

Response to Reviewer 3 Comments

Dear Reviewer:

We wish to express our gratitude for your insightful comments. We have attached our revised manuscript as well as a point-by-point response to your comments. Thank you in advance for your kind consideration.

Sincerely yours,

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Point 1: line 59 - 64 characteristics of the methods of studying the level of physical activity should be presented in the research methods. The authors should pay more attention to the description of the problem of studying the level of motor activity, specifically in patients with defecation dysfunction.

Response 1: Thank you for reviewing our manuscript and offering valuable suggestions.

We moved Lines 52 - 66 to "2.2.2. Exposure variables" and added text to describe the characteristics of the methods used to study physical activity (PA) levels. In this study, we used Global Physical Activity Questionnaire (GPAQ) and other questionnaires to measure the level of PA among participants. These methods were chosen to capture PA levels in both occupational and recreational domains.

We have also expanded the discussion on the challenges and importance of assessing PA levels specifically in patients with defecatory dysfunction. Patients with defecatory dysfunction may have unique PA patterns owing to their condition. It is crucial to accurately assess their PA levels to understand how different types of activities may impact their symptoms and overall quality of life. This study aimed to address these challenges by using a comprehensive approach to capture a wide range of PAs and their potential effects on defecatory function.

Point 2: In section 2.1. Study Design, Setting, and Patients should provide a full description of the study population, the total number of participants, age and gender distribution.

Response 2: Thank you for your suggestion. We have revised the sentence.

Before modification: The participants were adults aged ≥ 20 years with postoperative defecatory dysfunction due to CRC.

Lines 78-79: After modification: The participants were 65 adult patients of either sex, aged 20 years or older, with postoperative defecatory dysfunction due to colorectal cancer.

Point 3: line 79 - 80 "excluding accidental bowel leakage" were included in the exclusion group?

Response 3: Thank you for your suggestion.

Line 86: We have added a sentence regarding the exclusion of those with accidental bowel leakage.

Point 4: line 103 - 106 avoid duplication of information Sexual interest was not calculated how was the overall quality of life assessment conducted due to the lack of data on individual indicators

Response 4: We have removed line 103 - 106 to avoid duplication.

We added the following sentences between lines 114 and 118 to explain the QoL assessment. Sexual interest was scarcely mentioned. This is likely owing to the cultural background of the Japanese participants. Owing to several missing values, we excluded sexual interest from the calculations to ensure the reliability of the quality of life (QoL) assessment results. Based on these points, we assessed the overall QoL using QLQ-C30 and evaluated defecatory dysfunction using QLQ-CR29.

Point 5:

why only men's results are presented in Table 1

it is not clear from which number the percentage is calculated when characterising by gender (20 (66.7%) 22 (68.8%)).

Response 5: We apologize for this oversight. We have presented the number and percentage of women in Table 1.

Point 6:

in Table 2, to conditionally indicate a statistically significant difference between the two groups of respondents, for better perception of information.

Response 6: Thank you for your thoughtful suggestion. Accordingly, we have added asterisks in Table 2 to indicate statistically significant differences between the two groups of respondents. This enhancement improves the clarity of information.