Reviewer’s report

Title: Importance of social capital at the workplace for return to work among women with a history of long-term sick leave: a cohort study

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Reviewer: Nicos Middleton

Reviewer's report:

General comments: This article deals with an interesting topic - the association between workplace social capital with work ability, working degree and vitality among women on long-term sick leave. It is generally a well-designed study and a well-written article. I believe it is an original contribution to the literature, especially since, even though social capital has been extensively studied in the community, studies in workplace settings are indeed far fewer by comparison and they tend to be of a cross-sectional nature, rather than prospective, which is a strength of this particular study, as the authors very accurately indicate. In addition, the article expands the study of the role of workplace social capital both in terms of the outcomes studied (return to work) as well as in terms of the particular sub-group of the working population i.e. women on long-term sick leave. In this study, a number of the core aspects (or dimensions) related to the theoretical concept of social capital have been measured (i.e. social support, sense of community and quality of leadership), based on the participants' perceptions. While each of these were measured with the use of 1 or two self-reported items, this is not so different from similar studies in the literature. I have a number of comments and suggestions - below in the order they appear in the manuscript, rather than in terms of importance.

Comments and suggestions

1) Abstract/Methods and results: The results section of the abstract can still be improved: (a) by providing some quantitative results and/or (b) at least presenting the overall results more accurately. Why do they authors only report specific relationships in the abstract? My understanding is that all explanatory factors (social support, sense of community and leadership quality) were predictors of all study outcomes (work ability, working degree and vitality).

2) Social capital and sustainable work situation: The authors refer to previous literature of social capital in occupational settings, and include a nice mix of literature, including some of the largest prospective and well-cited studies on the association between workplace social capital and health outcomes (such as the Finnish Public Sector Study). Citing Read's definition of workplace social capital, is very useful to the reader in order to understand the various
attributes that contribute to a positive work environment which include the role of leadership. This work specifically refers to nurses, however it could and should be generalizable to other settings. Also, the authors refer to a study with inconclusive evidence with regards to the effect of social support among people with musculoskeletal disability, but it is not clear in relation to which outcome (return to work?).

1) Also, same section, last paragraph, "aim of the study": It was nice to see that the authors are referring to "aspects of social capital" rather than to "social capital" directly, since this is a concept that is generally hard to measure. There are some scales that have been specifically designed to measure workplace social capital (such as the workplace social capital scale from the Finnish Public Sector study). In this study, the authors carefully name the particular aspects of social capital of interest in this study, which are measured with specifically selected items from the Copenhagen Psychosocial Questionnaire (COPSOC), a reliable and valid measure of the psychosocial work environment. The fact that the authors are measuring the particular three aspects: social support, sense of community and quality of leadership, is a strength of the study that the authors may not have emphasized enough. One could argue that these aspects directly relate to theoretical models of social capital i.e. social support-bonding, sense of community-bridging and quality of leadership-linking social capital. Thus, the choice of items seems obvious based on social capital theoretical models, even though it might have been to some extent guided by the availability of data for this sample. If however this was the guiding force behind the choice, I believe it would strengthen the article to explicitly explain why these constructs were chosen and how they relate to the theoretical concept social capital.

3) The Swedish context: This section is probably more suited in the introduction rather than in the Methods section.

4) Outcome variables: Vitality is measured with four items. It appears that two are positively phrased and two are negatively phrased. While it is probably self-explanatory, it might be worth specifying that two were reverse coded in order to calculate the overall score.

5) Independent variable: Even though arbitrary, it is understandable that predictor variables were transformed into categorical variables for the purposes of the analysis. For example, social support (based on two items) was dichotomized into often (>50 on a 0-100 scale) and rarely (≤50). Why were these particular cut-off points used? Since it is unlikely that this was based on a theoretical criterion, was it based on some statistical or some other criterion? For example, based on the observed distribution? Furthermore, while the two items of social support were combined into a single score, the same was not done for Quality of leadership, also measured by two items. In this case, it seems that each item was entered as a separate variable in the models. What guided this decision? Also, is it correct to assume then that the
categories high (≥75), moderate (26-74) and low (≤25) simply correspond to high=4 or 5 (on the five-point scale), moderate= 3 and low =1 or 2)?

6) Data analysis: Did participants provide information both for explanatory variables (i.e. social capital variables) and outcome variables at all times? Or, were social capital variables measured only at baseline? Were models with varying explanatory (predictor) variables used then i.e. the response at each point in time? More detail would be useful.

7) Results/lines 4-8: Even though reported in the Table, it would be useful to also report SD of Working degree, WAS and vitality in the text. In fact, other descriptive statistics such as min, max, median, and IQR might be useful to the reader to.

8) Results and Tables: Is there a justification why the two items of social support were combined into a single measure (especially since on refers to colleagues but the other to the superior) whereas the two items of quality of leadership were used separately in the analysis?

9) Tables 2-4: My understanding is that the group-time effect is reported in these tables. Particularly, for the variables that have three levels (i.e. quality of leadership), confirm that the first estimate shown in the Table (one column before last) indeed refers to the comparison between level 1 and 2 (and not between 1 and 3), and that the second one (last column) refers to the comparison between level 2 and 3. Also, in Table3 in particular, there seems to be duplication by mistake. The same estimates appear in both columns for the first two variables, which you would expect only one estimate.

10) Discussion/line 30-31: "The duration of sickness absence can be considerably reduced if the contact between the sick-listed individual and the workplace occurs at an early stage [46], and the presence of support from coworkers is predictive for RTW after sick leave [47]." Please rephrase. While the intention here is to provide additional evidence from the literature, this study has not directly looked at the duration of the sickness absence.

11) Discussion/ line 13-14: "A previous study from the same cohort also showed the importance of leadership quality [20]". For which outcome?

12) Strengths and limitations: Other than the prospective nature of the study and the use of mixed models, other strengths of the study include the measurement of several aspects of workplace social capital, and this may be added. However, there are a number of limitations that are not mentioned by the authors. For example, authors may want to comment on the way the low response rate at baseline (~50%) and/or loss to follow-up might have affected the observed results. This might be difficult to do if there are no data for non-responders,
and how they differ in terms of work variables and/or social capital variables, it might be worth discussing this volunteer/selection bias and the extent to which it might be differential further. Also, while the prospective nature of the study is a particular strength, authors might want to discuss the possibility of reverse causality, even if it's to refute it, i.e. people with low working ability, degree and vitality rating the work environment as less supportive.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**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

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