Campaigns and Cliques: Variations in Effectiveness of an Antismoking Campaign as a Function of Adolescent Peer Group Identity

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Abstract

Identity-based strategies have been suggested as a way to promote healthy behaviors when traditional approaches fall short. The truth® campaign, designed to reduce smoking in adolescents, is an example of a campaign that uses such a strategy to reach youth described as being outside the mainstream. This article examines the effectiveness of this strategy in promoting antitobacco company beliefs among youth. Survey data from 224 adolescents between 14 and 15 years of age were used to examine whether the truth® campaign was more or less effective at reaching and promoting antitobacco company beliefs among youth who identify with nonmainstream crowds (deviants and counterculture) versus those who identify with mainstream crowds (elites and academics). Analyses revealed that adolescents who identified as deviants and counterculture were more likely to have been persuaded by the truth® campaign. Social identity theory is used as a theoretical framework to understand these effects and to make recommendations for future health campaigns.

Antismoking media campaigns have used many approaches to persuade adolescents to not smoke cigarettes. In particular, rational appeals touting the negative health aspects of smoking, approaches that simply tell youth to not smoke, and appeals to boost refusal skills have been popular (Farrelley, Niederdeppe, & Yarsevich, 2003; Glantz, 1996; Siegel, 1998). Yet, it has been argued that these types of campaigns do little to produce sustainable effects (Glantz, 1996; Goldman & Glantz, 1998; Siegel, 1998; Snyder et al., 2004). Although there is limited research testing why certain antismoking appeals may be less effective than others (Farrelly et al., 2003), several lines of reasoning have been suggested. Flynn and colleagues (2010) hypothesized that these more traditional appeals may no longer be considered novel

by adolescents. Other researchers have suggested that adolescents may not feel susceptible to the negative health outcomes of cigarette use (Pechmann, Zhao, Goldberg, & Reibling, 2003). Pechmann and Riebling (2000) argued that a variety of other factors, such as the design and execution of ads, also affect their persuasiveness.

One potential approach that has been relatively overlooked in the design of antismoking campaigns involves adolescent peer crowd identification. Peer crowd identification research shows that the peer crowd with which an adolescent identifies can have a significant effect on his or her smoking behavior (Sussman, Pokhrel, Ashmore, & Brown, 2007). In particular, in their review of research on peer crowd identification, Sussman and colleagues (2007) identified 14 studies that found an association between peer crowd identification and cigarette smoking. Given the robustness of these findings, it is surprising that few antismoking campaigns have leveraged peer crowd identity to target specific youth. The truth® campaign, however, deliberately uses an identity-based countermarketing strategy that attempts to brand smoking as uncool and produce antismoking beliefs, attitudes, and behaviors in adolescents. In particular, the truth® campaign creates an "edgy" and "cutting edge" identity associated with not smoking (Farrelly, Davis, et al., 2002, p. 901) designed to appeal to those rebellious youth who are often at highest risk for smoking (Sussman et al., 2007). In other words, the truth® campaign attempts to co-opt the nonconformist nonmainstream sentiment and edgy style prevalent among those most likely to smoke.

Research has shown the truth® campaign has been largely successful in decreasing smoking susceptibility and initiation among adolescents and in increasing negative attitudes towards smoking and cigarette companies (Cowell, Farrelly, Chou, & Vallone, 2009; Farrelly, Heaton, et al., 2002; Farrelly, Davis, Duke, & Messeri, 2009; Farrelly, Davis, Haviland, Messeri, & Healton, 2005; Farrelly, Nonnemaker, Davis, & Hussin, 2009). Although this research has documented the effects of the truth® campaign among the general population of adolescents (i.e., samples not stratified by ethnicity, geographic location, peer crowd identification), no research to date has examined the effectiveness of the campaign in reaching and influencing those rebellious youth most likely to smoke. Using social identity theory as a theoretical framework, this study examines the extent to which exposure to the truth® campaign was associated with antismoking attitudes among the campaign's intended target audience of rebellious or nonmainstream youths as compared to more mainstream adolescents.

Peer Crowd Identification

The teenage years are a time of identity formation, as an adolescent begins to break away from family life and comes to understand him- or herself as an independent adult. As a part of this process, many adolescents turn to their peers, forming loose, reputation-based collectives (Sussman et al., 2007). These reputation-based social groupings—often referred to as "peer crowds"—provide an adolescent with a source of stability, direction, and perhaps most important, identity (Sussman, Moran, & Pokhrel, 2012). What defines these groups is not necessarily direct contact with other members, but rather a shared set of behaviors, values, and norms—in other words, a sense of identifying oneself with a specific crowd or group that can be distinguished from the general population by a certain set of

characteristics. For the purposes of this article, we use the term *identity* to refer to an adolescent's perceived affiliation with, or belonging to, a particular peer crowd, such that the adolescent projects that group's characteristics onto him- or herself.

Sussman and colleagues (2007) delineated five general peer crowds: elites, athletes, deviants, academics, and others. Crowds identified in other work include misfits and counterculture. Important for present purposes, research has shown that identification with certain of these peer crowds is related to smoking behavior, with members of certain crowds being at higher or lower risk for smoking. Within the United States, these findings are consistent across ethnicity, gender, and geographic region and remain strong even after controlling for potentially confounding factors such as perceived smoking norm. Table 1 presents each of these seven peer crowds, their characteristics, and smoking risk profiles.

Social Identity Theory

Social identity theory (Hogg & Abrams, 1999; Tajfel, 1978; Tajfel & Turner, 1979; Turner, 1999) offers a theoretical perspective through which the effect of peer crowd identification on adolescent smoking can be understood. According to social identity theory, individuals develop social identities through membership with various groups (e.g., Liberty High football team) or social categories (e.g., jocks). Individuals possess prototypes, or cognitive stereotypical representations, for each of these groups and categories. As they identify with certain groups (known as *in-groups*), individuals apply, in varying levels, these prototypes to themselves, viewing themselves as members of a group or category. Social identity theory posits that individuals tend to act in accordance with a relevant in-group prototype. The theoretical explanation of why social identity influences behavior hinges upon the premise that behavioral motivations vary on a continuum from interpersonal to intergroup (Tajfel, 1974, 1978). At the interpersonal extreme, behavioral motivation is located at the individual level, determined by personality and idiosyncratic quirks. At the intergroup extreme, behavioral motivation is located at the group level, such that an individual is highly motivated to act in accordance with an in-group prototype.

Peer crowd identification research has established that adolescents' tobacco use does indeed vary according to the different groups with which they identify. Through the lens of social identity theory, smoking can be viewed as prototypical of certain crowds but not others. For adolescents who identify with nonmainstream crowds, the act of smoking provides a way to enact their social identities. It has also been argued that patterns of media use are a function of social identity, with various groups having prototypical media preferences (Slater, 2007).

Although experts in consumer culture and advertising have long understood behavior as motivated by and based in identity (Leiss, Kline, Jhally, & Botterill, 2005), only recently have health practitioners and researchers begun to explore the potential of such an identity-based approach (Basu & Wang, 2009; Evans & Hasting, 2008). The truth® antismoking campaign is perhaps the most notable example of such an approach (Basu & Wang, 2009) and, to date, it has been effective among adolescents generally: Among nonstratified samples of 12–17-year-olds, exposure to the truth® campaign has been associated with increased antismoking attitudes and decreased smoking behavior (Cowell et al., 2009;

Farrelly, Heaton, et al., 2002; Farrelly et al., 2005; Farrelly, Davis, et al., 2009; Farrelly, Nonnemaker, et al., 2009). However, no research to date has looked at whether this campaign's approach is indeed successful in affecting adolescents on the basis of their identity—a notable predictor of adolescents' propensity for cigarette use and in their potential response to campaign materials. The present work examines whether the effect of the truth® campaigns is differentially effective among its intended target audience of rebellious or nonmainstream youths (e.g., deviants, counterculture) as opposed to those who identify with more mainstream groups (e.g., elites, academics).

The truth® Campaign

The truth® campaign is a national antismoking campaign developed in Florida, where formative research found that adolescents between the ages of 12 and 17 years viewed cigarettes and smoking as a way to express their identity and display their rebelliousness (Hicks, 2001). On the basis of this information, the truth® campaign eschewed traditional antismoking approaches and instead focused on creating and promoting the truth® brand (Evans, Wasserman, Bertolotti, & Martino, 2002). The truth® brand represents a cool alternative to smoking and, although the campaign was designed to appeal to youth in general, it is specifically meant to target those youth "outside-the-mainstream … not prone to joining the most establishment groups" (e.g., student council, football team; Evans et al., 2002, p. 19). Also, as peer crowd identification research has shown, these youth also tend to be at highest risk for smoking. To appeal to these youth, ads were created that exposed the tactics tobacco companies used to manipulate teens. For example, one early campaign spot called "Bodybag" featured a public display of body bags representing people who had died from tobacco use. In another spot called "Lie Detector," young adults enter a tobacco company's headquarters and try to get tobacco company employees to take a lie detector test.

The truth® campaign has been found to produce marked increases in antismoking attitudes and behavior among teens. In its initial years, research found the truth® campaign to be responsible for a 22% decrease in youth smoking (Farrelly et al., 2005). This effect has remained consistent: longitudinal studies indicate that exposure to the truth® campaign is consistently associated with a decreased risk of smoking initiation among teens aged 12–17 years (Farrelly et al., 2005; Farrelly, Nonnemaker, et al., 2009).

Research on the truth® campaign has also examined whether awareness and effect of the campaign varied as a function of audience gender, ethnicity, and socioeconomic status (Farrelly, Davis, Yarsevich, et al., 2002; Vallone, Allen, & Xiao, 2009). These studies found that women were less likely than were men to have confirmed awareness of the campaign (Farrelly et al., 2002; Vallone et al., 2009) and that adolescents living in low-education zip codes were less likely to be aware of the campaign (Vallone et al., 2009). Although these studies provide a useful understanding of the ways in which the truth® campaign affects adolescents on the basis of traditional demographic characteristics, the question of whether identity-based social categories might provide a more useful way of segmenting the general population of adolescents remains unanswered. Because research indicates that certain social groupings (in particular, those outside-the-mainstream) are significantly more susceptible to

cigarette use, it is crucial to understand how these at risk adolescents respond to antismoking campaigns—in particular, those campaigns such as truth® that purport to target them specifically.

Present Study

The present study uses social identity theory to understand the extent to which the truth® campaign was effective at persuading adolescents based upon their peer crowd identification. Despite evidence showing the effectiveness of the campaign in the general teenage population, to date no research has examined whether the truth® campaign's strategy, designed to reach those youth "outside-the-mainstream" (Evans et al., 2002, p. 19), was effective at reaching those particular youth and producing antismoking beliefs. The present study addresses this gap. This study stratified a sample of 224 adolescents on the basis of which peer crowd they identify with most strongly, which allowed us to directly examine whether adolescents who identify with nonmainstream crowds were more likely than their mainstream peers to have formed antismoking beliefs as a result of exposure to the truth® campaign. Thus, we hypothesize that the truth® campaign will be more effective in producing antismoking beliefs among nonmainstream youth than among mainstream youth. In particular, we proposed the following:

> Hypothesis 1: The relation between exposure to the truth® campaign and antismoking beliefs will be stronger among adolescents who identify with nonmainstream crowds than among adolescents who identify with mainstream crowds.

