NOTICE: This document contains correspondence generated during peer review and subsequent revisions but before transmittal to production for composition and copyediting:

- Comments from the reviewers and editors (email to author requesting revisions)
- Response from the author (cover letter submitted with revised manuscript)*

*The corresponding author has opted to make this information publicly available.

Personal or nonessential information may be redacted at the editor’s discretion.

Questions about these materials may be directed to the Obstetrics & Gynecology editorial office: obgyn@greenjournal.org.
Date: Nov 05, 2021
To: "Antoinette Danvers"
From: "The Green Journal" em@greenjournal.org
Subject: Your Submission ONG-21-1981

RE: Manuscript Number ONG-21-1981

Poststerilization regret: An analysis of the National Survey of Family Growth 2015-2019

Dear Dr. Danvers:

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).

Please be sure to address the Editor comments (see "EDITOR COMMENTS" below) in your point-by-point response.

Your paper will be maintained in active status for 14 days from the date of this letter. If we have not heard from you by Nov 19, 2021, we will assume you wish to withdraw the manuscript from further consideration.

REVIEWER COMMENTS:

Reviewer #1:

Summary: This paper is a retrospective analysis of a cross-sectional data set collected from 2015-2019 and aims to looks at poststerilization regret in a contemporary group of women as previous studies were completed in the 1970s and 1980s. The study found that the only variable that had a statistically significant effect on regret was age at the time of the interview.

1. Line 6-7 what is your hypothesis, this paper would be stronger with a hypothesis
2. Line 11 "reversed their sterilization" wording confusing would say "had a sterilization reversal procedure"
3. Line 27-29 "Sterilization is highly effective in preventing pregnancy, due to the permanence of the procedures, patient autonomy and agency to make the decision that best fits their reproductive life plan is essential." Sentence with spelling error and confusing, please clarify.
4. Line 36 "systemic" incorrect word should be "systematic"
5. Line 40-42 "It is unclear whether the data about poststerilization regret from former studies that influences current practice holds true in a contemporary group of women." Sentence confusing, please clarify.
6. Line 57: "We defined sterilization regret as follows: Women who had obtained a sterilization reversal; and women who responded they "definitely wanted" a sterilization reversal" What were the other choices for response? Please also provide the exact wording of the question(s). This will help the reader understand if there was a range of responses and regret might be greater.
7. The language in the analysis section is confusing. Using the term "estimate" is unusual and confusing to me.
8. Is the database validated in some way? If so, please indicate how, if not, please state so in the methods.
9. Line 58-59 "We estimated the proportion of women with sterilization regret stratified in two groups by age at sterilization: 21-30, and older than 30" sentence confusing, please clarify/reword.
10. Lines 62-63 "LARC are alternative contraceptive methods with a high degree of efficacy." This sentence does not belong in a methods section.

11. The methods should include a description of the other variables collected from the database that are introduced in the results section.

12. Line 72: "At the time of the interview, among person who were sterilized: 8% of women were 30 years old or younger and 92% were older than 30 years old, 16.9% Black, 57.2% white and 26.0% Hispanic." Does the demographic breakdown refer to both the younger and older cohorts or just the older? Please clarify.

13. Lines 76-81 Was this finding statistically significant? It would be stronger if this was commented on here instead of lines 108-111

14. Lines 82-83 "The CREST study estimated the proportion of women who experienced regret over 14 years in the study and presented data up to 3, 7 and 14 years" This is not needed in a results section.

15. Lines 91-92 Why were the ages rounded up? This could skew results. Using age groups may be a better approach

16. Line 105: "For each one-year increase in current age, regret is 0.885 times as large as the prior year (that is, the probability of regret decreases by approximately 11.5% per year)." How does this compare to the graph which shows an increase of regret between 30 and 35 years of age for the younger cohorts?

17. The first sentence of the discussion should include the summary of the study findings.

18. Line 43: "This study's objective is to estimate the probability of poststerilization regret using data from a national survey." Versus Line 117: "The exact question is whether contemporaneous tubal regret follows a similar pattern identified in the CREST study, which showed that sterilization regret was highest among women who obtained sterilization at 30 years or younger." Please be consistent with the study question which is presented variably in the manuscript

19. Line 155: "Our data shows..." Data are plural.

20. Line 163: "Our study did not demonstrate any direct link between patient's experience with LARC and sterilization regret." This is stated as a conclusion and I am not sure that the authors really investigated this completely. Please describe whatever analysis that you did on this relationship more accurately.

21. Table 1 should include percentages in column 1

22. Table 1: The adjusted proportions column in the table does not make sense to me. Please explain.

Reviewer #2: Thank you for the opportunity to review this manuscript assessing risk of regret using the proxy of tubal reversal/desire for tubal reversal among individuals with prior permanent contraception in a more contemporary cohort of the National Survey of Family Growth (NSFG). This study is of interest to readership who counsel individuals on permanent contraception and its associated risks, including updated figures on risk of regret.

