Peer Review File
Article information: https://dx.doi.org/10.21037/jss-23-4

Reviewer A

The authors retrospectively investigated the factors impacting patient satisfaction regarding the overall experience of PFUs after two of the most common spine procedures, cervical or lumbar spine fusion, with the goal of maximizing the value of these visits.

However, there are critical problems in this research. From the title, the study seems to be assessing about patients satisfaction with postoperative follow-up in the spine. However, it also describes many of the benefits of virtual follow-up visit. If you describe the benefits of virtual follow-up visit, you need to compare between the two groups of conventional follow-up and virtual follow-up visit. If the study is purely about post-operative satisfaction, then the many descriptions of virtual follow-up visit are confusing.

I think it is a good study, but it lacks consistency. I feel the authors need to re-examine the focus of this study.

Comment 1: The focus of the study lacks consistency.

Reply 1: Thank you very much for your comment, we agree the focus can be clarified. Analyzing patient satisfaction is the primary focus of the study. We do not aim to compare the efficacy of in-person vs virtual visits in the study, although this was also assessed in this study as an element of patient satisfaction. As such, we were aiming to communicate that within our sampled patients, those who followed up through video visits were still satisfied with their postoperative care. We will further clarify the wording in the discussion to reflect this.

Changes in text: Page 12 Lines 10-11, Page 13 Lines 19-22. Please see below: (Add text here from the revision manuscript):

We also found that the presence of a virtual or phone visit did not negatively impact patient satisfaction.
In fact, patients who experienced virtual visits were similarly satisfied with their clinic experience, suggesting that the increased access and convenience may outweigh these limitations from their perspective. However, further study with greater sample size to allow for adequately powered subgroup analysis is necessary to fully investigate this point.

Reviewer B

This is a well-written prospective survey study using retrospective chart analysis that addresses an important topic regarding factors influencing post-operative patient satisfaction in a cervical and lumbar fusion cohort. I would recommend accept with major revisions including the following:

1) Please discuss how the authors reached an agreement of enrolling 50 patients for a

prospective survey study. Is this an arbitrary number or a power analysis was performed? A statement regarding power analysis and risk of type II error should be included within the methodology and discussion. The statement in lines 135-136 regarding the sample size does not sufficiently explain this.

Comment 1: How did the authors agree upon enrolling 50 patients?
Reply 1: Thank you for your comment. We did perform a power analysis to reach a target sample size of 50 patients. We added a statement to clarify how this was reached.
Changes in text: Page 9 Lines 3-7.

To determine the target sample size, satisfaction outcomes were divided into dichotomous groups, where very satisfied and satisfied represented "satisfied", and neutral, unsatisfied, and very unsatisfied represented "unsatisfied". To detect a 20% difference between satisfied and unsatisfied patients, 50 patients were required (two-tailed alpha = 0.05; 80% power).

2) Another limitation not included in lines 290-295 is the heterogeneity of the included surgeries. For instance, anterior cervical fusions have been shown to have less wound complications compared to complex posterior lumbar fusions, which may require more in-person follow-up. There should be a discussion regarding the reason of including both of these patient cohorts into 1 study instead of choosing 1 type of surgical intervention.

Comment 2: How do the authors address the heterogeneity of the included studies?
Reply 2: Thank you for the comment. In order to minimize heterogeneity, we included only spinal fusions and excluded decompressions, discectomies and foraminotomies. We felt that a "spinal fusion" cohort would be similar with regards to postoperative course and overall complications (ACDF may have less wound healing but increased dysphagia etc), however we do agree that combining cervical and lumbar procedures may still introduce potential heterogeneity. We did this to maximize the number of included patients. We agree that this heterogeneity is a source of potential confounding within the results and have documented this in the limitations portion of the discussion.
Changes in text: Page 15 Lines 1-6.

Finally, to minimize heterogeneity but maximize sample size, we included only spinal fusions and excluded decompressions, discectomies, and foraminotomies. We felt that a "spinal fusion" cohort would be similar with regards to postoperative course and overall complications. Combining cervical and lumbar procedures may still introduce some heterogeneity. This was done to maximize the included sample size but introduces potential for confounding.

3) Within the subjective cohort subsection of the results section, please include the enrollment period (month/year - month/year) of patients included in the study. Were these consecutive patients within a time frame?

Comment 3: Please include the enrollment period.
Reply 3: Survey administration and data collection were performed from May 2020 - June 2020. Included patients were at least one year postop from index surgery. Dates of surgery ranged from January 2018 – April 2019. This has been added to the results section in the "Subject Cohort" subsection. Patients were consecutively enrolled within this time frame. This has been clarified in the text as below:
Changes in text: Page 9 Line 7-10.

Survey administration and data collection were performed from May 2020 - June 2020. Included patients were at least one year postop from index surgery. Dates of surgery ranged from January 2018 – April 2019. Patients were consecutively enrolled.

4) The complete inclusion and exclusion criteria should be included within the methods section instead of the results section.

Comment 4: Inclusion and exclusion criteria should be listed within the methods section instead of the Results section.
Reply 4: Thank you for this comment. Inclusion/exclusion criteria moved to "Study Design" portion of methods section.
Changes in text: Page 7 Lines 3-11.

The representative sample of patients consisted of adult patients proficient in spoken English who underwent cervical or lumbar spinal fusions, performed by one of two fellowship-trained spine surgeons. All included patients were at least one year removed from their index surgery prior to administration of the survey. Patients that underwent surgery for tumor were excluded. Patients were also excluded if their fusion surgery constituted a reoperation within 90 days. Of note, some included patients did not show for scheduled follow-up visits beyond the 11-week (approximately 3-month) mark following surgery. At time of survey administration, these patients were also at least one year removed from surgery and had not undergone a revision procedure.

5) If the inclusion criteria were patients with a least 1-year post-operative, how did the mean follow-up range from as little as 11-weeks at final follow-up? If including patients with a less than 3 months follow-up, this should be clarified and discussed in the limitations section since these are considered minimal follow-up period. Another discrepancy is that the authors excluded patients that underwent revision surgery within 90 days; however, patients with a less than 90 days follow-up was included, whom we do not know if they will or will not require revisions by day 90.

Comment 5: There are inconsistencies in inclusion criteria and included patients.
Response 5: We apologize for this confusion. Our inclusion criteria did indeed require

patients to be 1-year post-operative from index surgery prior to completion of the survey, even if they did not have documented follow-up at the 1-year postoperative mark. Some patients did not show for scheduled f/u visits beyond the 11-week (approx. 3 month) mark following surgery. However, at our time of contact to administer the survey, all included patients were at least 1 year post op. Thus, we were able to confidently exclude patients who required revision surgery within 90 days, as they would have been filtered out at time of enrollment. We have clarified this within the methods portion of the manuscript as noted above.
Changes in text: Page 7 Lines 3-11.

The representative sample of patients consisted of adult patients proficient in spoken English who underwent cervical or lumbar spinal fusions, performed by one of two fellowship-trained spine surgeons. All included patients were at least one year removed from their index surgery prior to administration of the survey. Patients that underwent surgery for tumor were excluded. Patients were also excluded if their fusion surgery constituted a reoperation within 90 days. Of note, some included patients did not show for scheduled follow-up visits beyond the 11-week (approximately 3-month) mark following surgery. At time of survey administration, these patients were also at least one year removed from surgery and had not undergone a revision procedure.