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A Content Analysis of Smoking Fetish Videos on YouTube: Regulatory Implications for Tobacco Control

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ARTICLES

A Content Analysis of Smoking Fetish Videos on YouTube: Regulatory Implications for Tobacco Control

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This study examined the prevalence, accessibility, and characteristics of eroticized smoking portrayal, also referred to as *smoking fetish*, on YouTube. The analysis of 200 smoking fetish videos revealed that the smoking fetish videos are prevalent and accessible to adolescents on the website. They featured explicit smoking behavior by sexy, young, and healthy females, with the content corresponding to PG-13 and R movie ratings. We discuss a potential impact of the prosmoking image on youth according to social cognitive theory, and implications for tobacco control.

Despite the continued criticism of and regulatory efforts against smoking, prosmoking messages on the Internet still seem to enjoy immunity from these regulations. With regard to this situation, researchers have recently begun to express concern about the potential impact of the prosmoking messages available online upon adolescents because they make up the largest portion of Internet users (e.g., Hong & Cody, 2002; Ribisl, Lee, Henriksen, & Haladjian, 2003). While a few studies have examined general prosmoking messages on the Internet, this study investigated a specific type of prosmoking image online. We specifically focused on the combined image of smoking and sex, also referred to as *smoking fetish*. The majority of smoking prevention pro-

grams targeting the youth have focused on educating them about the long-term health consequences of smoking, including cancers and other smoking-related diseases, while the short-term benefits of smoking, such as looking sexy and cool, have been relatively less addressed.

Studies indicate that images of smoking associated with sexuality have an influence upon adolescent smoking behavior (Brown & Witherspoon, 2002; Sussman, 2005; also see Charlesworth & Glantz, 2005, for a review). For example, Halpern-Felsher, Biehl, Kropp, and Rubinstein (2004) argued that adolescents' perception that smoking is sexy may outweigh the long-term health consequences of smoking. On the basis of social cognitive theory (Bandura, 1988, 1997, 2001), the sexually attractive model featured in a smoking fetish video can serve as a role model for adolescents to initiate smoking through the observational or vicarious learning process. In addition, the sexual image of smoking can also make smoking behavior more salient and

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lead adolescents to associate smoking with its short-term benefits and related positive outcome expectations. Within the areas of movies and television entertainment programs, some research examined the eroticized smoking images (DuRant et al., 1997; Escamilla, Craddock, & Kawachi, 2000). However, few studies have been conducted to investigate those smoking images on the Internet.

The purpose of this study is to examine the prevalence and accessibility of the smoking fetish videos and their general characteristics in terms of smoking portrayals and model portrayals. The venue of the study is one of the most youth-oriented websites in the United States: YouTube. Considering that online pornography has become a serious social problem since the inception of the Internet, it is apparent that the potential impact of the combination of two detrimental elements—smoking and sex—upon adolescents in an online environment can have serious ramifications for this age group. The content analysis of the smoking fetish videos on YouTube provides an initial step toward examining their effects on the audience (Ribisl et al., 2003). This study also provides an examination of the practical implications for health communication researchers, practitioners, and policymakers in terms of tobacco control on the Internet.

SMOKING, MEDIA, AND REGULATION

Researchers explain that the media not only reflect social values about smoking but also shape them (Wakefield, Flay, Nichter, & Giovino, 2003). In this sense, health communication researchers have pursued numerous studies about the impact of the mass media on adolescent smoking. Specifically, many of these studies have been concerned with cigarette advertising, promotions, and product placement in movies and music videos (Biener & Siegel, 2000; DuRant et al., 1997; Escamilla et al., 2000; Straub, Hills, Thompson, & Moscicki, 2003). For example, a longitudinal study about the influence of tobacco marketing on adolescent smoking found clear evidence that cigarette advertising and promotional activities increase the possibility of adolescent smoking (Biener & Siegel, 2000). Advertising has been addressed as a major factor affecting adolescents' smoking behavior because the purpose of tobacco advertising is to imbue the product with an image that is sufficiently attractive to make them want to use it (Wakefield et al., 2003).