Clinicians, researchers and patients are primarily restricted to the US Collaborative Review of Sterilization (CREST) data to inform longitudinal outcomes following permanent contraception, now data that are decades old. The authors of this paper note, importantly, that their use of the NSFG allows for an update to not only the prevalence of regret but also other factors potentially associated with this outcome. Given that permanent contraception remains one of the most commonly used methods of contraception, such updates to data are critically needed and the work of these authors is appreciated.

However, the considerable organizational, formatting, and to less extent grammatical and spelling errors, make the impact of this work difficult to follow, including ensuring that the methods are sound and reasonable. I was also disappointed that the methods do not seem to sophisticate the approach to the outcome of regret beyond what was assessed in CREST. This is likely limited only by the variables available via NSFG which I am not exhaustively familiar with, but the rationale for choosing this selection should be made clear (e.g. the authors of course do not think that there is something inherent about race or "medical reason for tubal ligation" that could confer protection against regret, but rather that these may be emblematic of the counseling received and/or alignment of contraceptive performance with an enduring family building preference/goal). The variables selected are appropriate, but require such explanation in an era when readership demand naming of social constructs.

Another consideration would be the semantics surrounding the construct of "regret." This study appears to measure decisional evolution/change by using tubal reversal or desire for tubal reversal rather than sentiment of "goodness of choice" as cited for CREST. Both approaches have limitations (e.g. I can imagine individuals who felt and continue to feel
that tubal ligation was a good choice at the time, but desire a different outcome now). I commend the authors on using the measure they have by 1) being inclusive of those who desire reversal but cannot access it due to the number of barriers to such a procedure (rather than just measuring those who proceed with reversal) and 2) prompting some introspection around language with permanent methods. While I am not convinced this study is measuring “regret” per se (as in a bad feeling, a wish that things had gone differently), I think it may describe a more clinically relevant notion which is those for whom permanence ultimately was not a lasting desirable contraceptive characteristic. I would support a shift in the manuscript language to replace “regret” with “decision change” (”permanence dissatisfaction”) - if that resonates at all with the authors. A major concern in reproductive research and care is an absolute intolerance of regret (see Katie Watson’s work in abortion care) and change of contraceptive preferences over time (see Rebecca Simmon’s contraceptive journey and contraceptive switching work as well as plethora of data around coerced continuation of LARC) as justification for withholding care that best aligns with an individual’s desires/goals. Thus, measuring decision change, as superficial as a language choice may seem, has larger implications for how we think about individuals’ medical experiences (see disability rights “dignity of risk” conversations). This is all to say, consider introducing regret, as that is the word that clinicians and researchers are used to from CREST, but perhaps elevate your metric and the subsequent conversation with “decision change” (or other similar term of choice - I am certain the authors can come up with something better than I have here).

Finally, I am struck by this phenomenon of acceptability of method/decision over time as a measure of utility for clinicians or patients/clients. While I greatly appreciate the discussion around not using age as a reason to deny tubal ligation despite this being the significant finding of the study, age at the time of procedure may actually be a useful part of a counseling discussion (e.g. “people at your age are more/less likely to seek tubal reversal or desire tubal reversal in the future”), but time since procedure, less so. I believe this latter metric was included because CREST study assessed this, but it makes less sense with the study design here since tubal reversal is highly unlikely to be performed as individuals approach menopause; sentiments about tubal reversal (as opposed to sentiments of regret/goodness of choice of prior ligation) may parallel this as well. Furthermore, overall decreasing regret/decision change based on time since procedure is likely also a testament of human adaptation rather than a reflection of clinical performance, including iatrogenic harms, done at the time of counseling/intervention (e.g. those who are denied an abortion due to state legislation generally feel fewer negative emotions over time [Diana Greene Foster’s work], which does not make the act of care denial any less egregious; in parallel, coercive or bad faith counseling at the time of permanent contraception that leads to regret is not a harm mitigated by an individual’s adaptation to their new reality over time). The authors should be clear about why they measured this outcome and what the readership should do with this information.

Introduction
- In general, sterilization is not a term that used in contemporary work; recommend replacing with permanent contraception throughout
- First paragraph with spelling errors, run on sentences; additional citations would be valuable in this paragraph as well
- Consider the term “clinician” as opposed to provider
- Line 39 would omit that regret is a reason for procedure denial as part of paragraph on study objective b/c similar rates of regret would indicate that ongoing denial is somehow permissive (it is clear the authors do not support this, but they can add this sentence to the rationale for the study above and include that, while risk of regret is not a reason for denial in and of itself, accurate figures may be important to some clients in their receipt of counseling)

Methods
- Line 56-57, it would be nice to see the specific items in their entirety so the reader better understands what responses are being deemed as regret
- Line 75, can “medical reason” be explained/examples given?

