Comparison of Direct and Indirect Measures of E-cigarette Risk Perceptions

(Note proper caps in titles.)

Olivia A. Wackowski, PhD, MPH
Michelle T. Bover Manderski, MPH
Cristine D. Delnevo, PhD, MPH

(Single file authors, also place commas between names and degrees.)

Objectives: Risk perception measures of tobacco products relative to cigarettes are used commonly and are important to tobacco research, given that they may be associated with, and predict, tobacco use. However, results may differ based on the actual measures used. This study compares direct and indirect approaches to measuring e-cigarette/cigarette risk perceptions. Methods: We compared the responses of 519 current smokers on a nationally-representative 2014 survey that gauged perceptions of e-cigarettes’ harm relative to cigarettes in 2 ways: (1) a single-item direct measure of comparative harm; and (2) a 2-item indirect measure (which measured perceived levels of harm from e-cigarettes and cigarettes independently in 2 parallel questions). Results: We found that 60% of smokers rated e-cigarettes “less harmful” than cigarettes when using a direct comparative risk measure versus 73% when using an indirect measure. Agreement between measure types was fair (Cohen’s kappa=0.45) and was lower for males, Blacks, older smokers, and less educated smokers. Conclusions: E-cigarettes were more likely to be rated by smokers as less harmful than cigarettes when using indirect versus direct measures. Additional methodologic research in this area is warranted given the importance of risk perceptions to tobacco control interventions, communications, policymaking, and regulation.

Key words: e-cigarettes; risk perceptions; survey methods

(Do not cap key words and note semicolons not commas after each key word.)

Olivia A. Wackowski, Assistant Professor, Rutgers School of Public Health, Center for Tobacco Studies, New Brunswick, NJ. Michelle T. Bover Manderski, Rutgers School of Public Health, Center for Tobacco Studies, New Brunswick, NJ. Cristine D. Delnevo, Professor, Rutgers School of Public Health, Center for Tobacco Studies, New Brunswick, NJ. Correspondence Dr Wackowski; wackowol@sph.rutgers.edu

(Note no addressees or zip codes only name, titles affiliation, city, state or for international papers list country.)

(Now begin your double-spaced text here. The cover page is NOT a separate page.)