As researchers have found clear evidence of health risks related to smoking, various regulatory efforts have been made to ban prosmoking messages in the traditional media. First, the U.S. Congress banned cigarette advertising on television and radio in 1977 and has required stronger warning labels on print advertising since the 1980s (Brown & Witherspoon, 2002). In 1996, the U.S. Food and Drug Administration (FDA) issued a regulation that restricts tobacco brand sponsorships of sports and entertainment events, free giveaways of any non-tobacco items, and outdoor

cigarette advertising within 1,000 feet of schools and playgrounds (FDA, 2000). In 1998, the Master Settlement Agreement (MSA) banned billboards larger than 14 square feet, cartoons in advertising that target the youth, and payment to television and movie producers for tobacco product placements (National Association of Attorneys General, 2000). Under severe pressure from the antismoking social trend, *R. J. Reynolds*, whose most famous brand is *Camel*, announced that the company would voluntarily stop advertising in the print media in 2008 (Noveck, 2007). In addition, following the increasing concerns about smoking in films, the Entertainment Industries Council launched an initiative in 1997 that was aimed at reducing the gratuitous use of tobacco in films (Shields, Carol, Balbach, & Sarah, 1999). In response to the recent advocacy and Congressional calls for Hollywood to participate in the antismoking movement, the Motion Picture Association of America (MPAA) announced that it would consider smoking as a factor in rating movies; as a result, several movie companies such as Walt Disney and Universal Studios have promised to remove smoking from some of their films (Fixmer, 2007). Consequently, as the traditional media through which tobacco was promoted have begun to lose ground, the Internet has become a popular venue for promoting tobacco products, smoking culture, and smoking lifestyle (Ribisl, 2003).

EXAMINING PROTOBACCO WEBSITES

A recent report indicated that the number of Internet users in the United States reached 238 million in 2007, which comprises 71.1% of the total population (Internet World Stats, 2007). In addition, according to a report on teen Internet use, 93% of this age group are online (Pew Internet & American Life Project, 2007). Health communication researchers have recently begun to pay more attention to the potentially harmful or beneficial roles of the Internet in adolescent health behavior. Several studies have examined the prevalence of antismoking websites (e.g., Paek, Yu, & Bae, 2009) and the effectiveness of such websites on smoking prevention and cessation (Bock et al., 2004). Additionally, some researchers have also examined prevalence of prosmoking messages online (Hong & Cody, 2002; Ribisl, 2003; Ribisl et al., 2003).

One potentially troublesome issue is that there is ambiguity with regard to which branch of government would have jurisdiction in restricting tobacco advertising and promotions on the Internet (Ribisl, 2003). In this sense, the unregulated Web can play a pivotal role not only in selling tobacco products, but also in delivering protobacco messages and images to millions of youths (Hong & Cody, 2002). Ribisl (2003) analyzed websites that contain pictures of celebrity smokers, information on smokers' rights, images of smoking with sex, chat rooms, and discussion boards for building a prosmoking community (e.g., <http://www.smokesigs.com>). These

sites are similar to tobacco advertising in that all of them glamorize tobacco use. Recently, smoking fetishism, in which sexuality is strongly linked with smoking behavior, has been addressed as a notable subset of smoking culture and lifestyle websites (Ribisl et al., 2003).

SMOKING WITH SEX AND ITS POTENTIAL INFLUENCES ON ADOLESCENTS

By definition, fetishism consists of “intense sexual urges and fantasies involving non-living objects and related behavior” (De Silva, 1993, p. 147). In this sense, people who have smoking fetishism may focus on one or more of the following smoking-related behaviors: lighting up, inhaling, exhaling, or holding or dangling tobacco products (Ribisl et al., 2003). The smoking fetish videos include not only images of clothed or partially-clothed women who are smoking seductively, but also explicit sexual content, such as quasi-sexual intercourse while smoking cigarettes (Hong & Cody, 2002; Ribisl, 2003; Ribisl et al., 2003).

