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E-cigarette Use, Tobacco Product Polyuse, and Motivations for Use among Baltimore Young Adults

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Abstract

Objective: We examined reasons for e-cigarette use, tobacco product polyuse, and tobacco cessation interest among tobacco-using young adults from an urban setting.

Methods: Participants (N = 97) completed a risk factor survey. Descriptive statistics and prevalence estimates of polytobacco use patterns, motivations for tobacco use, tobacco cessation interest, and beliefs and risk perceptions about tobacco use were explored.

Results: All participants had a history of polyuse, and 85% were current polyusers. Stress was the primary reason reported for tobacco use. Compared to single-product users, current polyusers also were more likely to mention environment and cheap cost as reasons for use. Most participants perceived cigarettes to be as addictive as cocaine or heroin, although this perception was less common among e-cigarette users than non-users. Among study participants, 59% reported wanting to stop using tobacco completely. Among current polyusers, those that used e-cigarettes were more likely to report cessation attempts during the past year and express interest in enrolling in a quit smoking text messaging program.

Conclusion: In our sample there was a high prevalence of polytobacco product use and complex tobacco use patterns among young adults, both in and out of college, from an urban community.

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Conflict of Interest Disclosure Statement

All authors have declared that there are no competing interests to report.

Keywords

e-cigarettes; tobacco polyuse; tobacco cessation; urban health; young adults; young adult health

Alternative tobacco products (ATPs) have drastically transformed the terrain of tobacco use. Whereas the rates of cigarette use in the United States (US) continues to decline,^{1,2} the popularity and use of some tobacco products such as little cigars and cigarillos (LCCs), smokeless tobacco (SLT), electronic cigarettes (e-cigarettes), and hookah have noticeably increased particularly among 18-to-24 year-olds.³⁻⁷ Likewise, studies also have reported high rates of polytobacco use (ie, the concurrent use of more than one tobacco product, with or without cigarette smoking) in this same group of young adults.^{5,6,8-13} Approximately 15%-30% of young adults who smoke presently use more than one tobacco product.^{6,14} Compared to all other adult age groups, young adults not only have a higher prevalence of tobacco use in general, but also are more likely to have concurrent use of both cigarettes and ATPs.^{15,16} In addition to the dangers of using a single tobacco product, polytobacco use has been shown to be associated with higher nicotine addiction and other substance abuse such as alcohol or illicit drugs, greater difficulty quitting tobacco, and increased incidence of smoking-related cancers.^{6,13,17-20}

Among the list of common ATPs, e-cigarette use (or vaping) has risen considerably among young adults; in 2013-2014, 35.8% of those between the ages of 18 to 24 years reported ever trying an e-cigarette and 13.6% reported current use.²¹ The appeal of e-cigarette flavors and taste, in particular, has emerged as a principal factor in the initiation and maintenance of e-cigarette use in this group.²¹ Other commonly mentioned reasons for using e-cigarettes among both youth and young adults include curiosity and low perceived harm compared to other tobacco products.²¹ In 2016, e-cigarettes were deemed to be tobacco products by the Food and Drug Administration (FDA), a regulatory agency that has the authority to regulate tobacco products in the US.²²

Use of electronic smoking devices (ESDs) is strongly correlated with use of traditional tobacco products.²³ In Maryland in 2016, 6.7% of young adults (18-24 years of age) reported that they used ESDs either every day or on some days (the highest proportion of ESD use compared to other adult age groups), and those rates may be higher in the East Baltimore community where previous research has suggested elevated rates of traditional cigarette, cigar, and SLT use.²³ Over the past several years, vaping stores have opened across the US including throughout Baltimore, and tend to be concentrated in urban lower income neighborhoods,²⁴ the setting for the study presented herein. Some studies have revealed that accessibility, targeted marketing, and socioeconomic differences are all probable influences related to greater likelihood of e-cigarettes use among cigarette smokers in urban areas.^{25,26} Exploring the nature of e-cigarette use based on cigarette smoking status could provide additional clarity on our understanding of the influences that an urban environment may have on overall tobacco product use.

Further complicating polytobacco use as a rising public health concern is the dramatic increase in the prevalence of marijuana use, including medicalization.^{5,13} The use of marijuana in the modification of LCCs, commonly referred to as “blunts,” has risen over the

past decade^{27,28} and has resulted in the inclusion of marijuana and blunts as tobacco products in tobacco studies.^{13,29–33} Smoking blunts has been shown to be popular in the African-American community^{13,29,31,34} and among young adults.^{27,30,35} The use of blunts also has been found to be common among males³⁶ and individuals living in metropolitan areas or urban settings.^{27,37} The inclusion of marijuana in blunts as tobacco products in this study was necessary as it may be relevant to understanding the persistent, unexplained smoking-related cancer disparities among relatively lower income urban communities.

