Reviewer’s report

Title: The effect of a Gerontology Nurse Specialist for high needs older people in the community on healthcare utilisation: A controlled before-after study

Version: 1 Date: 12 Nov 2017

Reviewer: Sandra Zwakhalen

Reviewer's report:

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Manuscript

Comments and feedback to authors

Thank you for your work: The effect of a gerontology nurse specialist for high risk older people in the community on healthcare utilisation. The topic of the manuscript is important and overall it's a well-written paper.

The comments and feedback on the manuscript are presented below.

Manuscript overall structure of Abstract and Main text:

Although the manuscript has potential it requires overall more detailed information and explanation of rationales.

Terms used: The terms used, like care support models, geriatric nurse specialist, care coordination and CGA, strongly link to each other and to other care concepts e.g. integrated care, case management etc. This terms used need some clarification and definition. Needs to see a consistency in used terms and clarify the definition the authors refer to.

What is the evidence on effectiveness with regard to care coordination and CGA. This should be included on page 4 to clarify the concept and to provide more insight in possible outcomes.
Abstract:

Conclusion is rather short and needs revision.

MAIN FILE:

Introduction/ background:

On page 4 case finding by screening is mentioned to identify frail or high-risk older patients. Furthermore it is stated that individualised interventions are required in addition. However, no evidence or references are used. The reader needs insight about the evidence of case finding and interventions. What interventions are aimed for and on what outcomes and for what patient groups? Now it is only stated on page 4 that CGA is effective in improving patient outcomes…..

The intro seems to clarify that studies have already demonstrated effectiveness. The question is why this study is needed? The relevance could be clarified and strengthened.

At the end of the introduction the aim is stated. However the intervention that is aimed for remains unclear. In my opinion it is not clear at all for the reader what is mentioned with health care utilisation of systematic case finding for community dwelling high risk older people and subsequent CGA and care coordination intervention.

A clear research question is missing.

Method

It would be helpful for the reader if the context of home care in Auckland is explained.

In the design section, the authors state that an innovative intervention model was instigated….. Is this really so innovative at the moment? What is common care like in case that authors are convinced it is innovative?

Related to this aspect, I wonder is the control group received co-interventions that strongly link to the intervention, like case management or screening for frailty etc…

How were the health care practices selected? Why were these not randomised?
Page 6. The Brief Risk Identification for Geriatric Health Tool was used to case find high risk older people. A reference is required and more in-depth information about the validity and reliability of this tool. Why was this tool selected?

On page 7 it is mentioned that a mixture of specific questions and assessment tools were used. This needs to be specified. With the information that is currently provided it is impossible to replicate study methods used.

Comparison group received care as usual according to page 7. What is care as usual in these practices?

The data collection took place more than 5 years ago, almost 7 years ago? This raised the question what happened in the previous 7 years between the data collection and now. It is almost unimaginable that the care concepts have not changed meanwhile and the context stayed the same over the last 7 years.

A figure or flowchart that includes the measurements, data source and moments of measurement would be helpful.

Could the authors specify how the outcomes were assessed/quantified in detail?

The analysis paragraph mentions that t-test were used, what t-test were used and why?

Results

A flowchart that includes the participants on the moments of measurement would be helpful.

The results demonstrate that the participants identified as high risk were older. Is this difference in characteristics causing any bias?

It is confusing to read that the intervention group includes 517 respondents and the comparison group includes 883. This is the initial group that was screened and not the intervention group.

The tables include cells with 0, these should be deleted.
It would be helpful to structure the findings in main outcome and secondary outcomes.

Was there a process evaluation performed alongside this study? How sure are the authors that the intervention was delivered as intended?

Discussion:

What were the authors' hypotheses before the start of the study?

Based on previous comments the discussion needs some adaptation.

At least the authors should reflect on the intervention that seems a rather diffuse concept.

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.

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.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable
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