

## Frailty as a Predictor of the Course of Late-life Depression: Findings From a Longitudinal Cohort Study

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### ABSTRACT

*Background-* More than a quarter of depressed older persons is physically frail. Understanding the associations between frailty and depression may help to improve treatment outcome for late-life depression. The aim of this study is to test whether physical frailty predicts the course of late-life depression.

*Methods-* A cohort study (N=285) of depressed older persons aged  $\geq 60$  years with two years follow-up. Depression was classified according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) criteria at baseline and at two-year follow-up. Severity of depression was assessed with the sum score as well as subscale scores of the Inventory of Depressive Symptomatology (IDS) at six-month intervals. Physical frailty was defined as  $\geq 3$  out of 5 criteria (handgrip strength, weight loss, poor endurance, walking speed, low physical activity).

*Results-* Frail patients were more severely depressed compared to their non-frail counterparts. Multivariable logistic regression showed that physical frailty at baseline was associated with depression at two years follow-up, adjusted for socio-demographics and lifestyle factors. Linear mixed models showed that improvement of mood symptoms over time was independent of frailty status, whereas frailty had a negative impact on the course of the somatic and motivational symptoms of depression.

*Conclusions-* The negative impact of physical frailty on the course of depression may point to the potential importance of incorporating multi-faceted interventions in the treatment of late-life depression. Further understanding of the mediating mechanisms underlying the association between frailty and depression may further guide the development of these interventions.