PEER REVIEW HISTORY

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ARTICLE DETAILS

| TITLE (PROVISIONAL) | How do contextual factors influence quality and safety work in the |
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| | Norwegian home care and nursing home settings? A qualitative |
| | study about managers' experiences |
| AUTHORS | Ree, Eline; Johannessen, Terese; Wiig, Siri |

VERSION 1 – REVIEW

| REVIEWER | Katarina Sjögren Forss |
|-----------------|-------------------------------|
| | Faculty of Health and Society |
| | Department of Care Science |
| | Malmö University |
| REVIEW RETURNED | 10-Sep-2018 |

| GENERAL COMMENTS | Thank you for an interesting manuscript that is generally well-written. My comments for editorial consideration are as follows: |
|------------------|---|
| | Introduction |
| | Please give some examples of factors that can facilitate or hinder primary care manger's work (page 3 line 46). |
| | Methods What year did the study take place? |
| | Were there any inclusion criteria for the study? |
| | How did you know where to find the participants? How many managers were contacted for participation in the study? Was it only the nine that participated? |
| | Was it the same interviewer who performed all the interviews? Were the questions tested before the interviews to assure its understandability and its relevance for the study aim? And if, did the test lead to any changes of the questions (and were data from this test included in the analysis)? |
| | On page 6 you have written a section about "Patient and public involvement". Please explain why you have added this section to the manuscript. I can't see why this information have to be included. |
| | Results On page 6 (line 38) I suggest that you write: "quality and safety work in Norwegian nursing homes and home care". |
| | Why is only quotes from seven of the nine participants included in the result? When the number of participants is small I think that |
| | every participant should be cited at least once. The director of health and care services are cited twice, but I can't see that there are any quotes from any of the two professional development nurses, why? |
| | It is also unclear if it is quotes from the same participant when, for example it is only stated "Nursing home manager", please clarify. |

| REVIEWER | Rene Schwendimann |
|-----------------|---------------------------|
| | University Hospital Basel |
| | Switzerland |
| REVIEW RETURNED | 15-Feb-2019 |

GENERAL COMMENTS BMJ Open-2018-025197 - How do contextual factors influence quality and safety work in the Norwegian home care and nursing home settings? A qualitative study about managers' experiences I congratulate the authors for their qualitative study. The topic deserves attention in times of growing economic pressures on primary and long-term health care services. The article shed light on local leadership including health professionals in managerial roles who bear huge responsibilities for safe and good quality care service provision. The paper is methodologically sound and well written. I have few rather minor comments to consider. Page 3 (Background): Her you introduce "quality and safety challenges" assuming that readers will immediately know what is meant. Yet, I suggest to give at least here some examples, since throughout the manuscript you talk always about "quality and safety" with few or no specifics. Lines 52-56: Instead of saying "Thus, more research is needed ..." I suggest a sentence as "Given this research gap, exploring which contextual factors ..." or alike. Page 4, line 53: "SAFE-LEAD" seems to be an acronym. Please write in full the first time. Page 5, lines26-30: I wonder if talking about "sample size" is appropriate given the qualitative nature of you study design as well as the earlier mentioned "purposive sample"? Page 6, lines 22-32 (Patient and public involvement): Your participant information on page 4 and 5 indicates who is involved in your study, therefore no need to state who is not. However, you may shift the patient and public involvement aspect of the SAFE-LEAD project on page 5 before "Data collection". Page 7, lines 21/22: What is meant with "systems"? Please specify. Page 12, lines 13-15: The sentence "Below, we discuss ..." could be deleted. Instead, consider a sub title "Impact of findings..." as you did with "Strenghts and limitations" Page 13, lines 13-15: To avoid the double use of "factors", you may write "...that external guidelines and demands improvement play an important role (5, 18, 22)." Page 14, lines 12-13: You may write: "This study shows how contextual factors influence quality and safety work in home care

| REVIEWER | Annika Brorsson |
|-----------------|-------------------------|
| | Lund University, Sweden |
| REVIEW RETURNED | 06-Mar-2019 |

and nursing homes."

| GENERAL COMMENTS | This is a very important topic. The last paragraph of aim and |
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| | research question should be moved to the discussion. I Think the sample is small and diverse and that the authors need to give more reasons to jusitify that in the discussion. Also, a table could give an overview of the sample. The analysis should be described more thoroughly and a table would make it easier to follow. The headings |
| | in the results section have no labels; do they refer to categories? |

VERSION 1 – AUTHOR RESPONSE

Reviewer 1: Katarina Sjögren Forss

Introduction

1.1 Please give some examples of factors that can facilitate or hinder primary care manger's work (page 3 line 46).

Response to comment: Thank you for this suggestion. We have now included some examples of contextual factors that can facilitate or hinder primary care manger's work (page 3, line 26-27). Methods

1.2 What year did the study take place?

Response to comment: The data collection took place in late spring 2017, and the analysis was conducted in September/October 2017. We have now referred to time for data collection in the 'data collection' section (page 6, line 16-17).

