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Recall and Believability of the Tips From Former Smokers Campaign Among University Students

Dr. Melinda J. Ickes, Ph.D.,

Assistant Professor in the Department of Kinesiology and Health Promotion at University of Kentucky in Lexington, Kentucky

Dr. Karen Butler, DNP, MSN, RN,

Associate Professor in the College of Nursing at University of Kentucky in Lexington, Kentucky

Mary Kay Rayens, Ph.D.,

Professor in the College of Nursing at University of Kentucky

Melody Noland, Ph.D.,

Professor in the Department of Kinesiology and Health Promotion at University of Kentucky

Amanda T. Wiggins, Ph.D., and

Assistant Professor in the and College of Nursing at University of Kentucky

Ellen J. Hahn, Ph.D., RN, FAAN

Professor in the College of Nursing at University of Kentucky

Abstract

Background—Tobacco media campaigns are effective, but less is known regarding the impact on college students.

Purpose—The purpose was to test the effects of an on-campus *Tips* television campaign on frequency and believability of ads recalled and to assess demographic and personal factors associated with believability.

Methods—A quasi-experimental pre-post design was used to assess the 8-week campaign with three *Tips* ads. Two randomly-selected cohorts of college students ($N = 1,593$) from a large public university completed online surveys pre- and post-campaign. Group comparisons using chi-square tests, two-sample t-tests, and logistic regression, controlling for residence or cohort; predictors of believability using proportional odds modeling.

Results—Ads were recalled by significantly more students (68%) post-campaign. Believability for one or more ads was lower for males, undergraduates, those belonging to fraternity/sorority, and current polytobacco users ($p < .05$). Believability was greater for those who recalled seeing the ads more often ($p < .05$).

Discussion—Sub-groups of college students, including males and undergraduates, reported less ad believability, which should be considered when designing communication strategies.

Translation to Health Education Practice—Considering the potential impact and cost-effective nature of on-campus TV media campaigns, these ads need to be integrated into current campus tobacco control strategies.

Background

Approximately 14% of college students report past 30-day smoking and 31.3% have smoked in their lifetime.¹ Initiation of smoking in college remains a concern; 11% to 24% begin smoking during college.² Yet, there is little research on the impact of tobacco prevention media messaging with this population, which is a critical element of comprehensive tobacco control programs.³

Ultimately, media campaigns targeting young adults have potential to reduce the risk of chronic diseases associated with tobacco use such as heart disease and lung cancer. Tobacco prevention media campaigns are cost-effective, far reaching, and effective.⁴⁻⁶ Media campaigns can increase use of cessation resources and decrease initiation and use among young people.⁷⁻⁹ Campaigns targeting young people vary in their approach, emphasizing the long-term health effects of smoking, short-term consequences, awareness of social pressures, effective skills to handle peer pressure, and tobacco industry manipulation.^{10, 11}

Evidence on the impact of media messaging on youth and young adults is conflicting. Media campaigns that reinforce social disapproval were effective in reducing intention to smoke among adolescents in one study¹² and ineffective in another.¹¹ Instead, media messages featuring the serious consequences of smoking were seen as impactful.¹¹ However, focusing on long-term health consequences is frequently avoided with youth. College students are often grouped into the 'adult' category, but their beliefs may be more closely aligned with youth. The importance of this lack of perceived susceptibility and severity to tobacco-related consequences, as highlighted in the Health Belief Model, needs to be considered when evaluating media messaging.¹³ There is a need to further understand receptivity, or the extent to which individuals believe the message is convincing, particularly among college students.

The 2012 CDC *Tips from Former Smokers* (*Tips*) campaign was the first federally-funded tobacco control media campaign featuring former smokers talking about their experiences living with smoking-related diseases.¹⁴ Aimed at 18 to 54 year old smokers, the campaign is designed to increase quit attempts by reinforcing the health consequences caused by smoking and reminding individuals that help is available. The *Tips* campaign has been successful with the general adult population: calls to national quitline increased over 130%; an estimated 1.6 million additional smokers made a quit attempt; and 220,000 remained abstinent at follow-up.¹⁴ However, it is not known whether college smokers, tobacco users or non-users are receptive to the campaign.

Purpose

The purpose of this study was to test the effects of an 8-week on-campus *Tips* closed-circuit television campaign on frequency and believability of ads recalled and to assess demographic and personal factors associated with believability of the ads.