Method

Sampling Procedure

In 2008, an online survey of adolescents ages 14 and 15 years was conducted. The study sample was obtained using a recruitment firm (Authentic Response) that specializes in recruitment for online surveys. Using a randomized block selection design, 250 youths were selected, using a computer program designed to generate a random sample, from a panel of 153,759 adolescents aged 13–17 years. This panel was demographically similar to the U.S. population of 14- and 15-year-olds in terms of ethnicity, family income, and parents' education level. Parental consent was obtained by the recruitment firm, such that parents consented for their children to participate in any surveys distributed by the firm. Panelists received an e-mail from the recruitment firm informing them about the study. Those who were interested in participating could click a link directing them to the survey homepage, where they read an information sheet, approved by the researchers' university institutional review board, and checked a box agreeing to consent before taking the actual survey. The researchers' university institutional review board considered this study to be low risk and granted approval for the consent process and survey. Respondents were anonymous to the researcher and were informed that they could stop participation in the study at any time. Those who did participate were compensated US$2, regardless of whether they completed the survey. This procedure ultimately elicited 252 responses. Participants who were not 14 or 15 years old, who discontinued the survey before answering the items on smoking behavior, or who gave responses that brought the validity of their response set into question

(e.g., entering "I'm a dog" for ethnicity) were omitted from the analysis. The final sample size was 224.

Participant Characteristics

More than half (52.7%) of the respondents were 14 years old, and 47.3% were 15 years old. In terms of gender, 71% was female and 29% was male. Regarding race, 72% self-identified as White, 16.5% as Hispanic or Latino, 12.9% as Black or African American, 8% as American Indian or Alaskan Native, 5.8% as other, 2.2% as Asian, 1.8% as Middle Eastern, and 0.9% as Native Hawaiian or other Pacific Islander.

Measures

Peer Crowd Identification—The identity-based crowd with which an adolescent identified was measured using a procedure described fully in Moran (2009). This measure, on the basis of previous work of Sussman and colleagues (Sussman et al., 2000; Sussman et al., 1999; Sussman, Unger, & Dent, 2004), is designed to comprehensively assess the peer group with which an adolescent most strongly identifies. To develop a list of relevant peer crowds, we conducted a pretest with a sample of 60 students who were asked to think about the typical smoker and the typical nonsmoker and indicate the social categories to which they felt these people belonged. This procedure elicited a list of 23 specific peer groups. Survey participants were presented with this list of peer groups and asked to indicate, on a scale from 0 to 100, how much they identified with each of the 23 groups. For this measure, participants dragged a bar across the screen for each social category, which allowed them to adjust and compare across categories, and make changes accordingly. Individuals were asked the following:

> People often hang out in different groups at school. For example, a lot of schools have a group of jocks. Some students gave the following list of groups. Please indicate how much you identify with each group by dragging the bar across the screen. Dragging the bar to 100 means you identify with this group very much and dragging the bar to 0 means you do not identify with this group at all.

This measure allowed individuals to identify with more than one group and to indicate varying levels of identification. These responses were then standardized within each individual, so that the measure of an individual's affiliation with one crowd was relative to his or her affiliation with all others.

Factor analysis (maximum likelihood estimation, promax rotation) was then run to condense these specific groups into broader peer crowds. This factor analysis produced six peer crowds. *Academics* (α = .542; M = –0.068, SD = 0.528, range = –1.17 to 1.34) consisted of individuals who identified as smart kids, nerds, involved in school, religious, and goody-goodies. *Countercultures* (α = .235, M = –0.425, SD –0.609, range = –1.88 to 1.50) consisted of individuals who identified as hippies or hipsters. *Deviants* (α = .557, M = 0.304, SD = 0.699, range = –1.23 to 2.02) consisted of individuals who identified as skaters, partiers, or rebels. *Elites* (α = .773, M = 0.239, SD = 0.869, range = –1.87 to 2.08) consisted of individuals who identified as athletes, popular, and preppy. *Misfits* (α = .727, M = –0.206, SD = 0.630, range = –1.27 to 1.56) consisted of individuals who identified as artists, emo,

goth, nonconformists, and misfits. Last, *other* (α = .233, *M* = −0.059, *SD* = 0.554, range = −1.21 to 1.87) consisted of adolescents who identified as musicians, marching band, religious, and gamers. Groups with loadings below .4 were not included in the final six crowds. Table 2 provides additional details on the factor structure.

These crowds were then classified as *mainstream* or *nonmainstream*, as described by Evans and colleagues (2002). Of these six crowds, deviants and counterculture fall into the nonmainstream group. Academics and elites can similarly be classified as mainstream crowds. The other and misfit crowds could not be clearly classified as either mainstream or nonmainstream, as both of these crowds include individuals involved with "establishment groups" (Evans et al., 2002, p. 19) such as marching band or emo music (a popular form of music often played on mainstream radio and MTV), but also nonestablishment groups such as gamers and goths. Thus, these two crowds were omitted from the present analysis.

For this study, peer crowd identification was coded dichotomously. Those falling above the mean level of identification with a crowd were treated as identifying with that crowd (coded as 1; those who did not affiliate with a group were coded as 0). This was done to harmonize this study's findings with others' research (e.g., Downs & Rose, 1991; Sussman et al., 2004) and measures (e.g., the Peer Crowd Questionnaire: La Greca, Prinstein, & Fetter, 2002; Social Type Rating Interview Manual: Brown, 1989), which commonly treat peer crowd identification as a dichotomous variable. Because research indicates that adolescents often identify with more than one group (Kipke, Montgomery, Simon, Unger, & Johnson, 1997; Verkooijen, de Vries, & Nielsen, 2007), participants were allowed to belong to multiple groups.

