

Trajectories of switching from cigarette to E-Cigarettes amongst adult smokers in a NYC randomized controlled trialAlexandra Guttentag¹, Tuo-Yen Tseng², Donna Shelley² and Thomas Kirchner¹¹NYU Global Public Health, USA²New York University School of Medicine, USA

Background: Electronic cigarettes may offer an intermediary step on the pathway to cessation for addicted, adult smokers.

Objective: Identify and describe common trajectories of smoking reduction after immediate introduction of e-cigarette device, using longitudinal data.

Methods: 99 adult smokers (>10 cigarettes per day) were assigned to either a placebo or nicotine-based e-cigarette device (NJOY King Bold) and instructed to use it to help them reduce their baseline smoking rate by 50%. Participants reported e-cigarette and cigarette usage daily, and 79 participants completed the 3-week end-of-intervention survey. A latent class analysis with a time-varying (longitudinal) outcome variable was run using the PROC TRAJ function in STATA.

Results: Four linear trajectory groups were identified among the participants based on reported CPD and study day (1-21). Classes were identified such that the smallest group included 18.9% of the total sample and the largest group included 33.5% of the total sample. Groups were designated with numbers 1-4; group 1 was the group with the highest “success” with the e-cigarette (largest negative slope in CPD over time with $\beta=-0.07$, and group 4 had the lowest success with the e-cigarette device (slightly positive slope of CPD, $\beta=0.01$). Based on preliminary results, those who were assigned to the placebo group were more likely to end up in group 1 (RRRs for Groups 2-4: .16-.17, CI=.035-.77). Preliminary results show significant associations between class membership and intervention assignment.

Conclusions: The clustering of different groups may help health providers advise their patients on expectations for cessation and customization of switching/cessation plans. The presence or absence of nicotine may also play a role in how smokers use the e-cigarette to help them reduce smoking.

Biography

Alexandra is a PhD candidate in Public Health (Epidemiology concentration) at NYU Global Public Health. She graduated from Johns Hopkins University with a B.A. in Public Health. She has done global health work via a Fulbright Fellowship in Brazil in 2015 and a visiting scholarship appointment in Portugal in 2017. Her research interests are health technology and mHealth, noncommunicable diseases, and the intersection of the two.

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