While a few existing studies have examined the prevalence of prosmoking messages in general, the purpose of our content-analytic study is to investigate a specific kind of prosmoking image, one that is particularly related to sex. This is for several reasons. First, despite decades of antismoking efforts aimed at stamping out romanticized smoking images from the popular media, social images of smoking as fun, rebellious, and sexy seem resilient (Slater, 2006). Tobacco advertising, delivered through various types of media, has contributed to such enduring smoking images of coolness, sexuality, and popularity (Altman, Slater, Albright, & Maccoby, 1987; Romer & Jamieson, 2001). For example, Hackbarth, Silvestri, and Cosper (1995) pointed out that tobacco companies have frequently used images of youthful vigor, social acceptability, glamorous lifestyle, sexual attractiveness, and healthful bodies as their main themes in outdoor advertising in an effort to appeal to such microsegments as adolescents and women. Second, studies have also found that portrayals of smoking associated with sex are prevalent in the popular media and those portrayals influence youths (see Charlesworth & Glantz, 2005, for a review). According to Halpern-Felsher et al. (2004), although adolescents understand the long-term health risks associated with smoking, their perceptions about looking sexy as a short-term benefit of smoking outweigh those risks and motivate smoking. Third, studies have demonstrated that youths are prone to imitate smoking behaviors performed by role models who have positive outcomes, such as looking cool and sexy (Borzekowski, Flora, Feighery, & Schooler, 1999; DuRant et al., 1997; Escamilla et al., 2000; Watson, Clarkson, Donovan, & Giles-Corti, 2003). For instance, DuRant et al. (1997) analyzed portrayals of smoking and alcohol use in music videos and argued that a high percentage of the music videos on television networks, such

as MTV, portrayed tobacco and alcohol use in conjunction with sexuality. This situation might influence adolescents for whom the musicians, actors, and athletes serve as role models. Finally, given that pornography and other sexual content on the Internet are some of the most demoralizing influences on adolescents (Griffiths, 2000), prosmoking messages online combined with sexuality may exert a doubly powerful impact on them. The connections between role models and the positive expectations for smoking and sexuality that they produce are also supported by social cognitive theory, which we explain next.

THEORETICAL BACKGROUND: SOCIAL COGNITIVE THEORY

The basic premise of social cognitive theory (SCT) is that people learn not only by their own experiences, but also by observing what others do and what the results of others' behaviors are (Bandura, 2001). From the perspective of social learning theory, the predecessor of SCT, adolescent deviant behavior was primarily considered to be an outcome of the operant conditioning through which behavior is shaped by actual consequences and the following rewards (e.g., peer acceptance) within various social contexts (e.g., reference groups) (Krohn, Skinner, Massey, & Akers, 1985). However, SCT suggests that behavior is also learned and reinforced by observing or modeling others; that is, people can indirectly learn behavior while watching behavioral consequences and rewards (Bandura, 1986, 2001). In this sense, it is clear that media are some of the most powerful socializing forces for adolescents, shaping views of what is cool and attractive (Bandura, 2001). Adolescents may observe positive social images about smoking, such as looking tough, sociable, and sexually attractive, through the media (e.g., movies, billboard advertising, and the Internet) and be motivated to smoke as a way of establishing those identities (Ribisl et al., 2003; Sargent et al., 2002; Schooler, Basil, & Altman, 1996). With regard to smoking fetish, tobacco use on the Internet may often be modeled by sexually attractive models and occasionally associated with other adult behaviors such as drinking and sexual intercourse. Exposure to those role models available through media may be more salient to adolescents than their observation of others' smoking in their daily lives (Reichert & Carpenter, 2004).

