

## Abstract

**Background:** The five factor model of personality has aroused growing interest as playing an important role in late-onset depression (LOD), with the strongest evidence for the trait neuroticism. No previous study in Hong Kong has focused on personality traits in LOD. It is unsure whether the relationships between personality traits and depression reported from western countries can be applied to the local depressed elderly. It is also unknown how the personality trait scores between LOD and early-onset depression (EOD) differ given the many differences between the two age groups. Our study therefore recruited 3 samples to compare the personality traits between LOD versus an old-age healthy control group, and to compare personality traits between LOD versus EOD.

**Objectives:** The major aim of this study sought to examine the association between the Big Five personality traits and LOD, and to find predictors of LOD. Our secondary aim was to compare the personality traits between LOD and EOD, and to find predictors of LOD that could differentiate between the two.

**Design:** A cross-sectional case-control study

**Subjects and method:** LOD (n=40) aged  $\geq 60$  years receiving care in Kowloon Hospital Department of Psychiatry in-patient and out-patient wards, with their first life-time depressive episode occurring on or after the age of 60. Old-age healthy controls (n=54) aged  $\geq 60$  were community-dwelling elderlies receiving care in an out-patient general health clinic (Central Kowloon Health Centre) of the same residential area. EOD (n=43) aged 18 – 59 receiving care from the same psychiatric setting of Kowloon Hospital, with their first life-time depressive episode occurring at age 59 or earlier. Assessments of the five-factor model of personality (Neuroticism-Extraversion-Openness Five Factor Inventory [NEO-FFI]), demographic variables, cognitive level, functioning level and physical health illness were obtained.

**Result:** LOD showed significantly higher neuroticism scores, lower extraversion and lower conscientiousness scores when compared to old-age controls. The first logistic regression revealed that neuroticism was the only significant personality factor to predict for the presence of LOD, whilst adjusting for cognitive, functioning and physical health variables. In contrast, no differences were found in the personality scores between LOD and EOD, except the latter had higher openness-to-experience mean scores. None of the personality factors in the second logistic regression allowed for differentiating LOD from EOD. Only physical health and functioning remained as predictors of LOD.

**Conclusion:** Our preliminary findings demonstrate the importance of personality factors in LOD. Personality traits ought to be considered during the assessment of any individual with depression. Future longitudinal studies are necessary.

**Keywords:** Late-onset; Elderly; Depression; Personality traits; Five-factor; Chinese