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Authors' Response

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Our population−based prospective cohort study of U.S. Midwest young adults who had never tried e-cigarettes at baseline revealed that 22% of current smokers, 12% of former smokers, and 3% of nonsmokers reported ever using e-cigarettes 1 year later.[1] We also observed that, in this real-world setting, favorable beliefs about e-cigarettes at baseline predicted subsequent e-cigarette experimentation. Given that young adults are still developing their tobacco-use behaviors, we concluded that informing them about the lack of evidence to support e-cigarettes as quit aids and the unknown health risk of e-cigarettes may deter young adults from trying these products, which were introducing/reintroducing some young adults to nicotine addiction.

Knight-West et al. question this conclusion on the grounds that e-cigarette experimentation by nonsmokers is not important, given very few use e-cigarettes daily. They also speculate that e-cigarette experimentation may represent cessation of or reduction in smoking. Fortunately, we have the data necessary to address these hypothetical problems directly.

At the 1-year follow up, 10% of young adult non-smokers who had tried e-cigarettes at baseline became current cigarette smokers at follow-up versus 5% of non-smokers who had never tried e-cigarettes (OR=2.11, 95% CI=0.48, 9.26, p=0.32; n=1,476). Although the CI is wide owing to small numbers of nonsmokers trying e-cigarettes, these data are consistent with the possibility that e-cigarette experimentation is acting as a pathway to cigarette smoking.

Our longitudinal data show no benefits of e-cigarette use on relapse, quitting, and cutting down on conventional cigarettes. E-cigarette experimentation does not prevent relapse among young adult former smokers: 20% of young adult former smokers who tried e-cigarettes at baseline relapsed into smoking at follow-up versus 18% among young adult former smokers who had not tried e-cigarettes (OR=1.14, 95% CI=0.35, 3.71, p=0.82; n=243). Furthermore, more frequent use of e-cigarettes does not promote cessation or reduce cigarette consumption. Eleven percent of smokers who used e-cigarettes ≥1 day in the past

Conflict of Interest:

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30 days at baseline quit smoking at follow-up, whereas 17% of smokers who never used e-cigarettes quit smoking (OR=0.93, 95% CI=0.19, 4.63, p=0.93; n=346). Changes in average number of cigarettes per day between baseline and follow-up were almost identical between smokers who smoked e-cigarettes ≥1 day in the past 30 days at baseline and those who never used e-cigarettes (smokers who used e-cigarettes ≥1 day in the past 30 days at baseline=0.0, smokers who never tried e-cigarettes= −0.2, difference= 0.0 − (−0.2) = 0.2, 95% CI= −3.72, 4.18, p=0.91). These analyses were adjusted for demographics and baseline cigarette consumption.

Finally, our results are consistent with previous population-based studies showing no association[2,3] or a negative association[4] between e-cigarette use and intention to quit smoking or successful quit attempts among U.S. smokers. These population-based studies provide a better estimate of the effects of e-cigarettes as they are actually used than the RCT by Bullen et al.[5] Our data suggest that e-cigarettes are not effective as a technique for quitting smoking and may act as a gateway to smoking conventional cigarettes in young adults.

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