Reviewer's report

Title: Natural course of care dependency in residents of long-term care facilities: Prospective follow-up study

Version: 1  Date: 14 November 2013

Reviewer: Karin Wolf-Ostermann

Reviewer's report:

Major comments:

Background:
Please give some information what is known in literature about care dependency and its relation to personal or institutional characteristics since this background information is completely missing.

Methods:
Please describe how the nursing homes were choosen to participate in the study, how did you recruite residents in these nursing homes (was is some type of cluster-randomisation?, did you estimate the number of persons needed? ...)

Another question that occurs to me: why did you not include nutrition as a factor of interest concerning care dependency?

Statistical analysis:
Why didn't you model the linear mixed models (LMM) as multilevel analyses since ther might be an influence of the nursing homes on the higher level which might not be modelled adaequatel otherwise.

Why didn't you include (on the frst level) personal characteristics like age, funtional and cognitive status, comorbidity etc. in the modelling?

Why did you look only at 6-months periods when you have a longitudinal design of 12 months?

Are the stated p-values nominal ones or did you correct for multiple testing?

Results:
Please describe the loss-to follow-up in numbers and characteristics.

Is there a statistical difference to be seen concerning "survivors"?

I remains unclear if the "third-groups" are newly formed at the beginning and after 6 months, This should be clearly discribed in the methods section. If groups are newly formed than you only can compare sequentially - any informaton concerning a longer period of time (12 month) is lost.

I wonder why you use sex as grouping factor when later analyses show, that sex has no significant influence. Did you analyse if there is a correlation to other influencing factors in your setting? Is there anything known from literature?
Discussion:
The discussion needs rewriting since you often only recap results instead of discussing them. This might also be a consequence of not properly investigating literature in the beginning of your article.

I can't follow your conclusion concerning the study of Bürge et al. totally, the results might show some similar trend but that can't be concluded by the facts you present.

Strengths and limitations:
Again you recap results instead of telling about strengths and limitations of the study and its implications.
Please describe what are implications of the sample selection, the instruments used, who collected the data and so on. This section needs a stronger focus to its essential points.

Conclusion:
Again a recap of results. There are no conclusions drawn which really concentrate on results and give advice for further practice in nursing homes.

What is about clinical relevance of your results?

Minor Essential Revisions:

Background:
Please give more information concerning the Swiss study you are citing (length of duration, points of measurements ...)

Figure 1 & 2: Please add a legend and make clear what the tables below are representing.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests