

Employment precarity predicts increased risk for occupational hazard exposure: Results from the greater lawndale healthy work project community health survey

Tessa Bonney, MPH, PhD¹, Kathleen Rospenda, PhD², Jeni Hebert-Beirne, MPH, PhD¹, Lorraine M Conroy, ScD, CIH², Alisa Velonis, MPH, PhD², Yvette Castañeda, MPH, PhD² and Adlaide Holloway³
(1)University of Illinois at Chicago School of Public Health, Chicago, IL, (2)University of Illinois at Chicago, Chicago, IL, (3)Sinai Urban Health Institute, Chicago, IL

APHA's 2020 VIRTUAL Annual Meeting and Expo (Oct. 24 - 28)

Background: While there is evidence that workers in nonstandard employment arrangements are disproportionately exposed to recognized occupational hazards, existing studies haven't comprehensively examined associations between employment precarity and exposure to occupational hazards for these workers in the US. The aim of this study was to examine relationships between employment precarity and occupational hazards in two contiguous high socio-economic hardship neighborhoods in Chicago.

Methods: Using a community-based participatory research approach, community researchers administered a community-developed survey to 489 residents of Greater Lawndale who reported current or recent employment in a job that met at least one characteristic of precarious employment (e.g. unpredictable schedule, insecure work, no living wage/benefits). Employment precarity was calculated using a modified version of the Employment Precarity Index (EPI) developed by the Poverty and Employment Precarity in Southern Ontario group. We modeled the association between employment precarity and occupational exposures using logistic regression models.

Results: Using the EPI, we classified 14% of respondents' reported working arrangements as "stable/secure", 16% as "vulnerable", and 70% as "precarious". Those classified as precarious were significantly more likely than those classified as stable/secure to report exposures to dust/chemicals, noise, vibration, extreme temperatures, and heavy lifting and were significantly more likely to report fear of violence and theft at work (ORs ranged from 2.2-3.3 at $p < 0.01$).

Conclusion(s): Results highlight the importance of using community research approaches and robust measures of employment characteristics, such as the EPI, to evaluate associations between employment precarity and hazardous exposures. These results suggest that variability in employment situations and resultant relative employment precarity are important predictors of exposure to recognized occupational hazards. Findings also suggest that health inequities observed among precariously employed workers may be partly explained by increased risk for exposure to occupational hazards, which has implications for community health and should be investigated in future longitudinal research.

Occupational health and safety