

RESEARCH REPORT

What makes an ad a cigarette ad? Commercial tobacco imagery in the lesbian, gay, and bisexual press

Elizabeth A Smith, Naphtali Offen, Ruth E Malone

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See end of article for authors' affiliations

Correspondence to:
Dr E A Smith, Department of Social and Behavioral Sciences, Box 0612, University of California, San Francisco, CA 94143, USA; Libby.Smith@ucsf.edu

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Objectives: To determine the extent of commercial tobacco imagery in the lesbian, gay, and bisexual (LGB) press.

Methods: Content analysis of all advertising containing tobacco related text or imagery in 20 LGB community periodicals, published between January 1990 and December 2000.

Results: 3428 ads were found: 689 tobacco product ads, 1607 ads for cessation products or services, 99 ads with a political message about tobacco, and 1033 non-tobacco ads that showed tobacco (NAST). Although cessation ads were numerically dominant, tobacco product ads and NAST occupied more space and were more likely to use images. NAST almost never had an anti-tobacco message. Formal sponsorship between tobacco and other companies was very rare. Lesbian periodicals had proportionally more NAST and fewer cessation ads.

Conclusions: Cigarette ads were outnumbered by NAST. Although these ads do not usually show brands, and are unlikely to be the result of formal sponsorship agreements, they may be "selling" smoking. Tobacco control advocates should persuade editors to refuse tobacco product ads and those with gratuitous tobacco imagery.

Tobacco use is the leading preventable cause of death in the USA.^{1,2} Smoking prevalence among lesbian, gay, and bisexual (LGB) people is higher than it is among their heterosexual counterparts.^{3–6} A study of men who have sex with men in four urban areas found that 31.4% were smokers, compared with 24.7% of men in general.⁶ A survey in California found that smoking prevalence among gay men was 33.2%, compared with 21.3% among heterosexual men and lesbians' smoking rate (25.3%) was 70% higher than that of heterosexual women (14.9%).⁵ Among bisexual women, studies have found prevalence as high as 50%.^{7,8} Data on transgender people are anecdotal, but suggest similar patterns.

Why LGB people smoke at higher rates is undetermined; hypotheses include the stresses of homophobia and marginalisation, and a culture historically centred around bars, where smoking has been a norm.^{3,9} Previous work¹⁰ has found that gratuitous, positive, non-commercial images of smoking are frequent in the LGB press. This study examined LGB print media for commercial tobacco imagery as a potential source of influence on LGB smoking prevalence.

BACKGROUND

The tobacco industry claims that cigarette advertising is designed only to persuade smokers to change brands.¹¹ However, studies have suggested that advertising may affect rates of tobacco use^{12,13} and does not necessarily establish brand preference, but encourages the uptake of smoking with any available brand.¹²

Restrictions on advertising and promotion vary widely across national jurisdictions,¹⁴ although the Framework Convention on Tobacco Control (FCTC) seeks to align them.¹⁵ In the USA, restrictions on cigarette advertising began with the elimination of broadcast ads in 1971.¹⁶ The 1998 Master Settlement Agreement (MSA) between the tobacco companies and the attorneys general of 46 states eliminated billboards over 14 square feet.¹⁷ Recent efforts have focused on removing tobacco product advertising from magazines with large youth readerships.¹⁸

One loophole to advertising restrictions has been tobacco brand event sponsorship.^{19,20} Sponsorship, particularly of sporting events, has been shown to affect adolescent uptake.^{21,22} It also provides a way for tobacco companies to sidestep advertising bans,^{11,19,20,23,24} whether of media (for example, televised sports events) or type (for example, "lifestyle" advertising) as the primary advertiser is usually not regulated by tobacco product ad bans. Event sponsorship is limited but not eliminated by the MSA and FCTC.

Sponsorship is a key form of promotion because it helps to establish brand "identity"^{11,24} through a process of image transfer. Consumers take the established image of the sponsored entity (for example, NASCAR racing as exciting, gritty, masculine) and apply it to the sponsor's product (for example, Winston cigarettes). This transfer can be similar to celebrity endorsement,^{25,26} causing consumers to associate the qualities of the celebrity with the product.²⁷ But it may also work through "symbolic complementarities" by which "the meaning of goods is largely determined by their relationship to other goods."²⁰ In this process, the product gains significance through its context.²⁵ Furthermore, there can be "a two-way transfer of values,"²⁵ in which the images of the sponsor and the beneficiary inform one another. This last process, which may be a factor when tobacco products are shown in non-tobacco advertisements, is of particular interest in this study.

