From Smoke Clouds To Vape Clouds: A Study Of Substance Use And Delinquency

Christian P Maynard, Dr. Winfred Avogo

Department of Sociology And Anthropology

Illinois State University, Normal, IL

Abstract

The 'vaping epidemic' has incurred at least 12 deaths and 805 injuries so far. Overall, research on vaping has been substantially limited, primarily in the context of vaping and delinquency. This study's purpose is to investigate the correlations between vaping and smoking and the various kinds of delinquent acts. Using secondary data from *Monitoring the Future: A Continuing Study of the Lifestyles and Values of Youth* conducted in 2017, with a sample size of 21,188 participants, we find that youth 'vapors' were associated with less delinquency than youth smokers(cigarettes); however, youth 'vapors' were associated with more delinquency than alcohol users. Finally, young people who vape were more likely to report smoking and drinking alcohol. We interpret these results in the context of social bonding and social learning theory and policies to create awareness on the potential dangers of vaping.

Introduction

The vaping industry has increasingly expanded its presence through popular media with marketing and recent deaths (Eason & Foley, 2014; Groening et al. 2015; Murphy & Scardino 2015; Parker 2018). Recent scares have prompted lawmakers and FDA to establish regulations and flavor bans in various states in the United States (McGinley 2019; Munks & Petrella 2019; Bogel-Burroughs, Richtel & Thomas 2019; West & Vielkind 2019; Siegel 2019; U.S. Food and Drug Administration, 2020). Vaping shares social rituals of cigarette users (Eichler, Blettner & Singer 2016). This has led to reports of 'vapors' adopting higher-risk behavior such as smoking (Kaplan, 2018, p. A12). This research's importance stems from the implications vaping has on health, politics, and delinquency. Research on the link between vaping and delinquency is sparse due to the newness. Current research has focused on the context of flavors, nicotine, or marijuana (Jackson et al. 2019). Vaping literature has focused primarily on medical issues, peer groups, and socialization (Lucherini, Rooke, & Amos 2018; Yule & Tinson 2017, Chao, Hashimoto, & Kondo 2019; McKelvey et al. 2018).This research expands on current literature of vaping and delinquency by analyzing varying levels of delinquency between various substances (vaping, alcohol, cigarettes).

Hypotheses

❖ Youths that vaped have lower delinquency than cigarette smokers

❖ Youths that vaped have lower delinquency than those that drink alcohol

❖ Youths that vape were more likely to utilize substances such as alcohol and cigarettes than those who do not vape

Questions or Comments?
Contact: Christian P Maynard
cmaynar@ilstu.edu

Methods

This research examined secondary data from *Monitoring the Future: A Continuing Study of the Lifestyles and Values of Youth* conducted in 2017, with a sample size of 21,188 participants to produce an output of frequencies, cross-tabulations with the chi-square statistic for testing hypothesis, and correlation coefficients for establishing the strength and direction of the relationships among independent, dependent, and control variables.

