

# OBSTETRICS & GYNECOLOGY



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- Comments from the reviewers and editors (email to author requesting revisions)
- Response from the author (cover letter submitted with revised manuscript)\*
- Email correspondence between the editorial office and the authors\*

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**Date:** Feb 05, 2019  
**To:** "Carey S Pulverman" [REDACTED]  
**From:** "The Green Journal" em@greenjournal.org  
**Subject:** Your Submission ONG-18-2422

RE: Manuscript Number ONG-18-2422

Sexual assault in military increases risk for sexual dysfunction among women veterans

Dear Dr. Pulverman:

Your manuscript has been reviewed by the Editorial Board and by special expert referees. Although it is judged not acceptable for publication in Obstetrics & Gynecology in its present form, we would be willing to give further consideration to a revised version.

If you wish to consider revising your manuscript, you will first need to study carefully the enclosed reports submitted by the referees and editors. Each point raised requires a response, by either revising your manuscript or making a clear and convincing argument as to why no revision is needed. To facilitate our review, we prefer that the cover letter include the comments made by the reviewers and the editor followed by your response. The revised manuscript should indicate the position of all changes made. We suggest that you use the "track changes" feature in your word processing software to do so (rather than strikethrough or underline formatting).

Your paper will be maintained in active status for 21 days from the date of this letter. If we have not heard from you by Feb 26, 2019, we will assume you wish to withdraw the manuscript from further consideration.

#### REVIEWER COMMENTS:

Reviewer #1:

Authors: Study entitled Sexual Assault in military increases risk for sexual dysfunction among women veterans is a cross sectional study evaluating time period of sexual trauma on current dyspareunia symptoms, positive screenings for a depressive episode and PTS

1\* Title: Please change title - as this is a cross-sectional study, it is not possible to show causation of sexual assault in military increasing risk. Sexual assault in the military is associated with increased odds of sexual dysfunction.

2\* Abstract: Methods: line 60: Please include that the veterans that participated in the study were veterans recruited from two specific Midwestern VAs. Most women veterans do not seek care at VAs, which makes this distinction very important to include in the abstract.

3\* Key Words: include dyspareunia

4\* Introduction: Line 85: rewrite sentence. The rest of the paragraph does not support this intro sentence.

5\* Line 95: change MST to SAIM

6\* Line 95: Are these 'developmental stages' similar to those referenced in line 92? It would be important to clarify that these are set definitions in this field of sexual assault research.

7\* There is no mention of evaluating sexual dysfunction and PTSD or depression. See results section re: this topic.

8\* Methods:

9\* Participants: consider a graphic to show the sample population and ultimately who was included in the study

10\* Line 123: What was the name of the original study?

11\* Line 132: Describe why women >51yrs were not included?

12\* Procedures: Was the interview over the phone? Where were the participants when they were interviewed? I think it's important to consider this setting in the context of the material that was being reviewed. Are they in a safe and private

location?

13\* Line 138: Clarify why 3% of sample was used to confirm data accuracy? Is this a set standard for CATI studies? Thus, are the interviews recorded? Do women veterans know that?

\* Measures:

14\* Line 154: change 'experimenter' to 'interviewer'

15\* Line 158: Why were attempted assaults not included? Do attempted assaults result in less trauma morbidity than completed assaults? If so, explain and reference. How might the results be different if attempted assaults were included? Since both types of assaults were assessed, consider completing the analyses with both types of assaults unless you can provide the reason for excluding them. Otherwise, they could be confounding your current results.

16\* Sexual function: What happened with the other 5 questions re: sexual health? The only item that defined sexual dysfunction in this study is pain. Thus, consider changing 'sexual dysfunction' in this study to 'dyspareunia,' which is a more accurate term and also a term the audience is likely more familiar with.

17\* Depression: The screening included in this study defines a depressive disorder in the past two weeks, which means the patient will screen positive for a current depressive episode - not a diagnosis of major depressive disorder. A current depressive episode does not equal 'depression' as discussed throughout the paper. It is possible that participants can have a diagnosis of major depressive disorder without having an active depressive episode in the past 2 weeks. This is a limitation to address in the discussion.

18\* PTSD: Please re-word this paragraph. It is not clear what exactly dichotomized PTSD y/n in this study.

19\* Results: Line 199: Very good to include a comparison between participants and those that declined. Since they are all women veterans receiving care at a VA, it is possible to determine if they have screened positive for MST (since it is not possible to compare their lifetime sexual trauma histories). Consider comparing MST rates between these two groups.

20\* Line 202: Please exclude the 52yr old as the exclusion criteria was >51yrs old.

21\* Line 211: 'data' is plural. "these data are..."

22\* Results: Please reword results in language more suitable the audience to include general Ob/Gyns who may not be as familiar with how to interpret: "a 0.45 probability of sexual dysfunction". Does that mean a 45% increased odds of sexual dysfunction? These descriptions overall are confusing.

23\* Line 248: Consider changing 'contrast' to 'comparison' in this section.

24\* Line 261: Consider deleting this sentence and including this in a table only.

25\* Line 264: Omit the rest of this paragraph with comparisons not discussed earlier in the paper (sexual dysfunction with depressive episode and PTSD)

\* Discussion:

26\* Line 292: needs reference

27\* Line 302: needs reference

28\* Line 306: needs reference

29\* Line 307: needs reference - how has stress been related to changes in hormones?

\* Limitations paragraph:

30\* Need to include the following limitations: excluding women >52, limited generalizability (external validity) to veterans who don't get care at a VA (majority of veteran women do not get care at VAs) or to veterans who are non-white and live in other geographic areas, social desirability bias (how was this addressed?), what about confounding? CSA and SAIM group also included pre- and post-military adult sexual trauma (which is listed in a table, but not in the text)

31\* Table 1: Why does the percent >100 for Race? Why not include a multi-race instead?

32\* Table 2: The number of women veterans in the different group (418) under lifetime sexual trauma does not equal the number of women who had lifetime sexual trauma (511).

33\* Table 2: note: Why do the CSA and SAIM group include women who also have other adult sexual trauma? Consider removing these women for a cleaner analysis. The purpose of this paper has been to demonstrate that completed sexual

assault in the military is more greatly associated with current sexual pain and depressive symptoms/PTSD symptoms compared to CSA and likely other adult sexual trauma.

34\* Table 3: Remove 'included'; change table - it can be condensed; too much space.

35\* Table 4: If words are abbreviated, please include footnotes defining these abbreviations.

Reviewer #2: Abstract - Objective is to examine whether the relationship between childhood sexual assault (CSA) and sexual function in civilian women is also found in women veterans and to assess the impact of sexual assault in the military (SAIM).

Methods - Retrospective cohort design, 1004 women contacted, telephone interviews of sexual trauma, sexual function, mental health and compare sexual dysfunction with no history of sexual trauma, CSA, SAIM, or CSA and SAIM

Results - women with CSA and SAIM had the highest rates of dysfunction, PTSD, and depression, followed by women with SAIM, then CSA, then no assault

Conclusions - SAIM is more detrimental to sexual dysfunction than CSA in female veterans with CSA and SAIM having the greatest risk, therefore female veterans may need a targeted approach to treatment.

Introduction - Female veterans have high rates of sexual trauma - 24-48.5% with CSA and 23-33% with SAIM and there are sequelae on sexual function from these. This study is to compare the impact on sexual trauma in women's lives on sexual function. SAIM causes an increased risk of sexual dysfunction, depression, PTSD.