METHODS

Major LGB print media have two primary forms: national magazines and community newspapers. Our data sources consisted of: the five largest circulation national magazines (three for gay men, two for lesbians); three smaller circulation magazines (one directed at African-Americans, one for bisexuals, and one for HIV positive people); and 12 community newspapers (table 1). (Although transgender

Abbreviations: LGB, lesbian, gay, and bisexual; NAST, non-tobacco ads that showed tobacco; FCTC, Framework Convention on Tobacco Control; MSA, 1998 Master Settlement Agreement

Table 1 Data sources

Name	Type	Audience*	Region	Circulation‡	Refuses tobacco product ads†	Number of Issues	
						Reviewed	Missing
Advocate	Magazine	Gay men	National	107138	No	286	0
Anything that Moves†	Magazine	Unknown	National (CA)	700	Unknown	21	0
Baltimore Gay Paper	Newspaper	Unknown	Baltimore, MD	25000	No	105	0
Bay Area Reporter	Newspaper	Gay men	San Francisco, CA	34500	No	572	0
Bay Times	Newspaper	Unknown	San Francisco, CA	34500	Yes	286	0
Bay Windows	Newspaper	LGB	Boston, MA	24000	No	555	6
BLK†	Magazine	LGB	National	37000	Unknown	29	0
Curve	Magazine	Lesbians	National	68000	Yes	43	7
Frontiers	Newspaper	Unknown	San Francisco, CA	60000	No	45	127
Genre	Magazine	Gay men	National	120000	No	51	0
Girlfriends	Magazine	Lesbians	National	35000	No	39	0
Lesbian News	Newspaper	Lesbians	National (CA)	40000	Yes	70	24
Mom Guess What!	Newspaper	Unknown	Sacramento, CA	21000	No	203	0
New York Native†	Newspaper	Unknown	New York, NY	NA	Unknown	365	0
Out	Magazine	Gay men	National	115835	No	50	0
POZ	Magazine	LGB (HIV+)	National	100000	Yes	40	26
San Francisco Sentinel†	Newspaper	Unknown	San Francisco, CA	NA	Unknown	164	132
Seattle Gay News	Newspaper	Unknown	Seattle, WA	15000	No	555	17
Washington Blade	Newspaper	Gay men	Washington, DC	38000	No	567	5
Windy City Times	Newspaper	LGB	Chicago, IL	25000	No	564	0

*As provided on web site or reported to first author by publication. Periodicals with readership of at least 75% men or 75% women are designated for gay men or for lesbians. Publications lacking this information are designated unknown. †Ceased publication during study period. ‡As reported to first author by publication.

people make up part of the audience for these periodicals, we were unable to find any periodicals primarily serving them. In addition, there are no data on smoking prevalence among transgender people. We therefore have restricted our discussion to LGBs.) There is no extant census of LGB periodicals, and many have been published erratically or for brief periods only. Many libraries do not collect these periodicals. We selected the magazines on the basis of their circulation and consistent publication history, with the addition of the smaller periodicals to gain demographic breadth. We selected the newspapers on the basis of geographical diversity, although we were limited to those of which local libraries had the most complete collections. We examined all available issues ($n = 4610$) published between January 1990 and December 2000. Two research assistants collected all advertising that contained images of or references to tobacco.

Items were coded with an instrument based on those used in previous analyses of mainstream publications.²⁸ The instrument included item “demographics” (for example, size, location, product or service advertised) and item content (for example, image of smoking, type of tobacco shown or discussed, association with celebrities). Items were classified as being anti-tobacco if they referred to cessation or to any social (for example, bad breath) or health related harm of smoking or portrayed smoking as undesirable. Pro-tobacco imagery associated tobacco use with glamour, popularity, success, and the like. Neutral imagery presented smoking in ordinary situations without apparent comment or judgment. For purposes of analysis, items with pro-tobacco and neutral images of tobacco were grouped together as pro-tobacco, as both portrayed tobacco use uncritically.

Two coders were used. Inter-coder reliability was established through an overlapping sample of 20% of each type (tobacco product, cessation, non-tobacco ad showing tobacco, political) of item. All reported data achieved an adjusted κ score of between 0.7 and 1; 37% of reported variables achieved adjusted κ score of 0.90 or greater. (κ values were adjusted to account for the homogeneity of the material.)²⁹ Coding of the perceived race of the person depicted did not achieve a κ score over 0.70; it is not used in the analysis and is not reported. Average inter-coder reliability over all items was 0.87. No additional significance testing was done because the items collected were a census of items in the periodicals selected.

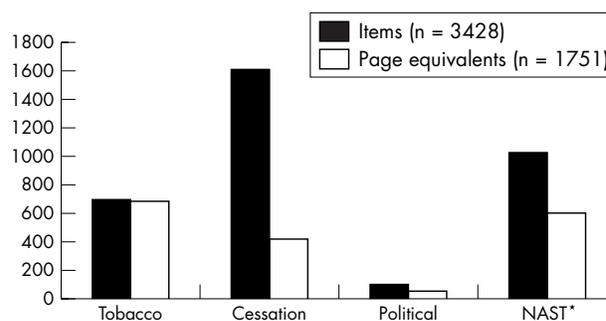


Figure 1 Frequency and page equivalents by type of item. *NAST, non-tobacco items showing tobacco.

