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Social Branding to Decrease Smoking Among Young Adults in Bars

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Abstract

Objectives—We evaluated a Social Branding antitobacco intervention for “hipster” young adults that was implemented between 2008 and 2011 in San Diego, California.

Methods—We conducted repeated cross-sectional surveys of random samples of young adults going to bars at baseline and over a 3-year follow-up. We used multinomial logistic regression to evaluate changes in daily smoking, nondaily smoking, and binge drinking, controlling for demographic characteristics, alcohol use, advertising receptivity, trend sensitivity, and tobacco-related attitudes.

Results—During the intervention, current (past 30 day) smoking decreased from 57% (baseline) to 48% (at follow-up 3; $P=.002$), and daily smoking decreased from 22% to 15% ($P<.001$). There were significant interactions between hipster affiliation and alcohol use on smoking. Among

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Contributors

P. M. Ling conceptualized the study, obtained funding, supervised study design, data collection, analysis and interpretation, and led the writing. Y. O. Lee contributed to measure development, data analysis and writing. J. Hong conducted the final data analysis and contributed to the writing. T. B. Neilands designed the study, supervised measure development, validation, and data analysis, and contributed to the writing. J. W. Jordan contributed to measurement development, designed and implemented the intervention, supervised data collection, and contributed to the writing. S. A. Glantz provided overall guidance to the design and conduct of the study, contributed to data analysis, interpretation, and writing. All authors contributed to the article revision and approved the final version of the article.

Human Participant Protection

This study was approved by the University of California San Francisco Committee on Human Research.

hipster binge drinkers, the odds of daily smoking (odds ratio [OR] = 0.44; 95% confidence interval [CI] = 0.30, 0.63) and nondaily smoking (OR = 0.57; 95% CI = 0.42, 0.77) decreased significantly at follow-up 3. Binge drinking also decreased significantly at follow-up 3 (OR = 0.64; 95% CI = 0.53, 0.78).

Conclusions—Social Branding campaigns are a promising strategy to decrease smoking in young adult bar patrons.

Tobacco companies¹ and public health authorities²⁻⁵ recognize young adulthood as a critical time when experimenters either quit or transition to regular tobacco use. Young adults are also aspirational role models for youths.^{1,6,7} Tobacco companies devote considerable resources to reaching young adults to encourage tobacco use,^{1,8-11} and young adults have a high prevalence of smoking.¹² In California in 2011, young adults had the highest smoking prevalence of any age group, and the Department of Health estimated that 32% of California smokers started smoking between the ages of 18 and 26 years.¹³ Although they are more likely to intend to quit and successfully quit than older adults,¹⁴⁻¹⁷ young adults are less likely to receive assistance with smoking cessation.^{18,19} Although there are few proven interventions to discourage young adult smoking,²⁰ cessation before age 30 years avoids virtually all of the long-term adverse health effects of smoking.²¹

Tobacco companies have a long history of using bars and nightclubs to reach young adults and to encourage smoking.^{1,6,9-11,22-24} Bar attendance and exposure to tobacco bar marketing is strongly associated with smoking.²⁵ The 1998 Master Settlement Agreement and Food and Drug Administration regulations that limit tobacco advertising to youths, explicitly permit tobacco marketing in “adult only” venues, including bars and nightclubs.^{26,27}

Aggressive tobacco marketing may actually be more intensive in smoke-free bars: a 2010 study of college students attending bars found that students in the community with a smoke-free bar law were more likely to be approached by tobacco marketers, offered free gifts, and to take free gifts for themselves than in communities without a smoke-free bar law.²⁸ Bars and nightclubs also attract young adults who are more likely to exhibit personality traits such as sensation seeking,²⁹ increasing their risk³⁰ independently of receptivity to tobacco advertising; tobacco promotional messages resonate with these personality traits.^{8,31} Tobacco marketing campaigns are tailored to specific segments of the population defined by psychographics (e.g., values, attitudes, shared interests, such as tastes in music and fashion, and friend groups) and demographic criteria, and they aim to create positive smoker images, identities, and social norms for smoking.^{1,8} Tobacco marketing campaigns also focus on young adult trendsetters to leverage peer influence to promote smoking.^{6,10}

In contrast to the tobacco companies’ efforts, most young adult health interventions take place in colleges or health centers rather than social environments.³²⁻³⁹ Bars and nightclub venues represent an opportunity to reach those at highest risk for long-term smoking morbidity and mortality.⁴⁰ We evaluated the effectiveness of an intervention to decrease cigarette smoking by countering tobacco industry marketing strategies targeting young adults attending bars and nightclubs in the San Diego, California, “hipster” scene. Because tobacco and alcohol use are strongly linked,^{41,42} we also examined the effects of the

intervention on alcohol use and among binge drinkers. We found a significant decrease in smoking in the community where the intervention took place, including significant decreases among nondaily smokers and binge drinkers, as well as a significant decrease in binge drinking.

