





Comparing the Effectiveness of Metacognitive Skills Training with Executive Function Skills Training on Biological Markers in Patients with Coronary Artery Disease

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1. Round 1

1.1. Reviewer 1

Reviewer:

The research question is clear but could benefit from a deeper exploration of the theoretical rationale behind why these specific interventions were expected to impact biological markers in CAD patients. Integrating more background on the linkage between cognitive functions and physiological health outcomes in CAD could enrich the study's foundation.

While the study presents its findings coherently, it could further strengthen the argument by discussing potential mechanisms of action for how metacognitive and executive function trainings influence biological markers. Including a discussion on the physiological or psychological pathways could provide a more comprehensive understanding of the results.

The literature review successfully sets the stage for the research but may benefit from a broader scope, including studies that have directly compared these interventions in similar or different populations. This could help position the study more distinctly within the existing body of research.

The presentation of findings is clear, yet the inclusion of more detailed statistical analyses (e.g., effect sizes, confidence intervals) could offer deeper insights into the magnitude and practical significance of the findings. Furthermore, visual aids, such as graphs or charts, would enhance the readability and interpretation of the results.

The analysis appropriately employs multivariate analysis of variance, but the discussion could be expanded to critically assess the limitations of the study's design and its quasi-experimental nature. Suggestions for future research directions, including randomized controlled trials to validate these findings, would be beneficial.

The paper mentions adherence to ethical guidelines and data transparency, which is commendable. However, a more detailed description of the ethical considerations, especially concerning patient confidentiality and the informed consent process, would enhance the credibility and ethical rigor of the study.

Authors revised and uploaded the document.

1.2. Reviewer 2

Reviewer:

The selection of participants through convenience sampling raises questions about the generalizability of the findings. Future studies could aim for random sampling to enhance the external validity of the results.

The description of the interventions could be more detailed, providing insight into the content and delivery of the metacognitive and executive function training sessions. This would allow for replication and better understanding of the intervention components.

While the study includes a control group, further elaboration on the selection and management of this group would be beneficial. Details on any potential activities or standard care received by the control group could help in understanding the comparative effectiveness of the interventions.

The follow-up period appears to be short. Extending the follow-up duration in future studies could provide insights into the long-term effects of the interventions on biological markers in CAD patients.

Considering psychological outcomes, in addition to biological markers, could offer a more holistic view of the interventions' impact. Future research could include measures of mental health, quality of life, or other relevant psychological outcomes.

The study bridges psychology and cardiology, suggesting an opportunity for interdisciplinary collaboration. Future work could benefit from partnerships with cardiologists, neuroscientists, and health psychologists to deepen the understanding of the interventions' effects from multiple perspectives.

Authors revised and uploaded the document.

2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.