Methods - IRB obtained

participants - retrospective cohort of female veterans between 2005-2008

Procedure - interview with computer assist - standardized questions with answers recorded, average interview was 1 hr 16 min

Measures - demographics, lifetime sexual trauma divided into different phases sexual function, depression, and PTSD were assessed with various inventories - sexual function was a 6 item assessment that defined sexual function as the presence or absence of sexual pain

Analytic plan - sexual function was based on the history of sexual trauma

Results - 1000 women had complete histories for evaluation and ranged between 20-52 years of age. 48.7% had no trauma and 50.9% had been victims of trauma

There is a significant relationship between the stage of trauma and the risk of sexual dysfunction. CSA and SAIM had a greater risk of dysfunction, followed by SAIM, then CSA, then no trauma. This same relationship is shown in the risk of depression and PTSD. A lifetime history of sexual trauma is a stronger predictor of sexual dysfunction than mental health alone.

Discussion - Victims of CSA and SAIM had the highest rates of sexual dysfunction and the risk of assault during military service increased incidence of dysfunction. This is different than in civilian women where CSA has a greater risk of association with sexual dysfunction than those who have suffered from adult trauma  
limitations of study - observational study with a single item measure for sexual function but it does show the importance of assessing a lifetime history of sexual trauma

Comments - While this would have been a better study if a more sophisticated measure of sexual dysfunction had been used, the results are still noteworthy.

I wonder why it is just now being evaluated if it is from data collected on women between 2005-2008 - is there a reason the data is delayed? more recent information wasn't used?

Are these all validated surveys that were used - I would like more information on the surveys and the validation of these surveys previously.

The incidence of assault is very high in this population - how do you explain that?

Having said that, it is important to realize the significance of SAIM on female veterans and make sure they are provided with proper treatment and mental health resources.

Reviewer #3: In general, this manuscript is well written, but some remarks have to be made and some questions asked.

1. The authors of this manuscript describe the results of a post hoc analysis of findings from an original study that focused on gynaecological health in women veterans, as far as I understand. This information has to have a more prominent place in this manuscript.

2. The authors use a very narrow definition of sexual (dys) function "the presence or absence of sexual pain". I wonder whether the sequelae of sexual assault on sexual functioning can be comprised in this only issue/question. It is known that sexual assault can be associated with several aspects of sexual health, sexual interaction and functioning. Therefore, I would suggest to change 'sexual dysfunction' into 'sexual pain' in this manuscript. (see also "measures")

#### Introduction

3. r 94-97: the hypothesis is a bit poor formulated. The research and results also focused on the association between CSA, SAIM and CSA & SAIM and sexual dysfunction, depression and PTSD. For instance, no hypothesis was formulated about potential predictors of a sexual dysfunction

4. r 95: MST must be SAIM?

#### Material and Methods

5. I think it would be appropriate to mention explicitly and early in this section that this study is a further analysis of data found in another / original study with another focus

6. r 105: explain VA

7. r 107: women could participate in this study if they were enrolled for care...What kind of care is meant? I wonder whether this selection of women veterans contributes to a selection bias. In the discussion this potential bias and its consequences are not addressed.

8. r 122: it is unclear why 'three gynecological health related questions were asked...'. What were the questions. Are the questions important for the results of this study? the answers are not reported in the results section...

9. r 137: were the women informed about the possibility that they had to answer the questions a second time when they were called again?

10. In general, nothing is said about a potential re-traumatizing of enrolled women when they were asked about the past sexual trauma experiences? Did the authors/interviewers encounter these sequelae? And how did they handle this?

#### Measures

11. r 158: why does the current study focus on completed sexual trauma experiences and why are attempted experiences not included?

12. r 160-166: I've found the following description of the variables assessed in the SWAN study

#### SWAN

Variables of interest fall into the domains of importance of sex, sexual desire, frequency of activities (sexual intercourse and masturbation), physical pleasure, emotional satisfaction with partner, arousal, and pain. All questions were asked on 5-point Likert scales. All study women were asked how important was sex in their lives (not at all to extremely), how often they felt desire in the past 6 months to engage in any form of sexual activity either alone or with a partner (not at all to daily), frequency of engaging in masturbation in the past 6 months, and if they had engaged in sexual activities with a partner in the last 6 months (yes/no). Respondents who reported having engaged in sexual activities with a partner in the last six months were asked about frequency of sexual intercourse and arousal during sexual activity (not at all to daily), and degree of emotional satisfaction and physical pleasure from their relationship with a partner (not at all to extremely). Women who reported having sexual intercourse in the past 6 months were also asked about frequency of vaginal or pelvic pain during intercourse (not at all to daily).

I wonder: were the other variables not included in the (original) study? and what was the reason for this selection?

13. r 177: could the authors elaborate a bit more about what is meant with Criterion A trauma? I don't understand the way of assessment of the severity of the PTSD symptoms.

#### results

14. r 200-201: It confuses me (and the reader) to mention here 'self-report of...in the past year', without an earlier explanation where these variables come from and why these are of interest

15. r 219-222: the authors don't mention the OR as shown in table 3, but report about the probability. Could you explain for instance what is meant with...'.25 probability of dysfunction...' and how you calculated from OR to probability?

#### Discussion

16. r 281: in this rule the OR is mentioned and not the probability.....

17. r 288: the authors suggest that the finding '..among women veterans SAIM confers more risk for sexual dysfunction than CSA..' might raise concerns that the treatment for women veterans might be inadequate, overlooking the impact of SAIM. I wonder, why....could the authors explain this a bit more?

18. In general, the structure of the discussion is a bit confusing: Start with the main results of this study and make a comparison with existing knowledge (literature). The clinical implications ( r 289-293) and elaborations on the potential mechanisms..must to be discussed later on

19. r 319: methodological limitations: discuss also the retrospective design, potential bias, definition of 'sexual dysfunction', generalizability of results

#### Tables:

20. r 500: I would delete the conclusion in the note of table 3

21. r 513: I would delete the conclusion in the note of table 4

#### STATISTICAL EDITOR'S COMMENTS:

1. Need to include a flow diagram showing the initial total of 2414 eligible women to 1670 invited and 1055 consented and 615 declined. The study may be subject to bias since only 1055/2414 or 44% of the original cohort were analyzed. What were the demographic characteristics of those that did not participate and could any differences interfere with generalizability of the conclusions?

2. Tables 3, 4: No need to report the  $\beta$ (SE). Should just cite the OR(95% CI) for CSA, SIAM and both and state that the referent group were the women without sexual trauma histories.

3. Table 4: Should have a column of crude OR with CIs and a column of adjusted ORs with CIs.

4. Were variables such as age, race, sexual orientation considered in the adjusted model?

5. Were the variables in Table 1 allocated differentially to the respondent categories of Table 2?

#### ASSOCIATE EDITOR - GYN:

Please include in the revised manuscript a mention of the limitations of the broader applicability of these findings as it was from 2 midwestern VA systems - and also that the (?) majority of women vets do not even receive their care from the VA

#### EDITORIAL OFFICE COMMENTS:

1. The Editors of Obstetrics & Gynecology are seeking to increase transparency around its peer-review process, in line with efforts to do so in international biomedical peer review publishing. If your article is accepted, we will be posting this revision letter as supplemental digital content to the published article online. Additionally, unless you choose to opt out, we will also be including your point-by-point response to the revision letter, as well as subsequent author queries. If you opt out of including your response, only the revision letter will be posted. Please reply to this letter with one of two responses:

1. OPT-IN: Yes, please publish my response letter and subsequent email correspondence related to author queries.
2. OPT-OUT: No, please do not publish my response letter and subsequent email correspondence related to author queries.