Chart 1: Youths at the Medium/High Delinquency
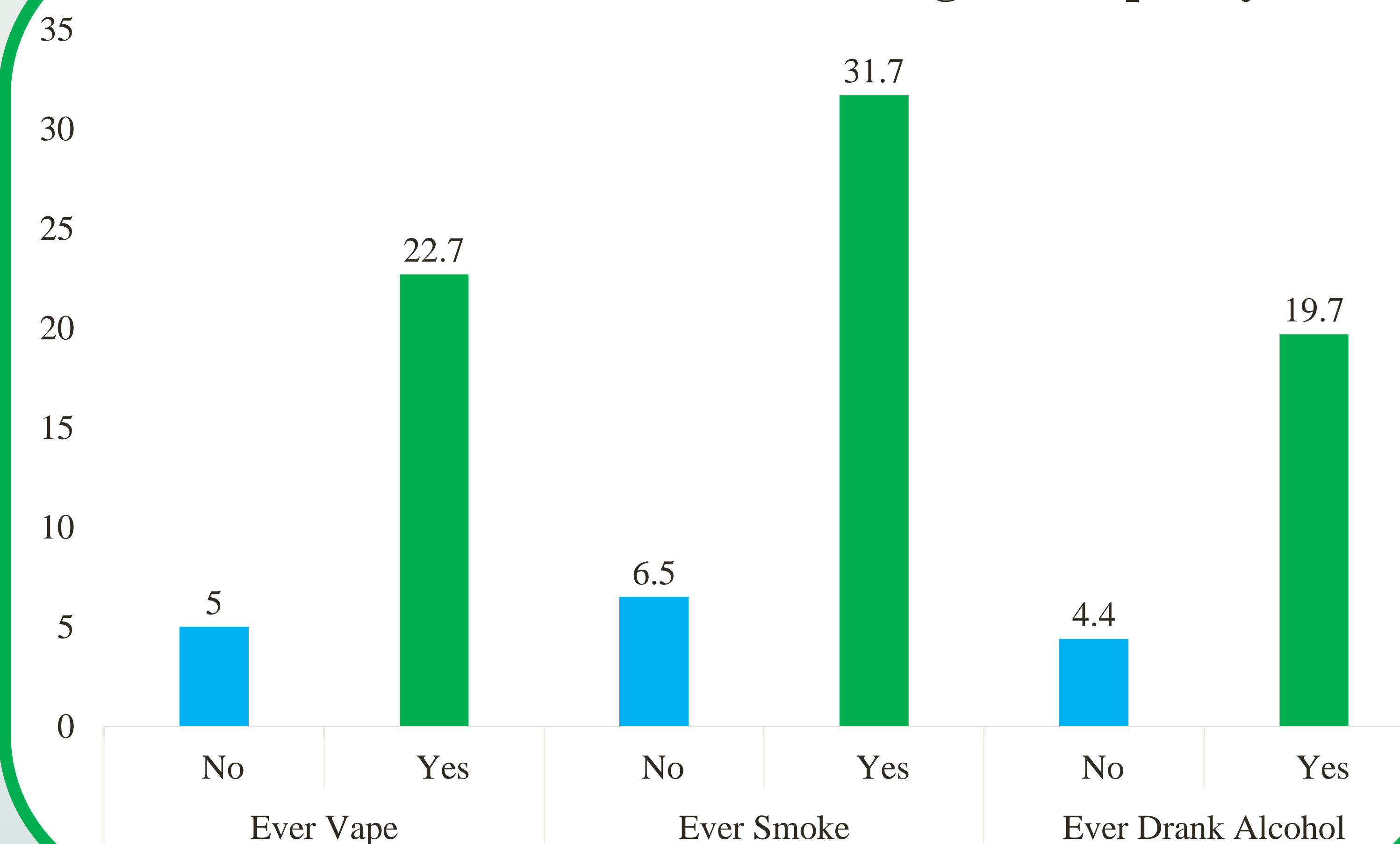
Results

❖ H1: Youths that vape are less delinquent than cigarette users. Chart 1indicates that at the medium/high level of delinquency, 22.7 percent of individuals indicated they vaped compared to 31.7 percent of those that smoked cigarettes. The hypothesis was statistically significant, given the chi-square test of significance (p<0.001). This result is further supported through binary regressions as vapors were less delinquent than cigarette users.

❖ H2: Youths that vape are less delinquent than those that drink alcohol. It can be observed from chart 1 that at the medium/high level of delinquency, 22.7 percent of youths vaped compared to 19.7 percent that drink alcohol. Hypothesis 2 was not supported. The hypothesis was statistically significant, given the chi-square test of significance (p<0.001). This result is further supported through binary regressions as vapors were less delinquent than alcohol users.

❖ H3: Youths that vape were more likely to also use alcohol and cigarettes. Chart 2 indicates 82.5 percent of youths that vape also smoke and drink compared to 8.7 percent of youths that only vape. The hypothesis was statistically significant, given the chi-square test of significance (p<0.001).

