

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.

The paper "Prediction and Analysis of Structural Brain Health Indicators Using Deep Learning Models with Functional Brain Images as Input" presents an interesting application of deep learning in the field of neuroimaging. It is a well-written and informative research article that explores the use of deep learning techniques for predicting structural brain health indicators from functional brain images. There are several limitations that should be considered:

1. Limited diversity in the dataset: The study used data from NKI-RS, which may limit the diversity of the dataset and the generalizability of the results to other populations.
2. Limited interpretability: Deep learning models are typically considered "black-box" models, meaning that it can be difficult to interpret the learned features and understand how the model arrived at its predictions. This may limit the clinical applicability of the proposed framework.
3. Limited clinical relevance: The study focuses on predicting structural brain health indicators, but it is unclear how these indicators relate to clinical outcomes, such as cognitive function or disease progression. Further research is needed to establish the clinical relevance of the proposed framework.
4. Limited subject information on brain health: In addition to age, the health status of the subjects, especially whether they have brain diseases, could be an important factor affecting the results of this study.