Reviewer’s report

Title: Supporting at-risk older adults transitioning from hospital to home: who benefits from an evidence-based patient-centered discharge planning intervention? Post-hoc analysis from a randomized trial

Version: 0 Date: 19 Jan 2020

Reviewer: Daniel Liebzeit

Reviewer's report:

Introduction, para 3-4. While your introduction sets up the question well. I think there are many opportunities to cut in these two paragraphs. There is quite a bit of information provided about the primary RCT that could be found elsewhere, and you could hit the key points here to cut down the introduction, improve flow, and keep focus on the question at hand. Examples include page 6, lines 37-44, page 7, lines 56-58 (redundant with beginning of introduction), page 6, lines 29-34 (could be merged and cut down).

Introduction: I think there are also some opportunities to reorganization here. The logic jumps around between rationale for the primary study and the secondary study. Consider increasing focus on the argument for the present study (focusing on the subgroups), rather than the primary study focusing on why the trial was developed and what the trial was/resulted in (this is in the primary publication).

Page 8, lines 73-74: you say here that those with significant cognitive impairment were excluded, but the present analysis focuses on those with cognitive impairment. This creates a concern that your sample could be biased in that you excluded many individuals who showed signs of CI, leading to their exclusion. So think about what type of individuals with MCI you may have in your sample, given the exclusion criteria. You will want to provide more detail about how your exclusion criteria may not have biased or altered your sample.

Page 8, lines 75-79. Same concern as above with mobility, FIM, and comorbidities exclusions. So you're looking at "high risk" individuals, but it sounds like many of the higher risk individuals were excluded from the study. Again, please provide more justification and information about procedures related to exclusion.

Page 9, lines 98-104: do you have any data to support this cut point between high and low comorbidity score?

Page 9, lines 108-110: the scores here for significant cognitive impairment do not line up with the scores you identified for significant CI in the exclusion criteria above. Please clarify

Page 10, lines 135-138: you mention test-retest reliability of this instrument, is there any other evidence of testing of this instrument available?

Page 12, lines 166-77: this all sounds like data from the original study. What is the new data here?

Page 12, lines 183-185: I don't know that you can say that home intervention also reduced ED
presentation. Findings were not significant so no evidence to determine this or if differences were random

Page 12, lines 188-190. Same as last, I don't think you can say intervention improved participation if results were not significant.

Page 13, lines 193-195. This statement is not supported by the results.

Page 13, lines 207-209. This sentence is complex and difficult to follow. I don't know what point author is trying to make

Page 14, lines 219-221. Please revise, not sure what this sentence means

Page 14-15, lines 227-241. Intervention did not contribute to increased participation in results. It did not reach significance so cannot make this claim. This could have been random differences, which is the reason for setting an alpha level to determine what could be randomly observed differences versus significant differences that would indicate a positive finding. Also see Liebzeit et al. 2018 and 2019, which can provide information on issues with measuring only ADLs and focusing more on participation in OA transitioning from hospital to home

Page 15, lines 242-243, wondering why you did not look at combinations of indicators for at-risk older adults. Typically we consider multiple factors that would put an individual at risk. Perhaps you can speculate on the importance of considering risk factors occurring together, versus individually. Because need to consider that perhaps many of the individuals that were determined to be high risk because of one factor CI, could also be high risk due to another comorbidity or walking. This is important to consider because you are looking at a multitude of factors that have been related in prior research

Page 15, lines 250-252, I don't know what this statement means because we do have a lot of research on individuals hospitalized with these risks

Page 15-16, lines 259-261: it is still important to look at effects at 90 days, because effects are less important if they are present at 30 days but then fall off after that anyways. Ideally we would look at and see effects over 30-90 days and beyond

Page 16, lines 262-264, I don't know what this final sentence in limitations is trying to say, please revise.

Page 16, lines 266-267, I would suggest softening the conclusions here given that this was a post hoc analysis and trial was not designed for this group, in addition to the limitations you outline above. While this may suggest importance of follow up after hosp. in MCI individuals, I believe more research would be necessary to determine if this particular intervention is most appropriate to apply to this group or if certain parts of the intervention are most important. Especially given the results on primary outcomes for the RCT. For example why would you use an intervention designed to improve functional outcomes (ADL) for this group when it did not improve functional outcomes at any level.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

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.

I recommend additional statistical review

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