Smoking-Related Beliefs—Smoking-related beliefs were measured by asking individuals to indicate how much they disagreed or agreed (on a 7-point scale) with seven statements about cigarette companies and their practices. These items were obtained from the Legacy Media Tracking Survey (see Farrelly et al., 2002; Niederdeppe, Farrelly, & Haviland, 2004). The statements included the following:

1. "Cigarette companies lie."

2. "Cigarette companies deny that cigarettes cause cancer and other harmful diseases."

3. "Cigarette companies deny that cigarettes are addictive."

4. "I would like to see cigarette companies go out of business."

5. "Cigarette companies try to get young people to start smoking."

6. "Not smoking is a way to express your independence."

7. "Smoking cigarettes makes people your age look cool."

As was done by Farrelly and colleagues (2008), these items were dichotomized (0/1) where "1" represented an antismoking belief. In addition, because different truth® campaign messages address these belief items in varying degrees (e.g., the "Shards o' Glass" ads take an anti-industry approach, while other aspects of the campaign, such as participation in the

Warped Tour, contain more normative or social messages), these belief items were analyzed individually to ensure that results would not be skewed because of different campaign components focusing differently on one type of message or another.

Exposure to the truth® Campaign—This measure was based on that used by Farrelly, Davis, and colleagues (2009) to assess whether adolescents had been exposed to truth® campaign materials. Participants were first asked to indicate whether they had ever seen any campaigns about a variety of health topics, including smoking. Participants could give multiple responses if they had seen more than one campaign. Participants who indicated they had seen a campaign about "not starting to smoke," "messages against smoking," "messages about or against cigarette companies" and "quitting smoking" were probed as to whether this was in the past 30 days. Participants who indicated they had seen one of these types of campaigns in the past 30 days were then asked to select the theme or slogan of the campaign. The choices given were "Think. Don't Smoke," "Truth," "Tobacco is whacko," "Become an ex," Tobacco vs. Kids: Where America Draws the Line," or participants could write in the slogan if it was not included in the list of options. This probe was asked twice to capture the responses of adolescents' who were exposed to more than one type of campaign. Exposure to the truth® campaign was coded dichotomously; participants who indicated they had seen the truth® campaign on either the first or second probe were coded as 1 (having been exposed to the truth® campaign), whereas participants who did not indicate they had seen the truth® campaign on either probe were coded as 0.

Covariates—In addition to measuring gender and ethnicity, control variables were selected on the basis of previous research finding a relation with smoking behavior. The control variables were used to attempt to tap unique variance in the relation between exposure to the truth® campaign and smoking-related beliefs. These variables included the following: self-reported academic achievement (Ellickson, Perlman, & Klein, 2003; 13 levels of grades with A+ scored highest at 13 and F or below scored lowest at 1); smoking in the home (Bricker, Peterson, Sarason, Andersen, & Rajan, 2007); perceived smoking norm (percentage of friends who currently smoke: options were every fifth percent from 0%, 5% through 100%); sensation seeking (using the 4- item Brief Sensation Seeking Scale; Stephenson, Hoyle, Palmgreen, & Slater, 2003; α = .882), hours of TV watched in a typical day (measured by asking participants to report the number of hours of TV they viewed in a "typical day" with response options ranging from 0 hours through "11 or more hours"), number of cigarettes the participant has smoked in their lifetime (with response options ranging from none (coded as 0) through "100 or more cigarettes" (coded as 6) and exposure to other antismoking campaigns. Table 3 presents descriptive statistics for the variables used in the study.

Data Analysis

We conducted data analysis using SPSS 17.0. Chi-square tests were used to examine the variance of seven antismoking beliefs and exposure to the truth® campaign by peer crowd identification. Separate logistic regression analyses for each peer crowd were then run with each of the belief items as dependent variables and exposure to the truth® campaign as the main predictor, controlling for gender, ethnicity (being White, being African American), living with a smoker, perceived smoking norm, sensation seeking, academic achievement,

number of hours of TV watched in an average day, exposure to other antismoking campaigns and lifetime number of cigarettes smoked. Odds ratios were compared to determine whether exposure to the truth® campaign was more effective at predicting antismoking beliefs in one peer crowd than in another.

Results

Effects of truth® Campaign on Antismoking Beliefs, by Peer Crowd

To determine the extent to which antismoking beliefs varied by peer crowd, frequency tables were produced and chi-square values were examined. Individuals who identified as deviants held fewer antismoking belief than individuals who identified with other peer crowds, while individuals who identified as academics held more antismoking beliefs than individuals who identified with other crowds. Table 4 illustrates antismoking beliefs by peer crowd. Next, a chi-square test was used to examine the extent to which exposure to the truth® campaign varied by peer crowd. Individuals who identified as elites were significantly less likely to report having been exposed to the truth® campaign in the 30 days previous to the survey. None of the other peer crowds showed significant variance on the level of exposure to the truth® campaign. Table 5 illustrates exposure to the truth® campaign, by peer crowd.

Logistic regression analysis was then used to test the hypothesis that the relation between exposure to the truth® campaign and antismoking beliefs varied by peer crowd. Table 6 presents odds ratios for exposure to the campaign by each peer crowd. Results of the analysis show that exposure to the truth® campaign significantly predicted certain antismoking beliefs for individuals who identified as deviant or counterculture (both nonmainstream crowds). In particular, among individuals who identified as deviant, exposure to the truth® campaign was significantly associated with two antismoking beliefs: feeling that cigarette companies lie and that cigarette companies try to get young people to start smoking. Among individuals who identified as counterculture, exposure to the truth® campaign was significantly associated with two antismoking beliefs: feeling that cigarette companies lie and that smoking cigarettes does not make adolescents look cool. Exposure to the truth® campaign was not associated with anti smoking beliefs among either of the mainstream crowds.

Discussion

The truth® campaign used an identity-based appeal to reach and influence nonmainstream youth who are often the most susceptible to smoking (Evans, 2002). Although past surveys have demonstrated significant campaign effects across broad groups of adolescents, no previous research examined whether the truth® campaign was successful in its goal of targeting nonmainstream youth and producing subsequent belief and behavior change.

The current study examined exposure to and effect of the truth® campaign by identification with four peer crowds (elite, academic, deviant, and counterculture) and found that exposure to the truth® campaign had differential effects on the basis of an individual's identification with a specific peer crowd. In particular, among individuals who identified as deviant or counterculture (both nonmainstream crowds), exposure to the truth® campaign was

significantly related to several antismoking beliefs, even after controlling for a variety of covariates. It is significant that this effect was not reproduced among adolescents who identified with either mainstream crowd. In addition, it is unlikely that this effect was due to increased levels of exposure to the truth® campaign by individuals who identify as deviant and counterculture, as these crowds did not have significantly higher levels of campaign exposure.

This indicates that the truth® campaign was relatively successful in promoting antismoking beliefs in the nonmainstream crowds identified in this sample. Research on peer crowd identification has established that smoking behavior varies as a function of the peer crowd with which an adolescent identifies. According to social identity theory, smoking is a component of certain crowds' prototypes; therefore, members of these crowds may be motivated to use smoking as a way to enact their social identity. Thus, using social identity theory as a lens through which the varying effects of the truth® campaign on different peer crowds can be understood, it can be argued that the campaign successfully positioned specific antismoking beliefs as prototypical of the deviant and counterculture—but not elite and academic—social identities. At a basic level, it is clear that truth® campaign content was designed to do just that: campaign spots feature individuals who are meant to be cool and edgy, engaging in rebellious behavior. However, instead of using cigarettes as a way to express a nonmainstream identity, individuals in campaign spots rebel against tobacco and tobacco companies. In this way, the truth® campaign is able to redefine the prototypes for the deviant and counterculture crowds to include anti smoking beliefs. Because the truth® campaign made no specific attempt to target and redefine the prototypes of the academic and elite crowds, no similar persuasive effect was seen.

This study's findings support claims that identity-based health campaigns offer a useful strategy for changing behavior via mass media. We suggest three key ways that an adolescent's social identity as a member of a peer crowd can be leveraged in future health campaigns. First, at-risk groups, such as deviants, often have prototypical media preferences. For example, the truth® campaign aired public service announcements on channels this audience was likely to view, such as MTV (Hicks, 2001). By identifying media outlets popular with a target audience, antismoking campaigns can more effectively reach at risk populations. Second, campaigns can use identity cues to increase the likelihood an ad will attract the attention of an appeal to a specific peer crowd. For instance, the teens featured in the truth® campaign dress in ways similar to the campaign's target population. Last, campaigns such as truth® often have features that allow youth to become involved, whether through joining a street team, sharing campaign messages with their friends, or staging their own interventions using campaign materials. When campaigns successfully align themselves with certain peer crowds, adolescents are likely to adopt campaign features as components of that peer crowd, thus becoming more likely to engage with the campaign's interactive features and spread the campaign message. This type of campaign-inspired activism is particularly important during times when funds to support more institutionalized campaign features (e.g., television public service announcements) are sparse. Future research, in particular, experimental studies, will be useful to understand the unique effect of a peer crowd approach and in comparison with more traditional ads.

Although we believe these findings provide a unique and useful insight into the mechanisms through which the truth® campaign produced effects, several limitations must be addressed. First, the online modality of the survey may have excluded a subset of adolescents who do not have Internet access. Because 93% of teenagers have Internet access (Lenhart, Arafeh, Smith, & Macgil, 2008), we felt that an online survey was an appropriate means to obtain sensitive information; however, we realize that by not incorporating the 7% of teenagers who are not online, the sample may not be fully representative. Second, the national sample may have missed geographical nuances in peer group identification. Moreover, the relatively small number of respondents in certain subgroups (e.g., only 29 African Americans), although proportional to the general population, may have obscured ethnic differences. In addition, findings of this study were significant at $p < .05$, indicating a small effect size, although, again, this may be attributable to the study's relatively small sample size.

This study offers support for the truth® campaign's strategy to target nonmainstream youth. Adolescents' susceptibility to smoking bears a strong relation to the peer crowds with which they affiliate. As demonstrated in this study's evaluation of the truth® campaign, knowledge of this risk can be used to successfully inform campaign design to produce targeted ads that are effective at reducing teen smoking.

Acknowledgments

References

Aaker, DA. Building strong brands. New York, NY: Free Press; 1995.

Ashmore RD, Del Boca FK, Beebe M. "Alkie," "frat brother," and "jock";: Perceived types of college students and stereotypes about drinking. Journal of Applied Social Psychology. 2002; 32:885–907.

Basu A, Wang J. The role of branding in public health campaigns. Journal of Communication Management. 2009; 13:77–91.

Bricker JB, Peterson AV Jr, Sarason IG, Anderson MR, Rajan KB. Changes in the influence of parents' and close friends' smoking on adolescent smoking transitions. Addictive Behaviors. 2007; 32:740–747. [PubMed: 16854532]

Brown, BB. Social type ratings interview manual. Madison: Department of Educational Psychology, University of Wisconsin-Madison; 1989.

