Reviewer's report

Title: Which aspects of health differ between working and nonworking women with fibromyalgia? - A cross-sectional study of work status and health

Version: 1 Date: 20 August 2012

Reviewer: Ercolie Bossema

Reviewer's report:

The article might be regarded as interesting since working and non-working people with fibromyalgia are compared with each other on both subjective and objective health measures.

Major Compulsory Revisions

1. Abstract (Background) & Background (of body text): It is stated that “there is no line of division that defines when subjective health problems develop into obstacles for activity and work participation”, suggesting that the current study might clear this issue. However, as indicated in the Discussion and by other researchers (e.g., Reisine et al., 2008), a cross-sectional study investigating health between working and non-working patients could not distinguish between 'cause and effect'.

2. Measures: In addition to the ‘personal factors’, there were 23 dependent variables which might differ between the 129 patients. A p-value of .05 and also .01 is too large to avoid type I errors. So, effort should be undertaken to improve the power of this study by either increasing the sample size or a further reduction of the p-value.

3. Statistical analysis: The Mann-Whitney U test should only be used to test differences between groups of variables with a non-normal distribution. It should be mentioned which variables had a non-normal distribution and in these cases medians instead of means should be reported in the Tables 1 and 2. To my opinion, the univariate binary logistic regression analyses are not necessary here as group differences for each of the variables are already examined with other tests (with some more appropriate because of a non-normal distribution).

4. Discussion: The discussion contains new findings of the current study, which should be avoided. In addition, only a selection of the findings is discussed and no attempt is taken to integrate the findings. Furthermore, the discussion of the findings and of the implications of the findings is very superficial. Also, a paragraph on the limitations of the study is lacking.

Minor Essential Revisions

1. The introduction starts with the 1990 ACR criteria for fibromyalgia. However, new criteria have been published in 1990, see Wolfe et al. in Arthritis Care Res 62;600-610.

2. Abstract (Conclusion) & Discussion (of body text): These sections contain new
findings of the current study, which are not described in the Results section. This should be avoided.

3. Methods, Participants: ‘Working full-time’ and ‘working part-time’ are not defined and neither is described what reasons people had to work part-time or not at all, although it is stated that “part-time workers and non-workers received disability benefits”. However, there might also be people who do not want work and therefore do not receive disability benefits, for example, in order to take care of the children.

4. Methods, Measures: The descriptions are a bit chaotic since the measures themselves and the order of the measures are not consistent across the text and tables. Other remarks about Table 1 and Table 2:
   a. Table 1: according to the title, this table includes ‘contextual factors, but according to the first line it includes ‘personal factors’; in addition, it does not contain ‘environmental factors’, although announced in the text; the ‘FIQ feel good’ score is a bit strange in this table; it is unclear why educational level is divided into # 9 years and 10-12 years and the percentages for this variable do not count up to 100%; there is no information on household income, as was announced in the text.
   b. Table 2: there is no information on social support, although announced in the text; there are only 7 FIQ subscales in the table instead of the 8 announced in the text; it is unclear why ‘MFI reduced activity’ is not classified in the ‘Activity and participation’ category; it is unclear why subscales of the SF-36 are not used.
   c. Tables 1 & 2: the significance of the difference between group 1 and 2 is lacking, but interesting; differences between groups should be corrected for differences (at least) in age between the three subgroups!
   d. Tables 1 & 2: I recommend removing the combined scores of the working group and showing exact p-values here and not in the text.
   e. Tables 1 & 2: all abbreviations (thus also ‘yrs’, ‘m’, ‘N’, ‘nr’, etcetera) should be explained below the tables.

5. Results, Study population: The number of tender points and the pain threshold for the three groups are not reported as are the statistics regarding the group differences for these variables.

6. Results, Body function: The results are a bit chaotic since the order of the measures is not consistent across the text and tables. In addition, some results are lacking in the text (e.g., FIQ morning tired), whereas others are lacking in the table (e.g., FIQ depression).

7. Small points:
   a. Background: Ref 8 and Ref 9 are identical.
   b. Methods, Participants: an error occurred since 154-22-12-18=102 and 102+65=167 instead of 168 participants in the study.

**Level of interest:** An article of limited interest
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.