2. As of December 17, 2018, Obstetrics & Gynecology has implemented an "electronic Copyright Transfer Agreement" (eCTA) and will no longer be collecting author agreement forms. When you are ready to revise your manuscript, you will be prompted in Editorial Manager (EM) to click on "Revise Submission." Doing so will launch the resubmission process, and you will be walked through the various questions that comprise the eCTA. Each of your coauthors will receive an email from the system requesting that they review and electronically sign the eCTA.

Any author agreement forms previously submitted will be superseded by the eCTA. During the resubmission process, you are welcome to remove these PDFs from EM. However, if you prefer, we can remove them for you after submission.

3. Standard obstetric and gynecology data definitions have been developed through the reVITALize initiative, which was convened by the American College of Obstetricians and Gynecologists and the members of the Women's Health Registry Alliance. Obstetrics & Gynecology has adopted the use of the reVITALize definitions. Please access the obstetric and gynecology data definitions at <https://www.acog.org/About-ACOG/ACOG-Departments/Patient-Safety-and-Quality-Improvement/reVITALize>. If use of the reVITALize definitions is problematic, please discuss this in your point-by-point response to this letter.
  4. Because of space limitations, it is important that your revised manuscript adhere to the following length restrictions by manuscript type: Original Research reports should not exceed 26 typed, double-spaced pages (6,500 words). Stated page limits include all numbered pages in a manuscript (i.e., title page, précis, abstract, text, references, tables, boxes, figure legends, and print appendixes) but exclude references.
  5. Specific rules govern the use of acknowledgments in the journal. Please note the following guidelines:
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    - \* If all or part of the paper was presented at the Annual Clinical and Scientific Meeting of the American College of Obstetricians and Gynecologists or at any other organizational meeting, that presentation should be noted (include the exact dates and location of the meeting).
  6. Provide a short title of no more than 45 characters (40 characters for case reports), including spaces, for use as a running foot.
  7. The most common deficiency in revised manuscripts involves the abstract. Be sure there are no inconsistencies between the Abstract and the manuscript, and that the Abstract has a clear conclusion statement based on the results found in the paper. Make sure that the abstract does not contain information that does not appear in the body text. If you submit a revision, please check the abstract carefully.
- In addition, the abstract length should follow journal guidelines. The word limits for different article types are as follows: Original Research articles, 300 words. Please provide a word count.
8. Only standard abbreviations and acronyms are allowed. A selected list is available online at <http://edmgr.ovid.com/ong/accounts/abbreviations.pdf>. Abbreviations and acronyms cannot be used in the title or précis. Abbreviations and acronyms must be spelled out the first time they are used in the abstract and again in the body of the manuscript.
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Please note that if your article is accepted, you will receive an email from the editorial office asking you to choose a publication route (traditional or open access). Please keep an eye out for that future email and be sure to respond to it promptly.

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If you choose to revise your manuscript, please submit your revision via Editorial Manager for Obstetrics & Gynecology at <http://ong.editorialmanager.com>. It is essential that your cover letter list point-by-point the changes made in response to each criticism. Also, please save and submit your manuscript in a word processing format such as Microsoft Word.

If you submit a revision, we will assume that it has been developed in consultation with your co-authors and that each author has given approval to the final form of the revision.

Again, your paper will be maintained in active status for 21 days from the date of this letter. If we have not heard from you by Feb 26, 2019, we will assume you wish to withdraw the manuscript from further consideration.

Sincerely,

The Editors of Obstetrics & Gynecology

2017 IMPACT FACTOR: 4.982

2017 IMPACT FACTOR RANKING: 5th out of 82 ob/gyn journals

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In compliance with data protection regulations, please contact the publication office if you would like to have your personal information removed from the database.



[Redacted]

February 26, 2019

Dear Editors of *Obstetrics & Gynecology*,

Thank you for consideration of our manuscript (ONG-18-2422), “Sexual assault in military is associated with increased odds of sexual pain among women veterans” for *Obstetrics & Gynecology*. We appreciate the detailed feedback from yourself and the Reviewers. We have responded to each comment point-by-point below. Please note that pages numbers listed below refer to the paper if read in Microsoft Word Track Changes: All Markup (which of course makes the paper slightly longer; if read in Track Changes: No Markup the paper fits within the page limits). Thank you again for your time and consideration.

Sincerely,

Carey S. Pulverman, Ph.D.

[Redacted]

[Redacted]

[Redacted]

**Reviewer #1:**

Authors: Study entitled Sexual Assault in military increases risk for sexual dysfunction among women veterans is a cross sectional study evaluating time period of sexual trauma on current dyspareunia symptoms, positive screenings for a depressive episode and PTS

1\* Title: Please change title - as this is a cross-sectional study, it is not possible to show causation of sexual assault in military increasing risk. Sexual assault in the military is associated with increased odds of sexual dysfunction.

*Per Reviewer 1's suggestion we have updated the title to reflect the cross-sectional nature of the study. We also updated "sexual dysfunction" to "sexual pain" to more accurately reflect our findings in the title and across the paper. The paper is now titled, "Sexual assault in military is associated with increased odds of sexual pain among women veterans" (pg. 1).*

2\* Abstract: Methods: line 60: Please include that the veterans that participated in the study were veterans recruited from two specific Midwestern VAs. Most women veterans do not seek care at VAs, which makes this distinction very important to include in the abstract.

*We have updated the Abstract to reflect that all participants were women recruited from two Midwestern VA medical centers and their associated community based outpatient clinics (pg. 3), and added this issue to the limitations section of the Discussion (pg. 18). Reviewer 1 is correct that most women veterans do **not** receive health care in VA,<sup>1</sup> however the newer cohorts of women veterans are seeking health care at VA at much higher rates than previous cohorts.<sup>2</sup> Given women veterans' growing reliance on VA health care, the VA has invested many resources in research to better understand the health care needs of women veterans.<sup>3,4</sup>*

3\* Key Words: include dyspareunia

*Per Reviewer 1's suggestion, we have added dyspareunia to the list of keywords. This is an excellent point and we think this will improve indexing and searching of the article (pg. 4).*

4\* Introduction: Line 85: rewrite sentence. The rest of the paragraph does not support this intro sentence.

*As Reviewer 1 suggested we revised the introductory sentence to this paragraph to be more consistent with the rest of the paragraph (pg. 4).*

5\* Line 95: change MST to SAIM

*We have made this copy editing change. We appreciate the Reviewer catching this error. We intended to use the acronym SAIM throughout the paper (pg. 5). MST refers to **both** sexual harassment and sexual assault<sup>5</sup> and in our study we assessed for sexual assault specifically, thus the acronym SAIM is more accurate. We have also updated the paper to refer to "sexual assault" rather than "sexual trauma" as sexual assault is a more accurate term for the experiences we assessed in our study.*

6\* Line 95: Are these 'developmental stages' similar to those referenced in line 92? It would be important to clarify that these are set definitions in this field of sexual assault research.

*We were interested in the impact of sexual trauma on women veterans' mental and sexual health during four distinct developmental stages. These stages included, 1) childhood (before age 18), 2) pre-military adulthood (age 18 until entering military service), 3) during military service (SAIM), and 4) post-military service (i.e., from end of military service until the present day). These developmental stages have been used in prior research on women veterans' mental and sexual health.<sup>6,7</sup> Given the findings of prior research, that CSA has the largest impact on sexual health among civilian women, and that SAIM has the largest impact on women veterans' mental health, we chose to focus our research question on comparing the impact of CSA, to SAIM, to CSA and SAIM (pg. 5 and 9).*

7\* There is no mention of evaluating sexual dysfunction and PTSD or depression. See results section re: this topic.

