

Abstract

The objective of this project is to investigate the association between dietary patterns and late life depression in a sample of community-living senior Singaporean. Depression has been a common mental illness around the world and the numbers affected by this disorder continue to rise over the years. The effects of depression can vary in severity, with the most severe ones resulting in suicidal deaths. As treatment is not yet well-defined for depression, it is important to instead, prevent depression so as to reduce the prevalence of this disorder. Many risk factors for depression have been suggested by previous research studies, among which, nutrients and diet were shown to have a relationship with depression. In this study, 535 elderly Singapore residents, aged 60 and above, had their depressive symptoms and diet measured. The outcome variable, depression, was measured by the 15-points Geriatric Depression Scale (GDS). Diet was measured by the Food Frequency Questionnaire (FFQ) where the participants' daily/weekly/monthly consumption of specific food items was recorded. A total of 216 FFQ food items were included in this analysis. Principal Component Analysis (PCA) was used to extract and identify dietary patterns among the participants. Before PCA was done, three methods were used to classify the FFQ food items (i: 216 individual food items; ii: 57 food groups; iii: 25 food groups). Classification was done to examine if different classifications would influence the association between diet and depressive symptoms. Logistic regression was used to model the relationship between PCA-derived dietary pattern scores and depression under each classification. Models were adjusted for age, sex, completed education level and housing type. Goodness-of-fit tests such as Hosmer and Lemeshow tests were conducted to test the fit of the models. Poor fit of the models was not suggested. The 'Healthy food' (OR = 0.555, CI = (0.362,0.822), $p = 0.005$), 'High protein' (OR= 0.653, CI = (0.446,0.934), $p = 0.023$), 'Vegetables - raw, steamed, in soup and salad dressings' (OR = 0.511, CI = (0.290,0.845), $p = 0.014$) and 'Vegetables and nuts' (OR = 0.682, CI = (0.467,0.970), $p = 0.039$) dietary patterns were found to be significantly associated with reduced odds of depression. In conclusion, the healthy diet and high protein diet were associated with reduced risk of late life depression in Singapore elderly. The results were consistent with those of similar studies done.