Reviewer’s report

Title: How staff and their working contexts influence implementation of person-centered dementia care in nursing homes. A mixed method study of an education intervention to reduce use of restraint.

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Reviewer: Bev Holmes

Reviewer's report:

Thanks for the opportunity to review this paper, which is linked to an important and bigger piece of work related to understanding how to help staff avoid unnecessary restraint of people in nursing homes. Although there seems to be much merit in this larger initiative and the various separate papers it references, I feel that the current paper would need significant revision if it were to be published. Below are some comments that I hope explain why.

* Although I read the paper several times, I was unable to understand the difference between the intervention and control groups. It looks like you recruited staff from 24 nursing homes and split them into two groups. I would have thought one group did not get the intervention, but you say there was "a total of eight persons facilitation the intervention in 24 nursing homes over a period of 15 months" (page 5, lines 47,48.) So they were all intervention…where is the control and what did the control get or not get, as different from the intervention, which is repeatedly said to have occurred in the 24 sites?

* On a related note, it's really important for the reader to understand the education intervention
  - there is no explanation of what it actually involved:
  - The first time we read about MEDCED as an acronym is on page four, but it is not explained (e.g., along the lines of "this paper discusses an intervention called MEDCED, which…") so it comes out of the blue.
  - How did the intervention parallel or differ from what government had already rolled out? There is reference to legislation, a national education programme and a government-supported workplace programme, and to the fact that despite these efforts, the use of restraints is still frequent. But do you know why? Were the existing programs disseminated and used and found to be unsuccessful, or did people not even know about them? Was your intervention designed to address assumed factors for this lack of success? etc. You note on page 8 that all of the 24 nursing homes had at least one government-initiated education program in dementia care related to the new legislation on the use of restraint. What does that mean for your study? Was your educational intervention undertaken within this broader context? etc.
- You mention directors, which needs an explanation (as different from staff) and you also mention leaders who were interviewed. Are leaders different from directors? Who were the facilitators - people from your research team or the facilities? How were they prepared to deliver the intervention?

- Were the six nursing homes selected for ethnographic fieldwork from the intervention or control group?

* In your background, you reference complex interventions and what's important in the study of their implementation into complex organizations. But you haven't taken this (potentially) promising line of inquiry any further. There seems to be misunderstanding of the important concept in complexity theory related to how context and intervention interact. Your explanation "That is, identify which mechanisms promote and which inhibit the effectiveness in different settings" (p3, lines 37, 38) isn't what this concept means. Rather, it refers to the importance of how context changes and the intervention changes ongoing in relation to each other during implementation. I would leave the complexity piece out unless you are going to delve into it fully. Your work in general seems strong enough without it, and if you didn't use related theories and frameworks for the study itself, it is probably not a good idea to use them in your articles.

* It would help to say more about contextual factors, as there are several references to the importance of them but it is not clear what they are, or how you identified them. You note that "contextual factors have been proven to be important for reducing constraint in care work" and that "contextual and institutional factors [are the latter different from the former?] should be addressed. Then you note that the study's aim is to investigate "staff related factors." Are these also contextual factors? The reader needs to understand what framework you used to identify contextual factors, as well as consistent reference to them.

* Background on the broader study and the various outcomes and related papers would help us understand this study and this paper. On a much more important note, though, linking of the outcomes would be ideal. How do the outcomes - less restraint, presumably? - fit in relation to staff awareness and understanding? What is the link between awareness and action? If it is too difficult to make one, ideally we would read about why, and about other elements of the study overall in relation to this one. For example, we learn for the first time towards the end of the paper that there was already a low level of restraints measured at baseline (p. 11, lines 43, 44). This seems important!

* In the analysis, with 299 staff responding at baseline and 186 at follow up, it's not clear why you are you adding this up for a total of 349 staff. Weren't there 299 staff (or more, including those who didn't respond) and 186 of them followed up?
Also in the analysis, you note that staffing level and formal staff competence constitute an important frame for interpreting the findings, but I don't feel that link has been made.

It is not clear what you mean by "People learn both as part of and as participators in social practice" (page 4, lines 35, 36).

On a more minor note, it is important to explain "restraint" for those who are not familiar with the nuances of the term. It appears that even your interviewees noted the subtleties of the definition, evidenced by the quote "One starts thinking, I have not thought that using a bedrail is use of restraint" (p. 9, lines 36-38).

I hope my comments give some sense of why I am struggling to understand the study. I don't doubt that overall the work has surfaced important findings - and the paper is very nicely written - but the reader does not have the background that the writers have. Rather than reading comments like "further details of time, context and methods are published elsewhere" (p. 6, lines 4 , 6) and references to matters dealt with in other project publications (e.g., p. 7), we need to have enough context in this paper.

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