Periodicals were classified in terms of their primary audience: lesbian, gay male, or both sexes. Several of the periodicals ceased publication during the study period; audience and circulation information was unavailable for most of those. The numbers of periodicals and issues of periodicals addressed to gay men, lesbians, and LGBs were not equivalent; therefore, comparisons among these groups are made by calculating the number of items appearing per periodical issue directed at that population.

To assess the relative amount of space each type of ad occupied, we coded each ad's size in term of proportion of the page—that is, more than a page, one page, more than half a page, more than a quarter, one quarter or less. We then calculated page equivalents to estimate the number of pages each type of ad occupied. We treated pages in all periodicals as if they had the same dimensions; no adjustments for different page sizes were made.

RESULTS

A total of 3428 ads with tobacco messages or imagery were found. We divided the ads into four general categories: ads for tobacco products; ads for smoking cessation services or products (for example, nicotine gum); ads with a tobacco related political message (for example, in support of or opposed to clean indoor air laws); and non-tobacco ads that showed tobacco (NAST) (fig 1).

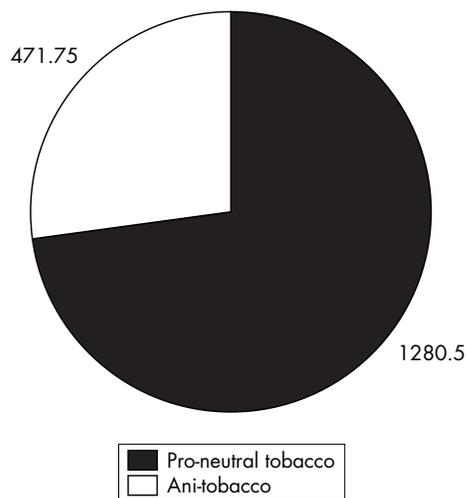


Figure 2 Page equivalents by image of tobacco use.

All ads

Slightly over half (51%, $n = 1752$) of the ads were pro-tobacco. However, proportionally far more total space (page equivalents) was occupied by these messages: 1280 page equivalents (73%) were pro-tobacco, whereas only 471 (27%) were anti-tobacco (fig 2). Anti-tobacco ads outnumbered pro-tobacco ads until 1996, when rising numbers of cigarette ads and declining numbers of cessation ads reversed this relation (fig 3B). Seven per cent of all ads linked celebrities with tobacco use.

Tobacco product advertising

Tobacco product ads made up 20% of the total ($n = 689$). Ten of the 20 periodicals had tobacco product ads. Four periodicals had policies against accepting such ads (table 1). Cigarette advertising comprised most of the tobacco ads

(99%; $n = 683$). Cigarette ads were largely similar to those presented in mainstream magazines. Only 1% portrayed overtly gay people. People were coded as gay if they were explicitly cued as gay (for example, holding hands with a partner, associated with LGB symbols) or widely known to be gay (for example, Congressman Barney Frank). Most tobacco product ads (92%; $n = 637$) featured both text and imagery.

Twelve different cigarette brands were advertised. Nearly half of the tobacco product ads ($n = 328$) were for Kamel or Camel. No traditionally women's brands (for example, Virginia Slims) were advertised. Two mentholated brands, Kool and Salem, were advertised. There was no advertising for Marlboro, the most popular brand in the USA.

Cigarette ads first appeared in our sample (as they did in the gay press overall³⁰) in 1992. The number rose steadily, peaking in 1999 at 182, with a dip in 1998 (fig 3A). This dip may have been part of an overall reduction in print advertising that year, possibly in response to the MSA.^{31 32} Most tobacco product ads were at least one page in size (77%; $n = 529$); they occupied 677.75 pages, or 39% of the total number of page equivalents (fig 1).

Cessation advertising

Cessation ads made up 47% of the total ($n = 1607$). Cessation ads were primarily text only (70%) and most were less than a quarter of a page in size (98%). Cessation ads were fairly frequent in the early 1990s, peaking in 1994 at 275, and declining steadily to fewer than 50 in 2000 (fig 3A). Cessation ads infrequently (1%, $n = 18$) linked smoking with alcohol use. They linked smoking with drug use slightly more frequently (5.5%, $n = 88$). Cessation ads occupied 423.5 page equivalents, or 24% of the total ad pages in the sample (fig 1).