METHODS

Among young adult bar patrons, there are many different subgroups that define themselves using a variety of criteria (such as style of dress or physical appearance, common music and cultural interests, shared values, and which venues they attend most frequently). To match tobacco industry marketing strategies that target these subgroups differently, we used marketing research techniques to identify the target population (termed the “peer crowd”) with methods described in detail elsewhere.⁴³ We conducted 24 qualitative interviews, 9 focus groups, and 218 surveys to identify young adult peer crowds in San Diego. Focus group participants reviewed and sorted representative pictures of young adults into different social groups, named each group, and discussed the most popular bars, interests, and activities of each group. Results were recorded for each participant, and the probabilities of every possible pair of images being grouped together were calculated. The images that were grouped together most consistently were identified using a principal components analysis to generate variables (components) explaining variance in the probability of images being grouped together (affinity). These groups of images were matched to participants’ descriptions of different peer crowds, such as hipsters, beach, hip-hop, or lesbian, gay, bisexual, or transgender (LGBT). The term hipster was frequently used to refer to a peer crowd that preferred alternative music, live shows rather than DJs, smaller local bars, and whose members valued self-expression, artistic endeavors, nonmainstream physical appearance, and social justice. The term hipster was not used to refer to the campaign in public, nor was it used in survey questions; it is used in this article as an efficient way to refer to this peer crowd.

Two survey measures were developed based on this formative research. The first was an array of pictures made up of the images of young adults that were most consistently chosen as good representations of each subculture. Survey respondents ranked the 3 photos that depicted people who would “best fit into your main group of friends,” and the peer crowd represented by each photo scored 3, 2, or 1 points, based on their rank. Similarly, participants were asked to rank 3 photos of people who would be the “worst fit in your main group of friends,” scoring –1, –2, or –3 points for the respective peer crowd represented by each photo. Thus, the total score for each peer crowd fell between –6 and +6. In the second survey, participants reviewed a list of bars popular among each San Diego peer crowd, and ranked the 3 bars they were most likely to attend and the 3 bars they were least likely to attend when going out. Each peer crowd scored points on bar selection, using the same scoring system as the pictures. The overall measure of affiliation with the peer crowd was the sum of the picture score + the bar score (total 12 to –12 for each peer crowd). Although the hipster affiliation score could be treated as a continuous variable, for ease of interpretation, we classified participants who scored higher for the hipster peer crowd than they scored for any other peer crowd (e.g., beach, hip-hop, LGBT), which indicated they

were more likely to attend hipster bars and have friends who look like hipsters than any other crowd.

These survey measures were used to conduct a formative psychographic segmentation study with 218 young adults attending a broad array of bars in San Diego. We found that 17% of respondents were classified as hipsters using the scoring system described previously, and more than 50% of hipsters were current smokers. Because hipsters had the highest smoking prevalence of any peer crowd, and hipsters were targeted by the tobacco industry in the past,⁶ we decided to focus the intervention on the hipster peer crowd.⁴⁴

The Intervention

The Social Branding intervention, which was described elsewhere,⁴⁵ was developed and executed by a commercial social marketing agency called Rescue Social Change Group (San Diego, CA). The approach uses commercial marketing tactics that directly counter tobacco industry promotional strategies to discourage tobacco use. The formative research guided tailoring the intervention for hipsters, which was difficult because hipsters were strongly skeptical of overt antitobacco educational messages. Among hipsters, authenticity was highly valued and outsiders (“wannabes”) were easily identified and maligned. Hipsters supported local artists, bands, and designers, and liked the idea of a movement to build resistance to co-optation by large corporations, including tobacco companies. Based on these data, an antitobacco social brand was developed, and the brand name “Commune” was selected. The antitobacco messaging used tobacco industry denormalization themes (messages focusing on tobacco industry activities rather than individual smoker behavior). The industry denormalization strategy directly counteracts tobacco industry marketing communications that are designed to keep both smoking behavior and the industry “legitimate” parts of society,⁴⁶⁻⁴⁸ and it is supported by literature that shows that messages denormalizing the tobacco industry are negatively associated with smoking and positively associated with the intention to quit among young adult smokers in California⁴⁹ and nationally.⁵⁰ In the formative research, industry denormalization messages were the most relevant to hipsters.

The Social Branding intervention was designed to reach hipsters using multiple communication channels, including via influential peers (Table 1). Promotional activities encouraged young adults to attend Commune branded events. The events were carefully designed to be consistent with hipster community values and prominently featured local artists, bands, and designers. The first 6 months of the intervention focused on establishing the Commune brand as an authentic part of the hipster community, and subsequently, smoke-free messaging was integrated into Commune promotional activities. The campaign events were held only in smoke-free venues that did not accept tobacco industry sponsorship. Local artists were hired to create artwork and posters and to design clothing embodying the Commune antitobacco stance, and this work was featured at the events. In addition, the events featured trained Commune brand ambassadors, who were popular young adult non-smoking hipsters and who could express their reasons for maintaining a smoke-free lifestyle to their peers. Commune also sponsored a series of smoking cessation groups for hipster opinion leaders (such as bartenders, DJs, artists, or journalists) who wanted to

quit smoking; these cessation groups met weekly in local hipster bars for 10 to 12 weeks, and participants' progress in quitting smoking was documented on the Commune Facebook page and blog. The communications built an identity for Commune (similar to iconic brands like Coke or Nike) standing for "local artists, musicians and designers taking a stand against Big Tobacco in our community." Although the core brand identity did not change, new posters, flyers, clothing, and art were commissioned monthly throughout the campaign. The Commune brand manager reviewed all messages for accuracy and consistency with the Commune brand identity. Between February 2008 and December 2011, 43 monthly Commune bar and nightclub events took place with an estimated reach of more than 10 000 young adults. An average of 220 young adults participated in each Commune event, which occurred 11 times per year (Table 1).

The evaluation was based on social marketing theory,^{51,52} utilizing principles of psychographic audience segmentation to define the study population (i.e., hipsters). We used a pre- and post-time series design without a control group, although we expected changes in tobacco use would be observed mainly among hipsters and not among non-hipsters. The evaluation addressed the following 3 hypotheses:

- Hypothesis 1** Compared with baseline, the percentage of daily and nondaily smokers will be significantly lower at follow-up in unadjusted analyses.
- Hypothesis 2** Among young adult hipster binge drinkers, the percentage of daily and nondaily smokers will be significantly lower at follow-up in adjusted analyses.
- Hypothesis 3** Compared with baseline, the prevalence of binge drinking will be significantly lower at follow-up in both unadjusted and adjusted analyses.

Constructing the Sample

We collected a series of cross-sectional samples of young adults recruited from hipster bars at baseline (before the intervention $n = 1033$) and approximately 10, 22, 28, 32, 38, 42, and 44 months later. Surveys were collected at baseline (wave 1, target $n = 1000$) and follow-up 1 (10 months: wave 2, target $n = 1000$), and subsequently (for more timely feedback on implementation), 400 surveys were collected every 4 months for waves 3 through 8, with wave 8 being 44 months after the intervention started. Because the study was originally designed to examine preintervention smoking rates compared with postintervention rates, with 1000 surveys taken at baseline and in each year of follow-up, waves 3 through 5 were collapsed for follow-up 2 ($n = 1157$), and waves 6 through 8 were collapsed for follow-up 3 ($n = 1145$; Table 2). We collected baseline data between December 2007 and February 2008, and follow-up data were collected between September 2008 and December 2011. The final wave of data collection ended 48 months after the beginning of baseline data collection.

Young adults are a mobile population who are very difficult to reach by traditional survey methods because many do not reside at their permanent address or use telephone landlines.⁵³ We used time location sampling (TLS)⁵⁴ to generate a random sample of young adults

attending hipster bars.⁵⁵⁻⁵⁷ TLS has been used to collect data among hard-to-reach and “hidden” populations utilizing venues where the target populations tend to gather or congregate.⁵⁵⁻⁵⁸ Details of the TLS sampling and data collection protocol have been described in detail elsewhere.⁵⁹

Key informants (such as party promoters, bar owners, writers for local alternative press, bartenders, DJs, and others involved in the nightlife industry) and formative research participants were interviewed to generate lists of bars that young adults most frequently attended, including the most popular nights and times. We continued to conduct interviews until the bar list reached saturation, and no new bars were named by additional respondents. We randomly selected venues, days, and times of data collection from this list. Trained study personnel invited all 18- to 26-year-old residents of San Diego county present in the venue at the time of data collection to complete the surveys, and 77% agreed. The survey took 5 to 10 minutes to complete, and participants received a \$5 incentive. Among the young adults invited to take the survey, the main reasons for nonparticipation were either disinterest or not having time. Although we attempted to collect demographic characteristic information on nonparticipants, very few were willing to give this information, so it could not be reported.

Measures

Hipster peer crowd affiliation—Using techniques described in the formative research and elsewhere,⁴³ respondents selected and ranked pictures of people most and least likely to represent their main group of friends and bars they were most and least likely to attend. We calculated hipster affiliation scores based on these rankings. We classified respondents whose hipster affiliation scores were higher than scores for any other peer crowd as hipsters.

Trend sensitivity—We used a brief set of psychographic measures named the Trend Sensitivity Index to measure a respondent’s sociality and tendency to emulate peer trends (data available as a supplement to the online version of this article at <http://www.ajph.org>). Respondents selected the best self-descriptor from binary choices, such as “center of attention/lay low” or “partier/studier” and reported attitudes, such as whether they considered being an entertainer or actor, the frequency with which they went out at night, and how late they stayed out. Individuals with high scores on the Trend Sensitivity Index had personality and attitudinal characteristics that might place them in more socially prominent positions and also reported more frequent bar attendance. The Cronbach α for reliability for the Trend Sensitivity Index was 0.66 to 0.68 in our baseline data sets, suggesting limited but reasonable internal consistency. San Diego respondents identified as part of the hipster peer crowd and with scores in the top quartile on the Trend Sensitivity Index were defined as “trend sensitive hipsters.”

Smoking behavior—Participants reported the number of days in past month that they smoked cigarettes and were classified into daily smokers (30 of the past 30 days), nondaily smokers (1–29 of the past 30 days), or non-smokers (0 of past 30 days).

Binge drinking—Participants who reported they had at least 5 drinks or shots of alcohol on 1 occasion at least once in the past month were classified as binge drinkers⁵⁹ and were compared with those who reported no binge drinking in the past month.

Advertising receptivity—Participants were asked if they owned or if they would use a tobacco promotional item⁶⁰; those answering “yes” were coded as receptive compared with those who answered “no” (not receptive).

Support for action against the tobacco industry—Consistent with previous research,^{49,50} participants rated their level of agreement with 3 items—(1) “I want to be involved with efforts to get rid of cigarette smoking,” (2) “I would like to see the cigarette companies go out of business,” and (3) “Taking a stand against smoking is important to me” —on 5-point Likert scales. The mean score across the 3 items was treated as a continuous variable.

Demographic characteristics—Demographic characteristic variables were coded as gender (male/female), sexual orientation (straight/LGBT), age (recorded as a continuous variable), college attendance (currently in college/dropped out or high school only/graduated from college), and race/ethnicity (White/African American/Hispanic/Other [which included Asian, Pacific Islander/Hawaiian, and American Indian/Alaska Native]).

