

Possibilities of prevention reflecting geriatric principles: Functional status and depressivity in old age

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Abstract

Background: Given the population ageing in Europe and in the Czech Republic, strategies aiming to prevent functional decline in older age are of great importance. Depression in old age increases functional decline and is also associated with increased morbidity, mortality and deterioration of quality of life (Anstey et al., 2007; Karakaya et al., 2009). Therefore, there is a need for a comprehensive intervention addressing both functional status and depressive symptoms.

Methods: Using comprehensive geriatric assessment, the relationship between functional status and depressive symptoms was examined in 308 residents of long-term care facilities (RCFs) in the Czech Republic. Depressive symptoms were measured using the 15-item Geriatric Depression Scale. An additional randomized control trial (RCT) evaluated the effect of a dance-based therapy on depressive symptoms in 162 institutionalized older adults with average age over 80 years.

Results: A multiple regression analyses adjusted for sociodemographic factors and for taking antidepressants found that cognitive function and functional limitation by pain were most strongly associated with depressive symptoms. The ability to perform basic ADLs and mobility were also related to depressive symptoms. Prevalence of depressive symptoms was 46%, suggesting the need to improve screening and therapy of depression in this population.

Comparison of participants with Mini-mental State Examination (MMSE) score of 15 or higher showed that GDS scores in the intervention group significantly improved ($p = 0.005$), whereas the control group had a trend of further worsening of depressive symptoms ($p = 0.081$). The subsample of controls with normal GDS at baseline experienced significant progression of depressivity ($p < 0.01$). GLM analysis documented highly statistically significant effect of dance therapy on depressive symptoms ($p = 0.001$) that was not influenced by controlling for intake of antidepressants and nursing home location.

Conclusion: The study presents new evidence for associations between functional status and depressive symptoms in nursing home residents in the Czech Republic. Attention to these factors may help to improve the quality of life in RCFs by helping clinicians identify residents at risk of experiencing depressive symptoms. In addition, the RCT provides evidence that dance-based exercise can prevent progression of depressivity and even reduce the number of depressive symptoms in nursing home residents.