Second, and more importantly, SCT allows us to explain the potential influence of prosmoking content associated with amusement and arousal (e.g., smoking fetish) with its perceived benefits and positive outcome expectations rather than with perceived risks and negative outcome expectations. According to Bandura (1986), SCT specifies a core set of determinants, the mechanism through which they work, and the ways of translating this mechanism into behavior. The core determinants include knowledge of risks and benefits of different health risk behaviors, outcome

expectations that refer to the anticipated effects of one's behavior, and self-efficacy beliefs that one has control over one's behavior. In particular, self-efficacy beliefs serve as the focal determinant, interacting with the other two (Bandura, 1986, 2001). In fact, most adolescent smoking literature has primarily focused on increasing the self-efficacy beliefs of the age group by conveying the information about long-term health risks (e.g., lung cancer and heart attack) and by generating smoking-related negative outcome expectations (Halpern-Felsher et al., 2004; Parsons, Siegel, & Cousins, 1997). However, Halpern-Felsher et al. (2004) pointed out that an emphasis on perceived risks and negative outcome expectations can account for only half of adolescent health risk behavior because adolescents might be less worried about the long-term health risks. In this sense, it is important to understand how perceived benefits motivate adolescents to smoke and how perceived risks may deter such behavior, especially in the short- versus long-term aspects of smoking. Applying this argument to the context of smoking fetish, its short-term attainable benefits (e.g., feeling relaxed and looking cool or sexy) and related positive expectations may overwhelm perceived long-term health risks and negative outcome expectations, resulting in adolescent smoking initiation.

THE ADVENT OF YOUTUBE AND ITS REGULATORY POLICY

YouTube was founded in February 2005 as a consumer media company where people watch and share original videos worldwide (YouTube, 2007). YouTube alone comprises approximately 20% of all HTTP traffic, or nearly 10% of all traffic on the Internet (Cheng, Dale, & Liu, 2007). It is one of the fastest-growing websites and has become the fourth most accessed site on the Internet (Cheng et al., 2007). YouTube is a free service that allows its subscribers to easily produce, upload, and share their original videos (Freeman & Chapman, 2007). The site also has other prominent social media features, such as user communities (Cheng et al., 2007). Above all, it is noteworthy that 12- to 17-year olds make up a greater portion of the visitors on the site than any other demographic group (Freeman & Chapman, 2007). For these reasons, YouTube is currently in the spotlight of the business world as an ideal platform for advertising and marketing. The site has already been utilized as a major venue of viral marketing by various business entities from entertainment companies to charitable organizations (Mediaco, 2007). In addition, the advertisers on the website include such multinational companies as Nike, BMW, and Fox (Sweeney, 2007). Both researchers and practitioners in the public health arena have begun paying attention to the utility of YouTube (e.g., as a source of immunization: Keelan, Pavri-Garcia, Tomlinson, & Wilson, 2007; Ribisl et al., 2003).

However, YouTube has also been criticized for its loose regulatory policy on such problematic content as amateur

pornographic materials (Blue, 2006; Wired, 2006). YouTube regulates video content with the assistance of the users of the website. Viewers may "flag" a video for possessing inappropriate content, such as pornography or images of drug use, animal cruelty, or other crimes (YouTube, 2007). Upon being flagged, videos are reviewed by YouTube's staff within 48 hours; this does not necessarily lead to a video's deletion, but may if the staff judges it to be inappropriate. YouTube claims that it prevents users from producing or uploading problem content (YouTube, 2007), but aside from this form of voluntary restraint, there is little easily apparent policing of the videos on the site.

RESEARCH QUESTIONS

We start by examining to what extent such smoking fetish videos are available and how accessible the videos will be to adolescents. It is not our intention to assess the effects of such videos on young adolescents. Rather, our study should be viewed as the first step toward examining what kinds of content are available and to what extent (Ribisl et al., 2003). Taking into account the issues already discussed, as well as the relatively new enterprise of examining a smoking fetish on YouTube, we address the following research questions:

- RQ 1: How prevalent are smoking fetish videos on YouTube?
- RQ 2: How accessible are smoking fetish videos to youths on YouTube?
- RQ 3: What are the general characteristics of smoking fetish videos on YouTube in terms of (a) smoking portrayals, (b) general ratings of the videos, and (c) model portrayals?