There has been an increase of US youth and young adults who concurrently smoke cigarettes and use ATPs, such as LCCs and SLT. There also has been cumulative evidence that polytobacco use occurs without cigarette smoking but patterns of use among emerging ATPs such as e-cigarettes and hookah are not yet well understood. Whereas studies have grown reporting the prevalence of polytobacco use patterns among youth,^{26,38–40} college students,^{9,23} and adults,^{12,19,41} research on the characteristics of polytobacco use patterns among young adults^{10,11,17,35} particularly living in urban geographic locations have not been greatly explored. To fill this knowledge gap, the current study explored polytobacco use (ie, polyuse) patterns, motivations for tobacco use, tobacco cessation interest, as well as beliefs and risk perceptions about tobacco use among a sample of 97 urban young adult tobacco users in Baltimore, Maryland.

METHODS

Participants and Procedures

This study assessed the use of tobacco products among urban young adults in Baltimore, Maryland. Through flyers and word-of-mouth from a variety of settings (eg, community centers, local college campuses, health fairs, and an at-risk high school), a purposive sample of tobacco-using young adults were recruited to participate in the study between March and June 2017. To be eligible to participate in the study, individuals needed to be between the ages of 18 to 26, residents of Baltimore, Maryland, and current users of any tobacco product (defined as using tobacco during the past 30 days). Participant recruitment and enrollment was targeted in the East Baltimore region, an urban area of Baltimore where residents are predominantly of low-income status, as well as across a number of university campuses including Baltimore City Community College and Johns Hopkins University. Participants were each given a \$30 gift card for their time.

Participants completed a self-administered questionnaire, as well as a 90-minute focus group discussion, in a community setting. Prevalence of tobacco used by type was reported overall and was stratified by polyuse and e-cigarette use statuses. Descriptive statistics were reported and differences between tobacco polyuse and e-cigarette use statuses were tested using chi-square or Fisher's exact test. A p-value less than .05 was considered as significant. Data were analyzed using Stata/DE 14.2. Findings from the focus group discussion have been reported in more detail elsewhere.²⁵

Risk Factor Survey

The survey included items about tobacco product use, reasons for tobacco use, smoking history, polytobacco use patterns, knowledge and perceptions of tobacco products, cessation interest, and sociodemographic characteristics. To assess tobacco product use, participants were asked: “During the past 30 days, how many days per week did you use the following products?” for the following 6 variables: (1) conventional cigarettes; (2) blunts; (3) traditional and/or filtered cigars, cigarillos, or little cigars; (4) e-cigarettes or vaping; (5) hookah; and (6) chewing tobacco, snuff or dip. For the present study, these variables were dichotomized into “any use” (eg, daily, 3-6 days per week, 1-2 days per week) versus “non-use” (ie, not at all). With regards to e-cigarettes, participants were also asked if they had ever used an e-cigarette (yes/no) and for those that answered yes, we proceeded to ask the subsequent follow-up question: “How were you introduced to e-cigarettes/vaping?” Response options included, for example, friend(s), family member(s), and social media.

“Current polyuse” was defined as the use of 2 or more tobacco products during the past 30 days. This was also inclusive of conventional cigarettes, blunts, traditional and/or filtered cigars, cigarillos, or little cigars, e-cigarettes or vaping, hookah, and chewing tobacco, snuff or dip. The constructed outcome variables included: (1) “any” versus “no” tobacco product use in the past 30 days; and (2) the number of tobacco product types used in the past 30 days (continuous variable).

Aside from questions pertaining to general tobacco product use, e-cigarette smoking history, and polyuse patterns, we also aimed to understand our participants’ motivations for tobacco use, as well as their tobacco cessation interest. To assess motivations for tobacco use, we asked our participants the following: “Why do you use tobacco?” For this question, there were 7 response choices (each yes/no) including for example: “I use tobacco because it is cheap/easy to access;” “I use tobacco because it is popular/cool;” and “I use tobacco because others around me smoke.” To explore tobacco cessation interest, participants were additionally asked if they wanted to completely stop using tobacco, if they had ever tried to quit using tobacco during the past 12 months, whether they would be interested in trying out a phone app that could help them quit smoking, and whether they would be interested in enrolling in a text messaging program that could help them quit smoking.

