Comments on the paper "Can heterogeneity in reporting behavior explain the gender gap in self-assessed health status?"

This paper attempts to explain the "gender paradox in self-assessed health (SAH)" (i.e., the fact that women report poorer health than men on self-reported measures of health, although they live longer than men) using a structural approach. This is an important research objective, because SAH measures are often used in empirical analysis of health care as an outcome variable. So, it will be useful to understand the factors generating this paradox. As a second objective, the authors use the existence of this paradox as an opportunity to estimate gender differences in discount factors, which is widely sought by many empirical studies.

I think that this is a very interesting paper and has a potential to make a relevant contribution to the related literature. My specific comments are listed below:

- The introductory section can be written more effectively to highlight the contribution of the paper. The current version is slightly disorganized and understates the importance of the research question.
- I think the most critical issue is that (to my reading) it is not very straightforward to interpret what the authors identify as "heterogeneity in discount factors." There may be another omitted unobserved characteristic (one or more), which may reflect itself as the discount factor due to modelling preferences. The authors' interpretation rests on rather strong exogeneity assumptions on the error structure of the model. In later stages of this project, the authors may want to model the error structure more explicitly, or combine their structural approach with other methods such as IV to control for potential endogeneities of this kind.
- How about directly using a factor model approach to estimate the model? The authors specify three elements to define x: education, age, and income. If they use a simple two-factor specification (with some Bayesian flavor) to estimate the model, then it might be easier to address the unobserved heterogeneity problem raised above.
- It might be useful to provide some further guidance for future empirical research in light of the findings of the current study. How does a researcher using only a reduced-form regression model can address the point raised in the paper? What is the data requirement? To my understanding, a fixed-effects panel regression can address the heterogeneity in unobserved individual-level characteristics. Will this be the correct strategy? Some discussion along these lines would be helpful.
- The description of the "paradox" makes a reference to gender differences in life length. It may also be interesting to incorporate this element (as well as the fertility choice) into the structural model. Life expectancy might be another relevant variable in answering the question the authors pose.
- Typo: 13th line from bottom – "addiction" instead of "addition."