METHOD

Sample

Samples were collected by entering the search terms *smoking fetish* and *smoking fetishism* into the YouTube search engine. Due to capacity restraints, YouTube offers up to 1,000 video clips for every keyword, so that although 2,300 results were retrieved from the keyword *smoking fetish*, the number of videos available to watch was limited to 1,000. The search outcomes are sorted by relevance (default). Under the terms of use on YouTube (2007), a user must create an account and through that account verify his or her age before being able to view "flagged" content. The only way, then, that adolescents may view adult or "flagged" content is by creating an account with false information; unfortunately, falsifying one's age on a YouTube account is simple and easy. Among 1,000 smoking fetish videos sorted by relevance, we first collected the URLs of the videos that could be watched without signing in, thus excluding those flagged as inappropriate for adolescent users (sampling frame). Second, we chose the

first 200 URLs from the sampling frame because the first 200 may correspond better to the search term than the next 800; the number of relatively irrelevant videos began to increase around the 200th video clip (e.g., the 215th and the 222nd clips did not contain prosmoking messages). Additionally, a sample size of 200 videos was considered to be manageable for coding purposes. It was assumed that most adolescent users would not change the default sort setting (relevance). Finally, in order to provide the coders with identical data from the ever-changing Web environment (Ribisl et al., 2003), we collected all URLs of the sample videos and downloaded the videos for those URLs within one day. The smoking fetish videos in our sample had been posted from September 4, 2006, to December 13, 2007.

Coding Scheme

The content analysis in this study primarily captured the presence of three features that could appear in each smoking fetish video: (1) smoking portrayal, including types of tobacco products; (2) general ratings of smoking fetish videos; and (3) model characteristics, including the number of models, gender, perceived age, ethnicity, degree of nudity, and degree of fetishism. The coding manual was created largely on the basis of the studies of Hong and Cody (2002) and Ribisl et al. (2003). We used the nudity scale of Reichert and Carpenter (2004) for the degree of nudity measure. In measuring the degree of fetishism, we made a selection of five traditional fetish elements, which included gloves, high heels, boots, stockings, and leather or latex clothes. Each of these elements was coded either “1” (present) or “0” (absent) and the scores were summed to create an index from 0 to 5. Finally, to determine general ratings of smoking fetish videos, we used the MPAA guidelines (see Table 1).

The MPAA movie rating system has formed the basis for rating other media products such as television programs and video games for 40 years; therefore, most U.S. citizens are familiar with the system and its use (Walsh & Gentile, 2001). While the MPAA assigns a rating to a film based on its images of violence, sexuality, and drug abuse as well as its overall theme (Leone, 2002), a validity issue may arise as to whether it is fair to assign ratings designed for an entire film to short video clips. To ascertain the suitability of the application of the movie rating system, we examined how a movie trailer, less than 2½ minutes long, is rated, assuming that the movie trailer could act as a counterpart to our sample video clips in terms of its length. In assigning ratings to a movie trailer, the MPAA Advertising Administration uses only two ratings: All Audience and Restricted Audience. However, its requirements and applications are almost the same as those of the MPAA movie rating system, especially in terms of sexual or sensual depictions involving minors (MPAA, 2006). For example, an All Audience trailer, which corresponds to