Statistical Methods

Descriptive statistics detailing demographic characteristics, hipster affiliation, tobacco-related attitudes, binge drinking, and smoking behavior were computed at baseline and at 3 years of follow-up as detailed in the Methods section (Table 2).

Hypothesis 1—Compared with baseline, the percentage of daily and nondaily smokers will be significantly lower at follow-up in unadjusted analyses.

We used the χ^2 test for categorical variables and the *t*-test for continuous variables to assess differences of distribution in covariates across the time of the study.

Hypothesis 2—Among young adult hipster binge drinkers, the percentage of daily and nondaily smokers will be significantly lower at follow-up in adjusted analyses.

For adjusted analyses, because nondaily smoking is an increasingly prevalent behavior among young adults, changes in smoking behavior during the intervention were tested using a multinomial logistic regression, fitting a generalized logit model that compared daily smokers, nondaily smokers, and nonsmokers. The multinomial models also adjusted for several independent variables based on previous studies of young adults that found associations among alcohol use,⁵⁹ advertising receptivity, and support for action against the tobacco industry^{49,50} and tobacco use. In addition, because the target of the intervention was hipsters, especially those who were very sensitive to trends (as indicated by higher scores on the Trend Sensitivity Index), we included these 2 factors as independent variables in the model. We included the demographic characteristics variables in all multivariate models. After selecting the main effects, candidate interactions were investigated and tested using

the Wald χ^2 test. We examined effects among hipster binge drinkers and nonbinge drinkers separately because of positive interactions. The final multivariate model is presented; only adjusted odds ratios are reported in Table 3. Unadjusted odds ratios are not reported.

Hypothesis 3—Compared with baseline, the prevalence of binge drinking will be significantly lower at follow-up in both unadjusted and adjusted analyses.

In a separate analysis, we examined binge drinking as the primary outcome rather than smoking. We compared rates of binge drinking at baseline to binge drinking rates during the intervention using multivariate logistic regression with current (past month) binge drinking as the dependent variable, controlling for demographic covariates. Data management and statistical analyses were performed with SAS version 9.3 (SAS Institute Inc., Cary, NC). Statistical significance throughout was defined at $\alpha < 0.05$.

RESULTS

Our study included a total of 4417 young adults, and 2304 respondents were classified as hipsters, based on our picture and bar scoring indicating higher affiliation with the hipster peer crowd than any other peer crowd. Half the sample was male, and the majority was aged 21 to 26 years, given our sample, which was largely drawn from bars, a 21 years and older environment (Table 2). At wave 2 (follow-up 1), a few live music venues (18 years and older) were randomly selected for inclusion in the sample, resulting in a greater number of 18- to 20-year-old participants in this wave. Self-reported LGBT sexual orientation was between 13% and 18% across all waves. Between 33% and 41% of respondents were currently in college in San Diego, approximately 40% had graduated, and between 19% and 28% had either dropped out of college or only had a high school education.

Smoking Behavior Decreased During the Intervention

Hypothesis 1—We observed a significant decrease in smoking prevalence from 56% to 48% in the total sample surveyed (Figure 1). We also observed significant decreases in smoking among hipsters and among trend sensitive hipsters. There was no change in smoking among the non-hipsters. In unadjusted analyses, we observed a significant change in daily smoking from 22% at baseline to 14.8% at follow-up 3, but nondaily smoking did not change significantly (Table 2). Thus, hypothesis 1 was supported for daily smoking, but not for nondaily smoking.

Hypothesis 2—We hypothesized that hipsters were more likely to decrease smoking than non-hipsters, and that binge drinkers would be more likely to decrease smoking than nonbinge drinkers. When testing for interactions, we found there were significant interactions between hipster affiliation and binge drinking on smoking behavior; therefore, separate odds ratios comparing nondaily smokers and daily smokers with nonsmokers were computed for hipster binge drinkers and nonbinge drinkers, as well as for non-hipster binge drinkers and nonbinge drinkers. In multivariate analyses, among hipster binge drinkers, we observed significantly decreased odds of daily smoking (odds ratio [OR] = 0.44; 95% confidence interval [CI] = 0.30, 0.63) and nondaily smoking (OR = 0.57; 95% CI = 0.42, 0.77) at the 48-month length of the study (end of follow-up 3) compared with baseline daily

and nondaily smoking rates, controlling for covariates (Table 3). We did not observe a decrease in smoking in the young adults not targeted by the intervention (the non-hipsters). Thus, hypothesis 2 was supported. During the study, we also observed a significant increase in the odds (OR = 2.04; 95% CI = 1.26, 3.31) of nondaily smoking among non-hipsters who reported no binge drinking in the past month.

Hypothesis 3—The Social Branding intervention did not include any messages discouraging alcohol use or binge drinking, but because tobacco and alcohol are strongly linked behaviors, interventions affecting tobacco use might also affect alcohol use. To address this question, we conducted a separate analysis with alcohol use as the primary outcome. We observed a significant decrease in the prevalence of binge drinking from 78.6% to 68.1% (Table 2). In adjusted analyses, we found significantly lower odds of binge drinking (OR = 0.44; 95% CI = 0.53, 0.78) in the population at follow-up 3 compared with baseline, controlling for age, gender, race, sexual orientation, and education. Thus, hypothesis 3 was supported.