*We have added the hypotheses for PTSD and depression, and for our exploratory analysis to the Introduction (pg. 5).*

8\* Methods:

9\* Participants: consider a graphic to show the sample population and ultimately who was included in the study

*Per Reviewer 1's suggestion we have added a figure to demonstrate participant recruitment. In an effort to avoid redundancy we removed these numbers from the text (pg. 31).*

10\* Line 123: What was the name of the original study?

*The title of the original study was Sexual Violence and Women Veteran's Gynecologic Health (funded by the Department of Veterans Affairs, NRI 04-194, Dr. Anne Sadler, PI). We have added the name of the study into the manuscript as suggested by Reviewer 1 (pg. 5).*

11\* Line 132: Describe why women >51yrs were not included?

*Women over 51 years old were not included in the population sampled because the original study focused on pre-menopausal women. The aim of the original study was to examine the relationship between sexual assault and gynecological health among women veterans. Since menopause is associated with several gynecological health issues, the study was limited to pre-menopausal women in order to limit the number of issues that could affect women's gynecological health.*

12\* Procedures: Was the interview over the phone? Where were the participants when they were interviewed? I think it's important to consider this setting in the context of the material that was being reviewed. Are they in a safe and private location?

*Women were interviewed over the phone. Given that the interviews were scheduled ahead of time and that women knew the topic of the study, women were provided with the opportunity to select a safe and confidential location. We have added information on this to the paper (pg. 7).*

13\* Line 138: Clarify why 3% of sample was used to confirm data accuracy? Is this a set standard for CATI studies? Thus, are the interviews recorded? Do women veterans know that?

*The quality assurance procedure included informing women at the end of their CATI interview that they might be called back to confirm the quality and accuracy of the interview. Three percent of study participants were randomly selected for these quality assurance interviews and were mailed a letter informing them they had been selected and were invited to call the study team directly or wait until they were called by the study team. In the quality assurance interviews, participants were re-asked a limited number of questions from the original interview, and answers were compared between their original interview and the quality assurance interview. The quality assurance interviews took less than 2 minutes each, in an effort to reduce burden on participants. **Neither** the original nor quality assurance interviews were audio recorded. Through over a decade of CATI study oversight, Dr. Sadler and colleagues have found that 3% is a sufficient number of quality assurance call backs to ensure data entry accuracy across interviewers, without imposing undue burden on participants. We have added brief information on these procedures to the paper (pg. 7).*

\* Measures:

14\* Line 154: change 'experimenter' to 'interviewer'

*We have made this edit (pg. 7).*

15\* Line 158: Why were attempted assaults not included? Do attempted assaults result in less trauma morbidity than completed assaults? If so, explain and reference. How might the results be different if attempted assaults were included? Since both types of assaults were assessed, consider completing the analyses with both types of assaults unless you can provide the reason for excluding them. Otherwise, they could be confounding your current results.

*We compared sexual pain between women reporting attempted sexual assault and completed sexual assault, and there was a significant difference ( $\chi^2(1) = 7.78, p < .01$ ) between these two groups, with more women in the completed assault group reporting sexual pain. We also compared sexual pain between women reporting no sexual assault and women reporting attempted sexual assault and there was no significant difference in report of genital pain ( $\chi^2(1) = .64, ns$ ) between these two groups. It appeared that completed assault was associated with more trauma morbidity than attempted assault. Therefore, in all subsequent analyses, women with no sexual assault history or attempted sexual assault only were grouped together. We have added this rationale to the paper (pg. 8).*

16\* Sexual function: What happened with the other 5 questions re: sexual health? The only item that defined sexual dysfunction in this study is pain. Thus, consider changing 'sexual dysfunction' in this study to 'dyspareunia,' which is a more accurate term and also a term the audience is likely more familiar with.

*We did not evaluate these other 5 sexual health questions because **none** of these questions assessed clinically relevant female sexual dysfunction as it is defined by the DSM-5 and ICD-10. Given that these other items did not address sexual dysfunction directly, we felt it would be medically inaccurate to include them in the paper. We see now that mention of the other items is confusing and therefore we have removed them from the paper and instead focus on the single item on sexual pain.*

*We agree with Reviewer 1 that it would be more appropriate to edit the paper to refer to “sexual pain” rather than “sexual dysfunction,” and we have made this edit throughout the paper including the title.*

*Although sexual pain and dyspareunia have the same meaning, we prefer the term sexual pain as it is more universally recognized across healthcare fields.*

17\* Depression: The screening included in this study defines a depressive disorder in the past two weeks, which means the patient will screen positive for a current depressive episode - not a diagnosis of major depressive disorder. A current depressive episode does not equal 'depression' as discussed throughout the paper. It is possible that participants can have a diagnosis of major depressive disorder without having an active depressive episode in the past 2 weeks. This is a limitation to address in the discussion.

*This is an extremely important point and we have updated the paper to indicate that the CIDI-SF screens for a major depressive episode, not major depressive disorder. We have updated the Materials and Methods section, references to depression throughout the paper, and added this point to the limitations section as suggested by Reviewer 1 (pg. 9-10 & 18-19).*

18\* PTSD: Please re-word this paragraph. It is not clear what exactly dichotomized PTSD y/n in this study.

*Per Reviewer 1's recommendation, we have revised the Materials and Methods paragraph on the assessment of PTSD to improve clarity (pg. 10).*

19\* Results: Line 199: Very good to include a comparison between participants and those that declined. Since they are all women veterans receiving care at a VA, it is possible to determine if they have screened positive for MST (since it is not possible to compare their lifetime sexual trauma histories). Consider comparing MST rates between these two groups.

*We agree with Reviewer 1 that it would have been interesting to compare rates of MST (i.e., sexual harassment and sexual assault during military service)<sup>5</sup> between participants and non-participants. However review of the sampling pool's medical records to examine their responses to the VA's MST screener was not part of our original study protocol, and since our data collection is now closed, we were unable to obtain that data at this time. Additionally, our inclusion criteria included enrollment in VA but not necessarily that women were receiving VA healthcare, and only women veterans receiving VA health care are screened for MST. Thus even if we had women's consent to look at this data, it would likely be incomplete. In our current and future studies we do assess MST using the VA's 2-item screener, as well as our own assessment tools.*

20\* Line 202: Please exclude the 52yr old as the exclusion criteria was >51yrs old.

*The 52 year old participant was 51 years old when she was recruited for the study, per the study inclusion criteria presented on pg. 5-6. This participant turned 52 by the date of her interview, which was only a short time later. We re-calculated all statistics **excluding** the 52 year old participant and found the same results, therefore we propose keeping this participant in the sample. We have clarified that the study inclusion criteria were < 51 years old **at the time of recruitment** and that women might have turned 52 by the time of their interview, in the Materials and Methods and Results sections, (pg. 7 & 11).*

21\* Line 211: 'data' is plural. "these data are..."

*We have revised this section to remove the non-plural use of the word 'data' (pg. 12).*

22\* Results: Please reword results in language more suitable the audience to include general Ob/Gyns who may not be as familiar with how to interpret: "a 0.45 probability of sexual dysfunction". Does that mean a 45% increased odds of sexual dysfunction? These descriptions overall are confusing.

