung, Priscilla; Marshall, Carl; Camargo, Mercedes; Fleming, Dimitra; Law, Madelyn

VERSION 1 - REVIEW

REVIEWER	Palacios-Ceña D Universidad Rey Juan Carlos. Spain.
REVIEW RETURNED	05-Jun-2018

GENERAL COMMENTS	<p>A Qualitative Descriptive Study to Explore Nurses' Perceptions and Experience on Pain, Agitation, and Delirium Management in a Community Intensive Care Unit</p> <p>Abstract: Authors should include specific design (phenomenology, grounded theory, etc) Methods, authors should include inclusion criteria. Authors should change and rewrite results. In the current version the statement is superficial. E.g. Currently version: 1) There are divergent perspectives on the definition of beneficial or harmful patient state Alternative version: The meaning of the damage and the benefit of interventions in ICU patients. Strengths If they use a thematic analysis, it is not useful or relevant to indicate that 50% of the nurses participated. They indicate that they used 6 coders, but in the analysis section they only describe 3. There are no other strengths to ensure the rigor of the results?</p> <p>Introduction. First paragraph: "The presence of delirium is associated with multiple complications and adverse outcomes." ¿What complications? Authors should show and describe complications. Second paragraph: "However, guideline implementation rates in general across most areas of care are suboptimal(16)." What areas? Describe all. "The Consolidated Framework for Implementation Research (CFIR) has described the importance of individuals knowledge and beliefs about the intervention in the success of implementation²⁵." The authors must describe more detail of that information.</p>
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	<p>3 paragraph: The authors should describe nursing guidelines that describe what interventions should be performed for the control of pain, agitation and delirium.</p> <p>There are many gaps in the introduction, lack of specific and focused information on the topic under study and the role of nursing in that context.</p> <p>This reference can help you to build the introduction, it is not necessary to reference it within the work: Palacios-Ceña D, Cachón-Pérez JM, Martínez-Piedrola R, Gueita-Rodríguez J, Perez-de-Heredia M, Fernández-de-las-Peñas C. How do doctors and nurses manage delirium in intensive care units? A qualitative study using focus groups. <i>BMJ Open</i>. 2016 Jan 29;6(1):e009678. doi: 10.1136/bmjopen-2015-009678.</p> <p>Authors describe these objectives:</p> <ol style="list-style-type: none"> 1. What are nurses' perceptions and experience with PAD management in the ICU? 2. What are the barriers to evidence-based PAD management practices in the ICU? <p>But in the introduction there are not developed, nor explained aspects on the barriers of management of delirium, pain and agitation, or previous studies that described experiences of nurses. It is necessary to expand and improve the introduction.</p> <p>Method.</p> <p>Not include design. Authors must include design or framework (phenomenology, qualitative case studies, qualitative study using focus groups...)</p> <p>Setting. The authors must describe the context where the study is carried out, in relation to the topic studied. In this case it would be; characteristics of the ICU, existence of protocols of intervention to manage delirium, pain and agitation, protocols that determine the role of the nurse, etc.</p> <p>Create a specific section for research team and reflexivity. See COREQ criteria to help you: https://academic.oup.com/intqhc/article/19/6/349/1791966</p> <p>Participants and sampling strategies. The authors must explain separately; inclusion and exclusion criteria, sampling strategies (and why), and the recruitment process.</p> <p>All participants are the same IUC unit?</p> <p>Create a specific and different section for ethical considerations, indicate if you have passed the ethics committee and the reference code.</p> <p>Data collection it is not clear. The authors must describe, on the one hand, the characteristics and justification of the focus groups; criteria of homogeneity, structure and order of questions during the focus group, justification for the use of focus groups in similar studies, how built guide questions (reasons and criteria), etc. On the other hand, the procedure; order of participation, record of the answers, how the nurses are included in each group, number of researchers and their role during the focus groups (moderator, support), etc.</p> <p>The authors must include a table where describe number of focus groups, duration each focus group, number of participants, etc.</p> <p>The authors should describe the phases of the focus group (introduction, develop, etc), the duration (time) of each phase of the focus group, and the questions that were asked in each phase.</p> <p>The authors should describe if they recorded the focus groups. If they were not recorded they must describe how and who collected the data. At strengths & limitations section, authors describe: "The limitation includes the lack of audio recording for transcription.</p>
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	<p>However, we had dedicated note-taker to transcribe detailed notes including direct quotes to allow for data analysis.”</p> <p>Analysis.</p> <p>Thematic codification process it is not clear. The authors must describe codification process step by step.</p> <p>Figure 1 is not complete. There blank spaces.</p> <p>Use qualitative software?</p> <p>The authors describe: “Lastly, we performed triangulation by multiple analysts by having a total of 6 analysts to analyze the dataset separately.” at trustworthiness section. The authors must describe how made the analysis in this way. The authors should describe what parts of the coding process each researcher did, at what point in the analysis did the triangulation (at the beginning, at the end?), At what time (in each focus group separately? At the end with the analysis of all focus groups?) and how were the decisions taken to identify the final issues among the different researchers, a result matrix was constructed?</p> <p>Trustworthiness. The authors should include the reference of trustworthiness criteria (credibility, transferability and dependability).</p> <p>The authors do not give specific information to ensure credibility. They do not describe concrete techniques to control credibility. On the other hand, some of the points they indicate are not correctly performed as the well-established and exhaustive description of the method or thick description of the phenomena. In addition, they should avoid mentioning unpublished and non-demonstrable data as a credibility criterion.</p> <p>Moreover, the authors do not give specific or detailed information of the setting and context.</p> <p>Also, at strengths & limitations section, authors describe: “The limitation includes the lack of audio recording for transcription. However, we had dedicated note-taker to transcribe detailed notes including direct quotes to allow for data analysis.” How this aspect has been controlled, how it has affected the results?, and the credibility of the results?, as the interpretation of the obtained analysis has been controlled. Has validation been done by participants? Participants validation for example...</p> <p>Results section. They should incorporate information about the narratives used, such as; the number of the focus group, age of the participants.</p> <p>The narratives used to justify the results are very short, sometimes superficial. It is better to use fewer and more complete and deep narratives.</p> <p>The results seem not to be sufficiently “grounded” (based) on the narratives used.</p> <p>In addition, the method has gaps that do not give credibility to the results (see previous comments).</p> <p>Discussion.</p> <p>The discussion is very short, the results are not compared with previous studies, the reasons why these results appear are not studied, nor the reasons that can explain these results.</p> <p>The discussion should be expanded, and improved, including comparison with previous studies, qualitative research, of nursing interventions in the management of delirium in ICU, etc. There are previous works published.</p> <p>References. References should be updated, and specific references should be included at introduction section, and discussion section.</p>
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REVIEWER	Eva Ann Lærkner Odense University Hospital University of Southern Denmark Windsløvvej 5000 Oense C Denmark
REVIEW RETURNED	10-Jun-2018

