Reviewer’s report

Title: Psychosocial work load and stress in the geriatric care

Version: 3 Date: 9 February 2010

Reviewer: Birgit Aust

Reviewer’s report:

The manuscript has certainly improved and is now much clearer and easier to read and understand. However, some arguments need to be sharpened in order to be convincing and the sub analysis with part-timers should be redone (see below). There are still a number of small and larger problems and/or mistakes which need to be sorted out before publication. Also I like to come back to some of my earlier comments.

Mayor Compulsory Revision

I think the authors need to be (even) more precise and consistent with the terms they are using throughout the manuscript. For example in the background section the terms “nursing staff” and “geriatric nursing staff” are used and it is not quite clear, if the term “nursing staff” relates to hospital nurses – which are later used as a comparison group to nursing staff in geriatric care - OR if “nursing staff” is used as a synonym to “geriatric nursing staff”. It actually seems as if the term sometimes is used in the one way and other times in the other way. This makes understanding extremely difficult and raises some serious questions especially with respect to what kind of studies have shown which results and what kind of knowledge still is missing. This is a problem in the background section (page 5) as well as in the discussion section (page 19).

Related to this is another problem: The authors show that earlier studies pointed in different directions, some showing straining working conditions and high sickness absence, while others found only moderate workload in geriatric care (page 5). The current study aims to clarify the situation. However, as I pointed out before, one does not get much information about these earlier studies. This information would be necessary to better understand what could have been the reasons for the different outcomes and how this study contributes to clarifying the situation. For example: how representative were the earlier studies? Did they distinguish between home care and geriatric nursing homes and did they take into account the high number of part time employees? If the authors of the manuscript could show, that the earlier studies did not study this, than it would become much clearer what the current study contributes to the field. I therefore urge the authors to use their own arguments in a better way and especially to return to it in the discussion and in the conclusion, that is, to point out what this study adds to the field what was not known before.

With regard to the data analysis: I do not understand why the analysis with
respect to part-time and full-time work have been done with the whole sample, that is including the 164 employees employed in administration or other sectors not related to care work. That to me does not make sense, since the aim of the sub-analysis was to understand better, if the high percentage of CARE workers working part time could be an explanation for the relative positive values for their psychosocial work environment. I suggest therefore redoing the sub-analysis using only care workers.

As I could read in the other reviewers’ comments there was some confusion about the use of the other job-groups, especially the use of figure 2 which shows results for all job groups using quantitative demands as an example. I actually think this figure should be deleted. It does not add any extra knowledge and – as the other reviewers’ comments shows – can actually lead to misunderstandings. As table 2 shows, the current sample of employees in geriatric care (divided into home care and geriatric nursing homes) are compared to two other reference groups: employees in general hospital care and the average of all job groups. All data come from the same source: the German COPSOQ database. I think this information is sufficient and therefore figure 2 is not needed.

I have a number of comments throughout the text with regard to being more precise and consistent with how things are described. I made suggestions for rewriting to highlight what I think should be changed – but it is up to the authors to find the best formulation. There are some mistakes - especially with regard to the text referring to figure 2 and to the figure itself - which of course need to be corrected.

Abstract:
Methods: As can be seen on table 2 the instrument used has 22 scales and 3 single items. The word “aspect” here is confusing as it later is used with a different meaning. I suggest using the description similar to that from page 6/7

“The instrument includes 19 aspects (mostly scales) assessing the psychosocial work environment grouped into the sections: demands, influence and development, interpersonal support and relationship, and job insecurity and six constructs assessing the employee’s reaction to the workplace situation as outcome factors (for example job satisfaction)”

Next sentence: results between two study groups (delete “the”)

Results: First sentence: explain HC first before using abbreviation: home care (HC)

The term “external values” seems strange. Why not just write: Compared to a sample for general hospital care.

“COPSOQ-total” can not be used like that without introduction. Find another formulation, for example: “average for all job groups” or “population mean”

The authors still use terms as “see advantages” – I don’t think the employees see advantages. Rather, it turns out that their mean values are higher or lower than
other job groups or the population mean, so I suggest to just write what was found. One can of course write “they have more favourable values” or something like that.