Finally, to examine our participants’ beliefs and risk perceptions about tobacco use (with particular emphasis on cigarette and e-cigarette use), questions included: addictiveness of the tobacco products (“Do you think people can get addicted to cigarettes just like they can get addicted to cocaine or heroin?”), harmfulness of product use (“How harmful do you think cigars, cigarillos, or little cigars are, compared to cigarette smoking?”), and social acceptability of each product (“Young people who use e-cigarettes (or vape) have more friends.”).⁶ For the present study, each of these variables either were dichotomized as being “more harmful” versus “all other” responses or “definitely yes” and “probably yes” versus “probably not” and “definitely not.”

RESULTS

Participant Characteristics

A total of 97 young adults (63 men, 34 women) completed the study questionnaire. Most participants were African Americans (68%), with a mean age of 21 years ($SD = 2.8$). Half (51%) of the participants were current university students 11% did not have a high school degree and 19% reported that they were employed full-time.

Polytobacco Use Patterns

All participants reported a history of polytobacco use (“polyuse”), and 85% ($N = 82$) were current polyusers (ie, they were concurrently using more than one tobacco product during the past 30 days). Current polyuse was significantly higher among men than women (65% vs 35%, $p = .009$), those with a high school education or less versus some college (58% vs 42%, $p = .015$), and appeared higher although not significantly different among those 18–21 than 22–26 years (60% vs 40%, $p = .076$). Among current polyusers, the most common tobacco product used during the past 30 days were blunts (82%), followed by cigars/cigarillos (72%), then cigarettes (67%). A high proportion of current polyusers (62%) reported using blunts with 2 or more forms of other tobacco products, with an additional 20% who reported using blunts with one other form of tobacco product. Even without the inclusive of blunts, most polyusers (80%) still reported the concurrent use of 2 or more forms of tobacco products in the past 30 days.

Type of tobacco product used in the past 30 days and polyuse frequency are reported in Table 1 among those who were current e-cigarette users (vapers) and those who were current e-cigarette nonusers (non-vapers). The majority of single tobacco type users were non-Hispanic black males (80%) who reported sole-use of cigarettes (47%), blunts (27%), hookah (20%), or cigars, cigarillos, or little cigars (7%). For this group, almost half (47%; $N = 7$) revealed that cigarettes were the first type of tobacco product ever used, and only 13% ($N = 2$) reported ever using e-cigarettes in their lifetime.

In contrast, among current polyusers, current e-cigarette use was common (56%). All 46 e-cigarette users were current polyusers, with most also using either cigarettes (28%), hookah (13%), or a combination of both (41%).

Motivations for Tobacco Use and Tobacco Cessation Interest

We explored reasons for tobacco use, and the most common motivators for use reported were stress, enjoyment, and environment (Table 2). Most motivations were similar among polyusers and single tobacco users, although polyusers were more likely to mention environment ($p = .024$) and cheap cost ($p < .001$) as reasons for use. The majority of the current polyusers (52%) and current e-cigarette users (67%) reported being introduced to e-cigarette use by their friends (67%).

More than half (59%) of the participants in our sample of 97 young adults shared that they wanted to completely stop using tobacco. Whereas 43% indicated that they were seriously thinking about quitting smoking within the next 6 months, 49% have actually tried to quit

using tobacco in the past year. Of the 42 participants who were seriously thinking about quitting smoking within the next 6 months, more than half (57%) had the intention to do so within the next 30 days.

Overall, polyusers were more likely to express a higher interest in using a phone application to help them quit smoking ($p = .035$); single tobacco users were more likely to note their preference for a quit smoking text messaging program ($p = .027$). Compared to current polyusers who did not use e-cigarettes (non-vapers), current polyusers that did use e-cigarettes (vapers) were more likely than to report that they had tried to quit tobacco during the past 12 months (67% vs 36%, $p = .005$), and to express interest in enrolling in a quit smoking text messaging program ($p = .01$).

Beliefs and Risk Perceptions about Tobacco Use

Table 3 explores beliefs and risk perceptions about tobacco use stratified by polyuse and e-cigarette use statuses. The most common beliefs reported about why people smoke either cigarettes or e-cigarettes are that these tobacco products help relieve stress and make people feel more comfortable at parties or in other social situations. When stratified by e-cigarette use status, there were several notable differences in beliefs about tobacco use. The majority of e-cigarette users reported that “ease of quitting” was an additional motivator for e-cigarette use (57%), unlike with cigarettes where 23% reported ease of quitting as a reason for use. E-cigarette users were also more likely to mention “comfort” as a prime reason for cigarette use (78% vs 44%, $p = .002$) and to report that using cigarettes make young people look cool (37% vs 17%, $p = .042$).