Factors Independently Associated With Smoking

At baseline, 55% of respondents were classified as hipsters according to their social affiliations (reflected photo and bar selection).⁴³ In the follow-up surveys, 46% (follow-up 1), 50% (follow-up 2), and 57% (follow-up 3) of respondents were classified as hipsters. Hipsters had significantly increased odds of both current daily smoking (OR = 1.68; 95% CI = 1.39, 2.04) and nondaily smoking (OR = 1.29; 95% CI = 1.11, 1.50) compared with non-hipsters, controlling for other covariates. The measure of trend sensitivity was also positively associated with daily smoking (OR = 1.13; 95% CI = 1.10, 1.17) and with nondaily smoking (OR = 1.07; 95% CI = 1.04, 1.10) respectively, controlling for other covariates.

Advertising receptivity (measured as owning or willingness to use a tobacco promotional item) was also associated with smoking, with the odds of being a daily smoker significantly higher for those who were receptive (OR = 2.77; 95% CI = 2.25, 3.40) than for those who were not receptive. The odds of being a nondaily smoker were also higher (OR = 1.64; 95% CI = 1.36, 1.97) among people who owned or would use a tobacco promotional item than among those who did not. Consistent with previous studies,⁴⁹ supporting action against the tobacco industry was strongly negatively associated with both daily smoking (OR = 0.66; 95% CI = 0.61, 0.71) and nondaily smoking (OR = 0.78; 95% CI = 0.74, 0.83). Binge drinking was positively associated with daily smoking (OR = 1.83; 95% CI = 1.46, 2.28) and nondaily smoking (OR = 2.05; 95% CI = 1.72, 2.44), controlling for covariates.

DISCUSSION

We observed a significant 16% relative reduction in current smoking (55.6%–48.1%) in the target community during the campaign and statistically significant and clinically meaningful decreases in the odds of both daily and nondaily smoking among hipster binge drinkers. We also found the greatest decreases in smoking among hipsters who scored highest on the Trend Sensitivity Index, which was the subgroup with the highest smoking rates (72% at baseline).

This was the first study, to our knowledge, of a bar-based antitobacco intervention for young adults tailored to a specific peer crowd (hipsters) that counteracted tobacco industry marketing activities.^{1,6,10} The campaign approach, which sought to weaken the association between seeing oneself as a hipster and seeing oneself as a smoker, was supported by contemporary social-cognitive theory, in which transitions in smoking behavior can be linked to self-concept.⁶¹ In addition, the anti-industry tobacco message strategy was found to be most relevant to hipsters and consistent with negative associations with young adult smoking behavior in studies in California⁴⁹ and nationally.⁵⁰ A focus on denormalization of the tobacco industry rather than disapproval of smokers might decrease stigma and message resistance expressed by some young adults.⁶² Our study added to the literature because it provided empirical evidence that a campaign with tobacco industry denormalization themes was associated with decreased smoking among a very high-risk young adult audience.

Campaign exposure was limited to approximately 30% of the population over time, and hipsters did not include the majority of the young adult bar-going population. However, exposure to the antitobacco message might have occurred both directly by exposure to the campaign and indirectly through contact with others who were exposed.⁶³ The importance of campaign message transmission through peers might be particularly true for the hipster peer crowd, because this culturally influential segment started trends⁶ that diffused to the mainstream. We observed statistically significant reductions in smoking among hipsters that were not seen among non-hipsters; if these reductions diffused from hipsters to the mainstream, one might expect to see future decreases in smoking among non-hipsters.

The reduction in smoking was also accompanied by a reduction in binge drinking. Decreased problem drinking and other substance use behavior were observed in school and community-based interventions designed to decrease smoking.⁶⁴ Although there were no specific messages about binge drinking in this campaign, tobacco use and alcohol use are strongly linked behaviors^{42,59,65-68}; this association was promoted by tobacco marketing.⁴⁰ Conversely, activities that decrease smoking behavior might affect binge drinking; linkages among multiple risky behaviors were recognized decades ago.⁶⁹

Despite Commune's acceptance in San Diego, tobacco industry marketing in other cities might impede further progress. For example, in 2010, RJ Reynolds launched a Camel "Break Free Adventure" campaign focused on hipsters that began in Williamsburg, Brooklyn, New York, a known cultural center for hipsters,⁷⁰ and also included several cities with reputations for being popular among hipsters, including Austin, Texas; San Francisco, California; and Seattle, Washington. The spread of this or similar targeted marketing campaigns to San Diego might affect future smoking behavior within the hipster peer group.

Limitations

We observed significant decreases in smoking and binge drinking among a high-risk population (hipster young adults in San Diego). However, results might not generalize outside of this specific context. The study lacked a comparison community; therefore, the uncontrolled nature of the design precluded us from ruling out other alternative explanations for the observed trends, including the influence of secular trends or regression to the mean. During our study, smoking rates in California were decreasing. However, we observed very

high rates of smoking in the hipster peer crowd despite the strong policy context in California (including a strong media campaign and longstanding smoke-free bars). Future research could address these limitations by including more intervention and comparison communities. These data were also limited by lack of biochemical confirmation of self-reported smoking status. However, self-reported smoking rates have been extensively studied and validated for surveys, and collection of saliva cotinine would have significantly increased study costs and decreased participation rates. We prioritized ease of participation for study respondents to obtain as diverse a sample as possible. Despite these limitations, these data suggested that the intervention strategy was successful, with the greatest effect among those at highest risk.

