

## Investigating the Mediating Role of Negative Repetitive Thoughts in the Relationship Between Behavioral Brain Systems and Sleep Quality With Mental Fatigue in Women With Type 2 Diabetes

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### 1. Round 1

#### 1.1. Reviewer 1

Reviewer:

The introductory paragraph effectively sets the stage, but it lacks statistics on the prevalence of mental fatigue or type 2 diabetes in women. Including epidemiological data would strengthen the urgency and relevance of the research problem.

The correlation between BIS and mental fatigue ( $r = .558$ ) and BAS and mental fatigue ( $r = -.512$ ) are high. Please comment on potential multicollinearity issues in your path model.

The phrase “nonsignificant with a p-value of .64” for RMSEA is confusing. RMSEA is not typically interpreted using p-values. Consider clarifying this interpretation and citing appropriate guidelines (e.g., Hu & Bentler, 1999).

The argument is convincing but would benefit from clarification on whether the BAS acts only as a direct protective factor or also indirectly through other mechanisms not examined here.

Authors revised the manuscript and uploaded the document.

### 1.2. Reviewer 2

Reviewer:

Consider elaborating on how these BIS-related traits mechanistically contribute to mental fatigue. For example, include a theoretical framework (e.g., cognitive load theory) to support the linkage.

The use of subjective sleep measures should be acknowledged. Since the PSQI does not offer objective data, it may not fully capture the complexity of sleep disturbance. This limitation should be emphasized.

Skewness and kurtosis values are reported but not interpreted in relation to assumptions of path analysis. Confirm whether these values supported the use of parametric modeling or if transformation was considered.

The table would benefit from inclusion of confidence intervals for all effects, particularly indirect effects. This would provide more robust inferential interpretation of mediation.

You might consider adding a neurocognitive mechanism—such as executive function depletion or attentional control impairments—that links BIS with mental fatigue more precisely.

Authors revised the manuscript and uploaded the document.

## 2. Revised

Editor's decision: Accepted.

Editor in Chief's decision: Accepted.