Here, the authors investigated the effect of hormonal contraceptive (HC) use on sexual outcomes using large, longitudinal dataset containing data from 5,401 women collected over the course of 14 waves. They also investigated the heterogeneity in women’s responses to HC treatment and if women’s treatment responses predict their future HC use. The authors found positive effects of HC use on sexual frequency and sexual satisfaction, and high heterogeneity in women’s responses to HC use. Overall, the authors have done a great job with this registered report. I will be focused on new content as they have addressed previous comments well. This manuscript is well-written, the analyses very well planned and conducted, the results presented clearly, and the implications scientifically and practically important. I recommend it for publication after a very minor revision (point 2 is really the only one I think is critical to address), and hope that my below comments are helpful. I begin with major comments, and follow with minor comments, the latter of which are up to the author’s discretion if they would like to address/respond to.

Major comments:

1. I was a bit unclear on how the two papers plan to use most of the same introduction – is the well-being paper still planning to use the same introduction? Is that ok in a registered report setting?
2. The term waves is used throughout where it seems like the authors really mean observations. This is, the 14 waves of data collection include data from 5,401 women, surmising 23,130 individual observations. This was confusing to me in the abstract, on pg. 22, in Table 2, and in the results. I would suggest modifying the term waves to be observations where appropriate, or to better introduce the reason waves is being used here to mean both the sub-cycle of data collection and the number of total observations.
3. Pg 58: “Contraceptive Decisions and Individual Treatment Effects”. This was the only analysis that didn’t make sense to me/seemed a bit simplistic. Here, it seems like using the treatment effect estimates and correlating them with years of use is a bit lacking. To answer this question (“whether women guide their contraceptive method choices by deciding against hormonal contraceptive methods **after** experiencing adverse effects”), I would want to know if negative changes in sexual outcomes (an adverse effect) in preceding waves predicted discontinuation in subsequent waves. As the authors found that women reporting low sexual frequency/satisfaction were likely to switch in subsequent waves, these correlations here seem to add little to the story.

Minor comments:

1. Pg 22: Consider adding a statement at the end of the paragraph that indicates that as criteria were not met, analyses were not conducted. (The authors do mention this in the paragraph, but should end on that note)
2. Remove unnecessary page breaks throughout.
3. Pg 30: “The new exclusion implies that we should not generalize our conclusions to women who start being sexually active and/or start using hormonal contraception.” The authors should give a bit more explanation here. I was in agreement about the decision to use the exclusion, but then felt like I wanted more explanation of this statement. (Either here or in the discussion)
4. The CIs looked weird with semi-colons – don’t they normally use commas? (e.g., pg 34: “[95% CI: .86; .87]” vs [95% CI: .86, .87])
5. I’m really impressed with the clear reporting of practical effects (i.e., corresponding to an X% increase) throughout the results.
6. Starting on pg 40: under “Predictors of Hormonal Contraceptive Use”, subheadings would be useful as this section is long. Future researchers will have an easier time finding the results they want to cite if subheadings are included.
7. Figure 5: Stretch out header across all 3 panels
8. Figure 7: What are the orange lines?
9. Pg 59: I don’t think you need the word respectively at the end there.
10. Pg 63: “discussed in the section before” 🡪 discussed in the previous section
11. First paragraph on pg 64 doesn’t read super well, I had to go over it more than once to understand the authors’ points. Consider editing here somewhat.