Results
- Line B2, 101, one example of several of irregular formatting, here mixing methodology and editorializing within the results section
- Very minor: "tubal" alone is informal and imprecise; utilize tubal ligation (if this is known? Not sure if there was also eg salpingectomy) vs permanent contraception

Discussion:
- Again, some irregular language/formatting choice (e.g. restating the study rationale and results in detail) that can be modified
- Line 142, so far as I can tell, ref 8 and 9 are about permanent contraception experiences in racial/ethnic minorities at large - not their age
- Line 162 it would be nice to have a bit more on LARC use in this cohort; 16% prior LARC I believe is higher than the general population. The results section could use at least a reference to the last line of Table 3 to substantiate the statement of association with regret here.
- I would focus on the interesting findings that age at time of tubal ligation is significantly associated with risk of decision change (see above re: my thoughts about time from procedure; I don’t think this needs to be overemphasized, but can remain as an interesting update to CREST metrics if desired) - but that other variables are not; this implies there is an ongoing need for judicious counseling and recognition that likely diverse and unpredictable life experiences lead to decision change over time in a minority of recipients’ experiences; thus, as clinicians our job is to facilitate the most informed choice at the time of procedure without being paternalistic, particularly among individuals <=30 y/o.
- Two major limitations that were not included 1) related to the last comment, there surely are other metrics that are better correlates of regret not collected by the NSFG, many of which may be difficult to predict (eg change in...
relationship/new partner) but others which can be (eg quality of counseling); this should be mentioned 2) this is a cross-sectional study that attempts to make prospective inferences re: change in regret over time; while I think most of the interpretation of data here is fair, this is another argument to minimize the language/focus around trends in decision change over time for this particular study design

Tables 1 + 2: language could be formalized, may be easier to follow as n (%) Table 3: language can be formalized as well ("kids"), clearer presentation of data (eg current age 0.885 is actually referring to a change per year since the procedure, correct?)

Reviewer #3:

Overall Comments: The authors present the results of a retrospective cohort study in women enrolled in the National Survey of Family Growth (NSFG) to assess the proportion of women experiencing sterilization regret. This is important as this type of information can be used in counseling of women considering permanent sterilization. Overall, the paper is well written, but would be more cohesive if presented from the third person perspective instead of the first person, "we" perspective. The template utilized was similar to Hills et al, Obstet Gynecol, 1999 reflecting CREST data where a similar finding with respect to the ages ≤30 years vs > 30 years, that is, less regret as one is older at the time of interview, was also found. A paper from 2016, Shreffler et al looked at this issue and found some results that were opposite to what was found here and these data were not discussed. Specific comments below.

Specific Comments:

Title: OK
Precis: Good
Abstract: The revise the objective to, The objective was... Methods: note that it is a retrospective cohort study. With regard to covariate, was depression or partner data available? Conclusion: Perhaps instead of As women got older, could state, "As women aged..."

Introduction: 1st sentence, typo, msot-most common method. Line 36, "systematic" review. What was the primary hypothesis?

Methods: OK, see queries above regarding other potential covariates (depression and especially impact of male regret, as male data were available). Would have liked to see Table 1 results outlining the characteristics of those women without regret and with regret-could also put proportion and p-values.

Results: How many women did not meet inclusion criteria and what were the reasons? Would be helpful to show a flow diagram. Lines 82-84. Should be in the Methods. Please take figure out of the text and are error bars appropriate?

Discussion: The first paragraph should present a tight summary of the results and then discuss their results within the context of the current literature, especially any data that may exist which is different than noted (ie Shreffler et al, J Reproduc Infant Psychol 2016; 34:304-313). Do not need to show actual data back in the Discussion. Another limitation is not being able to infer causation here—is a noted association.

STATISTICAL EDITOR COMMENTS:

The Statistical Editor makes the following points that need to be addressed:

lines 19-20, 105-107: This study evaluated odds ratios, not relative risks, so the 11.5% annual decrease in regret is not a decrease in probability, but a decrease in odds, which is not the same. Need to correct in abstract and in main text.

Table 1: Need units for age.
Table 3: Need to include a column of unadjusted odds to contrast with aORs. Should consolidate the odds ratios with their respective CIs into one column. The column of p-values is redundant, since CIs are included and the p-values should be omitted. The aOR for tubal ligation (medical vs non-medical) has a relatively wide CI, is based on a small proportion of tubal ligation (Table 2) and is likely underpowered. Given a larger cohort, that would likely remain a significant variable.

Fig 1: This graph is informative, but needs further data for context. Suggest a Table showing the "n" with follow-up at increments for each of the 5 age categories for age at tubal ligation. Table 1 demonstrates that the age at survey was
skewed towards those > 35. Could this sampling have biased the results compared to a more uniform follow-up for the various subsets by age at TL?

EDITOR COMMENTS:

1. The Editors of Obstetrics & Gynecology have increased 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. 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:

A. OPT-IN: Yes, please publish my point-by-point response letter.
B. OPT-OUT: No, please do not publish my point-by-point response letter.

2. When you submit your revised manuscript, please make the following edits to ensure your submission contains the required information that was previously omitted for the initial double-blind peer review:
* Include your title page information in the main manuscript file. The title page should appear as the first page of the document. Add any previously omitted Acknowledgements (ie, meeting presentations, preprint DOIs, assistance from non-byline authors).
* Funding information (ie, grant numbers or industry support statements) should be disclosed on the title page and in the body text. For industry-sponsored studies, the Role of the Funding Source section should be included in the body text of the manuscript.
* Include clinical trial registration numbers, PROSPERO registration numbers, or URLs at the end of the abstract (if applicable).
* Name the IRB or Ethics Committee institution in the Methods section (if applicable).
* Add any information about the specific location of the study (ie, city, state, or country), if necessary for context.

3. Obstetrics & Gynecology uses an "electronic Copyright Transfer Agreement" (eCTA), which must be completed by all authors. When you uploaded your manuscript, each co-author received an email with the subject, "Please verify your authorship for a submission to Obstetrics & Gynecology." Please check with your coauthors to confirm that they received and completed this form, and that the disclosures listed in their eCTA are included on the manuscript's title page.

4. For studies that report on the topic of race or include it as a variable, authors must provide an explanation in the manuscript of who classified individuals' race, ethnicity, or both, the classifications used, and whether the options were defined by the investigator or the participant. In addition, the reasons that race/ethnicity were assessed in the study also should be described (eg, in the Methods section and/or in table footnotes). Race/ethnicity must have been collected in a formal or validated way. If it was not, it should be omitted. Authors must enumerate all missing data regarding race and ethnicity as in some cases, missing data may comprise a high enough proportion that it compromises statistical precision and bias of analyses by race.

Use "Black" and "White" (capitalized) when used to refer to racial categories. The nonspecific category of "Other" is a convenience grouping/label that should be avoided, unless it was a prespecified formal category in a database or research instrument. If you use "Other" in your study, please add detail to the manuscript to describe which patients were included in that category.

5. Responsible reporting of research studies, which includes a complete, transparent, accurate and timely account of what was done and what was found during a research study, is an integral part of good research and publication practice and not an optional extra. Obstetrics & Gynecology supports initiatives aimed at improving the reporting of health research, and we ask authors to follow specific guidelines for reporting randomized controlled trials (ie, CONSORT), observational studies (ie, STROBE), observational studies using ICD-10 data (ie, RECORD), meta-analyses and systematic reviews of randomized controlled trials (ie, PRISMA), harms in systematic reviews (ie, PRISMA for harms), studies of diagnostic accuracy (ie, STARD), meta-analyses and systematic reviews of observational studies (ie, MOOSE), economic evaluations of health interventions (ie, CHEERS), quality improvement in health care studies (ie, SQUIRE 2.0), and studies reporting results of Internet e-surveys (CHERRIES). Include the appropriate checklist for your manuscript type upon submission. Please write or insert the page numbers where each item appears in the margin of the checklist. Further information and links to the checklists are available at http://ong.editorialmanager.com. In your cover letter, be sure to indicate that you have followed the CONSORT, MOOSE, PRISMA, PRISMA for harms, STARD, STROBE, RECORD, CHEERS, SQUIRE 2.0, or CHERRIES guidelines, as appropriate.

6. 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 data definitions at https://www.acog.org/practice-management/health-it-and-clinical-informatics/revitalize-obstetrics-data-definitions and the gynecology data definitions at https://www.acog.org/practice-management/health-it-and-clinical-
informatics/revitalize-gynecology-data-definitions. If use of the reVITALize definitions is problematic, please discuss this in your point-by-point response to this letter.

7. 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 5,500 words. Stated word limits include the title page, précis, abstract, text, tables, boxes, and figure legends, but exclude references.