*Per Reviewer 1's recommendation we have removed this language from the Results section and replaced it with a description of the odds ratios which are much more intuitive and easy to understand (pg. 11-13).*

23\* Line 248: Consider changing 'contrast' to 'comparison' in this section.

*We have made the requested edit (pg. 11).*

24\* Line 261: Consider deleting this sentence and including this in a table only.

*We carefully considered Reviewer 1's request to delete this sentence and include in a table instead. However after we removed the B and SE values, per the request of the Statistics Editor, there was too little information to justify adding an additional table to the paper. We have retained this shortened version of the statistics in the text (pg. 15).*

25\* Line 264: Omit the rest of this paragraph with comparisons not discussed earlier in the paper (sexual dysfunction with depressive episode and PTSD)

*We would like to retain the exploratory analysis in the paper, as we think this finding is interesting and relevant to the overall topic of the paper. Therefore we have introduced this exploratory analysis in the Introduction, so that the reader is presented with this idea early on (pg. 5).*

\* Discussion:

26\* Line 292: needs reference

*Upon revision we removed this sentence from the paper.*

27\* Line 302: needs reference

*We have added a reference for this statement (pg. 17).*

28\* Line 306: needs reference

29\* Line 307: needs reference - how has stress been related to changes in hormones?

*We have references for this statement (pg. 18).*

\* Limitations paragraph:

30\* Need to include the following limitations: excluding women >52, limited generalizability (external validity) to veterans who don't get care at a VA (majority of veteran women do not get care at VAs) or to veterans who are non-white and live in other geographic areas, social desirability bias (how

was this addressed?), what about confounding? CSA and SAIM group also included pre- and post-military adult sexual trauma (which is listed in a table, but not in the text)

*Per Reviewer 1's recommendations, we have added all of these limitations to the limitations section of the paper (pg. 18-19).*

31\* Table 1: Why does the percent >100 for Race? Why not include a multi-race instead?

*Per the suggestion of Reviewer 1, we have updated the table to include a multi-race category, and now each participant is only counted in 1 race group, and the percentages add up to 100% (pg. 26).*

32\* Table 2: The number of women veterans in the different group (418) under lifetime sexual trauma does not equal the number of women who had lifetime sexual trauma (511).

*Reviewer 3 makes an important point. The reasons these numbers do not match up is that we presented the number of women in the groups of interest for our research question, CSA only, SAIM only, and CSA and SAIM. This did not include women for example, who may have been assaulted in childhood and pre-military adulthood. To better clarify the sexual assault histories of women in our sample, we have added the counts for women who reported sexual trauma during each developmental stage (noting in the table these numbers are not mutually exclusive) as well as the number of time periods women experienced sexual assault. Lastly, in the section where we present the totals for the groups relevant to the current study question, CSA only, SAIM only, and CSA and SAIM, we have added another row (definition provided in the Table) so that each mutually exclusive group is included. (pg. 27).*

33\* Table 2: note: Why do the CSA and SAIM group include women who also have other adult sexual trauma? Consider removing these women for a cleaner analysis. The purpose of this paper has been to demonstrate that completed sexual assault in the military is more greatly associated with current sexual pain and depressive *symptoms*/PTSD symptoms compared to CSA and likely other adult sexual trauma.

*Unfortunately, many women veterans who have experienced CSA and SAIM, also experience sexual assault in other developmental stages. Because of this, we ran the analyses with a stringent **CSA and SAIM only** group, and with a more inclusive **at least CSA and SAIM** (women may have also experienced pre and post-military adulthood sexual assault) and because the results were similar, we have presented the results that include those with sexual assaults in pre or post-military adulthood in the paper. We have added a rationale for this decision to the text (pg. 9). We also now include more information in Table 2 that shows when the women experienced sexual assault(s) as well as how many women experienced sexual assaults in more than one time period.*

*The results for the analyses on the **CSA and SAIM only** group are below and were similar to the original results.*

*There was a significant relationship between developmental stage of sexual trauma (no sexual trauma, CSA only, SAIM only, and **CSA and SAIM only**) and sexual pain,  $\chi^2(3) = 27.27, p < .001$ .*

*There was a significant relationship between developmental stage of sexual trauma (no sexual trauma, CSA only, SAIM only, and **CSA and SAIM only**) and depression,  $\chi^2(3) = 43.51, p < .001$ .*

There was a significant relationship between developmental stage of sexual trauma (no sexual trauma, CSA only, SAIM only, and **CSA and SAIM only**) and screening diagnosis of PTSD,  $\chi^2(3) = 73.95, p < .001$ .

	95% CI Odds Ratios		
	Lower	Odds Ratio	Upper
CSA only	1.12	1.75	2.72
SAIM only	1.47	2.37	3.82
CSA and SAIM only	1.99	3.6	6.53
<i>Depression</i>			
CSA only	1.77	2.65	3.96
SAIM only	2.04	3.18	4.95
CSA and SAIM only	2.49	3.91	6.16
<i>PTSD</i>			
CSA only	1.39	2.20	3.48
SAIM only	3.5	5.55	8.79
CSA and SAIM only	3.91	5.26	9.53

34\* Table 3: Remove 'included'; change table - it can be condensed; too much space.

We have removed the “included” and “constant” lines from Table 3 to reduce space (pg. 29).

35\* Table 4: If words are abbreviated, please include footnotes defining these abbreviations.

We have added a footnote with abbreviations to Table 4 (pg. 30).

## **Reviewer #2:**

Abstract - Objective is to examine whether the relationship between childhood sexual assault (CSA) and sexual function in civilian women is also found in women veterans and to assess the impact of sexual assault in the military (SAIM).

Methods - Retrospective cohort design, 1004 women contacted, telephone interviews of sexual trauma, sexual function, mental health and compare sexual dysfunction with no history of sexual trauma, CSA, SAIM, or CSA and SAIM

Results - women with CSA and SAIM had the highest rates of dysfunction, PTSD, and depression, followed by women with SAIM, then CSA, then no assault

Conclusions - SAIM is more detrimental to sexual dysfunction than CSA in female veterans with CSA and SAIM having the greatest risk, therefore female veterans may need a targeted approach to treatment.

Introduction - Female veterans have high rates of sexual trauma - 24-48.5% with CSA and 23-33% with SAIM and there are sequelae on sexual function from these. This study is to compare the impact on sexual trauma in women's lives on sexual function. SAIM causes an increased risk of sexual dysfunction, depression, PTSD.

Methods - IRB obtained

participants - retrospective cohort of female veterans between 2005-2008

Procedure - interview with computer assist - standardized questions with answers recorded, average interview was 1 hr 16 min

Measures - demographics, lifetime sexual trauma divided into different phases sexual function, depression, and PTSD were assessed with various inventories - sexual function was a 6 item assessment that defined sexual function as the presence or absence of sexual pain

Analytic plan - sexual function was based on the history of sexual trauma

Results - 1000 women had complete histories for evaluation and ranged between 20-52 years of age. 48.7% had no trauma and 50.9% had been victims of trauma

There is a significant relationship between the stage of trauma and the risk of sexual dysfunction. CSA and SAIM had a greater risk of dysfunction, followed by SAIM, then CSA, then no trauma. This same relationship is shown in the risk of depression and PTSD. A lifetime history of sexual trauma is a stronger predictor of sexual dysfunction than mental health alone.