Political ads

Political ads made up 3% of the total ($n = 99$). Most of these (77%; $n = 76$) appeared in 1990–1991 (largely relating to the ACT-UP boycott of Marlboro cigarettes),³³ and 1997–1999 (largely produced by the California Lavender Smoke-Free Project) (fig 3A).³⁴ Political ads contained an anti-smoking

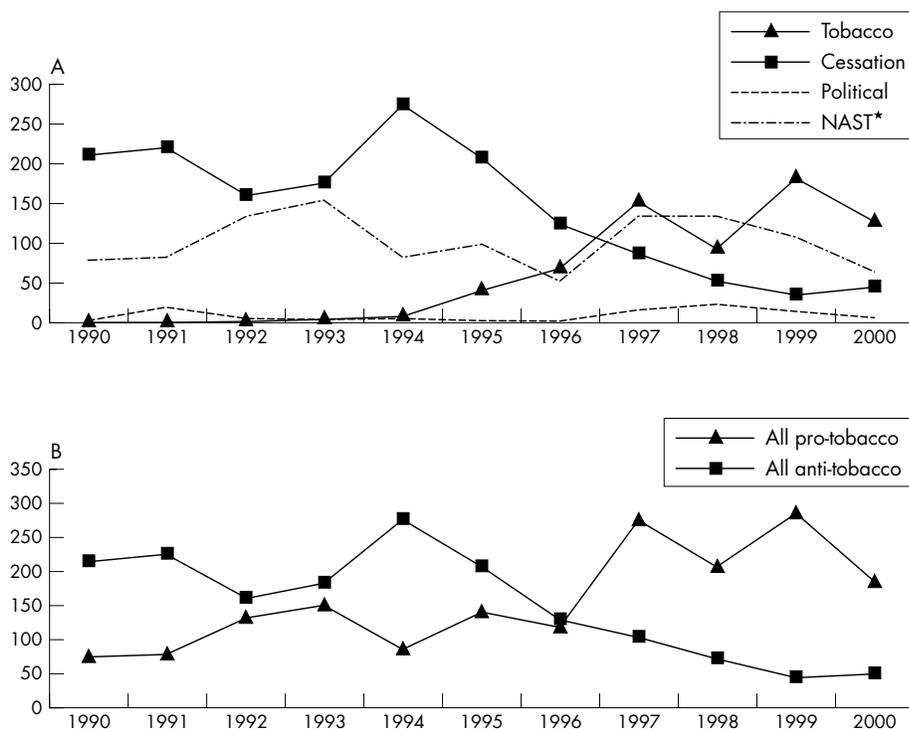


Figure 3 Frequency of ad type and tobacco image by year. (A) Ad type by year. (B) Pro-tobacco and anti-tobacco ads by year. *NAST, non-tobacco items showing tobacco.

Table 2 Ads per issue ratio by audience

Issues	Tobacco		NAST		Political		Cessation		Pro-tobacco		Anti-tobacco	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Gay	1526	0.22	375	0.25	25	0.02	1062	0.70	708	0.46	1089	0.71
Lesbian	152	0.05	55	0.36	17	0.11	8	0.05	62	0.41	25	0.16
LGB	1188	0.19	190	0.16	0	0.00	245	0.21	413	0.35	246	0.21
Unknown	1744	0.07	413	0.24	57	0.03	292	0.17	569	0.33	316	0.18
Total	4610	0.15	1033	0.22	99	0.02	1607	0.35	1752	0.38	1676	0.36

NAST, non-tobacco ads showing tobacco.

message 54% of the time ($n = 53$). Two thirds of political ads ($n = 67$) used both text and imagery. Political ads had a fairly even distribution of sizes, and occupied 62.25 pages, or 4% of the total pages (fig 1).

Non-tobacco advertising showing tobacco (NAST)

Other advertising with tobacco references or imagery made up 30% of the sample ($n = 1033$). NAST were for a variety of products and services, including entertainment ($n = 387$), sex ($n = 356$), fashion/retail ($n = 174$), rehab programmes ($n = 68$), and others ($n = 48$). Entertainment ads included those for music CDs, movies, plays, and bars and nightclubs. Sex ads included those for pornography, sex related telephone or internet chat lines, and "massage." Rehab ads were those for drug/alcohol recovery programmes that showed tobacco imagery but did not indicate that they offered smoking cessation programmes. (Ads for rehabilitation programmes that did mention smoking cessation were coded as cessation ads.) Most of the ads in the NAST category used both text and imagery (95%; $n = 984$). Thirty four per cent ($n = 349$) occupied at least a page. NAST associated smoking with celebrities 24% of the time ($n = 253$), far more than cigarette ads did (1%, $n = 7$). They also associated smoking with alcohol use more often than cigarette ads did (28%, $n = 292$ v 12%, $n = 80$). Ninety eight per cent ($n = 1017$) of NAST were pro-tobacco. No sub-category of NAST exceeded 3% anti-tobacco portrayals. NAST occupied 588 page equivalents, or 34% of the total (fig 1).

Unexpectedly, the 10 periodicals that did not have any tobacco product ads had a combined NAST per issue ratio of 0.28, nearly 50% higher than the NAST per issue ratio of those that did have tobacco product ads (0.19). However, when one outlier with a NAST per issue ratio of 0.69 (more than twice any other periodical) was removed from analysis, the differences almost disappeared; the NAST per issue ratio for periodicals without tobacco product ads decreased to 0.17. There also was little difference between those that had a policy against taking tobacco product ads (NAST ratio = 0.14) and those that did not (NAST ratio = 0.19). (The outlier's policy status was unknown.)

Sponsorship and cross-branding

Explicit sponsorship and cross-branding relationships between tobacco and other companies were rare. Only 24 ads in total (0.7%) indicated such arrangements; 22 of these were tobacco product ads featuring partners, comprising 3% of tobacco product ads. In addition, five tobacco product ads (0.7% of tobacco product ads) associated other brands with their own (for example, a Merit ad offering a Mag-lite flashlight prize). Only 2.6% ($n = 29$) of NAST ads showed or referred to cigarette brands; most of these did not seem to be the result of an official relationship. For example, an ad for a "Lucky Dyke" tee shirt using the Lucky Strike logo parodies the brand. Given the apparent reluctance of cigarette advertisers to show openly LGB people in their ads, it seems unlikely that they would formally agree to associate their

brand with a term as blatant as "dyke." Two cessation ads parodied specific cigarette brands.

Audience

Lesbian periodicals, with the fewest issues, also had the fewest ads with tobacco imagery. Because lesbians are not viewed as a valuable market³⁵⁻³⁸ these publications may have had fewer advertisements of any kind than the other periodicals examined. Only seven cigarette ads appeared in one of the specifically lesbian publications. (The other two had a policy against accepting tobacco product advertising.) Lesbian periodicals also had the fewest cessation ads; only eight of these appeared in the lesbian publications, compared with 1062 in gay male publications, 245 in LGBT publications, and 292 in publications with unknown audiences.

Lesbian periodicals had the lowest ratio of cigarette ads per issue, and the lowest ratio of cessation ads per issue (table 2). However, they had the highest ratio of NAST per issue. Gay and LGB periodicals had higher ratios of cessation ads than cigarette ads or NAST, while lesbian periodicals and those with unknown audiences had higher ratios of NAST than other types. Gay periodicals had a higher ratio of anti-tobacco ads per issue than of pro-tobacco ads; for all other audiences the reverse was true.

DISCUSSION

This study does not represent the entire gay press; we were unable to acquire sufficient print runs of several large circulation gay newspapers. California is overrepresented; five newspapers are from the state. California was a leader in tobacco control during this period, with statewide tobacco control media campaigns and implementation of a smoke free workplace law. California is also home to the first LGBT tobacco control organisation, the Coalition of Lavender-Americans on Smoking and Health, founded in 1991, and the first statewide LGBT tobacco control campaign, the California Lavender Smokefree Project, founded in 1994. This might bias the sample toward an overestimation of anti-smoking political ads. The study is descriptive and no inferences can be drawn about the relative extent of tobacco related advertising in the LGB press compared with general circulation magazines and newspapers. No previous studies we could locate have determined the prevalence of non-tobacco product advertising containing tobacco imagery for other print media. We did not examine all ads in the selected publications; thus we do not know the proportion of ad space that contained reference to tobacco. In addition, LGBs are not universally or exclusively exposed to the LGB press; therefore other types of media are probably also influencing the LGB community.

Cigarette ads in the press have been studied extensively,^{28 39-42} including studies of African-Americans,⁴² women,^{41 43} and youth.¹⁸ The LGB community's exposure to cigarette advertising has not previously been studied. This study establishes the extent of tobacco product advertising in a broad sample of the LGB press. Few studies of other print media provide directly comparable data, but cigarette ads

What this paper adds

- Previous work on the possible effects of tobacco advertising has suggested that advertising may increase tobacco use. Studies of putatively non-commercial product placement have reached similar conclusions. No previous work has examined either (1) the extent of tobacco advertising directed at lesbian, gay, and bisexual (LGB) people (a population with high rates of smoking) or (2) the extent of tobacco imagery in non-tobacco advertisements in any media.
- This study determines that cigarette advertising is common in the LGB press, although explicitly LGB people are rarely depicted in such ads. More common than tobacco product advertisements were ads for other products and services that contained tobacco imagery. These ads overwhelmingly presented a pro-tobacco image, and associated tobacco with celebrities more frequently than did tobacco product ads. These ads did not seem to be the result of explicit relationships between tobacco companies and other advertisers. Persuading editors to refuse tobacco product ads will not eliminate the presence of pro-tobacco commercial imagery in the LGB press. Other media should be examined for this phenomenon.

appeared less frequently in this sample than in samples of men's, white women's, and Latinas' magazines.⁴⁴

Furthermore, no studies that we could locate have examined the phenomenon of smoking imagery in advertising for products other than tobacco. These ads promoted a variety of products and services, including drug and alcohol rehabilitation programmes that did not offer smoking cessation services. Our findings show that, in this sample of the LGB press, there were 50% more NAST than cigarette ads. Furthermore, the vast majority of these ads (98%) were pro-smoking. They also more frequently associated tobacco use with celebrities than did cigarette ads.