Conclusions

Young adult smokers are a priority population for intervention, and bar and nightclub settings concentrate risk for tobacco use. Our study found a significant decrease in smoking within a young adult bar-going community where a targeted intervention was enacted. The results suggest that the intervention is a feasible and promising strategy to decrease tobacco use in young adults.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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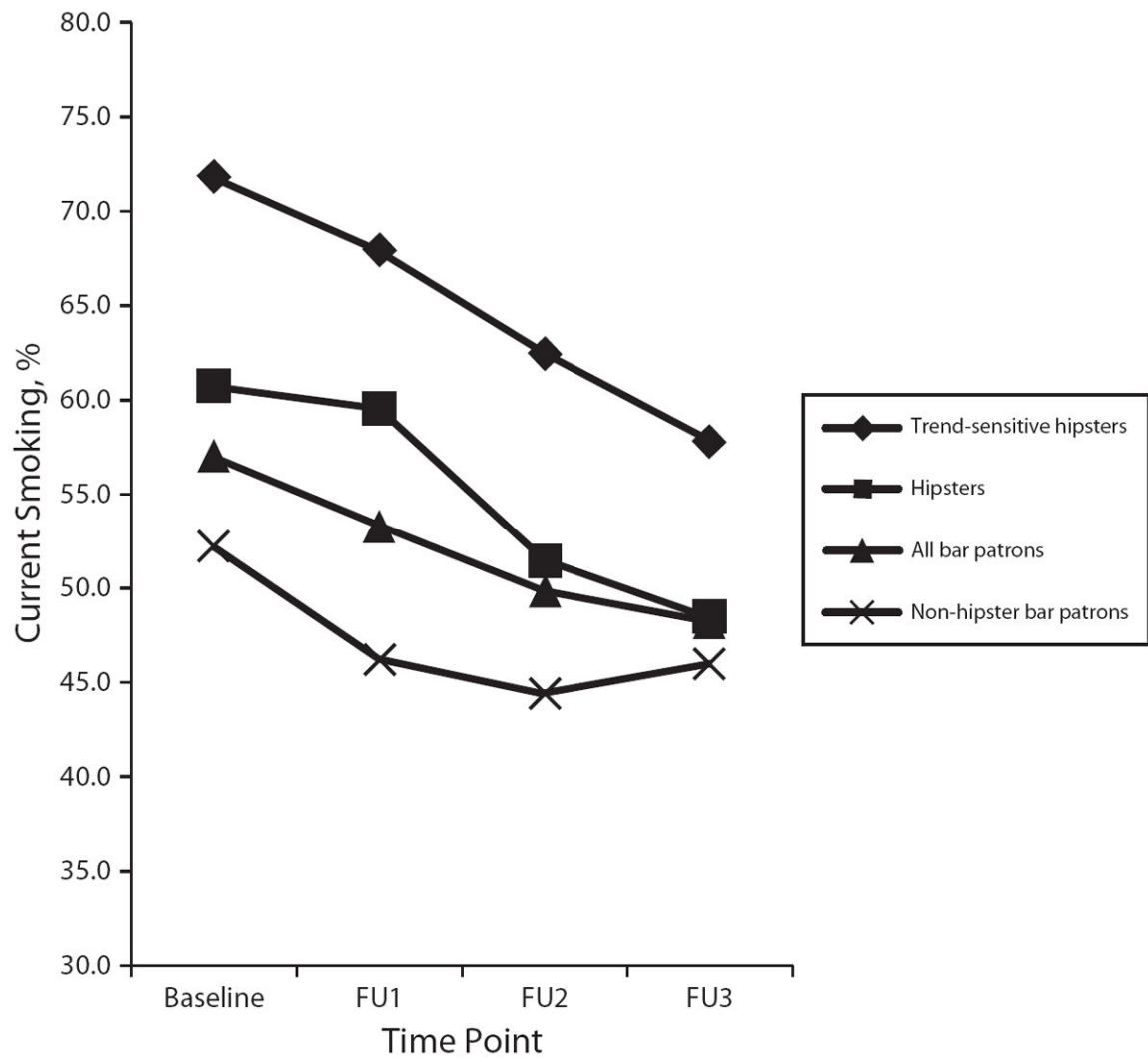


FIGURE 1. Respondents who reported current (past 30 days) smoking at each time point during the intervention: Social Branding to Decrease Smoking Among Young Adults in Bars; San Diego, CA; 2008–2011

Note. FU = follow-up. Each line shows smoking among the entire random sample of participants sampled (all bar patrons), the subgroup who most strongly identified with the hipster peer group (hipsters), the subgroup identified as hipsters and who also scored in the 75th percentile or above on the Trend Sensitivity Index (trend sensitive hipsters), and young adults in the sample who did not identify with hipster peer culture (non-hipsters). Smoking decreased significantly in all groups except for non-hipsters, who were not intervention targets.