1.3 Were there any inclusion criteria for the study?

Response to comment: The only inclusion criteria was that the participants had to be managers in one of the selected units or have the role as professional development nurses. Professional development nurses do not manage personnel, but are often playing a key role in overall quality and safety work. As stated in the section 'recruitment and sample', the selection criteria were based on diversity in managerial role, responsibility, and a variety of counties and municipalities, to ensure that the sample represented a variety in contextual settings. We have specified that being part on one of the intervention municipalities was an exclusion criteria (page 4, line 17-18).

1.4 How did you know where to find the participants?

Response to comment: Three Co-researchers from Center for Development of Institutional and Home Care services had established contact with managers in three different Norwegian counties. Based on their knowledge of services providers in the counties, they suggested and approached managers according on our selection criteria. We have added some more info in the methods section to clarify this (page 6, line 1-4).

1.5 How many managers were contacted for participation in the study? Was it only the nine that participated?

Response to comment: We did not monitor the number of managers who were approached, as the initial contact was made by the co-researchers. This was not considered vital information as the aim of our study was diversity with managers from many different municipalities. This would have been more important if the purpose had been data collection from many managers representing specific units. We do however agree that ideally this kind of information could have been collected. We choose not to include this information in the manuscript in order to avoid confusing the readers. We hope you agree.

1.6 Was it the same interviewer who performed all the interviews?

Response to comment: No. As stated in the section 'Authors' contributions', the interviews were performed by three researchers (Terese Johannesen, Torunn Strømme, and Lene Schibevaag) and one co-researcher from the Center for Development of Institutional and Home Care services (Berit Ullebust). We have clarified the sentence about this in the methods section (page 6, line 18)

1.7 Were the questions tested before the interviews to assure its understandability and its relevance for the study aim? And if, did the test lead to any changes of the questions (and were data from this test included in the analysis)?

Response to comment: The questions were not tested on the target group, but the interview guide was thoroughly developed in a close collaboration between researchers and co-researchers with different occupational and educational backgrounds (nursing, health psychology, safety science, engineering, and health management). All three co-researchers from the municipalities have extensive experience from working in the municipal health care service. We have added one sentence specifying this (Page 6, line 22-24).

1.8 On page 6 you have written a section about "Patient and public involvement". Please explain why

you have added this section to the manuscript. I can't see why this information have to be included. Response to comment: This statement is in accordance with the editorial polices of BMJ Open. Editor included a comment in the revision letter stating that the included information in this section was appropriate and did not require any modifications.

Results

1.9 On page 6 (line 38) I suggest that you write: "quality and safety work in Norwegian nursing homes and home care".

Response to comment: That is a good suggestion. We have changed the wording as you suggest (page 8, line 9-10).

1.10 Why is only quotes from seven of the nine participants included in the result? When the number of participants is small I think that every participant should be cited at least once. The director of health and care services are cited twice, but I can't see that there are any quotes from any of the two professional development nurses, why? It is also unclear if it is quotes from the same participant when, for example it is only stated "Nursing home manager", please clarify.

Response to comment: The results are presented as the analytical text, with the quotes serving as illustrations of the main findings. We have chosen the quotes which best illuminate the results. This is in line with the Systematic Text Condensation approach by Malterud (2012) used in our analysis, where each sub section in the result paragraph should be illustrated by a key quote. Malterud (2012) emphasize that the quotes are not results in itself, but rather used to illuminate the analytical text (in which all participants are represented). As such, we have chosen the quotes that best illustrates our result sections, rather than including quotes from all participants. However, we agree that it should be clearer to whom the quotations belong to, and we have therefore specified this by referring to a participant number included in a table describing each participant (see response to comment 3.3).

Reviewer 2: Rene Schwendimann

2.1 Page 3 (Background): Her you introduce "quality and safety challenges" assuming that readers will immediately know what is meant. Yet, I suggest to give at least here some examples, since throughout the manuscript you talk always about "quality and safety" with few or no specifics. Response to comment: Thank you for pointing this out. We agree, and have now included some examples on quality and safety challenges and improvement initiatives (page 3, line 3-5). 2.2 Lines 52-56: Instead of saying "Thus, more research is needed ..." I suggest a sentence as "Given this research gap, exploring which contextual factors ..." or alike.

Response to comment: Thank you. We have now reworded the sentence according to your suggestion (page 4, line 1-2).