With regards to risk perceptions, many participants viewed chewing tobacco, snuff, or dip (43%), as well as cigars, cigarillos, or little cigars (40%) as being more harmful than combustible cigarettes. Most participants also indicated that individuals are just as likely to be addicted to cigarettes (85%) and e-cigarettes (60%) as they are to cocaine or heroin. When compared to e-cigarette users, e-cigarette non-users were more likely to report that cigarettes are just as addictive as cocaine or heroin (97% vs 80%, $p = .037$). Besides this, there were no additional differences in harm perceptions by polyuse or e-cigarette use status.

DISCUSSION

E-cigarette use and polyuse of tobacco products (including combustible cigarettes, cigars, smokeless tobacco products, e-cigarettes, hookah, and blunts) are increasingly common in young adults.^{10,11,17,35,42,43} Our study demonstrated this high prevalence of e-cigarette use and polytobacco product use among young adults in an urban setting, both in and out of college, consistent with previous studies.^{10,11,17,35,40} These rates, however, were noticeably higher than what has been reported previously,^{6,14,21} with 89% of all tobacco-using participants in this study reporting that they had ever tried an e-cigarette and 85% ($N = 82$) being current polyusers.

Interestingly, polyuse was ubiquitous among all of the urban young adults in this study regardless of tobacco product type or use combination, especially among those using e-cigarettes. Further aligning with the existing body of literature on polyuse,¹⁹ the concurrent

use of combustible cigarettes with cigars, cigarillos, or little cigars was the most common pairing of tobacco products among our poly-using study participants. Concurrent use of e-cigarettes with chewing tobacco, snuff or dip, hookah, and combustible cigarettes was also common suggesting that emerging ATPs such as e-cigarettes and hookah are steadily rising in popularity, extending current tobacco use beyond merely combustible cigarettes and all types of cigars. This underscores the complex patterns of use that cessation interventions will need to address to be successful in preventing smoking progression and to reduce overall population prevalence.

In addition, our study sought to identify motivations for and beliefs about tobacco use among a sample of urban young adults tobacco users. Previous studies have shown that some tobacco products are more socially appealing than others and that motivations for the use of certain tobacco products are more socially-driven.^{44–48} For example, e-cigarettes and hookah use has been shown to be particularly socially acceptable,^{44–48} whereas other products such as combustible cigarettes are not.⁴⁶ In our study, however, socially-related motivations for and beliefs about tobacco use was not as common. Instead, stress relief was found as the leading motivator for tobacco use among all our urban polyusers. In comparison to socially-related reasons (eg, “young people who use e-cigarettes (or vape) have more friends”), “using cigarettes (or e-cigarettes) help people relieve stress” was also by far the more popular belief about tobacco use that our polyusers held. The majority of our participants believed that both e-cigarette use and traditional cigarette smoking helps relieve stress. Continued efforts to understand the numerous factors that interact and contribute to the complexity of polytobacco use patterns in young adults from an urban community is needed to help guide the development of novel therapeutic agents that may be more useful in smoking cessation for this group of smokers. As urban environments may have unique characteristics that influence the greater likelihood of polyuse, identification of innovative stress and boredom reduction strategies and strong environmental influences, in particular, are needed.

Another highlight of this study is its’ contribution to the growing evidence that young adults have low risk perceptions for most ATPs, particularly relative to cigarettes. In our study of urban polyusers, the perception that combustible cigarettes are more addictive and harder to quit than e-cigarettes suggests that the high rates of e-cigarette polyuse may be in part explained by experimentation, or that the uptake of ATPs may be an attempt to reduce or quit the use of combustible cigarettes.⁴⁹ However, based on previous literature,^{50,51} attempting to use e-cigarettes as harm reduction alternatives may actually increase their risk of becoming established multiple tobacco product users over time. Thus, it is possible that polyuse of e-cigarettes, alongside others, may instead promote and reinforce nicotine addiction among young adults.⁹ Results from this study further indicates that ATP risk information is still limited or inaccessible. For example, while the e-cigarette users in this study perceived combustible cigarettes and e-cigarettes as being equally addictive, our nonusers perceived combustible cigarettes as being more addictive than e-cigarettes. With the rapid availability of multiple ATPs, there is a gap in health communication concerning these products’ potential risks, both by the lack of regulations on ATPs and through health warnings or anti-tobacco campaigns that address ATPs. Expanding current tobacco

education campaigns and messaging to young adults to address ATP and polyuse harms and addiction may improve intervention efforts.