Last sentence in result section: I suggest writing: A supplementary subgroup analysis showed that the degree of negative psychosocial factors was related to the amount of working hours per week and the number of on-call duties.

Conclusion: Here is my suggestion to rewrite the conclusion “Compared to employees in general hospital care and the population average, geriatric care employees and especially home care workers evaluate their psychosocial working situation more positive. However, this seems partly due to the very high proportion of part time workers.

Delete last sentence of conclusion in abstract.

Main text
Page 4, 3. sentence: move (home care, HC) up one line to after professional care at home.

Next sentence: I don’t understand PNC and GNH 709.311. The sentence points out that there will be more people in need of care and I expected the numbers in the parentheses to explain how many in HC and how many in GNH – not PNC again

Last to last sentence in 1. paragraph on page 4: change to “rising need of employees in professional care”

Last sentence in 1. paragraph on page 4: What is meant by “due to changes in the extent of nursing care itself”? delete “the number of nurses”

Last paragraph on page 4: what is job pressure (maybe delete)

Page 5, 1. paragraph: intention to leave the job and sickness absence

Next paragraph: Give information about the BELUGA-study – what did they study? (See also my general comments above) Add an S to researcher.

Check terms “nursing staff” and “geriatric nursing staff” – I think only the term “geriatric nursing staff” should be used.

Next paragraph: why mobile HC? Why not just home care. Also: Use full terms OR abbreviations consistently, not as here HC (abbreviation) and Geriatric Nursing homes (full term) in one sentence (check entire text for that).

The term “COPSOQ database” can not be used like that before it has been explained. At this point in the manuscript it would be enough to say “a population average”.

I am not sure if the second goal really is a goal (impact of working schedule aspects): I think it is more a reaction to the results found, that is, a further analysis which was undertaken to understand the results better.

Page 6, 2. paragraph: Add a reference.
Page 7, 1. paragraph: be more precise with number of scales and single items (if the abstract has been changed it is already better), but the authors could add information about scales or single items to the outcome measures, so that information does not be retrieved from table 2 only.

Last sentence in this paragraph: add answer to categories.

It is referred to figure 1 here – but it turns out that figure 1 shows the content of the German standard COPSOQ. I suggest showing what was used in this study. That is: change the box “supplementary scales” to what was used in this study (namely specific questions concerning the working schedule and specific aspects in the care of the elderly) and change the text accordingly, that is in the manuscript on page 7: move the short 3. paragraph up to the first paragraph on page 7, so that the entire instrument is described in that paragraph.

Page 7, 2. paragraph, 2. sentence: which scientific institute? The part about the scientific institute can also be deleted here, as the full information is given later.

End of paragraph: write: according to the system of job classifications of the German Federal Statistical Office and than add a reference.

Page 7, last paragraph: The information about the range from 0 to 100 does not explain WHY the scale values not present percentages. Add a sentence here.

Page 8 second sentence: delete “of course”

Second paragraph, last sentence: including an evaluation of the facility specific results seems to me to be the same as an assessment of psychosocial factors at work: what is the difference? – rewrite sentence more clearly.

3. paragraph: add at the end: “which conducted the survey.”

Page 9: correct 25 scales. What is meant by cases, subjects?

Write “postulated as a relevant difference”

Page 10, 1 sentence: delete “according to BGW care type classification” (it has been explained before)

2. paragraph: delete first part of 1. sentence and rewrite to “The data was grouped according to the occupation of the respondents: and continue with HC, GNH and than the others.

Last paragraph: why was “nursing profession” used for home care and “geriatric nursing profession” for GNH?

Last sentence on page 10: delete “in addition” and change the wording of “especially well represented” it sounds as if it was an advantage of some kind.

Page 11, second paragraph: HC and GNH are mixed up several times. Check the table and make all necessary corrections, including the flow of the argument.

Shared shift and alternating shift has been explained to me as a reviewer now, but not to the reader of the text. That should be done.
Last paragraph, 1. sentence: it should be referred to figure 2 (not 1). As I wrote above this whole paragraph and the figure are actually not needed (they might even cause more confusion). I suggest deleting this paragraph and figure 2.

Page 12: delete “COPSOQ philosophy”

Page 13, 1. paragraph: delete “better possibilities of development” (HC is only one point better than COPSOQ Hospital), add a + for workplace commitment in the column HC vs COPhosp.

Second paragraph: In the geriatric nursing homes (delete HC).

Page 15: Add (figure 3) after “38 points for no on-call duty”.
Add (data not shown) after “when not performing on-call duties”.

Page 16: The presentation of results of this subgroup analysis makes it difficult to distinguish between positive and negative relations. For example in the last sentence: there were fewer demands for those with less hours (a positive effect for those with fewer hours) and higher quantity of social relations with more hours (a positive effect for those with more hours). That paragraph should be rewritten to avoid the impression that fewer hours have positive effects on all variables.

Page 17: Discussion and conclusion
The section should start with a summary of the most important findings – not (only) how it was done. This is a service to the reader who might have gotten lost in the many details of the result section. It also paves the way to the discussion which follows this short summary: what was found and how should it be understood, what does it mean.

The discussion about the low participation rate should be moved to the discussion about limitations.

Are the information from Dulon and colleagues about German nursing homes? It should be added what they refer to.

Page 18, next to last sentence: Use “often found” instead of “systematically”. Use “tends to be high” instead of “is quite good”.
Last sentence: I think it is more leadership aspects that are at play here than social support aspects.

Page 19, 1. sentence: add compared to nurses and to the average of all occupations
3. sentence: use “would” instead of “might”

About the argument under 1.: What is meant by “Employees in nursing profession” only in geriatric care or all three groups? There are differences between the three nursing groups studies here (HC, GNH and hospital nurses) – hospital nurses are not too different from the population average. So I am not sure the first argument can be contained. (See also my comments about the use of terms above.)
Page 20, middle of the page. The next to last sentence is not finished and ends with “and 32%.”

Page 21, 1. sentence: what is meant by “integrated”, combined in one item? Or rather it is not distinguished between the two aspects of job insecurity? If there actually are two items (one on qualitative and one on quantitative job insecurity) than the authors could have tested their hypothesis. Why was that not done?

Last line: “interested” instead of “interesting”

Page 22: The short paragraph about the strengths of the study is all too short and imprecise. What is meant by high usability (in terms of Kompier)?

Use “large” database instead of “big”

Page 22: The “remark on adjustment for structural biases” in itself has some important thoughts, but I still think the manuscript should end with a conclusion forcing the authors to highlight what their study has added to the field of research. As it is now the manuscript does not have a conclusion as the headline of this chapter suggests.

Under the 2. point: a lot of studies

More general comments:

Is it burnout in general or personal burnout (an under category)?

Is it feedback or feedback quality?

My question about the measurement of social relation is only halfway answered: It seems to be only a single item asking about how often one works together with others. The term “social relations” and the impression (?) that it is a scale (more questions) leads to think that there is more “behind”. Therefore I suggest adding the information about the single item assessment (maybe even give the precise wording of the question and answer categories).

In addition to my comments to the tables/figures pointed out in the text I have the following comments:
Table 1: explain shared shift and alternating shifts either here or in the text
Table 2: The first column should read “scales and single items”
The N in the top of the columns should not be written in parenthesis as it gives the impressing that everything in parenthesis refers to Ns, were it is in fact SD in most cases. Consider writing “mean (SD)” in the top of the columns
Check spelling of single item in General care
What is meant by “Remark: all” at the bottom?

Figure 3 and 4: The titles of the two figures are different with regard to giving information about Ns (figure 4) or not (figure 3). It should be the same type of information on both figures. As I wrote above, I think the analysis should only be
done for care-workers.

Figure 3: Use only the term “on-call duty” as also used in table 1
Figure 4: Delete (N=12 missing) from the title of the figure (not relevant here)

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

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests