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REVIEWER'S REPORT

Manuscript No.: IJAR-59675

Title: Insufficient and Disrupted Sleep in Metabolic Disease: A Critical Review of Insulin Resistance.

Recommendation:

Accept as it is .....
✓ Accept after minor revision.....
Accept after major revision .....
Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity		✓		
Significance	✓			

Reviewer Name: Dr S. K. Nath

Detailed Reviewer's Report

Strength of the study:

- Covers an important topic linking sleep health and metabolic disorders.
- Distinguishes insulin resistance from diabetes and abnormal glucose levels.
- Includes experimental studies, clinical trials and prospective cohorts.
- Discusses different aspects of sleep, including duration, quality and circadian timing.
- Explains physiological mechanisms using human and preclinical evidence.
- Includes useful tables comparing studies and metabolic measurements.
- Critically evaluates sleep-related interventions.
- Provides practical recommendations and identifies future research needs.

Weakness of the study:

- The literature search is not fully reproducible.
- Screening numbers and original search strings are unavailable.
- No formal risk of bias assessment was performed.
- Selection of studies may introduce bias.
- Some important findings rely on small clinical trials.
- Long-term effects of sleep interventions remain uncertain.
- The review does not provide a formal evidence grading.
- Reference accuracy and recent literature coverage need verification.

Reviewers Comments:

The manuscript provides a detailed and balanced review of the relationship between insufficient sleep, circadian disruption and insulin resistance. Its strength lies in distinguishing direct evidence of impaired insulin sensitivity from observational associations with diabetes. The tables and conceptual framework help explain the available evidence, while the discussion of sleep extension, insomnia treatment and CPAP adds clinical relevance. However, the literature search is not fully reproducible because the original search strings and screening counts were not retained. No formal risk of bias assessment or evidence grading was performed, which limits the strength of the conclusions. These limitations are acknowledged by the authors and should remain clear throughout the manuscript. Ethics committee approval was not required, as this is a narrative review without new human or animal research. The manuscript is generally well structured and written in clear scientific language, although reference details and consistency should be checked. Overall, this is a useful review with good clinical relevance, but methodological clarification and editorial corrections are required.

Previously Published anywhere/Plagiarism check:

A web search did not identify an exact match for the submitted title. However, related reviews have already discussed sleep disruption, insulin resistance and cardiometabolic health, including a 2025 review in Life and a 2024 narrative review in Diabetes/Metabolism Research and Reviews. These overlaps do not establish plagiarism. The authors should clarify the review's distinct contribution and complete a formal similarity check.