

Peer-Review comments and authors responses

Reviewer 1

Recommendation: Revisions Required

TITLE: *Please revise. The word “interventions” in the title is not specific enough, and I recommend adding the word “diet.”*

Response: We have revised the title “Impact of Fast-Mimicking and Fasting Interventions on Enhancing Cancer Outcomes in Adult Patients: A Scoping Review of Clinical Evidence,” and have changed it to “Impact of Fast-Mimicking Diet and Fasting Dietary Interventions on Enhancing Cancer Outcomes in Adult Patients: A Scoping Review of Clinical Evidence” to explicitly reflect that the interventions are diet-based.

ABSTRACT: *Conflict of Interest in Abstract*

The conflict of interest statement should be removed from the abstract.

Response: The conflict of interest statement has been removed from the abstract.

INTRODUCTION: There is insufficient explanation of the differences between Fasting Mimicking Diet (FMD) and chronic dietary restrictions. Additionally, the aim of the study should specify the outcomes of interest more clearly rather than using "among others."

Response: We have revised the introduction to briefly highlight the differences between FMD and chronic dietary restrictions. We have also revised the study to list specific outcomes, including survival, quality of life, and biomarkers related to tumor metabolism and immune response, ensuring greater clarity.

METHODS: *Risk of Bias (ROB 1) Tool Application*

The use of the ROB 1 tool indicated that at least three studies should have been excluded due to high risk of bias.

Response: We appreciate your helpful comment on using the ROB 1 tool and your concern about including studies with a high risk of bias. As this is a scoping review, our aim was to map out the current evidence landscape, including identifying gaps in the quality of that evidence. By including those studies, we're trying to show where the current research is lacking and where there's a need for more high-quality studies. If we excluded them, it might lead to a form of publication bias or 'cherry-picking', which we believe would not be transparent. We hope this approach clarifies our decision and ensures that the review presents a comprehensive picture of the current literature.

Reviewer 2

Recommendation: *Accept Submission*

Comment: *Grammatical Errors*

There are a few grammatical errors that need to be corrected.

Response: The manuscript has undergone a thorough grammatical review and corrections have been made.

Reviewer 3

Recommendation: Revisions Required

Research Question Placement and Mechanism Explanation

Move the research question to the introduction section and elaborate on the types of fasting regimens and how they reduce chemotherapy toxicity, improve quality of life, and enhance outcomes.

Response: We have moved the research question to the introduction section and expanded on the different fasting regimens and their mechanisms. These include reducing chemotherapy toxicity, enhancing immune response, and improving patient quality of life.

Clarifying ROB 1 Discrepancies

There appear to be discrepancies in the overall bias grading for the included studies.

Response: We have reviewed the discrepancies in the overall bias grading, ensuring consistency and clarity across all studies.

Reviewer 4

Recommendation: *Resubmit for Review*

Section Formatting and Structure

The sections (Introduction, Methods, Results, Discussion, Conclusion) should not be in capital letters, and the manuscript's subsections should be clearly separated.

Response: We have reformatted the manuscript to remove capital letters from section titles and added numbered subsections for clearer organization and readability.

INTRODUCTION: *Introduction Expansion. Please provide more details on how fasting interventions improve cancer outcomes, and the pathophysiological mechanisms involved.*

Response: We have expanded the introduction to explain the pathophysiological mechanisms by which fasting and FMD interventions improve cancer outcomes. These mechanisms include effects on tumor metabolism, reduction in inflammatory markers, and enhancement of the immune system.

- *Conflict of Interest Location (lines 65-66)*

Response: The conflict of interest section has been moved to the Title page as recommended.

- *Missing Reference (lines 87-89)*

Response: We have added the necessary reference for the statement in these lines.

- *Clarifying Fasting's Impact on Cancer Prognosis*

Response: As mentioned, we expanded the introduction to explain how fasting influences cancer prognosis, focusing on mechanisms like reduced oxidative damage and improved treatment tolerance.

METHODS:

Methods Section Reorganization:

Response: The Methods section has been reorganized according to your recommendations (search strategy, study selection, data extraction and synthesis,

inclusion/exclusion criteria, endpoints, and risk of bias). We have provided more detail on the endpoints and summarized the results of the risk of bias assessment.

- *Revised Inclusion Criteria (lines 118-124):*
- *Numbered Criteria for Inclusion/Exclusion:*
Response: We implemented your recommendation of numbering (1), (2), etc., in all relevant sections for consistency.
- *Abbreviations for Author Names in Data Extraction and Risk of Bias Sections:*
Response: We included abbreviations for author names in the corresponding sections.
- *Correction in Study Locations (lines 178-180):*
Response: We corrected the location data to reflect countries, as per your suggestion, and clarified the distinction between single and multicenter studies.
- *Revised Table 1 and New Columns*
Response: We added a new column in Table 1 to include the number of cancer patients per study and revised the table structure to follow your suggested format.
- *Clarified Side Effects in Table 3:*
Response: We have clarified whether side effects are related to cancer or fasting therapy. The legends for all tables have been updated to define all abbreviations used.

DISCUSSION/CONCLUSION: *Revise.*

Response: Both the discussion and conclusion have been shortened and rewritten for clarity and conciseness. We focused on presenting the key takeaways without unnecessary repetition.

Reviewer 5

Recommendation: *Revisions Required*

METHODS: *Standardized Data Extraction Form*

Please provide more detail on the standardized data extraction form and consider including it as a model in the appendix.

Response: We have elaborated on the data extraction process in the methods section and included a representation of the standardized data extraction form in the appendix for reference.

RESULTS: *Risk of Bias Results. Please describe the Risk of Bias (ROB) results in more detail.*

Response: We have revised the manuscript to provide a more comprehensive description of the results of the ROB assessment, clearly summarizing the findings for each study. Additionally, in the manuscript we have included “Figure 2,” which provides a precise illustration of the risk of bias for every study.

DISCUSSION: *Reducing Redundancy in the Discussion*

Response: In response to your suggestion, we have streamlined the discussion section to eliminate redundancy. We now focus more on the implications of our findings for clinical practice and future research directions. This adjustment enhances the relevance of the discussion while making it more concise.

We hope these revisions meet the reviewers' expectations and contribute to improving

the quality and clarity of our manuscript. We are confident that the changes enhance the manuscript's robustness and look forward to your feedback.