

OP21.4

Perceived stress, multimorbidity, and risk for hospitalizations for ambulatory care-sensitive conditions: a Population-Based Cohort Study

Anders Prior(1), M Vestergaard(1), DS Davydow(2), KK Larsen(1), AR Ribe(1), M Fenger-Grøn(1)

(1) Research Unit for General Practice, Department of Public Health, Aarhus University, Denmark

(2) Department of Psychiatry and Behavioral Sciences, University of Washington, USA

Corresponding author: Dr Anders Prior, Aarhus University, Research Unit and Section for General Practice, Department of Public Health, Aarhus C, Denmark. E-mail: anders.prior@ph.au.dk

Background & Aim: Ambulatory care-sensitive conditions (ACSCs), e.g. diabetes, COPD, and hypertension, should be treated mainly in primary care, and hospitalization for these common and costly conditions is potentially preventable. Psychiatric disorders are associated with an increased risk for ACSC-related hospitalizations, but it remains unknown whether this holds for individuals with non-syndromic psychosocial stress which is more prevalent in general practice. **Aim:** To determine whether perceived stress is associated with hospitalizations and rehospitalizations for ambulatory care-sensitive conditions and post-hospitalization 30-day mortality.

Method: Population-based cohort study with 118,410 participants from the Danish National Health Survey 2010 followed from 2010 to 2014, combined with individual-level national register data. Information on Cohen's Perceived Stress Scale was obtained from the survey. Multimorbidity was assessed using health register information on diagnoses and drug prescriptions within 39 condition categories.

Results: Being in the highest perceived stress quintile was associated with a 2.13-times higher ACSC-related hospitalization risk (95% CI, 1.91–2.38) versus being in the lowest stress quintile after adjusting for age, sex, follow-up time, and predisposing conditions. The associated risk attenuated to 1.48 (95% CI, 1.32–1.67) after fully adjusting for multimorbidity and socioeconomic factors. Individuals with above reference stress levels experienced 1,703 excess hospitalizations for ACSCs (18% of all ACSC-related hospitalizations). A dose-response relationship was observed between perceived stress and the ACSC-related hospitalization rate regardless of multimorbidity status. Being in the highest stress quintile was associated with a 1.26-times increased adjusted risk (95% CI, 0.79–2.00) for ACSC-rehospitalizations and a 1.43-times increased adjusted risk (95% CI, 1.13–1.81) of mortality within 30 days of hospital admission.

Conclusions: Elevated perceived stress levels are associated with increased risk for ACSC-related hospitalization and poor short-term prognosis. Further research is needed to determine if primary care-based stress reduction interventions could prevent these costly events and improve patient outcomes.