8. Specific rules govern the use of acknowledgments in the journal. Please note the following guidelines:

* All financial support of the study must be acknowledged.
* Any and all manuscript preparation assistance, including but not limited to topic development, data collection, analysis, writing, or editorial assistance, must be disclosed in the acknowledgments. Such acknowledgments must identify the entities that provided and paid for this assistance, whether directly or indirectly.
* All persons who contributed to the work reported in the manuscript, but not sufficiently to be authors, must be acknowledged. Written permission must be obtained from all individuals named in the acknowledgments, as readers may infer their endorsement of the data and conclusions. Please note that your response in the journal's electronic author form verifies that permission has been obtained from all named persons.
* 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).
* If your manuscript was uploaded to a preprint server prior to submitting your manuscript to Obstetrics & Gynecology, add the following statement to your title page: "Before submission to Obstetrics & Gynecology, this article was posted to a preprint server at: [URL]."

9. Provide a short title of no more than 45 characters, including spaces, for use as a running foot.

10. The current precis is worded in a way that confused the Editors. Do you mean, "Regardless of the age at time of sterilization, as women themselves became older, they experienced less sterilization regret"?

11. 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 limit for Original Research articles is 300 words. Please provide a word count.

12. 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.

13. ACOG avoids using "provider." Please replace "provider" throughout your paper with either a specific term that defines the group to which are referring (for example, "physicians," "nurses," etc.), or use "health care professional" if a specific term is not applicable.

14. Please review the journal's Table Checklist to make sure that your tables conform to journal style. The Table Checklist is available online here: http://edmgr.ovid.com/ong/accounts/table_checklist.pdf.

15. Please review examples of our current reference style at http://ong.editorialmanager.com (click on the Home button in the Menu bar and then "Reference Formatting Instructions" document under "Files and Resources). Include the digital object identifier (DOI) with any journal article references and an accessed date with website references. Unpublished data, in-press items, personal communications, letters to the editor, theses, package inserts, submissions, meeting presentations, and abstracts may be included in the text but not in the reference list.

In addition, the American College of Obstetricians and Gynecologists' (ACOG) documents are frequently updated. These documents may be withdrawn and replaced with newer, revised versions. If you cite ACOG documents in your manuscript, be sure the references you are citing are still current and available. Check the Clinical Guidance page at https://www.acog.org/clinical (click on "Clinical Guidance" at the top). If the reference is still available on the site and isn't listed as "Withdrawn," it's still a current document.

If the reference you are citing has been updated and replaced by a newer version, please ensure that the new version supports whatever statement you are making in your manuscript and then update your reference list accordingly (exceptions could include manuscripts that address items of historical interest). If the reference you are citing has been withdrawn with no clear replacement, please contact the editorial office for assistance (obgyn@greenjournal.org). In most cases, if an ACOG document has been withdrawn, it should not be referenced in your manuscript.

16. Figure 1: Is this available in color? Please upload as a figure file on Editorial Manager.
17. Authors whose manuscripts have been accepted for publication have the option to pay an article processing charge and publish open access. With this choice, articles are made freely available online immediately upon publication. An information sheet is available at http://links.lww.com/LWW-ES/A48. The cost for publishing an article as open access can be found at https://wkauthorservices.editage.com/open-access/hybrid.html.

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.

If you choose open access, you will receive an Open Access Publication Charge letter from the Journal's Publisher, Wolters Kluwer, and instructions on how to submit any open access charges. The email will be from publicationservices@copyright.com with the subject line, "Please Submit Your Open Access Article Publication Charge(s)." Please complete payment of the Open Access charges within 48 hours of receipt.

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If you choose to revise your manuscript, please submit your revision through Editorial Manager at http://ong.editorialmanager.com. Your manuscript should be uploaded as a Microsoft Word document. Your revision's cover letter should include the following:

* A confirmation that you have read the Instructions for Authors (http://edmgr.ovid.com/ong/accounts/authors.pdf), and
* A point-by-point response to each of the received comments in this letter. Do not omit your responses to the Editorial Office or Editors’ comments.

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 14 days from the date of this letter. If we have not heard from you by Nov 19, 2021, we will assume you wish to withdraw the manuscript from further consideration.

Sincerely,

Jason D. Wright, MD
Editor-in-Chief, Elect

2020 IMPACT FACTOR: 7.661
2020 IMPACT FACTOR RANKING: 3rd out of 83 ob/gyn journals

In compliance with data protection regulations, you may request that we remove your personal registration details at any time. (Use the following URL: https://www.editorialmanager.com/ong/login.asp?a=r). Please contact the publication office if you have any questions.
November 29, 2021

The Obstetrics and Gynecology Editorial Office

Dear Editors:

Thank you for giving me the opportunity to submit a revised draft of my manuscript titled "Poststerilization regret: An analysis of the National Survey of Family Growth 2015-2019" to Obstetrics and Gynecology.

We appreciate the time and effort that you and the reviewers have dedicated to providing your valuable feedback on our manuscript. We are grateful to the reviewers for their thorough and insightful comments. We have been able to incorporate changes to reflect most of the suggestions provided by the reviewers. We have indicated in the point-by-point review below, where we were able to incorporate those changes. To appropriately address some of the reviewer comments, we re-wrote significant aspects of the introduction and discussion to ensure we submit a cohesive presentation of our findings and conclusions. We have removed the track changes due to the extensive nature of our revision.