GENERAL COMMENTS	<p>A well written paper The following aspects need to be clarified:</p> <p>First sentence - agitation do not lead to delirium but is part of the assessment of delirium (RASS different from zero)</p> <p>The study lack description about contextual /local factors: Are there implemented local guidelines for PAD, sedation guidelines/target/medication, assessment of pain and agitation and delirium in the specific context, use of physical restraint. How are the educational level about PAD among nurses in the local unit? - how can these local factors influence the the findings and how/why can findings be transferred to/be of interest to other ICUs?</p> <p>How do participants in the focus group differ; are there one group of experienced nurses, one of male or how are they organized to generate rich descriptions? Are there differences between groups/group members in order to gender, age and ICU experience? The study lack description about the groups and who participated in each group and how the group organization could influence data generation</p> <p>page 4/l.42 - 43. Please be more specific in explaining how the analyst could decrease potential bias? Values and pre-understanding are important in qualitative research.</p> <p>p.5 l.45 - 47 please explain, why, who and how many did the member checking? What were their comments? How did the member checking influence the findings?</p> <p>Presentation of results Very nice displays to present results. However, do not use the same quotes in the tables as in the text. As the quotes are presented in the tables, please unfold the thematic description further in the text, without quotations or other /fewer quotes. Where the quotes come from is unclear. Please be specific about the identification of group number and participant characteristics. Where there differences in data generated from each group and between groups or not? Limitations lack description of the influence of group dynamic/organization in data generation. Also the limitations of very local practice must be addressed. How can this study be of interest beyond the specific context and in a wider, international perspective?</p>
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REVIEWER	Farid Zand Shiraz University of Medical Sciences, Shiraz, Iran
REVIEW RETURNED	20-Jun-2018

GENERAL COMMENTS	The tables in the result section are more or less the duplication of the text. One of them could be easily deleted to summarize the result section.
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VERSION 1 – AUTHOR RESPONSE

Reviewer(s)' Comments to Author:

Reviewer: 1

Reviewer Name: Domingo Palacios-Ceña

Institution and Country: Universidad Rey Juan Carlos. Spain.

