

Abstract

Background: Depression is common among the elderly, especially in individuals who live in a residential care home for the elderly (RCHE). Although depression increases the rates of morbidity and mortality, it is often under-recognised and under-treated. The Geriatric Depression Scale (GDS) is commonly used to screen for depression in the elderly in Hong Kong; however, its validity decreases in elderly individuals with dementia. The Cornell Scale for Depression in Dementia (CSDD) was developed to assess the signs and symptoms of depression in patients with dementia and has also been shown to have good validity in screening for depression in elderly patients without dementia. However, there have been few studies regarding its validity in depression screening for individuals who live in RCHEs in Hong Kong. Thus, this study aimed to examine the validity of this screening tool in this setting.

Methods: The original CSDD was translated to Chinese, back translated and then reviewed by an expert panel. Subjects recruited from two RCHEs in the Kowloon East Cluster of Hong Kong were screened by a registered psychiatric nurse trained in research using the CSDD. The psychiatric interview used 1) the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR) (major or minor depressive episode) in subjects with and without dementia, and 2) the Provisional Diagnostic Criteria for Depression of Alzheimer disease (PDC-dAD) in subjects with dementia. These evaluations were conducted

by a psychiatrist within one week. Receiver operating characteristic (ROC) curve analyses were used to establish the optimal cut-off scores for the CSDD. Twenty subjects were assessed by both the research nurse and another research psychiatrist using the CSDD to establish the inter-rater reliability.

Results: Reliability was established by an intra-class correlation coefficient of 0.889 (95% CI = 0.741–0.955) with a *p*-value <0.001. Cronbach's alpha was 0.745 (95% CI = 0.685–0.806) with a *p*-value <0.001. Among subjects with dementia, using the DSM-IV-TR as the diagnostic criteria for a major or minor depressive episode, the best cut-off score was 8/9. The sensitivity was 100% (95% CI: 100–100%), the specificity was 96.43% (95% CI: 91.67–100%), and the area under curve (AUC) was 99.26% (95% CI: 97.56–100%). Using the PDC-dAD criteria as the diagnostic criteria in subjects with dementia, the best cut-off score was 6/7. The sensitivity was 100% (95% CI: 100–100%), the specificity was 96.3% (95% CI: 91.36–100%), and the AUC was 99.38% (95% CI: 98.14–100%). Among subjects without dementia, using the DSM-IV-TR as the diagnostic criteria for a major or minor depressive episode, the best cut-off score was 5/6. The sensitivity was 100% (95% CI: 100–100%), the specificity was 97.3% (95% CI: 93.24–100%), and the AUC was 99.49% (95% CI: 98.26–100%).

Conclusion: In our sample, the Chinese version of the CSDD was both reliable and valid for depression screening in subjects with or without dementia.