Here is a point-by-point response to the reviewers’ comments and concerns.

Comments from Reviewer 1:

1. Line 6-7 what is your hypothesis, this paper would be stronger with a hypothesis

Thank you for this feedback. We have included our hypothesis in lines 66-68.

2 and 3. Line 11 "reversed their sterilization" wording confusing would say "had a sterilization reversal procedure" and Line 27-29 "Sterilization is highly effective in preventing pregnancy, due to the permanence of the procedures, patient autonomy and agency to make the decision that best fits their reproductive life plan is essential." Sentence with spelling error and confusing, please clarify.
We apologize the statements we made early in the introduction lacked clarity. We removed the confusing statements and re-wrote the opening paragraph of the introduction (lines 48-50).

4. Line 36 "systemic" incorrect word should be "systematic"
We corrected this error in line 55.

5. Line 40-42 "It is unclear whether the data about poststerilization regret from former studies that influences current practice holds true in a contemporary group of women." Sentence confusing, please clarify.
We revised this statement (line 63-64) with an overall revision of the supporting paragraph.

6. Line 57: "We defined sterilization regret as follows: Women who had obtained a sterilization reversal; and women who responded they "definitely wanted" a sterilization reversal" What were the other choices for response? Please also provide the exact wording of the question(s). This will help the reader understand if there was a range of responses and regret might be greater.

Thank you for this feedback. We added a more detailed paragraph to allow the reader to understand how we defined regret. We included the exact question and choices from the survey in lines 85-97.

7. The language in the analysis section is confusing. Using the term "estimate" is unusual and confusing to me.
We revised our use of the term “estimate” throughout the manuscript. We primarily interchange the term with “calculated” in line 108.

8. Is the database validated in some way? If so, please indicate how, if not, please state so in the methods.
This is a national survey administered by the National Center for Health Statistics. Data from this survey have been used in many published works and is the source from the CDC data briefs on contraception and reproductive health. We added details about the dataset and included references to documents that describe the survey development and administration in lines 70-77.

9. Line 58-59 "We estimated the proportion of women with sterilization regret stratified in two groups by age at sterilization: 21-30, and older than 30" sentence confusing, please clarify/reword.
We revised the statement in lines 113-115.

10. Lines 62-63 "LARC are alternative contraceptive methods with a high degree of efficacy." This sentence does not belong in a methods section.
    The statement was removed from the paper.

11. The methods should include a description of the other variables collected from the database that are introduced in the results section.
    In lines 98-107, we included a paragraph, we added details about the variables introduced in the results.

12. Line 72: "At the time of the interview, among person who were sterilized: 8% of women were 30 years old or younger and 92% were older than 30 years old, 16.9% Black, 57.2% white and 26.0% Hispanic." Does the demographic breakdown refer to both the younger and older cohorts or just the older? Please clarify.
    The demographic data represents all the women included in the study. This has been clarified in lines 124-125.

13. Lines 76-81 Was this finding statistically significant? It would be stronger if this was commented on here instead of lines 108-111
    We did not calculate statistical significance on table 1 because our intention here is to only describe the demographic of women included in the study. We conducted a logistical regression at which point we determined which variables were significant.

14. Lines 82-83 "The CREST study estimated the proportion of women who experienced regret over 14 years in the study and presented data up to 3, 7 and 14 years" This is not needed in a results section.
    Discussion about CREST was removed from the results section.

15. Lines 91-92 Why were the ages rounded up? This could skew results. Using age groups may be a better approach
    We understand your concerns about round. However, presenting age as a continuous variable introduced too much variation due to small sample size at specific ages. Grouping the ages in groups of 5 allowed us to identify the pattern that would be lost otherwise. Similar groupings was performed in a secondary analysis of the CREST study evaluating sterilization reversal.
16. Line 105: "For each one-year increase in current age, regret is 0.885 times as large as the prior year (that is, the probability of regret decreases by approximately 11.5% per year)." How does this compare to the graph which shows an increase of regret between 30 and 35 years of age for the younger cohorts?

We included the graph with the age of sterilization in 5-year increments to show the overall trend follows the pattern over time. Despite what appears to be an increase before 35, the 11.5% is the average outcome over 25 years. This trend explains why we did not find a difference in the regression which measures a linear trend.

17. The first sentence of the discussion should include the summary of the study findings.

The discussion section has the most extensive revision based on the collective comments from the reviewers. We have added an opening paragraph that introduces the results.

