What May Be Associated with Young Adult E-Cigarette Use? Examination of Key Correlates

Diane J. Martinez, DrPH(c), MPH, Monique M. Turner, PhD (Mentor), Kathleen M. Roche, PhD, Kimberly A. Horn, EdD

INTRODUCTION

Problem:
- Increasing rates of e-cigarette use among young adults support the critical need for research identifying how attitude, norm, intention, and risk perception may influence e-cigarette use among this age group.
- Tobacco control approaches shown to prevent cigarette smoking may not work as effectively for the prevention of e-cigarette use.

Purpose:
- To address this research gap, the present study applied the Integrated Behavior Model (IBM) encompassing the affect heuristic theory to examine individual-level correlates (i.e., attitude, perceived norm, personal agency, intention, and e-cigarette risk perception) of young adults’ e-cigarette use.

METHODS

Participants:
- The 2013-2014 Population Assessment of Tobacco and Health (PATH) Study Wave 1 baseline adult dataset consisted of 9,112 young adults (ages 18-24).
- A total of 3,887 (42.7%) reported ever having used an e-cigarette even one or two times, and reported now using e-cigarettes every day (n=160, 4.1%), some days (n=947, 24.4%), or not at all/non-users (n=2,780, 71.5%).

Measurement and Analysis:
- Face validity resulted in 23 indicator variables (14 binary items) to measure the latent constructs
- Tetrachoric and polychoric correlation matrices
- Chi-square (χ²) significance tests for bivariate analyses
- Exploratory Factor Analysis (EFA)
- Confirmatory Factor Analysis (CFA)
- Structural Equation Modeling (SEM) with robust weighted least squares estimation (WLSMV)
- BRR complex survey weights and geomin oblique rotation in Mplus

THE GEORGE WASHINGTON UNIVERSITY
WASHINGTON, DC

DISCLOSURE

The authors have no conflicts. The study was an unfunded, independent and mentored investigation.