Discussion - Victims of CSA and SAIM had the highest rates of sexual dysfunction and the risk of assault during military service increased incidence of dysfunction. This is different than in civilian women where CSA has a greater risk of association with sexual dysfunction than those who have suffered from adult trauma limitations of study - observational study with a single item measure for sexual function but it does show the importance of assessing a lifetime history of sexual trauma

Comments - While this would have been a better study if a more sophisticated measure of sexual dysfunction had been used, the results are still noteworthy.

*We agree with Reviewer 2 that a validated measure of sexual function would have improved the study. We hope this paper encourages other scientists to use validated measures of sexual function in future research, and we have included suggestions for validated measures (pg. 19).*

I wonder why it is just now being evaluated if it is from data collected on women between 2005-2008 - is there a reason the data is delayed? More recent information wasn't used?

*This paper is a secondary analysis of data collected from 2005-2008. None of our prior papers examined this specific research question. Additionally recent research on women veterans suggest that the rates of sexual assault exposure have remained consistent over time<sup>12,13</sup> and the numbers of women using VA health care is increasing<sup>2</sup> suggesting that understanding the impact of sexual assault on women veterans' health is a timely issue.*

Are these all validated surveys that were used - I would like more information on the surveys and the validation of these surveys previously.

*The measures of depression and PTSD were validated measures that are frequently used in mental health research (see pg. 9-10 in Materials and Methods for details on these measures). Sexual pain was assessed with a single item, based on a sexual function measure from the SWAN study. Sexual pain was assessed with the dichotomous item, "Does it hurt you to have sexual intercourse or penetration (yes/no)?" (pg. 9). In our Discussion we encourage future researchers to use validated measures of sexual function, and we provide some suggestions of validated measures (pg. 19).*

The incidence of assault is very high in this population - how do you explain that?

*The incidence of sexual assault is high among women veterans, and the rate of sexual assault exposure reported in our study is consistent with the rates of assault reported in other studies on women veterans.<sup>7,14</sup>*

Having said that, it is important to realize the significance of SAIM on female veterans and make sure they are provided with proper treatment and mental health resources.

*We agree with Reviewer 2 that sexual assault among women veterans, and the related mental and sexual health sequelae, are major public health issues that should be addressed. We hope this article inspires further research on the impact of SAIM on women veterans' sexual health and ideally tailored treatment approaches for this group.*

### **Reviewer #3:**

In general, this manuscript is well written, but some remarks have to be made and some questions asked.

1. The authors of this manuscript describe the results of a post hoc analysis of findings from an original study that focused on gynecological health in women veterans, as far as I understand. This information has to have a more prominent place in this manuscript.

*Per Reviewer 3's suggestion, we have noted that the current study was a secondary analysis and added information on the parent study to the beginning of the Materials and Methods section (pg. 5).*

2. The authors use a very narrow definition of sexual (dys) function "the presence or absence of sexual pain'. I wonder whether the sequelae of sexual assault on sexual functioning can be comprised in this only issue/question. It is known that sexual assault can be associated with several aspects of sexual health, sexual interaction and functioning. Therefore, I would suggest to change 'sexual dysfunction' into 'sexual pain' in this manuscript.( see also "measures").

*Per Reviewer 3's suggestion, and the suggestion of the other Reviewers, we have updated the entire manuscript, including the title, to refer to "sexual pain" rather than "sexual dysfunction."*

Introduction

3. r 94-97: the hypothesis is a bit poor formulated. The research and results also focused on the association between CSA, SAIM and CSA & SAIM and sexual dysfunction, depression and PTSD. For instance, no hypothesis was formulated about potential predictors of a sexual dysfunction.

*Per the suggestion of Reviewer 3 we have revised the hypothesis section of the Introduction for clarity (pg. 5).*

4. r 95: MST must be SAIM?

*Thank you for this correction. We have made the requested copy editing change (pg. 5).*

#### Material and Methods

5. I think it would be appropriate to mention explicitly and early in this section that this study is a further analysis of data found in another / original study with another focus

*We have added this information to the beginning of this section (pg. 5).*

6. r 105: explain VA

*We have spelled out VA here (pg. 5).*

7. r 107: women could participate in this study if they were enrolled for care...What kind of care is meant? I wonder whether this selection of women veterans contributes to a selection bias. In the discussion this potential bias and its consequences are not addressed.

*There are several reasons women may enroll in VA, including to obtain health care, complete a disability claim, enroll in a registry, or in response to a veteran outreach program. Enrollment in VA, does not necessarily mean women receive VA healthcare, although that option is available to them.<sup>1</sup> In terms of VA healthcare women veterans can fall into three groups: sole VA users, dual users who use VA and non-VA health care, and non-VA users who receive all of their health care outside of VA. Although the current sample were all enrolled in VA, they were not all necessarily using VA healthcare. We examined the health care use of this sample in a prior publication and found that 32% were sole VA users, 56% were dual users, and 12% were non-users of VA care.<sup>15</sup> We have added a list of reasons women may have enrolled in VA to the manuscript (pg. 5). We have also added that use of a VA-enrolled sample may limit the generalizability of our results to the limitations section (pg. 18).*

8. r 122: it is unclear why 'three gynecological health related questions were asked...'. What were the questions. Are the questions important for the results of this study? the answers are not reported in the results section...

*The parent study focused on the relationship between sexual assault and gynecological health in women veterans. Therefore, women who declined to participate were asked 3 gynecological health questions in order to compare participants and non-participants on gynecological health to test for potential volunteer bias. These questions included, 1) "In general would you say your health is: excellent, very good, good, fair, or poor?", 2) Have you ever been told you have had an abnormal Pap smear?, and 3) In the last year, approximately how many times have you seen a doctor or health care provider for gynecologic health issues?" There were no significant differences found between participants and non-*

participants on these questions.<sup>11</sup> We did **not** include this information, only a reference to the main paper from the parent study, as we did not feel this information was directly relevant to the sexual function analyses presented in this paper. We would be happy to add this information into the paper if the Reviewer thinks it is necessary.

9. r 137: were the women informed about the possibility that they had to answer the questions a second time when they were called again?

*Yes, at the end of the CATI interview women were informed they might be called again for quality assurance purposes. This procedure was designed to limit burden on participants, including that the call-back interviews were less than 2 minutes in length. This information has been added to the paper (pg. 7).*

10. In general, nothing is said about a potential re-traumatizing of enrolled women when they were asked about the past sexual trauma experiences? Did the authors/interviewers encounter these sequelae? And how did they handle this?

*All interviewers were female and extensively trained by the PI, Dr. Anne Sadler, a licensed marital & family therapist and Registered Nurse, who has two decades of clinical practice in the VA setting, treating women veterans with histories of sexual trauma. Interviewers were trained in confidentiality, trauma sequelae, and ways to respond appropriately and effectively to women with trauma (combat or sexual violence) exposures. Participants were routinely queried if they would like to be connected with any VA resources at the end of the interview. The questions were phrased in a way to minimize negative reactions, and the CATI tailored protocol skipped questions that were no longer relevant to women. Dr. Sadler was on-call during all participant interviews and there were protocols for mental health emergencies. Notably, no adverse outcomes occurred.*

## Measures

11. r 158: why does the current study focus on completed sexual trauma experiences and why are attempted experiences not included?

