

Summary

The prevalence of Neurocognitive Disorder (NCD) is on the rise as Singapore is facing an aging population. There is currently no treatment for NCD and the cost of medical care is high. This is especially worrying for families with members suffering from cognitive impairment, as they may face financial and emotional stress. Therefore, early detection and prevention is critical in slowing down the rate of decline in cognitive function among mid-life adults or the elderly. The aim of this study is to produce risk scores to predict the risk of NCD so that mid-life adults or the elderly can take precautionary measures, while the community can come up with programmes to curb with the rise in the rate of cognitive decline.

Statistical analyses were performed on a subset of the Singapore Longitudinal Aging Study (SLAS) data. T-tests and chi-square tests were performed to identify significant risk factors. They are Mini-Mental State Examination (MMSE) score at baseline, age, education level, history of heart disease, history of depression, and social and productivity activities score. Multivariable logistic regression analysis was conducted to find the best prediction model and the predicted risk of each subject.

Risk scores were also produced by assigning scores to each level of a variable based on their respective standardized beta (β) coefficients from the multivariable logistic regression model. Besides the risk score based on our best prediction model, two other risk scores were compared to observe how well the SLAS data perform with other combination of factors, which have been shown to be significant in other studies.