Please state any competing interests or state 'None declared': None

Please leave your comments for the authors below

A Qualitative Descriptive Study to Explore Nurses' Perceptions and Experience on Pain, Agitation, and Delirium Management in a Community Intensive Care Unit

Abstract:

Authors should include specific design (phenomenology, grounded theory, etc)

Thank you for your comment. Our study design is "qualitative description". It is a design that produce findings closer to the data as given. Please refer to reference #28 and 29 for details of this study design.

Methods, authors should include inclusion criteria.

Thank you for your comment. We have since included inclusion criteria.

Authors should change and rewrite results. In the current version the statement is superficial. E.g. Currently version: 1) There are divergent perspectives on the definition of beneficial or harmful patient state

Alternative version: The meaning of the damage and the benefit of interventions in ICU patients. Thank you for your suggestions. We have amended the results section of the abstract.

Strengths

If they use a thematic analysis, it is not useful or relevant to indicate that 50% of the nurses participated.

Thank you for your comment. We have removed it from our abstract.

They indicate that they used 6 coders, but in the analysis section they only describe 3.

Thank you for pointing that out. We actually had 3 analysts who did the coding and another 3 analysts who developed the themes. We have revised it accordingly.

There are no other strengths to ensure the rigor of the results?

Thank you. We have included the complications and adverse outcomes in our introduction.

Introduction.

First paragraph: "The presence of delirium is associated with multiple complications and adverse outcomes." ¿What complications? Authors should show and describe complications. Second paragraph: "However, guideline implementation rates in general across most areas of care are suboptimal(16)." What areas? Describe all.

Thank you. We have since revised this part.

"The Consolidated Framework for Implementation Research (CFIR) has described the importance of individuals knowledge and beliefs about the intervention in the success of implementation²⁵." The authors must describe more detail of that information. Thank you. We have expanded on the detail of CFIR.

3 paragraph: The authors should describe nursing guidelines that describe what interventions should be performed for the control of pain, agitation and delirium.

Thank you. I have expanded on the recommendations of the 2013 PAD guideline

There are many gaps in the introduction, lack of specific and focused information on the topic under study and the role of nursing in that context.

This reference can help you to build the introduction, it is not necessary to reference it within the work: Palacios-Ceña D, Cachón-Pérez JM, Martínez-Piedrola R, Gueita-Rodríguez J, Perez-deHeredia M, Fernández-de-las-Peñas C. How do doctors and nurses manage delirium in intensive care units? A qualitative study using focus groups. *BMJ Open*. 2016 Jan 29;6(1):e009678. doi: 10.1136/bmjopen-2015-009678.

Thank you for this wonderful reference. We have learnt a lot reading this paper and have amended our manuscript accordingly to improve the quality of our manuscript significantly.

Authors describe these objectives:

1. What are nurses' perceptions and experience with PAD management in the ICU?
2. What are the barriers to evidence-based PAD management practices in the ICU? But in the introduction there are not developed, nor explained aspects on the barriers of management of delirium, pain and agitation, or previous studies that described experiences of nurses.

It is necessary to expand and improve the introduction.

Thank you for you valuable and valid point. We have amended our introduction as suggested.

Method.

Not include design. Authors must include design or framework (phenomenology, qualitative case studies, qualitative study using focus groups...)

Thank you for your comment. Our study design is "qualitative description" which is an established study design/methodology. This methodology provides a rich, and thick description of the participants' perceptions that stays close to the data. We have made reference to this particular methodology.

Setting. The authors must describe the context where the study is carried out, in relation to the topic studied. In this case it would be; characteristics of the ICU, existence of protocols of intervention to manage delirium, pain and agitation, protocols that determine the role of the nurse, etc.

Thank you for your invaluable comments. We have revised our manuscript accordingly.

Create a specific section for research team and reflexivity. See COREQ criteria to help you:
<https://academic.oup.com/intqhc/article/19/6/349/1791966>

Thank you for your suggestions. We have created a specific section on research team and reflexivity.

Participants and sampling strategies. The authors must explain separately; inclusion and exclusion criteria, sampling strategies (and why), and the recruitment process. All participants are the same IUC unit?

Thank you for your comments. We have amended our manuscript accordingly. All participants work in the same ICU.