18. Line 43: "This study's objective is to estimate the probability of poststerilization regret using data from a national survey." Versus Line 117: "The exact question is whether contemporaneous tubal regret follows a similar pattern identified in the CREST study, which showed that sterilization regret was highest among women who obtained sterilization at 30 years or younger." Please be consistent with the study question which is presented variably in the manuscript.

This feedback has been incredibly valuable. We revised the manuscript by first providing a clearly stated objective in the introduction (lines 65-66) and this is the same objective that is repeated revised discussion.

19. Line 155: "Our data shows..." Data are plural.

Thank you. We made the revision throughout.

20. Line 163: "Our study did not demonstrate any direct link between patient's experience with LARC and sterilization regret." This is stated as a conclusion and I am not sure that the authors really investigated this completely. Please describe whatever analysis that you did on this relationship more accurately.

We addressed this point in two way. First, we included a description on the measure of prior LARC use in the methods. There was no significance in this measure of LARC on regret but we did not explore this measure further.

21. Table 1 should include percentages in column 1

We previously completed the table with proportions. We made the conversion to percent for clarity.
Table 1: The adjusted proportions column in the table does not make sense to me. Please explain. There is a complex weighting due to oversampling of Black and Latino men and women for the survey. The weighting adjusts the proportions to account for the oversampling. This explanation has been added as a footnote. We also included a statement of the sampling procedure in line 74-75

Comments from Reviewer 2

1. In general, sterilization is not a term that used in contemporary work; recommend replacing with permanent contraception throughout.

   Thank you. We considered this revision but preferred the conciseness of sterilization for this study. Sterilization is still used in the literature including by this journal.

2. First paragraph with spelling errors, run on sentences; additional citations would be valuable in this paragraph as well

   The first paragraph has been revised.

3. Consider the term "clinician" as opposed to provider

   This change has been made throughout the manuscript.

4. Line 39 would omit that regret is a reason for procedure denial as part of paragraph on study objective b/c similar rates of regret would indicate that ongoing denial is somehow permissive (it is clear the authors do not support this, but they can add this sentence to the rationale for the study above and include that, while risk of regret is not a reason for denial in and of itself, accurate figures may be important to some clients in their receipt of counseling)

   We have removed the statement about denial from the introduction. Instead, we focused on clarifying the primary objectives and hypothesis.

5. Line 56-57, it would be nice to see the specific items in their entirety so the reader better understands what responses are being deemed as regret

   We added a more detailed paragraph to allow the reader to understand how we defined regret. We included the exact question and choices from the survey in lines 85-97.

6. Line 75, can "medical reason" be explained/examples given?

   We also describe medical reason in detail in lines
7. Line 82, 101, one example of several of irregular formatting, here mixing methodology and editorializing within the results section

We removed discussions from the results section.

8. Very minor: "tubal" alone is informal and imprecise; utilize tubal ligation (if this is known? Not sure if there was also eg salpingectomy) vs permanent contraception

We reviewed the document to ensure we are consistently using “tubal sterilization”. We kept this definition as it is specific to the group to whom reversal would be relevant.

9. Again, some irregular language formatting choice (e.g. restating the study rationale and results in detail) that can be modified

We have modified the discussion and removed the details that are stated in the results section.

10. Line 142, so far as I can tell, ref 8 and 9 are about permanent contraception experiences in racial/ethnic minorities at large - not their age

We removed the reference to age in this statement (line 167).

11. Line 162 it would be nice to have a bit more on LARC use in this cohort; 16% prior LARC I believe is higher than the general population.

The prior LARC use refers to whether they have ever used a LARC method at any time. This detail is added to the methods. Since this is a cohort of women who obtained sterilization, the LARC use may not be representative of the general population.

12. The results section could use at least a reference to the last line of Table 3 to substantiate the statement of association with regret here.

We agree. We added the reference to line 142. Thank you.

13. I would focus on the interesting findings that age at time of tubal ligation is significantly associated with risk of decision change (see above re: my thoughts about time from procedure; I don't think this needs to be overemphasized, but can remain as an interesting update to CREST metrics if desired) - but that other variables are not; this implies there is an ongoing need for judicious counseling and recognition that likely diverse and unpredictable life experiences lead to decision change over time in a minority of recipients' experiences; thus, as clinicians our job is to facilitate the most informed choice at the time of procedure without being paternalistic, particularly among individuals <=30 y/o.
We completely agree with the points you make here. We hope our revised manuscript makes these points more clearly. We do think age is an important consideration to counseling and our findings do support that. We made a clearer point that what the major difference in our finding are 1) Younger women do experience higher probability of regret 2) The stratification at age 30 is not significant in our linear regression model. Women over 30 still experience regret (Figure 1) so counseling should be more comprehensive as many other factors influence regret in addition to age and 3) regret decreases as women get older.