TABLE 1

Key Elements of a Social Branding Intervention and the Specific Execution of These Elements in the “Commune” San Diego Intervention: Social Branding to Decrease Smoking Among Young Adults in Bars; San Diego, CA; 2008–2011

Social Branding Key Element	San Diego “Commune” Intervention
<p>Social Brand—The social brand acts as an organizing element for the campaign. Similar to any commercial brand, including cigarette brands, it is designed to appeal to 1 specific peer crowd. All program materials bear the brand and are aligned with current subcultural trends. The brand personality embodies all the characteristics positively valued by the peer crowd.</p>	<p>The Commune social brand was described as, “A movement of artists, designers, musicians, and people that take a stand against tobacco corporations, their practices, and their presence in the scene.” The core elements of the brand personality were:</p> <ul style="list-style-type: none"> Creative Support and include local artists A message by and for hipsters Antitobacco industry because of its effect on social justice issues Ironic humor Eclectic style
<p>Branded Events—Branded events are social gatherings sponsored by the campaign. Branded events reflect the target peer crowd’s ideal characteristics and are conducted to achieve in-group social capital. Once the brand is accepted (evidenced by willingness of the target peer crowd to attend or seek out branded events), messaging associates the targeted behavior with the brand’s desirable social image.</p>	<p>Commune social events were focused at bars and included live bands, DJs, fashion “trunk shows,” and art exhibits. Each event was designed so that participants experienced a community of local cultural leaders rallying around Commune and tobacco-free lifestyles. After 4 months of branded events, Commune’s message was increasingly linked to taking a stand against the tobacco industry and its practices and supporting a smoke-free lifestyle.</p>
<p>Brand Ambassadors—Opinion leaders (young adults that are recognized as influencers by others within the community) disseminate the antitobacco message at events and in the course of their daily lives. Program staff recruit opinion leaders who are socially influential to disseminate the brand’s message through casual conversation, spread the message at their own social gatherings, wear the brand’s clothing, and interact with the brand on social media.</p>	<p>Commune recruited opinion leaders as part of its events strategy. Because nearly all hipster opinion leaders have a culturally defined profession or hobby (i.e., musicians, artists, DJs, fashion designers, etc.), the focus was to recruit these cultural leaders, train them on Commune’s strategy and goals, and then involve them in the planning of a future event. This ensured that every event was “owned” by the community and that messages were coming from well-known peers rather than outside marketers.</p>
<p>Hard-Hitting Messaging—Messages encouraging behavior change provide reasons that can be used to internally and externally justify why the targeted behavior perfectly aligns with an individual’s self-image. The reasons for changing behavior are aligned with the social values within each peer crowd. Messages are presented in a culturally appropriate language and style.</p>	<p>Commune antitobacco messaging most frequently included facts about tobacco industry practices at odds with hipster values, such as environmentalism, against animal testing, child labor, world hunger. For example:</p> <p>“Commune Warning: Up to 5.4 lbs of wood are burned to cure enough tobacco for just one pack of cigarettes. Through this process, the tobacco industry causes nearly 500,000 acres of deforestation per year.”</p> <p>“The tobacco industry has conducted experiments on animals for decades. In some experiments, beagles were strapped down and fitted with face masks which forced them to inhale smoke from lit cigarettes. This research led to discoveries on how to make cigarettes more addictive to humans.”</p> <p>Messages focused on lesser-known health effects, such as impotence, were also used because hipsters were receptive to receiving and spreading new information.</p>
<p>Social Rewards—People who embrace the campaign’s targeted behavior are rewarded with fashionable gear, event give-a-ways and special VIP access privileges. Social rewards accelerate the behavior change process and are included in both promotions and branded events. In addition social rewards occur when opinion leaders give their peers verbal and nonverbal approval for engaging in the targeted behavior.</p>	<p>Commune limited edition t-shirts and posters were produced and were given for free to members of the community who supported its message and best embodied the brand’s image. Occasionally shirts were also sold at events to increase the perceived value of the items. Most of these items were given to nonsmokers to reinforce that behavior.</p>
<p>Social Media, Word-of-Mouth, and Direct Mail—Flyers, direct mail and social media messaging are all used to promote the branded events. Some promotions focus on simply promoting events because people who attend the events will receive a more powerful tobacco-related message there. Other communications</p>	<p>Commune implementation and reach:</p> <ul style="list-style-type: none"> 26 500 flyers distributed 10 000 young adults reached via events

Social Branding Key Element	San Diego “Commune” Intervention
directly promote the behavioral change message to reinforce what people hear at events and from opinion leaders. Social media are particularly important because these sites enable young people to share messages quickly and widely across their social networks, which the campaign does not necessarily have direct access to. Traditional paid media (radio, TV, outdoor) was not a part of this campaign.	10 000 hits on Web site 20 000 Web site page views 1000 Facebook friends 1200 sign-ups for mailing list 1400 gave cell phone numbers 21 000 direct mailers sent 4300 limited edition posters created (3800 distributed) 1000 limited edition t-shirts designed (800 distributed) 43 bar-based events executed
Supporting Smoking Cessation Among Social Leaders—Socially influential individuals who wished to quit smoking participated in a pilot bar-based group smoking cessation intervention. The cessation group was also publicized to increase awareness within the community that more people were attempting to quit smoking.	Commune smoking cessation groups met for 10–12-week sessions in a local bar popular among participants. Participants received social support for smoking cessation attempts, CO monitoring, tailored evidence-based counseling by a trained smoking cessation counselor, small cash incentives for smoking reduction and cessation, and access to free nicotine replacement starter kits. Efforts to stop smoking were documented on the Commune Web site.

Note. CO = carbon monoxide.