Cohen J. High school subcultures and the adult world. Adolescence. 1979; 14:491–502.

Cowell AJ, Farrelly MC, Chou R, Vallone DM. Assessing the impact of the national "truth" antismoking campaign on beliefs, attitudes, and intent to smoke by race/ethnicity. Ethnicity and Health. 2009; 14:75–91. [PubMed: 19152160]

Dolcini MM, Adler NE. Perceived competencies, peer group affiliation, and risk behavior among early adolescents. Health Psychology. 1994; 13:496–506. [PubMed: 7889904]

Downs RD, Rose SR. The relationship of adolescent peer groups to the incidence of psychosocial problems. Adolescence. 1991; 26:473–492. [PubMed: 1927677]

Eckert P. Beyond the statistics of adolescent smoking. American Journal of Public Health. 1983; 73:439–441. [PubMed: 6829827]

Ellickson PL, Perlman M, Klein DJ. Explaining racial/ethnic differences in smoking during the transition to adulthood. Addictive Behaviors. 2003; 28:913–931.

Evans, WD.; Hastings, G. Public health branding: Applying marketing for social change. Oxford, United Kingdom: Oxford University Press; 2008.

Evans WD, Wasserman J, Bertoletti E, Martino S. Branding behavior: The strategy behind the truth campaign. Social Marketing Quarterly. 2002; 8:17–29.

Farrelly MC, Davis KC, Duke J, Messeri P. Sustaining 'truth': Changes in youth tobacco attitudes and smoking intentions after 3 years of a national antismoking campaign. Health Education Research. 2009; 24:42–48. [PubMed: 18203679]

Farrelly MC, Davis KC, Haviland ML, Messeri P, Healton CG. Evidence of a dose-response relationship between "truth" antismoking ads and youth smoking prevalence. American Journal of Public Health. 2005; 95:425–431. [PubMed: 15727971]

Farrelly, MC.; Davis, KC.; Yarsevich, JM.; Haviland, ML.; Hersey, JC.; Girlando, ME. Legacy First Look Report No. 9. Washington, DC: American Legacy Foundation; 2002 Jun. Getting to the truth: Assessing youths92019; reactions to the truth® and "Think. Don't Smoke" tobacco counter marketing campaigns.

Farrelly MC, Healton CG, Davis KC, Messeri P, Hersey JC, Haviland CG. Getting to the truth: Evaluating national tobacco countermarketing campaigns. American Journal of Public Health. 2002; 92:901–907. [PubMed: 12036775]

Farrelly MC, Niederdeppe J, Yarsevich J. Youth tobacco prevention mass media campaigns: Past, present, and future directions. Tobacco Control. 2003; 12:i35–i47. [PubMed: 12773784]

Farrelly MC, Nonnemaker J, Davis KC, Hussin A. The influence of the national truth® campaign on smoking initiation. American Journal of Preventive Medicine. 2009; 36:379–384. [PubMed: 19211213]

Flynn BS, Worden JK, Bunn JY, Solomon LJ, Ashikaga T, Connolly SW, Ramirez AG. Mass media interventions to reduce youth smoking prevalence. American Journal of Preventive Medicine. 2010; 39:53–62. [PubMed: 20537841]

Glantz SA. Preventing tobacco use—The youth access trap. American Journal of Public Health. 1996; 86:156–158. [PubMed: 8633727]

Goldman LK, Glantz SA. Evaluation of antismoking advertising campaigns. JAMA. 1998; 279:772–777. [PubMed: 9508154]

Hicks JJ. The strategy behind Florida's "truth" campaign. Tobacco Control. 2001; 10:3–5. [PubMed: 11226346]

Hogg, MA.; Abrams, D., editors. Social identity and social cognition. London, United Kingdom: Blackwell; 1999.

Holtgrave DR, Wunderink KA, Vallone DM, Healton CG. Cost-utility analysis of the national truth® campaign to prevent youth smoking. American Journal of Preventive Medicine. 2009; 36:385–388. [PubMed: 19211214]

Kipke MD, Montgomery SB, Simon TR, Unger JB, Johnson CJ. Homeless youth: Drug use patterns and HIV risk profiles according to peer group affiliation. AIDS and Behavior. 1997; 1:247–259.

La Greca AM, Prinstein MJ, Fetter MD. Adolescent peer crowd affiliation: Linkages with health-risk behaviors and close friendships. Journal of Pediatric Psychology. 2001; 26:131–143. [PubMed: 11259515]

Leiss, W.; Kline, S.; Jhally, S.; Botterill, J. Social communication in advertising: Consumption in the mediated marketplace. 3rd ed.. New York, NY: Taylor & Francis; 2005.

Lenhart A, Arafeh S, Smith A, Macgil A. Writing, technology and teens. Pew Internet and American Life Project. 2008 Retrieved from http://www.pewinternet.org.

Moran, MB. The role of social identity in adolescent smoking behavior; Paper presented at the 137th annual conference of the American Public Health Association; November; Philadelphia, Pennsylvania. 2009.

Mosbach P, Leventhal H. Peer group identification and smoking: Implications for intervention. Journal of Abnormal Psychology. 1988; 97:238–245. [PubMed: 3385077]

Niederdeppe J, Farrelly MC, Haviland ML. Confirming "truth": More evidence of a successful tobacco countermarketing campaign in Florida. American Journal of Public Health. 2004; 94:255–257. [PubMed: 14759936]

Pechmann C, Reibling ET. Anti-smoking advertising campaigns targeting youth: Case studies from USA and Canada. Tobacco Control. 2000; 9(Suppl. 2):18–131.

