Dear Editor and Reviewer:

Thank you for your detailed review and comments related to our submitted manuscript entitled, "Classifying health-related quality of life outcomes of total hip arthroplasty'. We appreciate the constructive comments and have incorporated the suggestions to improve the manuscript. I have attached a revised manuscript and you will find a detailed response to each comment below. We look forward to your review of the "Revised Manuscript' which is now re-submitted.

Sincerely,

Min Xu MB, M.Sc

1. Comments: The last paragraph of the introduction is in fact a paragraph of methodology.

Action: The last paragraph of introduction was moved to Methodology section.

2. Comments: The result part is in fact a juxtaposition of methodology and results. The manuscript should correspond to a straight intro/method/results/discussion repartition. I will ask the authors to detail readily their method and present frank and clear results! This is my major comment on this manuscript: the manuscript and the methodology employed must be definitely more clearly presented!

Action: According to reviewer's comments: Method and Result section are reorganized, the description that belong to the methods and results are matching to each other with the subheading.

3. Comments: More precision are needed on the tobit approach.

Action: Explained that the Tobit regression model is a well known instrument for measuring left-censored...
variables in economic research. The main difference of Tobit model from least square regression is that the data in Tobit is left-censored. The left-censoring method is detailed in the following-paragraph.

4. Comments: Table 2 and figure 5 represent the same concept, no?

Action: Yes, Table 2 and Figure 5 represent the same concept. Table 2 represents the same information as Fig. 5, but provides the actual values for classification criteria that can be used as a reference table for future researchers.

5. Comments: The text describing figure 6 and figure 7 in the manuscript are very difficult to understand.

Action: The text describing Figure 6 and 7 and 8 were rewritten.

6. Comments: In the Assessment of the classification instrument paragraphs, I do not understand the last sentence of the first paragraph: Because the functional subscale? What are we talking about here?

Action: The sentence is rewrote as "The functional subscale contains 17 questions; each question has a response on Likert scale from 0 to 4). Therefore, we chose the folds of 17 as the baseline levels for simulation. The postoperative score was left-censored at 0.9."

7. Comments: The following paragraph The postoperative score was left-censored is also quite unclear.

Action: The description is rewrote as "We also tested the model using same method with different censoring points (0.9, 2, 3, 4, and 5), while the sample size fixed at 500. For each censoring point, we generated 1000 datasets and the cutoff points were estimated for each data set."

8. Comments: In the result part, one would expect to see a short description of population (age, distribution between sex, etc.) like some data on the distribution of the WOMAC.

Action: One paragraph is added described the study population.

9. Comments: Discussion did not discusses generalizability

Action: Add discussion of generalizability as "Vancouver Hospital (VH) is a tertiary referral centre and teaching hospital for the University of British Columbia (UBC). The demographics of arthroplasty patients, however, are not different from elsewhere. The study result is expected to be generalizable to a similar clinical setting."