Create a specific and different section for ethical considerations, indicate if you have passed the ethics committee and the reference code.

Thank you for your suggestions. We have created a specific section for ethical considerations.

Data collection it is not clear. The authors must describe, on the one hand, the characteristics and justification of the focus groups; criteria of homogeneity, structure and order of questions during the focus group, justification for the use of focus groups in similar studies, how built guide questions (reasons and criteria), etc. On the other hand, the procedure; order of participation, record of the answers, how the nurses are included in each group, number of researchers and their role during the focus groups (moderator, support), etc.

The authors must include a table where describe number of focus groups, duration each focus group, number of participants, etc.

The authors should describe the phases of the focus group (introduction, develop, etc), the duration (time) of each phase of the focus group, and the questions that were asked in each phase.

The authors should describe if they recorded the focus groups. If they were not recorded they must describe how and who collected the data. At strengths & limitations section, authors describe: "The limitation includes the lack of audio recording for transcription. However, we had dedicated note-taker to transcribe detailed notes including direct quotes to allow for data analysis."

Thank you for all your invaluable comments. We have amended our manuscript accordingly.

Analysis.

Thematic codification process it is not clear. The authors must describe codification process step by step.

Thank you for your suggestions. We have revised our manuscript accordingly

Figure 1 is not complete. There blank spaces.

My apologies. It was a formatting error. We have fixed it.

Use qualitative software?

We did not use qualitative software. We have added this information to our manuscript.

The authors describe: "Lastly, we performed triangulation by multiple analysts by having a total of 6 analysts to analyze the dataset separately." at trustworthiness section. The authors must describe how made the analysis in this way. The authors should describe what parts of the coding process each researcher did, at what point in the analysis did the triangulation (at the beginning, at the end?), At what time (in each focus group separately? At the end with the analysis of all focus groups?) and

how were the decisions taken to identify the final issues among the different researchers, a result matrix was constructed?

Thank you for the comment. We clarified this further in our manuscript.

Trustworthiness. The authors should include the reference of trustworthiness criteria (credibility, transferability and dependability).

Thank you for the suggestion. We have added a reference of trustworthiness criteria.

The authors do not give specific information to ensure credibility. They do not describe concrete techniques to control credibility. On the other hand, some of the points they indicate are not correctly performed as the well-established and exhaustive description of the method or thick description of the phenomena. In addition, they should avoid mentioning unpublished and nondemonstrable data as a credibility criterion.

Thank you for your comments. We amended our manuscript in order to clarify the information on credibility. First, we specify qualitative description as the well-established research methodology (see reference under study design section) and focus group as the well-established method. Secondly, we have removed the point on thick description of the phenomena. Thirdly, while this manuscript was under review, our manuscript of our nursing survey study was accepted by BMJ Open Quality as a research paper. Therefore, this work is no longer unpublished but is in press.

Moreover, the authors do not give specific or detailed information of the setting and context.

Thank you for your comment. We re-iterated the setting and context in this section in order to clarify our points.

Also, at strengths & limitations section, authors describe: "The limitation includes the lack of audio recording for transcription. However, we had dedicated note-taker to transcribe detailed notes including direct quotes to allow for data analysis." How this aspect has been controlled, how it has affected the results?, and the credibility of the results?, as the interpretation of the obtained analysis has been controlled.

Thank you for your comments. Despite not having audio recording, we had three notetakers with a total of 10 datasets (transcribed notes from 10 focus groups) for data analysis. The credibility of our results was demonstrated by the similarity of codes and themes there were generated and developed from these separate datasets.

Has validation been done by participants? Participants validation for example...

Thank you. We have only performed member checking by asking some participants to review our results.

Results section. They should incorporate information about the narratives used, such as; the number of the focus group, age of the participants.

Thank you for your suggestions. We have amended our manuscript accordingly. However, we did not record age of our participants.

The narratives used to justify the results are very short, sometimes superficial. It is better to use fewer and more complete and deep narratives.

Thank you for your suggestions. We have significantly revised our results sections accordingly.

The results seem not to be sufficiently “grounded” (based) on the narratives used. In addition, the method has gaps that do not give credibility to the results (see previous comments).

Thank you. We attempted to address your concern by revising the results section of our manuscript.

Discussion.

The discussion is very short, the results are not compared with previous studies, the reasons why these results appear are not studied, nor the reasons that can explain these results. The discussion should be expanded, and improved, including comparison with previous studies, qualitative research, of nursing interventions in the management of delirium in ICU, etc. There are previous works published.

