Reviewer’s report

Title: The effect of physical activity and body mass index on menopausal symptoms: a cross-sectional study in primary care

Version: 4 Date: 19 January 2014

Reviewer: Ellen Evans

Reviewer’s report:

The authors are to be commended on their extensive revisions, especially with regards to their reframing of the manuscript to enhance the novel aspects of the link between PA (& BMI) and menopausal symptoms in Turkish women. A few minor comments remain which if addressed would enhance the readability and clarity of the manuscript.

1. Title:
   a. With the strong focus on Turkish women it is suggested that the population studied be added to the title.

2. Abstract:
   a. Change “information questionnaire” to be more descriptive and if generic medical and demographic I would leave it off.
   b. Inconsistent use of p denotation. p=0.004 vs. p<0.001. Correct throughout manuscript for consistency.
   c. spacing issue [for most menopausal symptoms, including sleep]
   d. Add direction of BMI and depressive mood association (assumed to be negative).
   e. Perhaps reframe conclusion to say “As part of preventive medicine, primary care physicians should also stress lifestyle changes, including physical activity, to manage menopausal symptoms.

3. Introduction:
   a. P2L2; [anxiety, vaginal itching and dryness, and urinary symptoms]
   b. P2L4; Sentence is comma spliced with hot flush rates not being related to vaginal atrophy. Suggest making 2 different sentences.
   c. Reference to osteoporosis and atherosclerotic CVD is not necessary in this introduction as the study did not address these outcomes. Suggest deletion
   d. Begin new paragraph with “Although the nature and prevalence of menopausal symptoms....”
   e. While many women are now seeking alternatives, .... [lifestyle changes to manage symptoms].
   f. Next sentence should not be a new paragraph. [There are promising results in this aspect....]. AND it is not appropriate as your study did not address
mechanisms of how PA/BMI influences menopausal symptoms.

g. Statement on Klinga et al is incongruent with the set-up of the content in the previous paragraph. If E1 and E2 decrease earlier in obese women they would logically have greater vasomotor symptoms. Address.

h. Introduction could still benefit from a hypothesis statement.

4. Methods:

a. Rephrase last sentence of the MRS to suggest that increasing severity as reported using MRS is linked with quality of life.

b. IPAQ paragraph should be the same paragraph.

c. Noted that no power calculations are offered.

5. Results:

a. Check significant figures of all data in text and tables. For example, age and BMI should only be carried to 1 decimal place.

b. Rephrase statement for BMI as the use of the term “while” is not logical.

6. Discussion:

a. In addition to the culture statement in the first paragraph, this discussion could benefit from the addition of information related to the links between PA and symptoms.

b. An important part of the cultural aspects of menopausal symptoms (east vs. west), is that your sample was collected in primary care which could be related to the fact that these women were seeking for treatment and thus biased the levels of reported symptoms. This should be added to the limitations of this study.

c. Somato-vegetative symptoms in working or retired women being lower than no working women may have nothing to do with PA levels (implied by the use of the term sedentary) but may be due to the fact that working women have higher levels of self-esteem and self-efficacy as you indicated in the last sentence.

d. PA and vasomotor symptoms paragraph: typo [effect of physical activity and assess[s] the effect of ……

e. Grammer structure…..[sexual problems and vaginal dryness was higher in women with reported lower levels of physical activity]

7. Conclusion:

a. The strong statement regarding weight control and regular PA being recommended are beyond the data reported in this manuscript (especially weight control as no relation was determined between BMI and symptoms).

8. Tables:

a. Table 2 – spelling of title “Somatovegatatif”

b. Table 2 and 3 and 4 - Inconsistent use of period versus comma for all numberings

c. Table 2 – when expressing p value of significant for categories with more than 2 there should be post-hoc. For example educational level has 3 categories –
which one is significantly different?

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

**Quality of written English:** Needs some language corrections before being published

**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.