Title

Who Bears the Dual Burden? Income-Related Inequality in Co-occurring Hypertension and Depression among Older Adults in India

Abstract

Population ageing in low- and middle-income countries is shifting health systems from single-disease care to the management of multimorbidity, yet the economic distribution of mental-physical comorbidity remains poorly documented. This paper measures income-related inequality in the co-occurrence of hypertension and depressive symptoms among adults aged 45 and over in India, a group for whom both conditions are common and often under-recognised. We use nationally representative data from the Longitudinal Ageing Study in India (LASI), Wave 1 (2017–18), with a complete-case analytic sample of 27,319 individuals. Hypertension is identified from measured blood pressure, self-reported diagnosis, or antihypertensive medication use. Depressive symptoms are measured with the CES-D-10 (cut-off ≥4). We rank households by monthly per capita consumption expenditure and estimate the Erreygers-corrected concentration index, which is appropriate for binary health outcomes. We complement this with age- and sex-adjusted prevalence estimates and survey-weighted logistic regression analyses to identify correlates.

The age-sex-adjusted prevalence of co-occurring hypertension and depressive symptoms is 9.0%. The Erreygers concentration index is −0.060 ($p < 0.001$), indicating that the comorbidity is concentrated among poorer households. Among hypertensive older adults, depressive symptoms are most prevalent in the poorest consumption quintile (32.3%) compared with the richest (24.6%). Living alone, sleep problems and poor self-rated health are the strongest correlates of co-occurrence. Only about one in three hypertensive respondents has controlled blood pressure, and fewer than one in five has health insurance. This points to gaps in coverage and in the integration of mental health care into chronic disease management. Because the analysis is cross-sectional, the associations are descriptive rather than causal. Even so, the results show a clear economic gradient in the dual health burden, which is likely to grow as India's population ages. They suggest that screening for depression within hypertension programmes, and social protection targeted at poorer and socially isolated older adults, are policy options worth evaluating.