Prior studies on tobacco use have reported numerous challenges in recruiting young adults¹⁸ and have found that this age group of users also was less likely than other age groups to use behavioral or pharmacotherapy interventions for smoking cessation.⁵² Whereas the utilization of mobile technology to engage young adults in a variety of positive health behavior promotion strategies including anti-tobacco messaging⁵³ have shown promising results thus far, more can be done to leverage these technologies to address public health issues, particularly those with the intention of reaching young adults. This study highlights the complexity of polytobacco use patterns in young adults from an urban community and the need for developing tailored efforts to successfully reach this group of smokers.

These findings should be considered with regard to limitations. First, the study sample was from one particular geographic location (ie, Baltimore, Maryland) and is unlikely to represent similarly-aged young adults living elsewhere. Further, the cross-sectional nature of this study does not allow us to draw causal attributions or determine intra-individual trajectories of polyuse over time. Finally, although we were able to assess whether respondents currently used specific tobacco products and the frequency of use for each, we did not ascertain the quantity of use per tobacco product which left us unable to determine the intensity of use among our participants.

IMPLICATIONS FOR HEALTH BEHAVIOR OR POLICY

Contemporary tobacco-related intervention efforts predominantly address cigarette smoking and do not yet address the use of other tobacco products.^{19,54} Given the proliferation of ATPs such as e-cigarette use among US young adults, as well as the concurrent use of multiple tobacco products along with marijuana, future researchers should consider refining existing tobacco control intervention efforts to target increasingly other forms of tobacco use and polyuse behavior.⁹ Furthermore, targeted efforts to reach and educate urban young adults should also consider adopting different mobile phone technology, based specifically on the consumers' varying tobacco use profiles, to effectively disseminate information about the known and potential harms and addiction of ATP use and tobacco product polyuse.

This study informs the work of researchers engaged in efforts to meet the *Healthy People 2020* objectives to reduce tobacco use (TU-1) and to increase smoking cessation attempts (TU-4), as well as recent smoking cessation success (TU-5), among adult smokers. Understanding reasons for polyuse and e-cigarette use is needed to inform FDA's regulatory efforts over ATPs and to develop effective targeted messaging strategies for tobacco cessation interventions to reach this specific group of smokers. The *Healthy People 2020* public health goal to reduce smoking prevalence to no higher than 12% by 2050 cannot be reached if there is little change to current strategies.¹

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Human Subjects Approval Statement

All human participants were treated in accord with the Principles of the Ethical Practice of Public Health of the American Public Health Association and gave their informed consent to participate; the study was approved by the Johns Hopkins Institutional Review Board (Protocol 7627).

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Recent Tobacco Use Type, and Tobacco Product Polyuse, among E-cigarette Users and Non-Users (N = 97)

Table 1

Recent tobacco use (past 30 days)	N	%
Sole-user (used only one type of tobacco product)	15	15%
Only cigarettes	7	7%
Only blunts	4	4%
Only hookahs	3	3%
Only cigars, cigarillos, or little cigars	1	1%
Polyuser (user of 2 or more types of tobacco products)	82	85%
Polyuse among current e-cigarette users	46	47%
E-cigarettes + cigarettes only	3	3%
E-cigarettes + cigarettes + hookah (± others: eg, cigar or chew)	19	20%
E-cigarettes + hookah (± others: eg, cigar or chew but no cigarettes)	6	6%
E-cigarettes + cigarettes + others (no hookah)	10	10%
E-cigarettes + others (no cigarettes & no hookah)	8	8%
Polyuse among e-cigarette non-users	36	37%
Cigarettes + blunts only	6	6%
Cigarettes + blunts (and others: eg, cigar or chew)	16	16%
Hookah + others	7	7%
Any other tobacco combinations (among cigarettes, cigars, chew, and blunts) not listed above	7	7%

Table 2

History and Motivations for Tobacco Use, and Tobacco Cessation Interest, by Current Polyuse and E-cigarette Use Statuses

