

## **Prevalence and risk factors for Depression in older adults in India: Evidence from the WHO-SAGE**

Sutapa Agrawal, South Asia Network for Chronic Disease, PHFI, India

Peter Lloyd-Sherlock, University of East Anglia, UK

Nadia Minicuci, CNR, Padova, Italy

Email: sutapa.agrawal@phfi.org

**Introduction:** Late-life depression is an important public health problem because of its devastating consequences. It is associated with an increased risk of morbidity and decreased physical, cognitive, and social functioning. Major depression defined by the Diagnostic and Statistical Manual of Mental Disorders, third edition (DSM-III), has been found to be less prevalent among older adults living in communities than among younger community residents. Worldwide, the prevalence of major depressive disorders at any given time in community samples of adults aged 65 and above ranges from 1 to 12.3%, and clinically significant depressive symptoms are present in 9.8–39% of community-dwelling older adults. There have been no large scale nationally representative studies investigating depression and its associated risk factors in older adults in India. Available epidemiological studies on geriatric depression in India have mostly diagnosed depression by short screening instruments and studies are generally restricted to specific geographical regions.

**Objective:** We aim to investigate the prevalence and associated factors of self-reported symptom-based depression in a national sample of older Indians who participated in the national population-based cross-sectional WHO Study on Global Ageing and Adult Health (SAGE wave 1) in 2007.

**Methods:** Analysis is based on cross-sectional nationally representative survey data of 7150 persons (3623 men and 3527 women) aged 50 years or above, obtained from the 2007 WHO Study on Global Ageing and Adult Health (SAGE) in India. The questionnaire included socio-demographic characteristics, health variables, anthropometric and blood pressure measurements as well as questions on depression symptoms in the past 12 months. Multiple logistic regression analysis was performed to estimate the association of socio-demographic factors, health variables, and depression, adjusting for each other.

**Results:** The overall prevalence of symptom-based depression in the past 12 months was 16.0% (95%CI:15.1-16.8). In logistic regression analysis, chronic conditions such as asthma (OR:2.99;95%CI:1.37-6.55;p=0.005) and nocturnal sleep problems (OR:2.09;95%CI:1.23-3.56;p=0.007); intake of alcoholic drink less than once a month (OR:2.44;95%CI:1.26-4.74;p=0.008) and caste/tribe status were associated with self-reported depression symptoms in the past 12 months among the older adults. Other characteristics and chronic conditions were not significantly associated with geriatric depression.

**Conclusions:** Geriatric depression is prevalent in older Indian adults. Self-reported depression in older Indians seems to be a public health problem calling for appropriate interventions to reduce occurrence. Factors identified to be associated with depression including chronic conditions such as asthma and nocturnal sleep problems can be used to guide interventions.

**Key words:** self-reported depression symptoms; risk factors; older adults; India; WHO SAGE