Ads for cessation services and products ($n = 1607$) outnumbered tobacco product ads ($n = 689$) and NAST ($n = 1033$). However, the numerical dominance of cessation ads was undermined by their small size and reliance on text. When the sizes of the ads were taken into account, both cigarette ads and NAST occupied more page space than did cessation ads. Advocates have suggested requiring that cigarette ads be restricted to "tombstone" style (black and white, text only), under the assumption that these ads would be less compelling.^{45 46} Ironically, it is cessation advertising that is predominantly using this type of advertising. This may be an issue of cost: black and white text advertising is cheaper than four colour imagery. It also seems that lesbians, despite their high smoking rates, have been largely ignored by tobacco cessation advertisers. In over a decade of issues of

Policy implications

The Master Settlement Agreement in the USA and the international Framework Convention on Tobacco Control, as well as many tobacco control advocates worldwide, seek to reduce the presence of tobacco advertising. This work suggests that it may be important to expand these goals to cover any commercial depiction of tobacco use, regardless of the product being advertised.

three periodicals serving lesbians, only eight cessation ads appeared.

Tobacco brand sponsorship of other products, events, or services was rare. However, the imagery found in NAST, although unbranded, may normalise and promote tobacco use as sponsorship does for brands. By associating tobacco use with other desirable goods, smoking is presented as part of a lifestyle demarcated by certain consumer products. Sponsorship provides an opportunity for cigarette brands and events to create or enhance symbolic values for one another; similarly, in NAST, smoking is used to reinforce the image of another product, and its image is in turn reinforced. (As tobacco companies were among the first to adopt sponsorship as a promotional tool,⁴⁷ they are probably aware of this process.) There is no evidence that these ads represent formal sponsorship arrangements; indeed, the absence of branding suggests they do not. Neither is there evidence that NAST are used by editors to attract or please tobacco advertisers. None the less, they may be significant promoters of tobacco use.

The literature on sponsorship has assumed that the benefit of such arrangements for the sponsored entity is money, and for the sponsor, association with an event that supports the image of the brand.^{20 22} Sponsorship relationships also create incentives for entities in addition to tobacco companies to oppose tobacco advertising controls. Event owners want to be able to publicise their sponsors.

However, there may be an additional benefit: the image of the cigarette brand (or smoking itself) supports the image of the event. Event owners would probably not accept the sponsorship of just any product: it is hard to imagine, for example, auto racing sponsored by Tampax, or even by Virginia Slims. The sponsor product and the event must support and reinforce each other's images; that is, each provides context for the other, enhancing one another's "desired symbolic qualities."²⁰ Thus, other products may enhance their symbolic value by their proximity to cigarettes.

Although cigarette advertising is an attempt to get users or not-yet users to choose a particular brand, from the perspective of tobacco companies even unbranded tobacco imagery has value. Tobacco imagery normalises tobacco use, keeping it in the realm of everyday activity, a specific goal of the industry.^{48 49} Similarly, even unbranded tobacco use imagery may serve to reinforce the symbolic value of other products. This study, which examines advertising in the LGB press, provides some empirical evidence that advertisers use tobacco imagery to support the image of other products, even in the apparent absence of sponsorship agreements.

There is no evidence that the vast majority of NAST in this sample involve relationships with tobacco companies. However, the tobacco industry has proved to be very creative at developing sub silentio methods where advertising and sponsorship are restricted. Some of these include brand stretching (advertising a non-tobacco product with a tobacco brand name) and guerrilla marketing (using graffiti or paying people to "casually" talk about a brand).^{50 51} The industry has also been known to informally plant its products in other contexts, for instance, by giving cigarettes to fashion photographers to use in photo shoots.⁵² As advertising and formal sponsorship are increasingly restricted, these practices may become more important to tobacco companies, and what now is done by non-tobacco advertisers for their own reasons could be encouraged by the industry.

Advocacy work has focused on persuading editors to create policies against taking tobacco advertising.^{34 53} This study suggests that another source of tobacco promotion, advertising for other products and services, is also common. Advocates should encourage editors and publishers to scrutinise and refuse all pro-tobacco advertising.