References. References should be updated, and specific references should be included at introduction section, and discussion section.

Thank you for your valid comments. We have revised our discussion section significantly and updated our references in introduction and discussion sections.

Reviewer: 2

Reviewer Name: Eva Ann Lærkner

Institution and Country: Odense University Hospital, University of Southern Denmark,
Windsløvvej, 5000 Oense C, Denmark

Please state any competing interests or state ‘None declared’: None declared

Please leave your comments for the authors below

A well written paper

The following aspects need to be clarified:

First sentence - agitation do not lead to delirium but is part of the assessment of delirium (RASS different from zero)

Thank you for your suggestion. We have amended the first sentence in the introduction accordingly.

The study lack description about contextual /local factors:

Are there implemented local guidelines for PAD, sedation guidelines/target/medication, assessment of pain and agitation and delirium in the specific context, use of physical restraint.

Thank you for your comments. We have revised the manuscript accordingly and stated the contextual/local factors under “Setting”

How are the educational level about PAD among nurses in the local unit?

Thank you for the question. Based on the results of our nurse survey (in press), the nurses education level about PAD is not uniform across pain, agitation and delirium assessment and management spectrum, with delirium assessment and management being the lowest level.

- how can these local factors influence the the findings and how/why can findings be transferred to/be of interest to other ICUs?

The above local factors would influence the nurses' perceptions, beliefs and experiences of PAD management. This ICU study was conducted in a typical community ICU in a medium size Canadian city, therefore, I suspect that the local factors would be similar to other community ICUs. Moreover, readers can interpret the studies based on the local factors of the ICU studied and the local factors of their ICUs.

How do participants in the focus group differ; are there one group of experienced nurses, one of male or how are they organized to generate rich descriptions? Are there differences between groups/group members in order to gender, age and ICU experience? The study lack description about the groups and who participated in each group and how the group organization could influence data generation

Thank you for your comments. We have included a table (Table 1) with information of the group sizes, sex distribution of groups, and ICU and total nursing experience of participants. However, we did not collect data on age. We organized the participants of our focus groups based on their preference of the participants in order to increase participations. This resulted in a wide range of ICU and total nursing experiences. Despite the wide range of nursing experience, we were still able to maintain homogeneity because all nurses work in the same ICU. Homogeneity of participants is important for data collection using focus groups. We generated rich descriptions by encouraging open discussions among participants.

page 4/l.42 - 43. Please be more specific in explaining how the analyst could decrease potential bias? Values and pre-understanding are important in qualitative research.

Thank you for your comments. All three of the analysts who generated and assigned initial codes (FM, RM and CM) did not have any clinical roles in the ICU, therefore, they did not have preconceived bias in regard to the quality of PAD management in the ICU.

Moreover, one of the analysts (RM) had no prior involvement in the design and conduct of this study. This allowed RM to conduct the analysis with *tabula rasa* (blank slate).

We have amended our manuscript accordingly.

p.5 l.45 - 47 please explain, why, who and how many did the member checking? What were their comments? How did the member checking influence the findings?

Thank you for your questions. We performed member checking by asking 4 participants to review the results of our study. They felt that the results are consistent with their beliefs, perceptions and experiences. Our member checking validated the results of our study. We have amended our manuscript accordingly.

Presentation of results

Very nice displays to present results. However, do not use the same quotes in the tables as in the text. As the quotes are presented in the tables, please unfold the thematic description further in the text, without quotations or other /fewer quotes. Where the quotes come from is unclear. Please be specific about the identification of group number and participant characteristics.

Thank you for your suggestions. We have amended the manuscript accordingly. In regard to where the quotes come from, since we don't have audio recording, we weren't able to specify participant characteristics. But we have included the focus group number.

Where there differences in data generated from each group and between groups or not?

The data from each group are very similar where similar codes and themes were generated and developed.

Limitations lack description of the influence of group dynamic/organization in data generation. Also the limitations of very local practice must be addressed. How can this study be of interest beyond the specific context and in a wider, international perspective?

Thank you for your comments. We have address these in the discussion section of our manuscript.

Reviewer: 3

Reviewer Name: Farid Zand

Institution and Country: Shiraz University of Medical Sciences, Shiraz, Iran

Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below

The tables in the result section are more or less the duplication of the text. One of them could be easily deleted to summarize the result section.

Thank you for your suggestions. We have amended the tables.