

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.

This is a study investigating the utility of rs fMRI data as brain health quotient. They used sound methodology and observed meaningful results. Overall, it is worthy of publication. But I do have several concerns. First, brain age or brain health quotient is usually being discussed with regard to cognitive functioning. So, it is essential to know when is the peak time. Likewise, it is important to note that gray matter volume reaches peak around 10-15 years old. So, if you include subjects aged less than 15 years, it indicate brain maturation, not acceleration of brain aging. This point should be mentioned clearly. Second, there are already several papers published which identified age-related change in rs-fMRI data and suggested utility of rsfMRI data predicting brain age. So, the point is what is the value of developing structural brain health indicators with functional brain images. These aspects should be discussed. Third, the MAE value is higher (about 9 years) which makes readers question the utility of the GM-BHQ itself. In order to be used in real practice, it should be less than 3 years in my opinion.