Chart 2: Three-way Cross Tabulations of Vaping, Cigarette Usage, and Alcohol Consumption
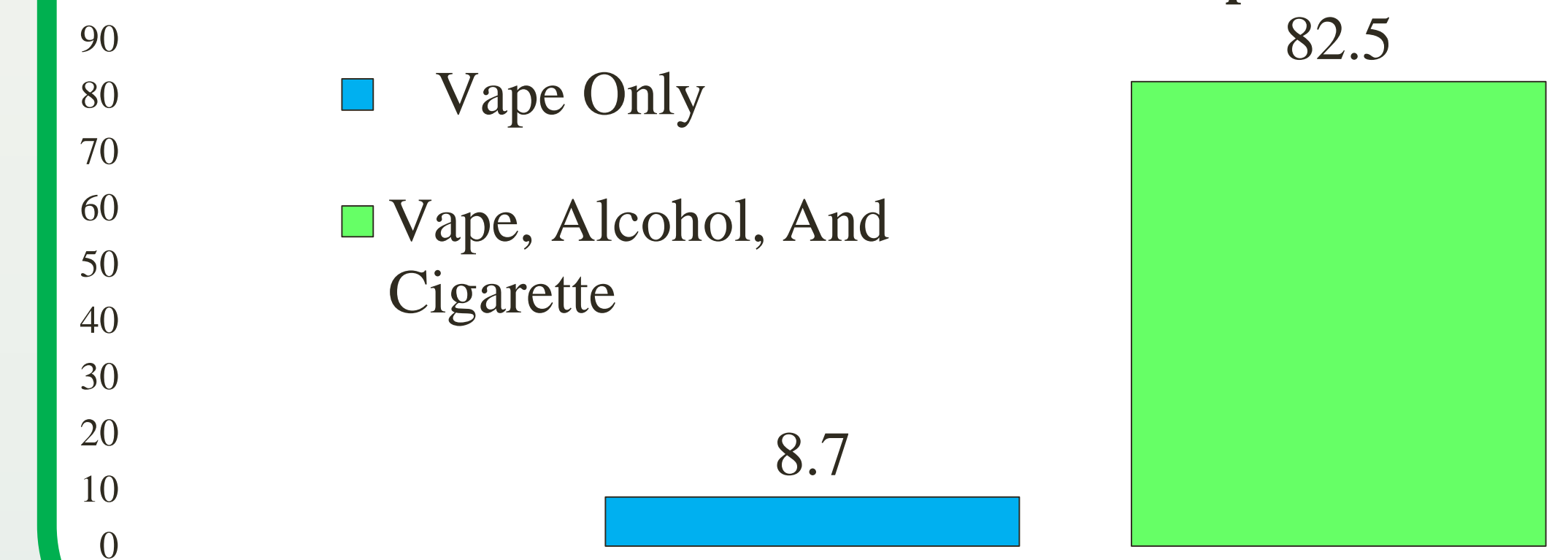
Binary Regressions

	B	Sig.	Exp(B)
Ever Vape	.947	.000	2.578
Ever Smoke Cig	1.032	.000	2.807
Ever Alcohol	1.284	.000	3.610
Constant	-5.319	.000	.005

Discussion

Finding one, youth 'vapors' are less delinquent than cigarette smokers, added to current literature, since this comparison had not been researched. This result is likely due to differing social norms around smoking and vaping. Vaping is often compared to cigarettes, but generally considered trendier and safer (Measham et al. 2016; Eichler et al. 2016; Lucherini et al. 2018). Cigarettes are regarded as extremely unhealthy, 'not cool', or promiscuous with vaping just now receiving some backlash. These findings provide information on how delinquency can vary across substances.

Finding two, youth 'vapors' are associated with higher delinquency than alcohol users, added to the literature since it was previously unstudied. Though the initial hypothesis was wrong, it does provide to the notion that vaping is altering the landscape of substance use, delinquency, and preference. Vaping has not been normalized to the extent that alcohol has been. This study is not suggesting normalization nor promotion of vaping behavior, but if vaping becomes more normalized then future research may report different results (Jackson et al. 2019; Measham et al. 2016; Lippert et al. 2019; Eichler et al. 2016).

Finding three, youth 'vapors' were more likely to utilize substances such as alcohol and cigarettes, confirmed current substance use literature. These results suggest that youth 'vapors' are more likely to engage in other substance use due to shared social rituals and groups that permit and encourage other high-risk behaviors in youths (Measham et al. 2016; Lippert et al. 2019; Eichler et al. 2016).