

Abstract

Background:

This study examined the trajectory of anxiety symptoms and cognitive function among a group of community-dwelling anxious older adults over a 3-year period. We also investigated for possible associations between anxiety symptoms and cognitive function decline.

Methods:

Ninety-one anxious and non-demented Chinese older adults in Hong Kong recruited from a baseline study looking at cognition and mood, were invited for follow-up assessment at the third year (Anxious group). 91 age, sex and education-matched non-anxious controls from the same study (Control group) were recruited for comparison.

Results:

At baseline, the anxiety and control groups did not differ in age, gender distribution and cognitive function performances. While some participants with anxiety will remit at follow-up, baseline anxiety is associated with a higher chance of being anxious at follow-up (Pearson Chi Square, $p < 0.001$). Those who exhibited anxiety symptoms at baseline assessment performed poorer on the delayed recall test upon follow-up (paired t-test, declined from 6.5 to 5.7, $p < 0.001$). Logistic regression identified that change in delayed recall scores were related to years of education, baseline delayed recall scores and presence of anxiety symptoms ($F(7,171) = 6.128$, $p < 0.001$). Older adults whose anxiety symptoms were present at both assessment time points, compared to those with no anxiety symptoms during both assessments, had lower delayed recall score upon follow-up (One way ANOVA, post-hoc sub-group comparisons $p < 0.05$).

Conclusions:

This is one of the few local follow-up studies investigating the relationship between anxiety symptoms and cognitive function in non-demented community-dwelling older adults. We found that anxiety symptoms are common among community-dwelling older adults, and that those who exhibited anxiety symptoms were associated with decline in cognitive performance over a 3-year period, in particular episodic memory. At each assessment time point, older adults who exhibited anxiety symptoms in the past month were noted to have poorer cognitive performance as compared to those without current anxiety symptoms. The findings of the present study concur with previous studies that have also shown an association between anxiety symptoms and cognitive impairment. Additional research is needed to evaluate the generalizability of these results, unfold possible underlying neurobiological associations related with this, and examine whether treatment of anxiety symptoms may modify cognitive decline.

Keywords: Anxiety, older adults, cognitive function, cognitive decline