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Authors' affiliations

E A Smith, N Offen, R E Malone, Department of Social and Behavioral Sciences, University of California, San Francisco, CA 94143, USA; Libby.Smith@ucsf.edu

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REFERENCES

- 1 Department of Health and Human Services. *Reducing tobacco use: a report of the Surgeon General*. Washington, DC: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2000.
- 2 MMWR. Prevalence of current cigarette smoking among adults and changes in prevalence of current and some day smoking—United States, 1996–2001. *MMWR Morb Mortal Wkly Rep* 2003;52: 303–4, 306–7.
- 3 Stall RD, Greenwood GL, Acree M, et al. Cigarette smoking among gay and bisexual men. *Am J Public Health* 1999;89:1875–8.
- 4 Ryan H, Wortley PM, Easton A, et al. Smoking among lesbians, gays, and bisexuals: a review of the literature. *Am J Prev Med* 2001;21:142–9.
- 5 Tang H, Greenwood GL, Cowling DW, et al. Cigarette smoking among lesbians, gays, and bisexuals: how serious a problem? (United States). *Cancer Causes Control* 2004;15:797–803.
- 6 Greenwood GL, Paul JP, Pollack LM, et al. Tobacco use and cessation among a household-based sample of US urban men who have sex with men. *Am J Public Health* 2005;95:145–51.
- 7 Diamant AL, Wold C, Spritzer K, et al. Health behaviors, health status, and access to and use of health care: a population-based study of lesbian, bisexual, and heterosexual women. *Arch Fam Med* 2000;9:1043–51.
- 8 Valanis BG, Bowen DJ, Bassford T, et al. Sexual orientation and health: comparisons in the women's health initiative sample. *Arch Fam Med* 2000;9:843–53.
- 9 Plumb M. I started smoking when I was in high school. *Journal of the Gay and Lesbian Medical Association* 1998;2:133–4.
- 10 Smith EA, Offen N, Malone RE. Pictures worth a thousand words: non-commercial tobacco content in the lesbian, gay, and bisexual press (in press).
- 11 Pollay RW. Considering the evidence, no wonder the court endorses Canada's restrictions on cigarette advertising. *Journal of Public Policy and Marketing* 2004;23:80–8.
- 12 While D, Kelly S, Huang W, et al. Cigarette advertising and onset of smoking in children: questionnaire survey. *BMJ* 1996;313:398–9.
- 13 Loken B, Howard-Pitney B. Effectiveness of cigarette advertisements on women: an experimental study. *J Appl Psychol* 1988;73:378–82.
- 14 Feldman E, Bayer R. *Unfiltered: conflicts over tobacco policy and public health*. Boston: Harvard University Press, 2004.
- 15 World Health Organisation. Framework Convention on Tobacco Control. <http://www.who.int/tobacco/framework/download/en/> (accessed 27 Apr 2005).
- 16 Kluger R. *Ashes to ashes: America's hundred-year cigarette war, the public health, and the unabashed triumph of Philip Morris*. New York: Knopf, 1996.
- 17 National Association of Attorneys General. Master Settlement Agreement. http://www.naag.org/upload/1109185724_1032468605_cigmsa.pdf (accessed 27 Apr 2005).
- 18 Lieberman A. The effect of enforcement of the Master Settlement Agreement on youth exposure to print advertising. *Health Promot Pract* 2004;5(suppl 3):66–74S.
- 19 Siegel M. Counteracting tobacco motor sports sponsorship as a promotional tool: is the tobacco settlement enough? *Am J Public Health* 2001;91:1100–6.
- 20 Dewhirst TL, Hunter A. Tobacco sponsorship of Formula One and CART auto racing: tobacco brand exposure and enhanced symbolic imagery through co-sponsors' third party advertising. *Tob Control* 2002;11:146–50.
- 21 Vaidya SG, Vaidya JS, Naik UD. Sports sponsorship by cigarette companies influences the adolescent children's mind and helps initiate smoking: results of a national study in India. *J Indian Med Assoc* 1999;97:354–6, 359.
- 22 Vaidya SG, Naik UD, Vaidya JS. Effect of sports sponsorship by tobacco companies on children's experimentation with tobacco. *BMJ* 1996;313:400.
- 23 Cornwell TB. The use of sponsorship-linked marketing by tobacco firms: international public policy issues. *Journal of Consumer Affairs* 1997;31:238–54.
- 24 Dewhirst T. Smoke and ashes: tobacco sponsorship of sports and regulatory issues in Canada. In: Kahle LR, Riley C, eds. *Sports marketing and the psychology of marketing communication*. Mahwah, NJ: Lawrence Erlbaum Associates, 2004:327–51.