Pechmann C, Zhao G, Goldberg ME, Reibling ET. What to convey in antismoking advertisements for adolescents: The use of protection motivation theory to identify effective message themes. Journal of Marketing. 2003; 67:1–18.

Siegel M. Mass media antismoking campaigns: A powerful tool for health promotion. Annals of Internal Medicine. 1998; 129:128–132. [PubMed: 9669972]

Slater MD. Reinforcing spirals: The mutual influence of media selectivity and media effects and their impact on individual behavior and social identity. Communication Theory. 2007; 17:281–303.

Snyder LB, Hamilton MA, Mitchell EW, Kiwanuka-Tondo J, Fleming-Milici F, Proctor D. A meta-analysis of the effect of mediated health communication campaigns on behavior change in the United States. Journal of Health Communication. 2004; 9:71–96. [PubMed: 14960405]

Stephenson MT, Hoyle RH, Palmgreen P, Slater MD. Brief measures of sensation seeking for screening and large-scale surveys. Drug and Alcohol Dependence. 2003; 72:279–286. [PubMed: 14643945]

Sussman S, Dent CW, McAdams LA, Stacy AW, Burton D, Flay BR. Group self-identification and adolescent cigarette smoking: A 1-year prospective study. Journal of Abnormal Psychology. 1994; 10:576–558. [PubMed: 7930058]

Sussman S, Dent CW, McCullar WJ. Group self-identification as a prospective predictor of drug use and violence in high-risk youth. Psychology of Addictive Behaviors. 2000; 14:192–196. [PubMed: 10860118]

Sussman S, Dent CW, Simon TR, Stacy AW, Burton D, Flay BR. Identification of which high-risk youth smoke cigarettes regularly. Health Values. 1993; 17:42–53.

Sussman S, Dent CW, Stacy AW, Burciaga C, Raynor A, Turner GE, Flay BR. Peer group association and adolescent tobacco use. Journal of Abnormal Psychology. 1990; 99:349–352. [PubMed: 2266208]

Sussman, S.; Moran, MB.; Pokhrel, P. Group identification. In: Levesque, RJ., editor. Encyclopedia of adolescence. New York, NY: Springer; 2012. p. 1237-1240.

Sussman S, Pokhrel P, Ashmore RD, Brown BB. Adolescent peer group identification and characteristics: A review of the literature. Addictive Behaviors. 2007; 32:1602–1627. [PubMed: 17188815]

Sussman S, Simon TR, Stacy AW, Dent CW, Ritt A, Kipke MD, Flay BR. The association of group self-identification and adolescent drug use in three samples varying in risk. Journal of Applied Social Psychology. 1999; 29:1555–1581.

Sussman S, Unger J, Dent W. Peer group self-identification among alternative high school youth: A predictor of their psychosocial functioning five years later. International Journal of Clinical and Health Psychology. 2004; 4:9–25.

Tajfel H. Social identity and intergroup behaviour. Social Science Information. 1974; 13:65–93.

Tajfel, H. Social categorization, social identity, and social comparisons. In: Tajfel, H., editor. Differentiation between social groups. London, United Kingdom: Academic Press; 1978. p. 61-76.

Tajfel, H.; Turner, J. An integrative theory of intergroup conflict. In: Austin, WG.; Worchel, S., editors. The social psychology of intergroup relations. Pacific Grove, CA: Brooks/Cole; 1979. p. 33-147.

Turner, J. Some current issues in research on social identity and self-categorization theories. In: Ellemers, N.; Speers, R.; Doosje, B., editors. Social identity: Context, commitment, context. Oxford, United Kingdom: Blackwell; 1999. p. 6-34.

Urberg KA. Locus of peer influence: Social crowd and best friend. Journal of Youth and Adolescence. 1992; 21:439–450. [PubMed: 24263973]

Urberg KA, Degirmencioglu SM, Tolson JM, Halliday-Scher K. Adolescent social crowds: Measurement and relationship to friendships. Journal of Adolescence Research. 2000; 15:427–445.

Vallone DM, Allen JA, Xiao H. Is socioeconomic status associated with awareness of and receptivity to the truth campaign? Drug and Alcohol Dependence. 2009; 104(Suppl. 1):S115–S120. [PubMed: 19442459]

Verkooijen KT, de Vries NK, Nielsen GA. Youth crowds and substance use: The impact of perceived group norm and multiple group identification. Psychology of Addictive Behaviors. 2007; 21(1): 55–61. [PubMed: 17385955]

Table 1

Adolescent peer crowds and their characteristics and risk behavior profiles

Crowd	Characteristics	Risk behavior profile
Elites (also known as hotshots, preppies, socials)[a]	Popular at school, active social lives	Increased risk of smoking (Dolcini & Adler, 1994; Mosbach & Leventhal, 1988)
Athletes (also known as jocks, cheerleaders)[a]	Popular at school, active in sports and school athletics	Neither increased nor decreased risk of smoking
Deviants (also known as stoners, druggies, gangsters)[a]	Rebellious, not uniformly popular or unpopular	Increased risk of smoking (Cohen, 1979; Eckert, 1983; La Greca, Prinstein, & Fetter, 2001; Mosbach & Leventhal, 1988; Sussman et al., 1990; Sussman et al., 1993; Sussman et al., 1994; Sussman et al., 1999; Sussman et al., 2000; Urberg, 1992)
Academics (also known as brains, nerds, eggheads)[a]	Perform well at school, less socially active	Decreased risk of smoking (Ashmore, Del Boca, & Beebe, 2002; Downs & Rose, 1991; Urberg et al., 2000)
Others[a]	Diverse, do not fit in with other crowds	Neither increased nor decreased risk of smoking
Misfits[b]	Nonconformists, often interested in emo and goth music and culture	Neither increased nor decreased risk of smoking
Counterculture[b]	Interested in underground culture, consider themselves hipsters or hippies	Increased risk of smoking (Moran, 2009)

[a]Delineated by Sussman and colleagues (2007).