14. Two major limitations that were not included 1) related to the last comment, there surely are other metrics that are better correlates of regret not collected by the NSFG, many of which may be difficult to predict (eg change in relationship/new partner) but others which can be (eg quality of counseling); this should be mentioned 2) this is a cross-sectional study that attempts to make prospective inferences re: change in regret over time; while I think most of the interpretation of data here is fair, this is another argument to minimize the language/focus around trends in decision change over time for this particular study design
Thank you for making this point. We have included this point in our discussion of the limitations (lines 204-207).

15. Tables 1 + 2: language could be formalized, may be easier to follow as n (%)
The language in Tables 1 and 2 have been revised. We have included percent instead of proportion.

16. Table 3: language can be formalized as well ("kids")
This has been revised.

16. Clearer presentation of data (eg current age 0.885 is actually referring to a change per year since the procedure, correct?)
This is correct. We present the odds ratio in the table. We added a line in the notes on interpreting the data in the table.

Comments from Reviewer 3
1. Abstract: The revise the objective to, The objective was... Methods: note that it is a retrospective cohort study. With regard to covariate, was depression or partner data available? Conclusion: Perhaps instead of As women got older, could state, "As women aged...
Thank you. We have added the revision and provided a clearer objective in the abstract that is consistent with that described in the introduction. The sentences have been revised for clarity.

2. **Introduction**: 1st sentence, typo, most common method.
The introduction opening paragraph was revised (lines 48-50).

3. **Line 36, "systematic" review.**
This has been corrected in line 55.

4. **What was the primary hypothesis?**
We have included our hypothesis in lines 66-68.

5. **Methods**: OK, see queries above regarding other potential covariates (depression and especially impact of male regret, as male data were available). Would have liked to see Table 1 results outlining the characteristics of those women without regret and with regret—could also put proportion and p-values.
Thank you for your comments. I reviewed the article by Shreffler and found it to be insightful. We looked at partner desire for sterilization and only 15/1549 women stated that partner desire was the primary reason for sterilization. We did not include it in the analysis. As you will see in the revision, the objective of this paper was to understand describe the impact of age on sterilization regret using this dataset. For this reason, we followed an approach whereby we stratified the data on age.

Depression may be an outcome that result from regret, but we are unable to properly explore depression for this paper. We did not have data on depression in our Female Respondent file and assessing depression would require including additional variables that are known to be correlated with depression.

6. **Results**: How many women did not meet inclusion criteria and what were the reasons? Would be helpful to show a flow diagram. Lines 82-84. Should be in the Methods. Please take figure out of the text and are error bars appropriate?
Thank you. We included information about the women excluded in lines 80-84.
The figure 1 that was embedded as per the journal request will have been removed for the resubmission. We added number of observations to the graphic as per the Statistical Editors’ review.

7. **Discussion**: The first paragraph should present a tight summary of the results and then discuss their
results within the context of the current literature, especially any data that may exist which is different than noted (ie Shreffler et al, J Reprod Infant Psychol 2016; 34:304-313). Do not need to show actual data back in the Discussion. Another limitation is not being able to infer causation here-is a noted association.

Thank you for this feedback and directing me to the Shreffler citation. The first paragraph of the discussion has been revised. I have included it in the discussion specifically adding in the sterilization regret findings (lines 192-196).

Comments from the Statistical Editor

1. Lines 19-20, 105-107: This study evaluated odds ratios, not relative risks, so the 11.5% annual decrease in regret is not a decrease in probability, but a decrease in odds, which is not the same. Need to correct in abstract and in main text.

We have made the correction in the text (lines 145-146).

2. Table 1: Need units for age.

Units years have been included in Table 1

3. Table 3: Need to include a column of unadjusted odds to contrast with aORs. Should consolidate the odds ratios with their respective CIs into one column. The column of p-values is redundant, since CIs are included and the p-values should be omitted. The aOR for tubal ligation (medical vs non-medical) has a relatively wide CI, is based on a small proportion of tubal ligation (Table 2) and is likely underpowered. Given a larger cohort, that would likely remain a significant variable.

Thank you for the feedback. We made the following adjustments to Table 3.

- The unadjusted column has been added.
- The p-values column was removed
- Odds ratios and confidence intervals are in 1 column and follows the journal’s required format.

4. Fig 1: This graph is informative, but needs further data for context. Suggest a Table showing the "n" with follow-up at increments for each of the 5 age categories for age at tubal ligation. Table 1 demonstrates that the age at survey was skewed towards those > 35. Could this sampling have biased the results compared to a more uniform follow-up for the various subsets by age at TL?

We added the “n” to the graphic and provided a version in color. We hope you find it easy to follow.
Thank you for considering this manuscript and we look forward to your feedback.

Sincerely,

Antoinette Danvers, MD, MSCR