- 25 Meenaghan T, Shipley D. Media effect in commercial sponsorship. *European Journal of Marketing* 1999;33:328.
- 26 Gwinner K. A model of image creation and image transfer in event sponsorship. *International Marketing Review* 1997;14:145.
- 27 Gwinner KP, Eaton J. Building brand image through event sponsorship: the role of image transfer. *Journal of Advertising* 1999;28:47.
- 28 Dewhirst TL, Pollay RW. Content analysis of cigarette advertising: a critical review of the literature. In: Taylor CR, ed. *Proceedings of the 2001 conference of the American Academy of Advertising*, Villanova, PA, American Academy of Advertising, 2001.
- 29 Lantz CA, Nebenzahl E. Behavior and interpretation of the kappa statistic: resolution of the two paradoxes. *J Clin Epidemiol* 1996;49:431–4.
- 30 Smith EA, Malone RE. The outing of Philip Morris: advertising tobacco to gay men. *Am J Public Health* 2003;93:988–93.
- 31 Pierce J, Gilpin EA. How did the Master Settlement Agreement change tobacco industry expenditures for cigarette advertising and promotions? *Health Promot Pract* 2004;5(suppl 3):84–90S.
- 32 King C 3rd, Siegel M. The Master Settlement Agreement with the tobacco industry and cigarette advertising in magazines. *N Engl J Med* 2001;345:504–11.
- 33 Offen N, Smith EA, Malone RE. From adversary to target market: the ACT-UP boycott of Philip Morris. *Tob Control* 2003;12:203–7.
- 34 Drabble L. *Ethical funding for lesbian, gay, bisexual, transgender and HIV/AIDS community-based organizations: practical guidelines when considering tobacco, alcohol, and pharmaceutical funding*. San Francisco: Coalition of Lavender Americans on Smoking and Health and Progressive Research and Training for Action, 2001.
- 35 Fejes F, Lennon R. Defining the lesbian/gay community? Market research and the lesbian/gay press. *J Homosex* 2000;39:25–43.
- 36 Penaloza L. We're here, we're queer, and we're going shopping! A critical perspective on the accommodation of gays and lesbians in the US marketplace. *J Homosex* 1996;31:9–41.
- 37 Brownworth V. The truth behind advertising and lesbians. *Lesbian News* 1995:42–43.
- 38 Johnson B. Economics holds back lesbian ad market: 'Want something totally their own'. *Advertising Age* 1993:34.
- 39 Pollay RW, Dewhirst T. A Premiere example of the illusion of harm reduction cigarettes in the 1990s. *Tob Control* 2003;12:322–32.
- 40 Wakefield M, Flay B, Nichter M, et al. Role of the media in influencing trajectories of youth smoking. *Addiction* 2003;98(suppl 1):79–103.
- 41 Amos A, Haglund M. From social taboo to "torch of freedom": the marketing of cigarettes to women. *Tob Control* 2000;9:3–8.
- 42 King C 3rd, Siegel M, Pucci LG. Exposure of black youths to cigarette advertising in magazines. *Tob Control* 2000;9:64–70.
- 43 Anderson SJ, Glantz S, Ling PM. Emotions for sale: cigarette advertising and women's psychosocial needs. *Tob Control* 2005;14:118–26.
- 44 Fernandez S, Hickman N, Klonoff EA, et al. Cigarette advertising in magazines for Latinas, white women, and men, 1998–2002: a preliminary investigation. *J Community Health* 2005;30:141–51.
- 45 MMWR. Current trends in cigarette advertising—United States, 1988. *MMWR Morb Mortal Wkly Rep*, 1990;39:261–5.
- 46 Gostin LO. Corporate speech and the Constitution: the deregulation of tobacco advertising. *Am J Public Health* 2002;92:352–5.
- 47 Meenaghan T. Current developments and future directions in sponsorship. *International Journal of Advertising* 1998;17:3.
- 48 Watson NA, Clarkson JP, Donovan RJ, et al. Filthy or fashionable? Young people's perceptions of smoking in the media. *Health Educ Res* 2003;18:554–67.
- 49 Smith EA, Malone RE. 'Creative solutions': Selling cigarettes in a smoke-free world. *Tob Control* 2004;13:57–63.
- 50 Carter SM. Going below the line: creating transportable brands for Australia's dark market. *Tob Control* 2003;12:87–94.
- 51 Carter SM. New frontier, new power: the retail environment in Australia's dark market. *Tob Control* 2003;12:95–101.
- 52 Cowan WJ, Rogers C. Activity Report May 1–June 16, 1980 (800501–800616). 1980. RJ Reynolds, 503565423/5430. <http://legacy.library.ucsf.edu/tid/1xn61d00>.
- 53 Drabble L. Alcohol, tobacco, and pharmaceutical industry funding: considerations for organizations serving lesbian, gay, bisexual, and transgender communities. *Journal of Gay and Lesbian Social Services* 2000;11:1–26.