Methods

Design and Sample

The study design was quasi-experimental. Two randomly-selected cohorts of 5,000 students each attending a large public university in the Southeastern United States were selected and surveys were sent to one cohort before (Cohort I: pre-campaign) and the other cohort after the media campaign (Cohort II: post-campaign). The strength of random sampling in this design was that we were able to obtain cohorts that each represented the population of graduate and undergraduate students at the university, and each student had the same likelihood of being sampled. Use of this method also eliminated sampling bias, adding validity to the results obtained. For each cohort, the university registrar provided a list of email addresses from the total population of 26,139 students registered for spring semester 2013. Undergraduate or graduate students 18 years or older and enrolled full-time were eligible for the study; students enrolled part-time or in pre-professional programs were not included. Consistent with the ratios of undergraduate to graduate students and females to males at the institution, 81% of those selected for both cohorts were undergraduate students and 52% were female. The university's Institutional Review Board approved the study.

Data from the pre-campaign cross-sectional survey were collected in February 2013, prior to airing the on-campus television campaign featuring the *Tips* ads. A total of 852 students completed the pre-campaign survey (17.0% response); six respondents were omitted from the analysis due to missing data on recall of any of the ads, yielding an effective response rate of 16.9%. The post-campaign cross-sectional survey was administered in April 2013 after the 2-month campaign. A total of 741 students completed the post-campaign survey (14.8%); 20 surveys were omitted from the analysis due to missing data, yielding an effective response rate of 14.4%. Due to the de-identified nature of the data, it was not possible to compare responders and non-responders for either cohort.

Intervention: Tips Media Campaign

The CDC provided three of the original *Tips* ads, featuring Roosevelt, Terrie, and Buerger's Disease, free of charge to the investigators (see www.cdc.gov/tobacco/campaign/tips/), approximately one year after the national campaign aired (McAfee et al., 2013). Three ads were aired for eight weeks on the campus television network between February and April 2013, Monday through Friday (9AM–11AM and 4PM–7PM). The ads were aired in all dormitories, most fraternities and sororities, all campus buildings, lounge centers, and university hospital. The frequencies of the selected ads aired per week were: Roosevelt, 20 times; Terrie, 15 times; and Buerger's Disease, 25 times.

Roosevelt's Ad—Roosevelt, a 45 year old African American male, never thought smoking would cause a heart attack. He discusses how the heart attack changed his life forever. Showing a long scar down the middle of his chest, Roosevelt says, "Do your heart a favor and quit now" (31 seconds).

Terrie's Ad—Terrie, a 51 year old White female, had her larynx removed to treat throat cancer. Cancer treatments also caused teeth and hair loss. She demonstrates how she gets

ready in the morning by placing her dentures, putting on her wig, and inserting a device allowing her to talk (30 seconds).

Buerger's Disease Ad—Marie, age 61, and Brandon, age 31, both suffer from Buerger's Disease, a vascular condition caused by smoking. They each talk about and show body parts lost as a result of the disease. The closing message is, "It can happen to you" (31 seconds).

Procedures

The randomly selected students from both cohorts were sent email invitations to participate. The survey was administered through Qualtrics.¹⁵ Reminder emails were sent to all who had not yet replied one week and two weeks after initial survey invitation. Those who had not replied after the third week were considered non-responders and no further follow-up attempts were made. All respondents who completed the survey were directed to a separate entry form link and entered into a drawing to win a \$25 gift card.

Measures

Demographic variables—Age (in years), sex (male, female), race/ethnicity (White, non-Hispanic; Black, non-Hispanic; Hispanic or Latino; Asian or Pacific Islander; American Indian, Alaskan Native or Native Hawaiian; Middle Eastern; or Biracial/Multiracial), academic status (year for undergraduates or graduate student), residence location (residence hall, fraternity or sorority house, other university housing, parent/guardian home, or other off-campus housing), membership in a fraternity or sorority (yes/no), and international student status (yes/no) were assessed. Given small numbers of minority respondents, the variable was categorized as 'White, non-Hispanic' or 'Other.' Academic status was categorized as lower undergraduate students (freshman/sophomore), higher undergraduate students (juniors/seniors), or graduate students. Residence was categorized as 'on-campus' or 'off-campus.'

Tobacco use—Tobacco use was assessed for conventional cigarettes, e-cigarettes, hookah, smokeless tobacco, and the combined category of cigars, little cigars and clove cigarettes.¹ Current and former cigarette use was based on whether respondents had smoked at least 100 cigarettes and if they had smoked in the last month. Among those who met the 100-cigarette threshold, current smokers had used in the last 30 days and former smokers used less recently.¹⁶ Current and former use of the four alternate products was assessed by asking: 'Within the last 30 days, on how many days did you use:' with responses 'never,' 'have used, but not in the last 30 days,' '1–2 days,' '3–5 days,' '6–9 days,' '10–19,' '20–29,' and 'used daily.' Participants were categorized as former, single, or polytobacco product users. Former users had not used any tobacco product in the past 30 days, but had used at least one of the five products prior to that time. Current single tobacco users had used exactly one of the five tobacco products in the past 30 days, though they may have used others previously. Current polytobacco users had used at least two of the five products in the last 30 days, regardless of type or number.

Recall, viewing location, and believability—A series of three questions measured ad recall, viewing location, and believability.¹⁷ Recall was assessed by asking the following

question for each of the three ads, ‘In the past 2 months, about how often did you see the *Tips from Former Smokers* advertisement about quitting smoking?’ (‘never,’ ‘less than 1–2 times per month,’ ‘1–2 times per month,’ ‘once a week,’ ‘2–3 times per week,’ or ‘daily’). A screenshot of each ad and the name of the ad were displayed and included in the question stem. Viewing location was assessed for each ad: students who recalled seeing the ad at least once via an on-campus TV location (i.e., dorms, Student Center) formed the ‘on-campus’ viewing location group while those who listed only other locations (i.e., off-campus TV, internet, health fair, billboard, magazine, newspaper or bus stop) were in the ‘off-campus’ group. Believability of each ad was measured by asking if respondents found the ad ‘very,’ ‘somewhat,’ or ‘not at all’ believable.

Data Analysis

Descriptive statistics, including means and standard deviations or frequency distributions, were used to summarize the data. Bivariate analyses (e.g., independent samples t-tests or chi-square tests of association) were used to compare demographic characteristics of pre- and post-campaign cohorts. To examine differences in recall to and believability of the ads by cohort, the Mann-Whitney U test was used. Logistic regression modeling assessed whether there was a difference in location of viewing (i.e., on- versus off-campus) before and after the *Tips* campaign, controlling for residence. This same analysis strategy was used to determine whether frequency of having seen the ads at least once varied by tobacco use status, controlling for cohort. To evaluate whether demographic or personal characteristics predicted perception of ad believability, proportional odds modeling (POM) was used. The Score test assessed whether the odds were proportional (assumption of the POM model) and variance inflation factors assessed whether correlations among predictors caused any distortion in regression parameters. All analyses were conducted using SAS v. 9.3; an alpha level of .05 was used throughout.

Results

Pre- and post-campaign cohort respondents were similar on nearly all demographic and personal characteristics, except academic status and residence (Table 1). A higher proportion of lower undergraduates and a lower proportion of graduate students comprised the post-campaign cohort (61% and 14%, respectively) compared to the pre-campaign cohort (46% and 27%, respectively; $p<.001$). A higher proportion in the post-campaign group lived on-campus (42% post- versus 34% pre-campaign; $p<.001$). The two groups did not differ on age, sex, racial/ethnic distribution, fraternity/sorority status, international students, or tobacco use. Approximately 20% of each cohort had used one or more tobacco products in the past month.

A higher percentage of the post-campaign cohort recalled at least one *Tips* ad than those in the pre-campaign cohort (Mann-Whitney $U=20.8$, $p<.001$; see Figure). In the pre-campaign cohort, 58% recalled one or more ads, while 68% recalled one or more in the post-campaign group.

Both Terrie’s ad and the Buerger’s Disease ad were recalled more frequently following the campaign ($p<.001$ for both ads; Table 2); Roosevelt’s ad was remembered least frequently

by both cohorts, and frequency of recall was not significantly different post-campaign. The most commonly-recalled ad was Terrie's; the majority of students recalled having seen it at least once (55% in the pre-campaign group and 64% in the post). The Buerger's Disease ad was recalled as being seen at least one time by 15% of the pre-campaign cohort and 24% of the post-campaign group. For Terrie's ad, a higher proportion of post-campaign participants recalled viewing the ad on-campus (22% post- versus 14% pre-campaign; $p=.033$), controlling for type of residence. There were no cohort differences in viewing location for the other two ads, controlling for type of residence.

There also were no differences in ad believability pre- and post-campaign for any of the *Tips* ads. Each of the three ads was deemed 'very believable' by many of the students in both samples who saw it, ranging from 46% (pre-campaign) or 45% (post) for the Buerger's Disease ad; to 66% (pre) or 55% (post) for Roosevelt's ad; to 66% (pre) or 67% (post) for Terrie's ad. Between 1% and 3% of students in each cohort rated each of the ads as 'not at all believable.'

The POM for believability of the Terrie and Buerger's Disease ads are shown in Table 3; both ads modeled the probability of finding the ad more believable. The overall model for believability of the Roosevelt ad was not significant, perhaps due to low recall of the ad in both cohorts. The Terrie model was significant ($\chi^2=26.6$, $p=.003$); the Score test indicated the proportional odds assumption was not violated ($\chi^2=6.4$, $p=.78$). Similarly, the Buerger's Disease model was significant ($\chi^2=33.8$, $p<.001$); the proportion odds assumption was not violated ($\chi^2=12.7$, $p=.24$). The variance inflation factors for both models were less than 2.2, indicating a lack of multicollinearity.

Predictors of believability for the Terrie ad included sex, fraternity/sorority membership and frequency of recall. Males were 39% less likely to report the ad as believable, compared with females. Similarly, those in a fraternity/sorority were 43% less likely than those not in these groups to report the Terrie ad believable. For every additional category of viewing recall (ranging from 'never' to 'daily'), participants were 18% more likely to find this ad believable.

Predictors of the Buerger's Disease ad believability were academic status, tobacco use status, and frequency of recall. Compared with graduate students, both lower and upper level undergraduates were less likely to find this ad believable (69% and 70% less likely for lower and upper, respectively). Compared with non-users, students who had used more than one tobacco product in the last month (i.e., polytobacco users) were 72% less likely to find this ad believable. There was no difference in ad believability between non-users and those using a single tobacco product. Those with more frequent recall were 65% more likely to indicate the Buerger's Disease ad was believable.

Discussion

Compared to the pre-intervention cohort (Cohort I), who may have seen the ads as part of the national campaign, a higher proportion of college students recalled the ads following the 2-month on-campus *Tips* television campaign (Cohort II). These findings are promising

considering higher recall is associated with reduced tobacco use initiation.⁷ It is worth mentioning that prior to and during the on-campus campaign, students could have also recalled the *Tips* ads from other sources, including off-campus TV, the Internet, social media, and/or print media.¹⁴ Although nearly 70% of students reported they recalled at least one *Tips* ad post-campaign, not all of these were specific to the on-campus campaign. Reach was slightly lower than data from the national *Tips* media campaign, in which 78% of smokers and 75% of non-smokers recalled seeing at least one of the ads.¹⁴ However, the national campaign aired for three months and across a variety of media channels; whereas, in the study reported here, the ads were aired for eight weeks on one college TV station, for a total of 480 times.

Although Terrie's ad was aired the least number of times per week (15 versus 20 and 25) during the campaign, it was the most commonly-recalled and a higher proportion of post-campaign participants recalled viewing the ad on campus. Media campaigns evoking an emotional response tend to have higher recall;¹⁸ Terrie's ad may have elicited strong emotions due to the graphic nature of the content. It is important to note that females tend to have higher recall of tobacco prevention media campaigns,¹⁹ and both cohorts comprised more females than males. Although Terrie was a 51-year old woman, she recollected when she was a younger, vibrant woman. This may have increased female students' receptivity to the ad, potentially explaining why more students recalled Terrie's ad.³

Regardless of cohort, each of the three ads was deemed 'very believable' by most students who saw it. Terrie's ad was considered 'very believable' by almost 70% of the students who viewed the ad. These findings are promising considering that the likelihood of initiating smoking decreases as receptivity of media messaging increases.²⁰ Interestingly, although the Buerger's Disease ad was aired the most during the campaign and featured someone closer in age to traditional college students, this ad was deemed the least believable of the three. College students may not feel vulnerable to similar health risks showcased in this particular ad.²¹ Further understanding differences in ad believability is critical in determining the potential effects of media campaigns on tobacco initiation and use.²²

Ad believability was influenced by personal characteristics. Males and those affiliated with a fraternity or sorority may be less receptive to certain ads, in particular the one featuring Terrie. It is likely that males do not find this ad, featuring a 51-year old female, relevant to their daily lives. On the other hand, response to the Buerger's Disease ad was affected by academic status and tobacco use. Undergraduates were less likely to find this ad believable, as were those using multiple tobacco products. Undergraduates may feel immune to such health consequences showcased in the Buerger's Disease ad. Given that most know that smoking causes cancer and heart disease, featured in the other two ads, younger college students may view the Buerger's Disease ad as less believable because they may not know about this disease and its relationship to smoking. Similarly, polytobacco users may not perceive they are at-risk for Buerger's Disease, given their use of tobacco products other than cigarettes.

When students saw the ads more often, they reported greater believability of the ads. There is conflicting evidence on the recommended intensity of tobacco prevention media

campaigns. Among young adults, potential exposure to 104–155 tobacco prevention ads over two years was found to reduce tobacco use compared to exposure to fewer than 52 ads.⁹ Biener and colleagues¹⁹ found that high levels of intensity were associated with lower perception of ad effectiveness, which may relate to ‘wear out.’ Future research needs to investigate the impact of campaign intensity and ad recall on believability and how this might impact tobacco use outcomes among college students. This study has provided a reasonable assessment of recall and believability of ads. Future studies with this population may benefit from using some of the newer ads particularly geared toward college-age students that have been developed since these data were collected, as these ads may have even more impact.

Limitations

The primary limitation of this study was the recruitment of two separate cohorts of students before and after the media campaign, limiting our ability to follow the same participants over time. There is a possibility that the same person was included in both cohorts, but because both were randomly selected from the much larger student population, the probability is small. Second, recall is a limitation in that respondents may not have accurately identified the number of times or where they viewed the ad. This is a limitation common to media studies, given the lag between exposure and assessment.⁵ However, the post-campaign survey was administered within 3 weeks after the ads. Third, the students in either cohort may have been exposed to the national *Tips* campaign which was initially aired a year prior to this on-campus campaign, but continues to be available via Internet and other media modes. Thus, student recall may have been from national or other local sources. We compared ad recall between pre- and post-campaign, controlling for type of residence and were able to show higher recall for one of the ads. Likely due to the small number of participants who recalled seeing the Roosevelt ad at least once, the POM model for believability was not significant overall. In addition, results may not be generalizable to all college students; participants were from one university campus and more females than males participated in the study. Finally, while we used the CDC definition to assess current and former smokers, these categories may not be inclusive of all students who use cigarettes, nondaily or light smokers may not have met the 100-cigarette threshold.

Translation to Health Education Practice

Tobacco prevention media efforts are cost-effective, far reaching, and effective.^{5, 6} The 2-month on-campus *Tips* television campaign reached a large number of college students, with almost 70% of students reporting they viewed at least one *Tips* ad, whether from the campus or national campaign. Considering the number of college students initiating tobacco use and the related health consequences, the potential reach of these media campaigns is promising. Overall, students found the ads believable. However, among certain sub-groups of college students, the ads were deemed less believable. Research is needed to understand what ads increase receptivity, particularly among males, those belonging to a fraternity/sorority, undergraduates, and polytobacco users. Those who recalled seeing the ads more often found them to be more believable, so consistent and frequent messaging is necessary.²² Health educators on college campuses are often looking for cost-effective strategies and the *Tips*

ads tested in this study were free and seemed to resonate with college students. As new *Tips* ads are released, it would be interesting to determine if they have similar effects among college students. In addition, other dissemination strategies for tobacco prevention ads, including use of social media, should be explored with the college population. College campuses need to consider airing *Tips* television ads, or similar media campaigns, as a key part of their comprehensive tobacco control efforts.

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Figure.

Distribution of number of ads recalled between the pre- and post-campaign cohorts ($N=1567$).

Table 1Differences in demographic and personal characteristics pre- and post-campaign ($N = 1,567^*$)

	Pre ($n = 846$) Mean (SD); range or n (%)	Post ($n = 721$) Mean (SD); range or n (%)	p
<i>Age</i>	22.3 (6.1); 17–65	22.1 (6.0); 18–59	.51
<i>Sex</i>			.47
Male	237 (30.7)	209 (29.0)	
Female	534 (69.3)	511 (71.0)	
<i>Race/ethnicity</i>			.73
White, non-Hispanic	616 (79.9)	570 (79.2)	
Other	155 (20.1)	150 (20.8)	
<i>Academic status</i>			<.001
Lower undergraduate	352 (45.6)	439 (61.1)	
Higher undergraduate	215 (27.9)	177 (24.6)	
Graduate student	205 (26.5)	103 (14.3)	
<i>Residence</i>			.001
On-campus	262 (34.0)	302 (42.0)	
Off-campus	509 (66.0)	417 (58.0)	
<i>Member of social fraternity/sorority</i>			.19
Yes	132 (17.1)	142 (19.8)	
No	639 (82.9)	577 (80.2)	
<i>International student</i>			.93
Yes	48 (6.2)	45 (6.3)	
No	722 (93.8)	665 (93.7)	
<i>Tobacco use group</i>			.60
Polytobacco user	50 (6.2)	44 (6.3)	
Single product user	99 (12.4)	99 (14.1)	
Non-user	652 (81.4)	558 (79.6)	

* Sample sizes vary by item due to missing data

Table 2

Recall of, location of viewing, and believability of the TIPS ads by pre- and post-campaign cohort ($N = 1,567$)

	Roosevelt's Ad			Terrie's Ad			Buerger's Disease Ad		
	Pre n (%)	Post n (%)	p	Pre n (%)	Post n (%)	p	Pre n (%)	Post n (%)	p
In the past 2 months, about how often did you see the advertisement about quitting smoking?			.068 ^a			<.001 ^a			<.001 ^a
Never	701 (88.4)	590 (82.3)		371 (45.2)	254 (36.0)		706 (85.0)	533 (76.4)	
Less than 1–2 times a month	46 (5.8)	46 (6.6)		178 (21.7)	130 (18.5)		62 (4.5)	62 (8.9)	
Once or twice a month	26 (3.3)	34 (4.9)		160 (19.5)	154 (21.8)		35 (4.2)	54 (7.7)	
Once a week	14 (1.8)	15 (2.2)		69 (8.4)	92 (13.1)		16 (1.9)	27 (3.9)	
2–3 times a week	6 (0.7)	6 (0.9)		34 (4.1)	67 (9.5)		8 (1.0)	19 (2.7)	
Daily	0 (0.0)	1 (0.1)		9 (1.1)	8 (1.1)		3 (0.4)	3 (0.4)	
Where did you see the advertisement?			.28 ^b			.033 ^b			.17 ^b
At least once via on-campus TV	11 (12.4)	21 (21.4)		62 (14.2)	98 (22.1)		23 (18.8)	43 (26.4)	
Other media channel	78 (87.6)	82 (79.6)		375 (85.8)	345 (77.9)		99 (81.2)	120 (73.6)	
Overall did you find the ad:			.13 ^a			.67 ^a			.89 ^a
Very believable	59 (66.3)	57 (55.3)		288 (65.6)	300 (67.0)		56 (45.9)	74 (45.4)	
Somewhat believable	29 (32.6)	45 (43.7)		140 (31.9)	137 (30.6)		63 (51.6)	84 (51.5)	
Not at all believable	1 (1.1)	1 (1.0)		11 (2.5)	11 (2.4)		3 (2.5)	5 (3.1)	

* Note: Sample sizes for individual items vary due to skip patterns and missing data.

^a p from Mann-Whitney U test^b p from logistic regression, modeling the probability of viewing the ad on a TV on-campus, controlling for residence (on-campus versus other)

Table 3

Proportional odds modeling the believability of the ads

	Terri's ad (<i>n</i> = 847)			Buerger's Disease ad (<i>n</i> = 273)		
	Odds Ratio (<i>OR</i>)	95% CI for <i>OR</i>	<i>P</i>	Odds Ratio (<i>OR</i>)	95% CI for <i>OR</i>	<i>P</i>
Sex						
Male	0.61	0.44 – 0.82	.002	0.97	0.57 – 1.66	.92
Female	ref	ref		ref	ref	
Race						
White	1.04	0.71 – 1.51	.85	1.15	0.61 – 2.16	.66
Other	ref	ref		ref	ref	
Academic Status						
Lower level undergraduate	0.81	0.54 – 1.21	.31	0.31	0.15 – 0.66	.002
Upper level undergraduate	0.85	0.55 – 1.31	.46	0.30	0.14 – 0.66	.003
Graduate student	ref	ref		ref	ref	
Residence						
On-campus	1.38	0.97 – 1.97	.074	1.48	0.82 – 2.68	.19
Off-campus	ref	ref		ref	ref	
Member of a social fraternity/sorority						
Yes	0.57	0.39 – 0.82	.003	1.02	0.56 – 1.88	.94
No	ref	ref		ref	ref	
Cohort						
February	0.96	0.72 – 1.30	.81	1.07	0.63 – 1.81	.79
April	ref	ref		ref	ref	
Tobacco use group						
Polytobacco user	0.91	0.51 – 1.60	.74	0.18	0.06 – 0.59	.004
Single product user	1.08	0.71 – 1.66	.72	1.11	0.56 – 2.21	.76
Non-user	ref			ref		
Frequency of recall	1.18	1.02 – 1.36	.025	1.65	1.28 – 2.12	<.001