Letters to the Editor

RE: “ASSOCIATION BETWEEN BODY MASS INDEX AND ACUTE TRAUMATIC WORKPLACE INJURY IN HOURLY MANUFACTURING EMPLOYEES”

The multivariate models utilized in the recent manuscript by Pollack et al. (1) are appropriate, but the authors’ presentation of the primary results based on these models is incorrect and misleading. The aim of Pollack et al.’s study was to estimate the multivariate-adjusted odds of traumatic workplace injury in a manufacturing setting based on body mass index (BMI) category. A multivariate logistic regression model was constructed for traumatic injury which included main-effect predictors for BMI, sex, age, and smoking status, among other factors, as well as the interaction term(s) between BMI and age. In their paper, the authors state that the interaction between BMI and age is statistically significant with respect to the traumatic injury outcome (1).

In the text, in table 3, and in the abstract, Pollack et al. report the multivariate-adjusted odds ratios for the main-effect BMI terms but provide no information about the effect size or even the direction of the BMI \times age interaction terms. The adjusted odds ratios are reported as though they reflect the estimated effects of BMI on traumatic injury for all workers in the study. However, the interaction term in the authors’ multivariate model indicates that the effect of BMI depends significantly on age. The reader cannot interpret the impact of BMI on traumatic injury without incorporating information from the BMI \times age interaction terms, since the effect of BMI differs within each age group.

Pollack et al. could report the interaction estimates so that readers could calculate the various age-dependent BMI estimates. Alternatively, they could construct logistic regression models stratified by age group, allowing them to directly estimate the influence of BMI on traumatic injury within each age group. Some corrective action is required in order to truly understand the impact of BMI on traumatic injuries in this population of manufacturing workers.

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REFERENCES


Maria Mori Brooks (e-mail: mbrooks@pitt.edu)
Department of Epidemiology, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA 15261

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