



Aging & Chronic Diseases

Impact of depression and aging on physical activity

How do depression and aging affect physical activity levels?

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Important goals of primary care cardiovascular risk management (CVRM) include identifying physical inactivity levels and encouraging patients to adopt and/or maintain a physically active lifestyle.

Depressive symptomatology and aging may act as a barrier for patients to enhance their physical activity levels. This association was predominantly found in patients suffering from cardiovascular disease (secondary prevention patients) and in female patients. Increasing physical activity levels are reported to decrease patients' experienced depressive symptoms and decline mortality rates that are accompanied by aging.

In line with our expectations, we found an association between depressive symptoms and physical inactivity and that aging was associated with declining physical activity levels. However, these associations did neither differ between men and women, nor between patients at high cardiovascular risk without suffering from cardiovascular disease in history (primary prevention patients) and secondary prevention patients.

We assessed the associations between: 1) depressive symptoms and physical inactivity (n=2184); and 2) aging and physical inactivity (n= 4726), using the patient data from Dutch primary care populations participating in CVRM.

Activity levels were measured by the patient reported Rapid Assessment of Physical Activity (RAPA) questionnaire. Symptoms of depression were determined using the Patient Health Questionnaire (PHQ-9).



To assess the association between depressive symptomatology we performed a multilevel linear regression analysis (95%CI), using random slopes and intercepts, adjusting for the following potential confounders: score on the patient activation measure (PAM) questionnaire, age and smoking, gender and whether or not suffering a cardiovascular disease.

Also a multilevel regression analysis was used to explore the association between aging and physical inactivity, adjusting for confounders that modified the regression coefficient for age by more than 10%.

These studies support the identification of physical inactivity levels and tailoring CVRM interventions to individual patients' needs and capacities. Multidisciplinary lifestyle interventions should aim at the increase of physical activity levels, while emphasizing on improving symptoms of depression. They do not support the notion that extra emphasis should be put in targeting men or women, or people with or without a history of cardiovascular disease.

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On top of that, the additional reference for this summary is:

Achttien RJ, Lieshout JV, Wensing M, Nijhuis-van der Sanden M, Staal JB. The decline in physical activity in aging people is not modified by gender or the presence of cardiovascular disease. *Eur J Public Health*. 2019 [Epub ahead of print] (Click [here](#) for the Pubmed abstract!)

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