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When:

November 15 - 19, 2014

Where:

New Orleans, LA

304701 An index to identify differences in custodians' exposures to cleaning chemicals



Monday, November 17, 2014 : 12:36 PM - 12:40 PM

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[Audio \(mp3\) recording](#)

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Background and Objectives: Cleaning chemicals used by custodians are associated with adverse health outcomes. Exposure to cleaning chemicals may vary across groups of custodians. The goal of this study was to develop an exposure index that could be used to evaluate differences in custodians' exposures to cleaning chemicals based on individual or work environmental factors.

Methods: 318 custodians, lead custodians, and supervising custodians at four Connecticut institutions completed a survey including information about individual and work environmental factors and frequency and type of cleaning chemical use. Exposure indices were developed for each participant by summing the number of chemicals that each participant reported using, weighted by frequency of use. Univariate linear regression analyses were performed to evaluate whether there were significant (two-tailed $p<0.05$) differences in exposure indices by demographic and occupational characteristics.

Results: There were significant ($p<0.01$) differences in exposure indices by gender, shift, years worked, and primary language spoken. Greater exposure was associated with working the first shift, speaking English as primary language, greater number of years worked in the cleaning industry, and male sex. Similar trends were noted when exposure indices were calculated for "green" and "traditional" cleaning chemicals separately.

Discussion: Differences among custodians in exposure indices by individual and work environmental factors were observed. The relationship between exposure indices and health outcomes, as well as the contribution of cleaning tasks to exposure indices, will be explored in future analyses.

Learning Areas:

Epidemiology

Occupational health and safety

Public health or related laws, regulations, standards, or guidelines

Learning Objectives:

Describe the need for an index to characterize custodians' exposures to cleaning chemicals. Explain procedures used to develop an index to characterize custodians' exposures to cleaning chemicals for this study. Discuss factors that may lead to differences in custodians' cleaning chemical exposure indices.

Keyword(s): Occupational Health and Safety, Chemical Exposures & Prevention

Presenting author's disclosure statement:

Qualified on the content I am responsible for because: I have been a member of the Green Cleaning Project research team for the past 6 months. I have collaborated with other members of the team to analyze the data used for this project. I have been trained in epidemiology, biostatistics, and exposure assessment techniques necessary to complete this research project.

Any relevant financial relationships? No

I agree to comply with the American Public Health Association Conflict of Interest and Commercial Support Guidelines, and to disclose to the participants any off-label or experimental uses of a commercial product or service discussed in my presentation.

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