[b]Identified by Moran (2009); would be considered a deviant according to the perspective of Sussman and colleagues (2007).

Table 2

Rotated factor matrix for peer crowd identification

	Elite	Misfit	Deviant	Academic	Musician/ gamer	Counterculture
Artists/artsy	-.174	.391	.146	.287	.262	.094
Athletes/jocks	.821	-.177	.040	.049	.048	-.151
Emo	-.221	.880	.229	-.036	.090	-.086
Involved in school	.197	-.136	-.180	.450	.210	.171
Musicians	-.087	.143	.102	.176	.589	.071
Popular/cool	.692	-.203	.090	-.022	-.115	-.010
Preppy	.719	-.134	-.024	.073	-.044	.159
Band (marching band)	.052	.029	-.074	.080	.594	.045
Goth	-.234	.779	.214	-.062	.144	.186
Nerds	-.060	.188	-.104	.454	.317	.221
Straightedge	.053	.097	.167	.213	.235	.168
Smart	.009	-.002	-.027	.964	.050	-.089
Misfits/outsiders	-.383	.497	.411	.001	.217	.095
Gamers	-.116	.212	.340	.089	.321	.092
Skaters	.025	.244	.578	-.183	.226	.099
Nonconformists	-.235	.292	.323	.156	.275	.134
Religious	.300	-.111	-.009	.329	.311	-.065
Goody-goodies	.352	-.154	.022	.345	.259	.213
Hippies	-.122	.190	.227	.079	.169	.536
Rebels	-.056	.194	.811	-.102	-.042	.058
Partiers	.305	.016	.613	.007	-.196	.110
Hipsters	.260	-.046	.398	.054	.024	.415
Average/ regulars	.274	-.281	.022	.058	.104	-.056

Extraction method: maximum likelihood; rotation method: varimax with Kaiser normalization.

Table 3

Sample descriptive statistics

	n	*%*
Female	159	71
African American	29	12.9
A or B student	177	79
Lives with smoker	97	43.3
Exposure to truth® campaign	78	34.8
Exposure to other antismoking campaign	105	46.9
Identify as elite	111	49.6
Identify as deviant	107	47.8
Identify as academic	103	46.0
Identify as counterculture	97	43.3
	M	*SD*
Perceived smoking norm (% friends who smoke)	23.47	13.35
Sensation seeking	1.68	4.59
Hours of TV watched in average day	3.21	4.4
Lifetime number of cigarettes smoked	1.818	1

Table 4

Antibullying attitudes by peer crowd (%)

	Elite	Deviant	Academic	Counterculture
Cigarette companies lie.	56.80	51.40	56.30	51.50
Cigarette companies deny that cigarettes cause cancer and other harmful diseases.	39.10	33.00	36.90	32.60
Cigarette companies deny that cigarettes are addictive.	44.50	35.90	45.60	43.20
I would like to see cigarette companies go out of business.	6.00	46.60[*]	65.00[**]	52.60
Cigarette companies try to get young people to start smoking.	4.00	34.00[*]	47.60	4.00
Not smoking is a way to express your independence.	49.10	38.80	53.40[**]	42.10
Smoking cigarettes makes people your age look cool.[a]	67.30	62.10	76.70[**]	63.20

[a] Reverse coded.

[*] χ^2 significant at $p < .05$.

[**] χ^2 significant at $p < 01$.

Table 5

Exposure to truth® campaign, by peer crowd

	Exposed to truth® campaign in past 30 days	
	n	*%*
Elite	28[**]	25.2
Deviant	37	34.6
Academic	38	36.9
Counterculture	33	34.0

[**] χ^2 significant at $p < .01$.

Table 6

Odds ratios and confidence intervals for relation between exposure to truth® campaign and antismoking attitudes, by peer crowd

	Elite	Deviant	Academic	Counterculture
Cigarette companies lie.	1.685 (0.529–5.371)	3.709 (1.091–12.608)[*]	3.18 (0.922–1.969)	4.928 (1.233–19.675)[*]
Cigarette companies deny that cigarettes cause cancer and other harmful diseases.	0.812 (2.49–2.642)	1.234 (0.335–4.540)	1.371 (0.393–4.776)	2.473 (0.612–9.994)
Cigarette companies deny that cigarettes are addictive	0.981 (0.512–5.228)	3.222 (0.809–12.832)	1.947 (0.582–6.513)	3.405 (0.859–13.494)
I would like to see cigarette companies go out of business.	0.491 (1.48–1.625)	1.107 (0.325–3.771)	0.532 (0.123–2.302)	1.378 (0.370–5.131)
Cigarette companies try to get young people to start smoking.	2.973 (0.869–1.179)	9.738 (1.723–55.025)[*]	1.349 (0.407–4.473)	2.812 (0.708–11.166)
Not smoking is a way to express your independence.	1.286 (0.407–4.061)	2.75 (0.762–9.929)	0.649 (0.201–2.101)	3.613 (0.955–13.672)
Smoking cigarettes makes people your age look cool.[b]	0.938 (2.91–3.028)	2.488 (0.751–8.240)	1.109 (0.287–4.289)	4.25 (1.121–15.779)[*]

[a]Controlling for gender, ethnicity, living with a smoker, perceived smoking norm, sensation seeking, number of hours of TV watched per day, lifetime number of cigarettes smoked, and exposure to other antismoking campaigns.

[b]Reverse coded.

[*]$p < .05$.