	%				
	Tobacco polyuse		E-cigarette use (among polyusers)		
	Yes N = 82	No N = 15	p-value	Yes N = 46	No N = 36
First Type of Tobacco Product Used (select one best answer)					
Blunts	46%	33%		48%	44%
Cigarettes	27%	47%		24%	31%
Cigars, cigarillos, or little cigars	15%	7%		13%	17%
Hookah	9%	13%		11%	6%
Electronic cigarettes (or vaping)	4%	0%		4%	3%
Ever used an e-cigarette? For those that answered yes.					
How were you introduced to e-cigarettes/vaping? (select one best answer) – among ever e-cigarette users					
Friend	76%	13%	< .001	100%	44%
Family member	69%	0%	< .001	67%	75%
TV/Radio advertisements	10%	0%		9%	13%
Social media	6%	50%		7%	6%
Other	5%	0%		7%	0%
	10%	50%		11%	6%
I use tobacco because....? % reporting yes (select all that applies)					
Stress	80%	67%	.23	85%	75%
Enjoy	71%	53%	.18	74%	67%
Environment	60%	27%	.024	61%	58%
Cheap	45%	0%	< .001	50%	39%
Better	26%	27%	1.00	30%	19%
Cool	22%	13%	.73	24%	19%
Weight	15%	0%	.20	20%	8%
Other	6%	13%	.30	11%	0%
	61%	47%	.30	67%	53%
I want to completely stop using tobacco.					
During the past 12 months, I have tried to quit using tobacco.					
Are you seriously thinking about quitting smoking? Would you say... (select one best answer)					
Not sure.	54%	27%	.09	67%	36%
	27%	27%	.25	17%	39%

	%					
	Tobacco polyuse			E-cigarette use (among polyusers)		
	Yes N = 82	No N = 15	p-value	Yes N = 46	No N = 36	p-value
I do not smoke now.	2%	20%		4%	0%	
Yes, within the next 30 days.	26%	20%		28%	22%	
Yes, within the next 6 months.	20%	13%		22%	17%	
Yes, but not within the next 6 months.	11%	7%		17%	3%	
No, I am not thinking of quitting smoking totally and for good.	15%	13%		11%	19%	
I would be interested in using a phone app that will help me quit smoking.	46%	33%	.035	54%	36%	.07
I would be interested in enrolling in a text messaging program that can help me quit smoking.	37%	40%	.027	48%	22%	.010

Note.

Bolding indicates p-value .05

Table 3

Beliefs and Risk Perceptions about Tobacco Use, by Polyuse and E-cigarette Use Statuses

	Percentage for those that answered "more harmful" or "probably/definitely yes"				
	Tobacco Polyuse		E-cigarette Use (among polyusers)		
	Yes N = 82	No N = 15	p-value	Yes N = 46	No N = 36
For each of the following questions on cigarettes, do you think...					
Using cigarettes help people relieve stress.	92%	87%	.63	93%	89%
People can get addicted to cigarettes just like they can get addicted to cocaine or heroin.	88%	93%	1.00	80%	97%
Using cigarettes helps people feel more comfortable at parties or in other social situations.	64%	60%	.80	78%	44%
Smoking cigarettes help people maintain or control body weight.	29%	27%	1.00	33%	25%
Young people who use cigarettes have more friends.	26%	40%	.25	33%	17%
Using cigarettes makes young people look cool.	28%	20%	.75	37%	17%
It would be easy to quit using cigarettes.	26%	7%	.18	26%	25%
For each of the following questions on e-cigarettes/vaping, do you think...					
E-cigarettes (or vaping) help people relieve stress.	74%	60%	.25	76%	72%
People can get addicted to e-cigarettes (or vaping) just like they can get addicted to cocaine or heroin.	62%	60%	.87	59%	67%
It would be easy to quit using e-cigarettes (or vaping).	59%	47%	.39	65%	50%
E-cigarettes (or vaping) help people feel more comfortable at parties or in other social situations.	60%	33%	.06	65%	53%
E-cigarettes (or vaping) make young people look cool.	29%	20%	.55	30%	28%
Young people who use e-cigarettes (or vape) have more friends.	24%	7%	.18	26%	22%
Compared to cigarette smoking, how harmful do you think are each of these tobacco products?					
Chewing tobacco, snuff or dip	48%	20%	.053	43%	53%
Cigars, cigarillos, or little cigars	44%	20%	.10	50%	36%
Hookah	18%	7%	.45	20%	17%
Electronic cigarette (or vaping)	9%	7%	1.00	7%	11%
Blunts	5%	13%	.23	7%	3%

Note.

Bolding indicates p-value .05