TABLE 2

Sample Characteristics at Baseline and Each Year of Follow-Up, in a Series of Cross-Sectional Samples: Social Branding to Decrease Smoking Among Young Adults in Bars; San Diego, CA; 2008–2011

Characteristics	Baseline (n = 1033), %	Follow-Up 1 (n = 1082), %	Follow-Up 2 (n = 1157), %	Follow-Up 3 (n = 1145), %	P
Male	49.6	49.2	49.0	52.5	.31
Age, y					
18–20	1.7	8.1	0.9	0.3	<.001
21–23	50.2	43.0	44.8	48.6	.003
24–26	48.2	48.9	54.4	51.2	.02
Race/ethnicity ^a					
Caucasian	60.2	51.0	48.6	43.7	<.001
African American	4.2	3.9	5.1	4.5	.59
Asian/Pacific Islander	9.0	12.4	12.4	10.7	.03
Hispanic	14.6	23.2	29.3	34.1	<.001
American Indian/Alaska Native	NA	1.3	1.2	0.9	.6
Other	11.9	9.5	10.2	6.7	<.001
LGBT	17.7	14.9	12.8	14.7	.02
Education					
College graduate	39.2	41.6	42.6	39.4	.29
College in local area	41.1	33.4	32.8	39.1	<.001
Dropped out of college	12.8	16.6	14.0	12.1	.01
High school	6.9	8.4	10.6	9.4	.02
Hipster affiliation	54.5	46.3	50.4	57.4	<.001
Advertising receptivity	28.1	23.0	24.6	23.3	.04
Trend sensitivity index (mean)	8.9	9.0	8.6	9.1	.003
Support for action against tobacco industry (mean)	2.7	2.6	2.7	2.7	.13
Binge drinking at least once in the past 30 d	78.6	70.9	69.3	68.1	<.001
Smoking behavior					
Nonsmoker	44.4	46.7	50.2	51.9	.002
Nondaily smoker	33.3	31.6	30.0	33.3	.29
Daily smoker	22.4	21.7	19.8	14.8	<.001

Note. LGBT = lesbian, gay, bisexual, transgender; NA = not applicable. Dates of data collection: baseline: December 7, 2007–February 12, 2008; follow-up 1: September 3, 2008–December 30, 2008; follow-up 2: September 29, 2009–October 7, 2010; follow-up 3: March 3, 2011–December 12, 2011.

^aIn the baseline survey race/ethnicity was a single question with the choices Caucasian, African American, Asian/Pacific Islander, Hispanic, or Other. For all follow-up surveys race and ethnicity were divided into 2 questions consistent with the US Census: Hispanic ethnicity (yes/no) followed by a separate question asking for the respondent's race (Caucasian, African American, Asian/Pacific Islander, American Indian/Alaska Native, Other). This change in question structure may account for the difference in participants reporting Hispanic ethnicity. American Indian/Alaska Natives were included in the "Other" category in the baseline survey only.

TABLE 3

Adjusted Odds Ratio Estimates and Confidence Intervals for Daily and Nondaily Smoking, Controlling for Covariates: Social Branding to Decrease Smoking Among Young Adults in Bars; San Diego, CA; 2008–2011

Variables	Daily Smoker, OR (95% CI)	Nondaily Smoker, OR (95% CI)
Smoking status at 48 mo ^a		
Hipster; binge drinkers	0.44 (0.30, 0.63)	0.57 (0.42, 0.77)
Hipster; no binge drinking	0.81 (0.45, 1.47)	1.19 (0.75, 1.91)
Non-hipster; binge drinkers	0.64 (0.42, 0.99)	0.97 (0.69, 1.35)
Non-hipster; no binge drinking	1.19 (0.63, 2.24)	2.04 (1.26, 3.31)
Hipster affiliation ^b (Ref: non-hipsters)	1.68 (1.39, 2.04)	1.29 (1.11, 1.50)
Binge drinking ^b (Ref: no past month binge drinking)	1.83 (1.46, 2.28)	2.05 (1.72, 2.44)
Older age (per year increase)	1.01 (0.95, 1.06)	0.96 (0.91, 1.00)
Male (Ref: female)	0.99 (0.82, 1.20)	0.99 (0.85, 1.15)
Race/ethnicity		
Non-Hispanic White (Ref)	1.00	1.00
African American	0.36 (0.22, 0.59)	0.54 (0.37, 0.80)
Hispanic	0.46 (0.36, 0.58)	0.98 (0.82, 1.18)
Other	0.83 (0.66, 1.05)	0.95 (0.79, 1.15)
LGBT (Ref: straight)	2.00 (1.56, 2.57)	1.37 (1.10, 1.70)
Education		
College graduate (Ref)	1.00	1.00
College in local area	1.32 (1.05, 1.65)	1.37 (1.15, 1.62)
High school only or dropped out of college	2.95 (2.32, 3.74)	1.37 (1.11, 1.69)
Receptive to tobacco advertising (Ref: not receptive)	2.77 (2.25, 3.40)	1.64 (1.36, 1.97)
Trend sensitivity index (per 1 point increase in score)	1.13 (1.10, 1.17)	1.07 (1.04, 1.10)
Support for action against tobacco industry (per point increase in scale)	0.66 (0.61, 0.71)	0.78 (0.74, 0.83)

Note. CI = confidence interval; LGBT = lesbian, gay, bisexual, transgender; OR = odds ratio. Results for daily smokers and nondaily smokers were calculated in reference to nonsmokers.

^aSeparate odds ratios calculated for subgroups defined by hipster affiliation and binge drinking status because of positive interactions.

^bMeasured at the mean of length of study (22.35 months).