*We compared sexual pain between women reporting attempted sexual assault and completed sexual assault, and there was a significant difference ( $\chi^2(1) = 7.78, p < .01$ ) between these two groups, with more women in the completed assault group reporting sexual pain. We also compared sexual pain between women reporting no sexual assault and women reporting attempted sexual assault and there was no significant difference in report of genital pain ( $\chi^2(1) = .64, ns$ ) between these two groups. It appeared that completed assault was associated with more trauma morbidity than attempted assault. Therefore, in all subsequent analyses, women with no sexual assault history or attempted sexual assault only were grouped together. We have added this rationale to the paper (pg. 8).*

12. r 160-166: I've found the following description of the variables assessed in the SWAN study

## SWAN

Variables of interest fall into the domains of importance of sex, sexual desire, frequency of activities (sexual intercourse and masturbation), physical pleasure, emotional satisfaction with partner, arousal, and pain. All questions were asked on 5-point Likert scales. All study women were asked how important was sex in their lives (not at all to extremely), how often they felt desire in the past 6 months to engage

in any form of sexual activity either alone or with a partner (not at all to daily), frequency of engaging in masturbation in the past 6 months, and if they had engaged in sexual activities with a partner in the last 6 months (yes/no). Respondents who reported having engaged in sexual activities with a partner in the last six months were asked about frequency of sexual intercourse and arousal during sexual activity (not at all to daily), and degree of emotional satisfaction and physical pleasure from their relationship with a partner (not at all to extremely).

Women who reported having sexual intercourse in the past 6 months were also asked about frequency of vaginal or pelvic pain during intercourse (not at all to daily).

I wonder: were the other variables not included in the (original) study? and what was the reason for this selection?

*The original study did **not** include the full set of questions on sexual health from the SWAN study. Rather the original study only included 5 items on sexual health in general (including the importance of sex, sexual activity in last 6 months, emotional satisfaction with sexual relationship, desire for more or less sexual activity, and use of lubricants), and the one item on sexual pain, the focus of the current paper. Given our intention to focus on clinically significant female sexual dysfunction, we focused our analyses on the sexual pain item. None of the other items directly assess for the symptoms of sexual dysfunction and we feel the field needs to begin to focus on these disorders. We have previously published a descriptive paper on all of the sexual health variables from the original study<sup>6</sup>, thus we intended for the current paper to instead focus on clinically relevant sexual pain, and its relationship to sexual assault. We have removed mention of the 5 items that did not assess sexual function from the manuscript to help clarify our focus on sexual function, specifically sexual pain.*

13. r 177: could the authors elaborate a bit more about what is meant with Criterion A trauma? I don't understand the way of assessment of the severity of the PTSD symptoms.

*Per Reviewer 3's suggestion we have removed this language, and instead replaced it with a more universal description of the traumas that can lead to PTSD. We now quote the diagnostic criteria for a trauma from the DSM-IV (pg. 10).*

## Results

14. r 200-201: It confuses me (and the reader/) to mention here 'self-report of...in the past year', without an earlier explanation where these variables come from and why these are of interest.

*We do not think the information on study participants and non-participants is integral to this paper, it was more relevant to the parent study. To respond to this concern we have removed this text to improve clarity.*

15. r 219-222: the authors don't mention the OR as shown in table 3, but report about the probability. Could you explain for instance what is meant with...'.25 probability of dysfunction...' and how you calculated from OR to probability?

*Per both Reviewer 2 and Reviewer 3's feedback, we have removed these probabilities and replaced them with the odds ratios which are more intuitive (pg. 12-14).*

## Discussion

16. r 281: in this rule the OR is mentioned and not the probability.....

*We removed the text on probabilities and now report the OR throughout the paper. We think this change will improve readability and clarity (pg. 16).*

17. r 288: the authors suggest that the finding ..'among women veterans SAIM confers more risk for sexual dysfunction than CSA..' might raise concerns that the treatment for women veterans might be inadequate, overlooking the impact of SAIM. I wonder, why....could the authors explain this a bit more?

*We removed this comment after further revising the Discussion according to the recommendations of Reviewer 3.*

18. In general, the structure of the discussion is a bit confusing: Start with the main results of this study and make a comparison with existing knowledge (literature). The clinical implications ( r 289-293) and elaborations on the potential mechanisms..must to be discussed later on

*We have revised the order of the Discussion to now present the results and then discuss implications, according to the suggestion of Reviewer 3 (pg. 16-17).*

19. r 319: methodological limitations: discuss also the retrospective design, potential bias, definition of 'sexual dysfunction', generalizability of results

*We have added these limitations to the limitations section (pg. 18-19).*

Tables:

20. r 500: I would delete the conclusion in the note of table 3

21. r 513: I would delete the conclusion in the note of table 4

*Per the recommendation of Reviewer 3 we have deleted these two conclusions.*

#### STATISTICAL EDITOR'S COMMENTS:

1. Need to include a flow diagram showing the initial total of 2414 eligible women to 1670 invited and 1055 consented and 615 declined. The study may be subject to bias since only 1055/2414 or 44% of the original cohort were analyzed. What were the demographic characteristics of those that did not participate and could any differences interfere with generalizability of the conclusions?

*Unfortunately the parent study did not assess the demographics of non-participants. However the parent study did compare gynecological health between participants and non-participants. Women who declined to participate in the study were asked, 1) "In general would you say your health is: excellent, very good, good, fair, or poor?, 2) Have you ever been told you have had an abnormal Pap smear?, and 3) In the last year, approximately how many times have you seen a doctor or health care provider for gynecologic health issues?" There were no significant differences between participants and non-participants on these gynecological health questions.<sup>11</sup> We did not include this information, only a reference to the main paper from the parent study, as we did not feel it was directly relevant to the sexual function analyses presented in this paper, but we would be happy to add them in if the Statistics*

*Editor think it is necessary. The participation rate in the current study did not differ from the participation rate in other large-scale studies of sexual assault in veterans<sup>13,16,17</sup>. We have added a flow diagram to the paper (pg. 31).*

2. Tables 3, 4: No need to report the  $\beta$ (SE). Should just cite the OR (95% CI) for CSA, SIAM and both and state that the referent group were the women without sexual trauma histories.

*We have removed the  $\beta$ (SE) from the text (pg. 15) and from Table 3 (pg. 29).*

3. Table 4: Should have a column of crude OR with CIs and a column of adjusted ORs with CIs.

*Per the suggestion of the Statistics Editor we examined age, race, ethnicity, and level of education as potential confounders that might affect our main research question on the risk of sexual pain between women veterans with distinct sexual trauma histories. Age did **not** show a systematic relationship with sexual pain  $\chi^2(1) = .002, p = .96, ns$ . Race did **not** show a systematic relationship with sexual pain  $\chi^2(5) = 7.06, p = .22, ns$ . Ethnicity (Hispanic or non-Hispanic) did not show a systematic relationship with sexual pain  $\chi^2(1) = .514, p = .47, ns$ . Education history did **not** show a systematic relationship with sexual pain,  $\chi^2(4) = 5.072, p = .28, ns$ . Therefore we did not run any adjusted models. We have added this information to the beginning of the Results section (pg. 12).*

4. Were variables such as age, race, sexual orientation considered in the adjusted model?

*No these variables were not included because there is no prior research suggesting that these variables would impact our research question, and therefore we did not have any a priori hypotheses about these variables impacting our outcomes. Per the suggestion Reviewer 3 we examined the impact of these variables on sexual pain (see previous response) and did not find any significant relationships, therefore we did not examine any adjusted models.*

5. Were the variables in Table 1 allocated differentially to the respondent categories of Table 2?

*Per another Reviewer's comment, we have updated Table 2 to include the numbers of women exposed to sexual trauma in each developmental stage, as well as the women in each group relevant to our study question, which we hope addresses this comment.*

ASSOCIATE EDITOR - GYN:

