

Review of: "Prediction and Analysis of Structural Brain Health Indicators Using Deep Learning Models with Functional Brain Images as Input"

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Potential competing interests: No potential competing interests to declare.

"General Comments"

This paper provides an intriguing and potentially valuable approach of transforming resting-state fMRI data into a functional brain health index that could be intuitively understood by the general public. Below are some suggestions to further improve this research.

- "Please provide a link to more detailed information about the expanded version of the NKI RS in the references." This would give readers access to specific information about the dataset used, improving the reproducibility and transparency of the research.
- "The paper is quite lengthy, and using visual aids such as workflow diagrams could make it easier to follow."
 Visual elements can significantly enhance the comprehension of the paper, making the dense information more digestible.
- 3. "There are several prior studies that simultaneously evaluate rs-fMRI and VBM brain volumes. There are also studies summarizing the relationship between the resting state networks in rs-fMRI and age, and the relationship between local brain volumes in VBM and age. By calculating the FC-BHQ, you could further clarify the significance gained compared to these previous studies, highlighting the strengths of your research."
- 4. "The paper concludes with limitations. I suggest summarizing the achievements of this study as a conclusion. This could effectively communicate the excellence of the research."

These comments are made with the intent to enhance the research and its presentation.