- 2.3 Page 4, line 53: "SAFE-LEAD" seems to be an acronym. Please write in full the first time. Response to comment: We understand that this project name can easily be misunderstood to be an acronym, but it is not. Rather, the name is used to illustrate the content of the intervention (i.e., safety and leadership). We have included the full title of the project including the short title in parenthesis the first time to help the reader understand this (page 6, line 6-7).
- 2.4 Page 5, lines26-30: I wonder if talking about "sample size" is appropriate given the qualitative nature of you study design as well as the earlier mentioned "purposive sample"? Response to comment: Thanks for picking this up this issue. We believe that sample size should be considered in all research involving respondents, also when the sample is selected purposively. According to the reference we have used (Malterud et al., 2015), "sample sizes must be ascertained in qualitative studies like in quantitative studies but not by the same mean" (p.1). They use the concept of information power to assess whether the information gained is sufficient to carry out a sound analysis. We believe it is important in our study to show that we had rich data despite the small sample, that was considered sufficient to illuminate our research question through a systematic analysis. Also, reviewer 3 asked us to elaborate on this, so we chose to keep this and expand a bit to be transparent in our approach (see response to comment 3.2). We hope you find this ok.

 2.5 Page 6, lines 22-32 (Patient and public involvement): Your participant information on page 4 and 5

indicates who is involved in your study, therefore no need to state who is not. However, you may shift the patient and public involvement aspect of the SAFE-LEAD project on page 5 before "Data collection".

Response to comment: See response to comment 1.8. This statement is in accordance with the editorial polices of BMJ Open. Editor included a comment in the revision letter stating that the included information in this section was appropriate and did not require any modifications.

2.6 Page 7, lines 21/22: What is meant with "systems"? Please specify.

Response to comment: Thank you for making us aware of this lack of clarity. In this case, we are referring to technological systems, and have now clarified this in the manuscript (page 9, line 13).

2.7 Page 12, lines 13-15: The sentence "Below, we discuss ..." could be deleted. Instead, consider a sub title "Impact of findings..." as you did with "Strenghts and limitations"

Response to comment: We have now deleted this sentence (page 14), but believe the section reads better without an additional heading.

2.8 Page 13, lines 13-15: To avoid the double use of "factors", you may write "...that external guidelines and demands improvement play an important role (5, 18, 22)."

Response to comment: Thank you for this suggestion. We agree and have now altered the sentence accordingly (page 15, line 8).

2.9 Page 14, lines 12-13: You may write: "This study shows how contextual factors influence quality and safety work in home care and nursing homes."

Response to comment: Thank you, this is an important specification, and we have now added nursing homes and home care services to the sentence in accordance with your suggestion (page 16, line 8-9).

Reviewer 3: Annika Brorsson

- 3.1 The last paragraph of aim and research question should be moved to the discussion. Response to comment: That is a good suggestion. We have now moved this sentence to the conclusion paragraph (page 16, line 9-10).
- 3.2 I think the sample is small and diverse and that the authors need to give more reasons to justify that in the discussion.

Response to comment: Se response to comment 2.4. We agree that the sample is small, we believe we have justified this quite extensively both in the introduction (page 6 line 27-33 and page 7, line 1-3) and in the discussion (page 15, line 21-32) in the original version. However, we see your concerns and have elaborated with more reasons in this revised version both in the methods section (page 7, line 3-5), and in the discussion of strengths and limitations (page 15, line 22-25). We believe this increases transparency of the process, and hope you find it acceptable.

3.3 Also, a table could give an overview of the sample.

Response to comment: Thank you for this suggestion. We have now included a table presenting some background information about the participants presented after the textual description of the sample (page 5).

- 3.4 The analysis should be described more thoroughly and a table would make it easier to follow. Response to comment: Thank you for this comment. The process of analysis is presented in detail in "Malterud K. Systematic text condensation: A strategy for qualitative analysis. Scand J Public Health 2012;40(8):795-805" which we have referred to in the method section. In addition, we have now included a table to illustrate the analytical steps we have conducted (page 8).
- 3.5 The headings in the results section have no labels; do they refer to categories? Response to comment: The headings refer to the main results in the sections that follows below each heading. This is in line with the Systematic Text Condensation we have used in the analysis. According to Malterud (2012) "Results are communicated not only by the analytic text, but even further concentrated in the category heading of each code group" (p.800). We therefore chose to keep the headings and included one sentence in the introduction of the results section to clarify this (page 8, line 16-17). We hope this clarified your question.

VERSION 2 – REVIEW

| REVIEWER | Katarina Sjögren Forss |
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| | Faculty of Health and Society |
| | Department of Care Science |
| | Malmö University |
| | Sweden |
| REVIEW RETURNED | 15-Mar-2019 |
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| GENERAL COMMENTS | The authors have satisfactorily responded to all my comments and |
| | made the necessary changes to the manuscript. |
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| REVIEWER | Rene Schwendimann |
| | University Hospital of Basel, and University of Basel, Switzerland |
| REVIEW RETURNED | 20-Mar-2019 |
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| GENERAL COMMENTS | Thanks to the authors for revising the manuscript. |
| | My comments have been satisfactorily addressed. |
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| REVIEWER | Annika Brorsson |
| | Lund University, Departement of Clinical Sciences Malmö |
| REVIEW RETURNED | 21-Mar-2019 |
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| GENERAL COMMENTS | I believe the revisons made are satisfactory |