Reviewer’s report

Title: Sexual dysfunction in women with Multiple Sclerosis: Prevalence and impact on quality of life

Version: 0 Date: 04 Nov 2019

Reviewer: Giulia Gava

Reviewer's report:

This is an observational study that investigates the prevalence of sexual dysfunction in women with multiple sclerosis in Iran. I think this is an interesting study and it can be a welcome addition to the scientific literature.

However, the manuscript needs some work as some significant flaws need to be addressed.

Material and Methods
Please start with a description of the design of the study and describe the in- and exclusion criteria more clearly (were gynaecological surgery such hysterectomy or hormonal treatment considered in the exclusion criteria, if not they should be acknowledged in results and discussion)

Please add a separate statistical section with the sample size determination and used tests. The used test would be also indicated in the tables.

Results.
It is not clear if women without sexual activity were included in the statistical analysis. If they haven't been sexually active they will get a fals lower score and this need to be taken into consideration when calculating the data. If not included in the analysis, how was disability in women not reporting sexual activity in your cohort? Did the disability reduce the frequency of sexual intercourses in those women?

Hormonal status of women is relevant to sexual function. Please report if there were any menopausal women and if any woman was using hormonal contraceptives that can influence sexual function.

Female Sexual Distress Scale (FSDS) was not used. This scale is so important because the presence of any distress is diagnostic of and should always be used.

Provide range for age

Discussion.
Please report also data from studies comparing the prevalence of SD in MS and healthy controls (Gumus et al 2014, Gava et al 2019)

Page 8 lines 1-4. It should be noted that also Bartnik et al 2017 reports a negative correlation between desire subscale and age, similarly to results published by Gava et al 2019. Please comment on them.

Please complete the discussion regarding the relationship between SD and disability EDSS comparing your data also with data by Gumus 2014, Gava 2019, Salhofer-Polanyi 2017 and Zivadinov 1999

Can you also report if there was any relationship between disease-modifying drugs or other drugs
(antidepressant for example) and SD?

It would be interesting if you can compare SD prevalence in the MS population with the prevalence in Iranian women without MS (you can also use literature data to discuss it in the discussion).

Please confirm that you have included your review in the ‘Comments to Author’ box?
As a minimum standard, please include a few sentences that outline what you think are the authors’ hypothesis/objectives, their main results, and the conclusions drawn. Your report should constructively instruct authors on how they can strengthen their paper to the point where it may be acceptable for publication, or provide detailed reasons as to why the manuscript does not fulfill our criteria for consideration. Please supply appropriate evidence using examples from the manuscript to substantiate your comments. Please break your comments into two bulleted or numbered sections: major and minor comments.

Please note that we may not be able to use your review if no comments are provided.

Please only upload as attachments annotated versions of manuscripts, graphs, supporting materials or other aspects of your report which cannot be included as text in the ‘Comments to Author’ box.

Yes

Are the methods appropriate and well described to allow independent reproduction of experiments?
Please state in the ‘Comments to Authors’ box below what you think are the strengths and weaknesses of the methods (study design, data collection, and data analysis), and what is required, if anything, to improve the quality of reporting

Yes

Does the work include the necessary controls?
If not, please explain in the ‘Comments to Author’ box below.

Yes

Are you able to assess the statistics?
- Are the statistical test(s) used in this study appropriate and well described?
- Is the exact sample size (n) reported for each experimental group/condition (as a number, not a range)?
- Are the description of any error bars and probability values appropriate?
- Are all error bars defined in the corresponding figure legends?
- Has a sample size calculation been included, or a description and rationale about how sample sizes were chosen?

Please can you confirm which of the following statements apply to your statistical assessment of the manuscript (Please include details of what the authors need to address in the ‘Comments to Author’ box):

I have been able to assess all of the statistics in this manuscript (please refer to checklist above)
Are the conclusions drawn adequately supported by the data shown?
If not, please explain in the ‘Comments to Author’ box below.

Yes

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

Should the manuscript be highlighted for promotional activity?
Articles that are deemed of interest to a broad audience can be promoted in a variety of ways. This could be through email updates, postings on the BioMed Central homepage, social media, blogs and/or press releases. Please indicate in the text box below whether you think this manuscript should be considered for promotional activity, indicating your reasons why (e.g. what is the most newsworthy aspect of the research).

No

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to
be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal