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Who is Most Susceptible to Movie Smoking Effects? Exploring the Impacts of Race and Socioeconomic Status

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Abstract

Aims—This study assesses how race/ethnicity and socioeconomic status (SES) modify the relationship between exposure to movie smoking and having tried smoking in adolescents.

Design—Data come from a cross-sectional telephone survey and were analyzed using logistic regression models. A respondent reporting ever having tried smoking was regressed on exposure to movie smoking, race, socioeconomic status, the interactions of these variables, and family and background characteristics.

Setting—National sample of US adolescents.

Participants—3653 respondents aged 13–18 years.

Measurements—Outcome was if subjects reported ever having tried smoking. Movie smoking exposure was assessed through respondents' reporting having watched a set of movie titles, which were coded for smoking instances.

Findings—The proportion having tried smoking was lower for Blacks (0.32) compared to Hispanics (0.41) and Whites (0.38). The relationship between movie smoking and having tried smoking varied by race/ethnicity. Among Whites and Hispanics exposure to movie smoking positively predicted smoking behavior, but movie smoking had no impact on Blacks. SES further modified the relation among Whites; high SES white adolescents were more susceptible to movie smoking than low SES white adolescents.

Conclusions—Exposure to movie smoking is not uniformly experienced as a risk factor for having ever tried smoking among U.S. adolescents. Whites and Hispanics are more likely to try smoking as a function of increased exposure to movie smoking. In addition, higher socioeconomic status increases susceptibility to movie smoking among Whites. Youth with fewer risk factors may be more influenced by media messages on smoking.

Keywords

Smoking; adolescent; movies; race; ethnicity; socioeconomic status

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Introduction

With image-based advertising for tobacco largely prohibited, the entertainment industry remains among the last repositories of pro-smoking imagery. Hollywood movies in particular deliver billions of such images annually to adolescents in the United States (1), Europe (2), and other countries. A number of cross-sectional and longitudinal observational studies have documented an association between exposure to movie smoking and adolescent smoking (3–16). Experimental studies using randomized designs have shown specifically that exposure to movie smoking affects intentions to smoke (17). Based on a review of the available literature, the relation between movie smoking and youth smoking has been judged to be causal (18), and this was reiterated in a 2012 Surgeon General Report on Youth Smoking (19). Less is known about factors that moderate this relationship, aside from the finding that adolescents whose parents do not smoke seem to be more responsive to movie smoking (5, 20). In this study, we assess how race/ethnicity and socioeconomic status moderate the relation between exposure to movie smoking and youth smoking within a sample of US adolescents.

Previous work has focused mainly on moderation by race and ethnicity. A cross-sectional study of a nationally representative sample of US adolescents aged 10–14 years found that exposure to movie smoking among Black adolescents was higher than for Whites (10) due to much higher exposure to movies in general and especially R-rated movies (21). This finding raised the question of whether movie exposure should be considered another among a host of exposure disparities that lead to more adverse health outcomes for minority populations (22). However, further research suggested that exposure to movie smoking had a lesser influence among Black adolescents: higher exposure to R-rated movies increased the odds of smoking for Whites, but not for Blacks, despite Blacks' higher exposure to these types of movies (10). A study of a subsequent two year follow-up of the sample of 10–14 year old adolescents (23) examined moderation by race/ethnicity and parent smoking, finding a more nuanced picture. Confirming prior results, there was no relationship between the movie exposure and initiation of smoking among Black adolescents, despite Blacks' higher exposure at baseline. However, when exposure was categorized by whether or not the movie character smoking was portrayed by a Black actor, it was found that Black adolescents responded to Black movie character smoking but not to White/other character smoking (which is far more prevalent in the movies). Thus, whereas Black adolescents experienced higher exposure to smoking in movies, they appeared to be resistant to behavioral consequences from that exposure, perhaps due to the infrequency of smoking by characters of their own race.

The few studies that have focused on Hispanic adolescents have found levels of exposure to movie smoking similar to Whites (10, 23), but a somewhat smaller response to movie smoking, again with a focus on early adolescents. In the four-wave longitudinal study cited above, Hispanic adolescents had a crude dose-response curve that was intermediate to that of Whites and Blacks, but the association was not statistically significant in the multivariate model (23). In another study of Mexican-American adolescents, exposure to movie smoking was significantly associated with smoking onset, but the exposure-behavior association was smaller than reported in other studies of White adolescents and stronger for Mexican-born compared with American-born Hispanic youth (15).

In contrast to the race/ethnicity relation, less is known about the relationship between socioeconomic status (SES), exposure to movie smoking, and adolescent smoking. The relationship between poverty and smoking has been well described (24–27). We are not aware of a study that examines whether low socioeconomic status is associated with exposure to movie smoking or whether socioeconomic status influences how adolescents

respond to movie smoking. It is possible that low SES adolescents, who are more apt to do poorly in school and have fewer extracurricular activities, have higher exposure to movie smoking. However, low SES adolescents also experience higher exposure to other smoking risk factors—family smoking, peer smoking, and poor school performance (28). Thus, it is possible that this constellation of risk factors combine to overwhelm the movie smoking influence on adolescent smoking outcomes.

We have previously postulated that the lack of a movie influence on smoking outcomes for those at the high-risk for smoking and low-risk for smoking extremes may be similar to relationships seen in other realms, such as in political advertising (23). Political advertising is unlikely to sway the opinions of individuals at the political extremes, thus is designed to influence the "swing voters" in the middle. Similarly, the effect of movie smoking on behavior may be more prominent among adolescents who are ambivalent about whether or not they want to try smoking, as opposed to those overwhelmed by other risk or protective factors. Alternatively, the Elaboration Likelihood Model of Persuasion (ELM) may succinctly and eloquently explain several effects discussed here (29, 30). The messages of movie smoking are processed through peripheral cues, meaning the images are not thought about deeply or elaborately by those viewing. In addition, the movie smoking message has different results based on characteristics of both the recipient and the message itself. Relevant to our research questions is work that has shown that messages and sources processed peripherally can have a larger impact when the message has lower relevance (31). In this case, adolescents with more exposure to real-life smoking will be less likely to respond to the message of movie smoking, whereas adolescents with less exposure to real-life smoking may respond more to movie smoking. While the goal of this study is not to directly model adolescents' real life smoking exposure as it modifies the impact of movie smoking, ELM would suggest that adolescents at a high-risk for smoking would respond less to movie smoking.

Finally, little is known about how race and SES may jointly moderate the effect of exposure to movie smoking on adolescent smoking outcomes during late adolescence. In this study we ask three questions: 1) Do Black and Hispanic adolescents continue to be less responsive to movie smoking compared to their White peers during late adolescence; 2) does SES moderate the movie smoking --ever tried smoking relationship, and 3) does SES moderate how race influences the movie smoking --ever tried smoking relationship? We then interpret the results in the context of the theoretical issues addressed above.

Methods

Our data come from the fifth survey round of the Dartmouth Media Study (10). Baseline surveys occurred between June and October 2003 using random-digit-dial telephone recruitment of 6522 US adolescents aged 10 to 14 years. A detailed description of the study, its recruitment methods, and earlier findings were published previously (3, 10, 23, 32, 33). The data for the fifth round used in this study was collected in 2007. Given our interest in differential responses to movie smoking by race, and given higher attrition rates among non-Whites from our originally recruited cohort, an enrichment sample of 598 age-matched Black youth was recruited for this survey round. In order to accommodate the enrichment sample of Black adolescents, a total of 1,000 White non-smokers (stratified by age/gender and household income) were randomly selected to be removed from the sample.

We estimated adolescents' exposure to movie smoking using previously validated methods (34). The movie sample frame of 384 movie titles included the top 100 box office hits from 2004–2006, plus a group of older releases that dated back to 2000 that specifically included black actor smoking, with or without alcohol use (n=84). The computer-assisted telephone

interview survey was programmed to randomly select 50 movie titles from the sample frame for each adolescent interview, stratified by the Motion Picture Association of America rating and by whether or not there was smoking by Black actors. Each subject was queried about 12 films with Black actor smoking. Respondents were asked whether they had ever seen each movie title on their unique list. We have previously demonstrated that adolescents reliably remember movies they have seen 1 to 2 years prior to a survey (34).

Trained coders counted the number of smoking occurrences in each of the 384 movies using previously validated methods (35). A smoking occurrence was counted whenever a major or minor character handled or used tobacco or when tobacco was being used by an “extra” in the background. Occurrences were counted irrespective of the scene’s duration or how many times the tobacco product appeared during the scene. For example, in a 3-minute bar scene where 2 major characters used tobacco (one for 1.5 minutes, the other for 5 seconds) and another character was seen smoking across the room, we would count 3 occurrences. Most tobacco use involved cigarettes or cigars with less than 1% of occurrences involving spit tobacco. We created a scaled measure of exposure to movie smoking by first summing the number of smoking occurrences in films each adolescent had seen from his or her unique list of 50 movies. We then divided this number by the number of smoking occurrences that the adolescent would have seen had he seen all 50 movies in his unique list. To estimate exposure to movie smoking, we multiplied this proportion by the number of smoking occurrences in the entire sample frame of 384 movies.

Assessment of “tried smoking” was based on the question, “How many cigarettes have you smoked in your life?” (none, a few puffs, 1–19 cigarettes, 20–100 cigarettes, or more than 100 cigarettes). An adolescent who said they had smoked “a few puffs” or more was considered to have tried smoking. Previous work has demonstrated a stronger relation between tried smoking and movie smoking compared with more advanced outcomes such as having smoked >100 cigarettes (36, 37).

Based on previous studies of adolescent smoking, we examined a broad range of covariates. These included age, sex, race/ethnicity, SES, peer smoking, sensation seeking, TV habits, peer smoking and subject-reported parenting characteristics. Household income and parental education were combined using the “alpha” command in Stata to create a standardized SES variable (Cronbach’s alpha = 0.69). Using the same command, composite scores were obtained for measures of sensation seeking (e.g., “I like to do scary things,” “I like to listen to loud music,” alpha =.70) (33) and parental monitoring (e.g., “How often does an adult know where you are and what you are doing on weekends?/ how well are you doing in school?”, alpha =.74) (38). For these variables, increases in the scale indicate that the adolescent has (or perceives his or her parent to have) more of the characteristic.

We modeled the likelihood of having ever tried smoking as a function of exposure to movie smoking; squared exposure to movie smoking (to capture a plateau in the descriptive data); age; sex; race/ethnicity; SES; TV in bedroom; TV hours per day; sensation seeking; parental monitoring; peer smoking; the two-way interactions of race/ethnicity and exposure to moving smoking, SES and exposure to movie smoking, and race/ethnicity and SES; and the three-way interaction of race/ethnicity, SES and exposure to movie smoking (39). The interaction effects allow us to investigate if SES moderates exposure to movie smoking, for example, if high SES is protective against the negative effects of exposure to movie smoking. The three-way interaction of SES, exposure to movie smoking, and race enables us to examine if SES moderates movie smoking effects differently for each racial group. The model that included main effects, two-way, and three-way interactions best fit the data (deviance=3488, 39 degrees of freedom, Akaike Information Criteria=3566), compared to the main effects and two-way interactions (deviance=3508, 33 df, AIC=3574) and main

effects model (deviance=3546, 22 df, AIC=3590). The main effects model is nested within the main effects and two-way interactions model, which is nested within the final main effects, two-way, and three-way interactions model. We used Stata version 12.0 and R (R Project for Statistical Computing) version 2.9.2 for all statistical analyses.

Results

Our sample is described in Table 1. Of the full sample of 3653 respondents, 36% have tried smoking and 55% report that some or all of their friends smoke. The sample was 51% female with a mean age of 15.7 and mean household income of $72,600. The sample consisted of 22.4% non-Hispanic Blacks (henceforth referred to as “Blacks”), 13.2% Hispanics, 57.3% non-Hispanic Whites (henceforth referred to as “Whites”), and 7.1% adolescents who identified as non-Hispanic “other” or multiple race (henceforth referred to as “other”). In addition, 63% reported having a TV in their bedroom, and respondents reported watching an average of 1.8 hours of TV per day.

We first examined descriptively having ever tried smoking and exposure to movie smoking by demographic, family, psychological, and exposure characteristics (Table 1). We observed a positive relationship between exposure to movie smoking and several covariates, including age, sensation seeking, peer smoking, and hours of TV per day. Having tried smoking was negatively associated with household income and parental monitoring. Notably, the pattern of exposure to movie smoking and having ever tried smoking was consistent with previous waves of the survey. Examining our main effect, the proportion that had ever tried smoking was 0.23 for adolescents exposed to the lowest quartile of movie smoking (95% CI, 0.20 to 0.25) and 0.50 for the highest quartile (95% CI, 0.46 to 0.53).

Next, we examined the relationship between exposure to movie smoking and the likelihood of having ever tried smoking by race/ethnicity (Figure 1) controlling for demographic factors, SES, TV viewing, parental monitoring, and sensation seeking. For ease of interpretation of interactions, we present predicted probabilities of having ever tried smoking. The top panels of Figure 1 show the distribution of exposure to movie smoking by race; as in previous waves of the survey, Blacks showed the highest exposure to movie smoking. The bottom panels of Figure 1 show the predicted probability of having ever tried smoking as a function of exposure to movie smoking for Whites, Blacks, and Hispanics, adjusted for covariates. The probability of smoking increased with exposure to movie smoking for Whites and Hispanics, but remained nearly constant for Blacks. As exposure to movie smoking increased from the 10^{th} to the 90^{th} percentile, the probability of smoking for Whites increased from 0.19 (95% CI, 0.15 to 0.23) to 0.45 (95% CI, 0.38 to 0.52). Among Blacks, the probabilities were 0.32 (95% CI, 0.22 to 0.45) and 0.31 (95% CI, 0.26 to 0.37) respectively. Finally, among Hispanics the probability increased from 0.31 (95% CI, 0.19 to 0.46) to 0.50 (95% CI, 0.39 to 0.62) respectively. These results are consistent with previous work on the relationship of race and movie smoking with having ever tried smoking.

Finally, we examined how race/ethnicity and SES jointly moderate the relationship between exposure to movie smoking and having ever tried smoking, again accounting for controls. Table 2 presents predicted probabilities of having ever tried smoking by race, SES, and exposure to movie smoking (all other covariates are set at their modal values). Figure 2 depicts the risk ratio of the $90^{th}/10^{th}$ percentiles of exposure to movie smoking as a function of SES separately for Whites, Blacks and Hispanics. The results indicate that SES moderates the effect of movie smoking for Whites and Hispanics, but not for Blacks. For Whites, higher SES is associated with a stronger relationship between exposure to movie smoking and ever smoking. For example, the risk ratio of smoking between those at the 90^{th} percentile of exposure to movie smoking versus the 10^{th} percentile was 1.79 (95% CI, 1.34

to 2.49) for White adolescents one standard deviation below mean SES and 2.98 (95% CI, 2.08 to 4.34) for White adolescents one standard deviation above mean SES. In contrast, exposure to movie smoking had no impact on Blacks at any level of SES. For example, the RR of smoking was 0.99 (95% CI, 0.62 to 1.74) for Blacks one standard deviation below mean SES and 0.95 (95% CI, 0.56 to 1.96) for Blacks one standard deviation above mean SES. Finally, exposure to movie smoking for Hispanic adolescents did vary by SES, although not significantly. For example, the risk ratio of smoking was 1.50 (95% CI, 0.98 to 2.36) for adolescents one standard deviation below mean SES and 1.68 (95% CI, 0.86 to 4.15) for adolescents one standard deviation above mean SES. These results suggest that exposure to movie smoking does have a positive relationship with smoking behavior among all Hispanic adolescents, though the relationship is borderline significant, possibly due to the Hispanics sample size.

Discussion

In this study, we examined how exposure to movie smoking and having tried smoking were related in a sample of late adolescents. First, the results indicate that the relationship of movie smoking and having ever tried smoking varies considerably by race. In sum, exposure to movie smoking has a strong, positive relationship with White and Hispanic late adolescents having ever tried smoking, but no such relationship among Blacks. Thus, even though exposure to movie smoking is highest among Blacks, exposure to smoking by predominantly White characters is not a risk factor for experimentation with smoking.

Next, we examined the more complex interaction of race and SES with movie smoking, to examine how these factors jointly modify the movie smoking—adolescent smoking relationship. We found that among Whites, higher SES was related to a stronger relationship of movie smoking with adolescent smoking. In contrast, Blacks are unaffected by exposure to movie smoking, regardless of SES. Further work could examine whether Black adolescents of varying socioeconomic status react similarly to depictions of Black character smoking. Finally, Hispanic adolescents of any socioeconomic status are marginally affected by exposure to movie smoking.

Among White adolescents, SES has a significant and powerful moderating effect of exposure to movie smoking. Rather than being protective as hypothesized, higher socioeconomic status magnifies the impact of movie smoking on the likelihood of trying smoking. Previous work on the impacts of media on adolescent smoking suggested that media effects on smoking are analogous to media effects in political campaigns that direct messages to the “swing voter”(40). This work supports the theory that media effects may be most powerful among adolescents who are relatively ambivalent about smoking as opposed to those adolescents overwhelmed with other risk factors. In this case, media effects have smaller or no detectable effects on adolescents facing risk factors such as minority status or low SES (and all the other risk factors that accompany these conditions), whereas media effects are stronger among white adolescents of high SES, a group with fewer competing risks. As posited in previous work (23), this concept has important implications for how to target anti-smoking campaigns among adolescents, as it suggests such campaigns may be most effective when targeted at ambivalent, “swing voter” youths. Further research should assess whether anti-smoking advertising messages would be more effective if targeted to youths who are ambivalent about smoking.

These results are unique in comparison to results from a similar study in Europe (9), which found no effect modification for a measure of family affluence. In sensitivity analyses on the present study, we unpacked SES into the components of parental education and income and tested the independent effects of each. Both indicators had moderately significant positive

modifying effects when taken independently, taken together they had the stronger and statistically significant effect depicted in our results.

Finally, although the goal of this study is not to directly test models of persuasion, our results may speak to the Elaboration Likelihood Model of Persuasion and related theories of media persuasion. In particular, we find that movie smoking has less of an influence on adolescents trying smoking when those adolescents come from higher risk backgrounds. Our results suggest that peripherally processed messages from media may have less of an impact when the recipient of the message has real life experience on the topic in question; peripheral media messages may have a larger impact on those without real life experience. Further work could more directly test these hypotheses by examining, for example, if the association of movie smoking exposure and adolescent smoking is stronger among adolescents' who know many smokers compared to those who do not.

This analysis is subject to the limitations ascribed to a cross-sectional study. We are unable to prove that the exposures modeled came prior to the onset of smoking, although longitudinal studies have demonstrated that movie exposure preceding smoking onset predicts it. Another limitation involves the omission of assessment of parental smoking on the 598 Black adolescents, which prevented us from its use as a covariate or moderator in the analysis.

In summary, it is important to determine how race, ethnicity and socioeconomic status affect risk for smoking. In addition to directly affecting risk, these factors could also modify how media and social risk factors affect smoking. In the case of movie smoking, evidence was found for effect modification that contrasts with usual findings in health disparities research —a stronger movie smoking—youth smoking relation among Whites, and especially among affluent Whites. Just as Black adolescents fail to respond to the predominantly White character smoking in movies, a larger response among affluent White youth could be a result of the fact that movie characters that smoke are predominantly White and affluent (41). Further work using experimental designs would be needed to confirm this interpretation.

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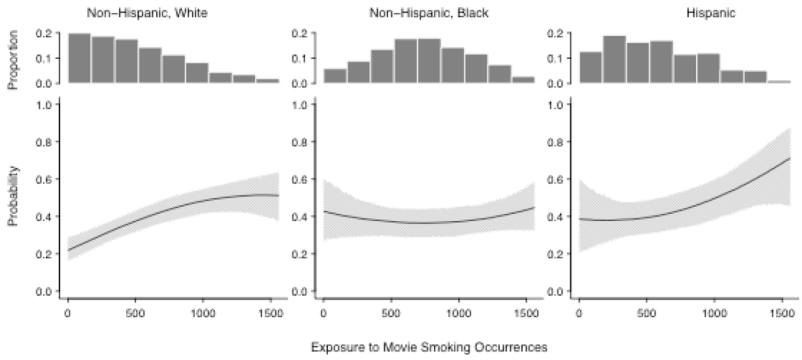

Figure 1. Predicted Probability of Having Ever Tried Smoking by Exposure to Movie Smoking and Race/Ethnicity

The upper panels show the distribution of survey respondents by exposure to movie smoking for each race/ethnicity category. The lower panels show the predicted probability of having ever tried smoking by a continuous measure of exposure to movie smoking for Whites, Blacks, and Hispanics. The point estimate of the probability is shown as a black line and the 95% confidence interval is shown as a shaded grey region. All other covariates set to their modal values (age: 15 years, sex: female, TV in bedroom: yes, TV per day: 1–2 hours, friends smoke: some, sensation seeking: 11.8, and parental monitoring: 10.4).

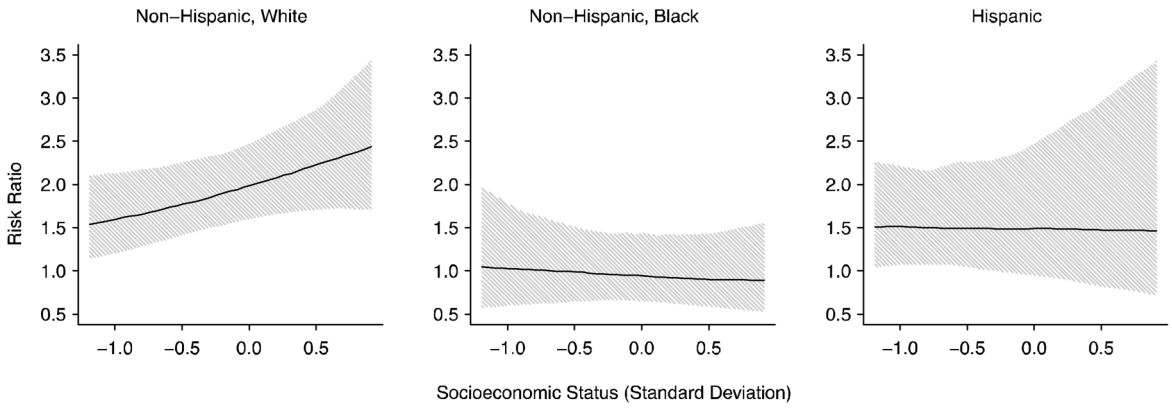

Figure 2. Predicted Risk Ratio of Having Ever Tried Smoking by Socioeconomic Status and Race/Ethnicity (90th Versus 10th Percentile of Exposure to Movie Smoking)

Each panel shows the risk ratio of having ever tried smoking by socioeconomic status for the 90th percentile of exposure to movie smoking compared to the 10th percentile. The point estimate of the risk ratio is shown as a black line and the 95% confidence interval is shown as a shaded grey region. All other covariates set to their modal values (age: 15 years, sex: female, TV in bedroom: yes, TV per day: 1–2 hours, friends smoke: some, sensation seeking: 11.8, and parental monitoring: 10.4).

Table 1

Covariates and Their Relation to Having Ever Tried Smoking (N=3653)

	White (N=2093)			Black (N=820)			Hispanic (N=482)		
	%	% Smoking	95% CI (%)	%	% Smoking	95% CI (%)	%	% Smoking	95% CI (%)
Age Group (Years)									
13	3	15.9	(6.8, 24.9)	1.3	36.4	(7.9, 64.8)	5.8	17.9	(3.7, 32)
14	18.6	22.1	(18, 26.2)	22.1	24.9	(18.6, 31.2)	20.5	29.3	(20.3, 38.3)
15	22.5	28.5	(24.4, 32.6)	25	28.8	(22.6, 35)	22	37.7	(28.5, 47)
16	21.6	38.9	(34.4, 43.3)	25	34.1	(27.7, 40.6)	19.1	39.1	(29.2, 49.1)
17	20.4	44.4	(39.7, 49.1)	23.7	39.2	(32.3, 46)	20.1	49.5	(39.5, 59.4)
18	13.9	53.1	(47.4, 58.8)	2.9	50	(30, 70)	12.4	65	(52.9, 77.1)
Sex									
Female	49.6	32.9	(30.1, 35.8)	54.5	30.6	(26.4, 34.9)	48.3	38.6	(32.4, 44.9)
Male	50.4	38.7	(35.7, 41.6)	45.5	34.6	(29.8, 39.4)	51.7	43	(36.8, 49.1)
Parental Education									
<High School	7.7	55.6	(47.9, 63.2)	12.9	32.1	(23.2, 41)	36.1	39.1	(31.8, 46.3)
High School	14.7	47.6	(42, 53.1)	18.3	36	(28.3, 43.7)	19.3	41.9	(31.9, 52)
>High School	75.9	31.5	(29.2, 33.8)	67.7	31.9	(28, 35.8)	41.5	42	(35.2, 48.8)
Household Income ($1000)									
<20	3.2	63.2	(51.8, 74.7)	16.5	38.5	(30.3, 46.7)	19.7	36.8	(27.1, 46.5)
20–30	4.9	52.9	(43.3, 62.6)	11.3	26.9	(17.9, 35.9)	17.6	41.2	(30.7, 51.6)
30–50	15.3	43.4	(38, 48.9)	19.1	33.8	(26.4, 41.2)	22.4	37	(27.9, 46.1)
50–75	20.8	33.7	(29.3, 38.2)	17.6	34.7	(26.9, 42.5)	14.3	47.8	(36, 59.6)
75–100	19	35.3	(30.6, 40)	13.5	30.6	(22.1, 39.2)	8.3	47.5	(32, 63)
>100	32.2	29	(25.5, 32.4)	14.8	30.6	(22.4, 38.8)	10.8	46.2	(32.6, 59.7)
Exposure to Smoking Occurrences (Quartiles)									
Lowest	31.4	20.2	(17.2, 23.3)	9.4	28.6	(18.5, 38.7)	22	28.3	(19.7, 36.9)
2nd	26.3	31.4	(27.5, 35.3)	19.5	26.2	(19.4, 33.1)	27.8	35.1	(27, 43.2)
3rd	23	44.2	(39.8, 48.6)	31.5	32.2	(26.5, 37.9)	24.3	41.9	(32.9, 50.8)

	White (N=2093)			Black (N=820)			Hispanic (N=482)		
	%	% Smoking	95% CI (%)	%	% Smoking	95% CI (%)	%	% Smoking	95% CI (%)
Highest	19.3	57.3	(52.5, 62.1)	39.6	36.6	(31.4, 41.9)	25.9	56.8	(48.1, 65.5)
TV Per Day (Hours)									
None	9.1	27.9	(21.5, 34.3)	3.2	30.8	(13, 48.5)	3.7	44.4	(21.5, 67.4)
<1	28.2	36.9	(33, 40.8)	11.2	30.4	(21, 39.8)	20.7	35	(25.7, 44.3)
1–2	47.2	35.9	(32.9, 38.9)	35.5	30.6	(25.3, 35.9)	45.9	41.2	(34.7, 47.7)
3–4	12.7	37.4	(31.5, 43.2)	31.2	31.6	(25.9, 37.3)	22.6	45	(35.6, 54.3)
4+	2.8	42.4	(29.8, 55)	18.9	38.7	(31, 46.4)	7.1	41.2	(24.6, 57.7)
TV In Bedroom									
No	43.3	26.8	(23.9, 29.7)	20.2	23.5	(17, 29.9)	30.5	41.5	(33.5, 49.5)
Yes	56.7	42.7	(39.9, 45.6)	79.8	34.7	(31.1, 38.4)	69.5	40.6	(35.3, 45.9)
Sensation Seeking (Quartiles)									
Lowest	20	15.6	(12.1, 19)	28.2	20.8	(15.5, 26)	20.5	22.2	(14, 30.4)
2nd	23.1	22.9	(19.2, 26.7)	26.6	26.6	(20.7, 32.5)	24.9	35	(26.5, 43.5)
3rd	25.5	40	(35.8, 44.1)	25.2	41.1	(34.4, 47.8)	25.9	40	(31.4, 48.6)
Highest	31.4	54.9	(51.1, 58.7)	20	45.7	(38.1, 53.4)	28.6	60.1	(52, 68.3)
Friends Smoke									
None	42.3	14.4	(12.1, 16.8)	50.6	23.6	(19.5, 27.7)	43.8	21.8	(16.2, 27.4)
Some	48.8	45.9	(42.9, 49)	42.1	38.6	(33.4, 43.7)	46.5	51.3	(44.8, 57.9)
Most	8.7	83.6	(78.2, 89)	7.2	59.3	(46.8, 71.9)	9.8	76.6	(64.5, 88.7)
Parental Monitoring (Quartiles)									
Lowest	16.4	56.7	(51.4, 61.9)	17.1	46.4	(38.2, 54.7)	15.4	62.2	(51.1, 73.2)
2nd	28.3	35.8	(31.9, 39.6)	27.4	30.2	(24.2, 36.2)	24.7	46.2	(37.3, 55.2)
3rd	17.2	34.1	(29.2, 39)	17.3	28.2	(20.8, 35.6)	18.7	38.9	(28.8, 49)
Highest	37.7	27.5	(24.4, 30.6)	37.9	29.3	(24.2, 34.3)	41.3	30.7	(24.2, 37.1)

Note: CI = confidence interval.

Table 2

Predicted Probability of Having Ever Tried Smoking by Race/Ethnicity, Socioeconomic Status, and Exposure to Movie Smoking (by quartiles of exposure).

		Exposure to Movie Smoking		
	SES	**25th Pctl.**	**50th Pctl.**	**75th Pctl.**
White	25th Pctl.	0.38 (0.31,0.45)	0.44 (0.37,0.51)	0.52 (0.45,0.60)
	50th Pctl.	0.3 (0.25,0.35)	0.38 (0.32,0.44)	0.45 (0.39,0.52)
	75th Pctl.	0.24 (0.19,0.30)	0.32 (0.27,0.39)	0.4 (0.33,0.47)
Black	25th Pctl	0.39 (0.30,0.50)	0.43 (0.35,0.51)	0.41 (0.33,0.50)
	50th Pctl.	0.38 (0.29,0.48)	0.36 (0.29,0.43)	0.36 (0.29,0.43)
	75th Pctl.	0.37 (0.26,0.49)	0.31 (0.23,0.40)	0.32 (0.24,0.40)
Hispanic	25th Pctl	0.38 (0.30,0.48)	0.42 (0.34,0.51)	0.48 (0.40,0.58)
	50th Pctl.	0.37 (0.26,0.48)	0.39 (0.29,0.49)	0.45 (0.35,0.56)
	75th Pctl.	0.36 (0.23,0.51)	0.36 (0.26,0.48)	0.43 (0.30,0.57)

All other covariates set to their modal values (age: 15 years, sex: female, TV in bedroom: yes, TV per day: 1–2 hours, friends smoke: some, sensation seeking: 11.8, and parental monitoring: 10.4). Higher percentiles represent higher scores of the variable. Note: Pctl. = percentile.