Please include in the revised manuscript a mention of the limitations of the broader applicability of these findings as it was from 2 midwestern VA systems - and also that the (?) majority of women vets do not even receive their care from the VA

*Per the recommendations of the Associate Editor and several Reviewers, we have added the limitation of our sample not necessarily being generalizable to women veterans in other areas of the country, and women veterans who are not enrolled in VA (pg. 18-19). Please also see response to Reviewer 3's similar comment (middle of pg. 11 of this document).*

EDITORIAL OFFICE COMMENTS:

1. The Editors of Obstetrics & Gynecology are seeking to increase transparency around its peer-review process, in line with efforts to do so in international biomedical peer review publishing. If your article is

accepted, we will be posting this revision letter as supplemental digital content to the published article online. Additionally, unless you choose to opt out, we will also be including your point-by-point response to the revision letter, as well as subsequent author queries. If you opt out of including your response, only the revision letter will be posted. Please reply to this letter with one of two responses:

1. OPT-IN: Yes, please publish my response letter and subsequent email correspondence related to author queries.

*We would like to opt-in on publishing our response letter along with our revised paper. Thank you.*

2. OPT-OUT: No, please do not publish my response letter and subsequent email correspondence related to author queries.

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## Daniel Mosier

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**From:** Carey S. Pulverman [REDACTED]  
**Sent:** Wednesday, March 13, 2019 5:13 PM  
**To:** Daniel Mosier  
**Cc:** [REDACTED]  
**Subject:** Re: Manuscript Revisions: ONG-18-2422R1  
**Attachments:** 18-2422R1 ms (3-12-19v2)\_CP edits.docx

Dear Mr. Mosier,

Thank you for further consideration of our manuscript. We have made the requested edits in the attached draft, and responses to your queries are below in red.

1. Please note the minor edits and deletions throughout. Please let us know if you disagree with any of these changes. **We approve all of these changes.**
2. LINE 2: We avoid using declarative titles. Do you approve the edits? **Approve.**
3. LINE 36: Provide a running title of about 45 characters. **We would like to use, "Sexual Assault in the Military and Sexual Pain." We added this to the manuscript.**
4. LINE 69: Please add more data to this paragraph. **Data has been added.**
5. LINE 114: Citation here? **We have added two citations to support this statement.**
6. LINE 190: Please revise "and/or" to mean either "and" or "or." Be sure this is done throughout your paper. **We have revised this throughout the paper.**

Thank you very much and please let me know if there any any additional edits to make.

Best wishes,

Dr. Pulverman

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**CAREY S. PULVERMAN, PHD**

Research Associate, Department of Psychiatry

Dell Medical School | The University of Texas at Austin

[REDACTED]

On Tue, Mar 12, 2019 at 3:01 PM Daniel Mosier <[dmosier@greenjournal.org](mailto:dmosier@greenjournal.org)> wrote:

Dear Dr. Pulverman,

Thank you for submitting your revised manuscript. It has been reviewed by the editor, and there are a few issues that must be addressed before we can consider your manuscript further:

1. Please note the minor edits and deletions throughout. Please let us know if you disagree with any of these changes.
2. LINE 2: We avoid using declarative titles. Do you approve the edits?
3. LINE 36: Provide a running title of about 45 characters.
4. LINE 69: Please add more data to this paragraph.
5. LINE 114: Citation here?
6. LINE 190: Please revise "and/or" to mean either "and" or "or." Be sure this is done throughout your paper.

When revising, use the attached version of the manuscript. Leave the track changes on, and do not use the "Accept all Changes"

Please let me know if you have any questions. Your prompt response to these queries will be appreciated; please respond no later than COB on **Thursday, March 14<sup>th</sup>**.

Sincerely,

-Daniel Mosier

**Daniel Mosier**

Editorial Assistant

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## Eileen Chang (Temp)

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**From:** Carey S. Pulverman [REDACTED]  
**Sent:** Tuesday, March 19, 2019 10:23 AM  
**To:** Eileen Chang (Temp)  
**Subject:** Re: O&G Figure Revision: 18-2422

Dear Eileen,

That looks great. Thank you so much!

Best wishes,

Dr. Pulverman

--

CAREY S. PULVERMAN, PHD

[REDACTED]  
[REDACTED]  
[REDACTED]

On Mon, Mar 18, 2019 at 8:16 AM Eileen Chang (Temp) <[echang@greenjournal.org](mailto:echang@greenjournal.org)> wrote:

Hi Dr. Pulverman,

Attached is Figure 1 with the edit. Please let me know if there are any other edits needed to be made.

Eileen

**From:** Carey S. Pulverman [REDACTED]  
**Sent:** Wednesday, March 13, 2019 4:49 PM  
**To:** Eileen Chang (Temp) <[echang@greenjournal.org](mailto:echang@greenjournal.org)>  
**Subject:** Re: O&G Figure Revision: 18-2422

Dear Eileen,

Thank you for making those edits. It all looks correct, except that the box on the far right that says, "Decreased" should be "Deceased" meaning that those patients died before they were contacted about the study. I checked all of the percentages and those all look correct to me. Thank you!

Best wishes,

Dr. Pulverman

--

**CAREY S. PULVERMAN, PHD**

[REDACTED]  
[REDACTED]  
[REDACTED]

On Wed, Mar 13, 2019 at 1:43 PM Eileen Chang (Temp) <[echang@greenjournal.org](mailto:echang@greenjournal.org)> wrote:

Hello Dr. Pulverman,

We have made new edits to your figure and it is attached for your review. The text needed to appear before the percentages in most of the figure. Note that some of the percentages have also been changed. Please check these edits carefully and get back to us on any concerns.

Thank you!

Best,

Eileen

**From:** Carey S. Pulverman [REDACTED]  
**Sent:** Tuesday, March 12, 2019 4:20 PM  
**To:** Eileen Chang (Temp) <[echang@greenjournal.org](mailto:echang@greenjournal.org)>  
**Subject:** Re: O&G Figure Revision: 18-2422

Dear Eileen,

Thank you for your work on this. It looks pretty good, but there is one error in the figure. The left-most box in the "Analysis" row says "37" in your version but it should be "17." I recommend you remove the "Excluded 37\*" row and then add the immunosuppressant reason back in. This box should read:

17\* (2%) Ineligible

Ineligibility reasons:

Immunosuppressant n=7

DES n=10

Age n=3

The figure caption looks completely correct as edited.

Please let me know if you have any further questions or want me to review a revised figure. Thank you!

Best wishes,

Dr. Pulverman

--

CAREY S. PULVERMAN, PHD

[REDACTED]  
[REDACTED]  
[REDACTED]

On Tue, Mar 12, 2019 at 2:56 PM Carey S. Pulverman [REDACTED] wrote:

Dear Eileen,

Thank you for your email. I am double-checking with my co-workers and I will get back to you ASAP. Thank you!

Dr. Pulverman

--

CAREY S. PULVERMAN, PHD

[REDACTED]  
[REDACTED]  
[REDACTED]

On Tue, Mar 12, 2019 at 12:08 PM Eileen Chang (Temp) <[echang@greenjournal.org](mailto:echang@greenjournal.org)> wrote:

Good Morning,

Your figure and legend have been edited and they have been attached for your review. Please review the attachments CAREFULLY for any mistakes.

PLEASE NOTE: Any changes to the figure or legend must be made now. Changes made at later stages are expensive and time-consuming and may result in the delay of your article's publication.

To avoid a delay, I would appreciate a reply no later than Thursday, 3/14. Thank you for your help.

Best,

Eileen