TABLE 1
Operational Definition of Variables

Smoking Portrayal (.99)	Smoking scenes that show explicitly inhaling and exhaling tobacco
Types of tobacco products (.97)	Images of tobacco products depicted in each video clip: cigarettes, cigars, pipe tobacco, snuff, chew, hookah, and others
Model characteristics:	
1. Number of models (1.00)	The number of models appeared in each video clips, regardless of their roles and appearance time
2. Gender (.95)	Biological sex of models: male, female, and neither (cannot identify or inanimate object)
3. Perceived age (.77)	Perceived age range of models: younger than 18, 18–24, 25–34, 35–59, 60 or older, and unknown (cannot identify or inanimate object)
4. Perceived ethnicity (.99)	Belonging to a particular ethnic group: White (including European), Asian (including Asian American), African American, Latino, and unknown (cannot identify or inanimate object)
5. Degree of nudity (.79)	Demure: everyday dress, excluding short-shorts or mini-skirts Suggestive: partially exposed the upper body, such as unbuttoned blouses, muscle shirts, short-shorts or mini-skirts Partially clad: bodysuits, bathing suit or bikinis Nude: bare bodies, wearing translucent under-apparel, lingerie, or only a towel
6. Degree of fetishism	Whether or not each of the following traditional fetish elements is included: Gloves (1.00), High heels (.99), Boots (.99), Stockings (.99), leather or latex clothes (.99)
General ratings (.93)	G: A G-rated motion picture contains nothing in theme, language, nudity, sex, violence or other matters that would offend parents whose younger children view the motion picture. PG: The more mature themes in some PG-rated motion pictures may call for parental guidance, including some profanity and depictions of violence or brief nudity. PG-13: More than brief nudity will require at least a PG-13 rating, but such nudity in a PG-13-rated motion picture generally will not be sexually oriented. A motion picture’s single use of one of the harsher sexually derived words, though only as an expletive, initially requires at least a PG-13 rating. R: An R-rated motion picture may include adult themes, adult activity, hard language, intense or persistent violence, sexually oriented nudity, drug abuse, or other elements. NC-17: An NC-17 rating can be based on violence, sex, aberrational behavior, drug abuse, or any other element that most parents would consider too strong and therefore off-limits for viewing by their children.

Note. Numbers in parentheses for each item indicate the intercoder reliability.

PG and PG-13 movie ratings, should not include any scenes of nudity, sexual activity, or any minors using tobacco, alcohol, or drugs. A Restricted Audience trailer, including images of excessive sex and violence, corresponds to R and NC-17 movie ratings (MPAA, 2006). Moreover, it can be noted that the MPAA Advertising

Administration assigns ratings to movie trailers by examining their scenes and images on the assumption that a trailer would not distort the theme of an entire movie (MPAA, 2006). Thus, we assume that the MPAA rating system may be applied to short video clips, especially given the absence of any rating system uniquely applied to online video clips.

Coding Procedures

In this study, the unit of analysis is a smoking fetish video on YouTube. Two coders, each of whom was blind to the research questions, coded all of the sample videos. They were trained for three consecutive days with 30 videos that were not included in the sample (Wimmer & Dominick, 2006). During the intensive training sessions, we had group discussions, during which we shared the meanings and nuances about the variables to code (Nelson & Paek, 2005; Paek et al., 2009). For intercoder reliability computation, we adopted Perreault and Leigh's (1989) index (P/L Index). The index is appropriate when there are only two coders and items with nominal scales, which is the case for this study (Nelson & Paek, 2005, 2007; Paek, 2005; Paek et al., 2009; also see Krippendorff, 2004, and Lombard, Snyder-Duch, & Bracken, 2002, for reviews of intercoder reliability). The index is also known to be relatively rigorous and to take chance agreements into account (Rust & Cooil, 1994). Average intercoder reliability coefficient was .95. In addition, all reliability coefficients for each variable exceeded the rule-of-thumb coefficient size, .75 (Rust & Cooil, 1994), with values ranging from .77 to 1.00 (see Table 1). The disagreements were resolved by further discussions among coders. Data analysis is primarily descriptive, given the usefulness of description in the early phases of research in a given topic area (Ribisl et al., 2003).

RESULTS

RQ1: Prevalence of Smoking Fetish Videos on YouTube

The first research question examined the degree of prevalence of smoking fetish videos on YouTube. As of November 4, 2007, we used the search term *smoking* and retrieved 139,000 results on YouTube, which was almost equal to the number of videos concerning a celebrity widely publicized by the media. On the other hand, there were only 2,220 smoking fetish videos, which account for 1.6% of all smoking videos. However, the figure 2,220 was roughly equivalent to the number of videos about a highly popular television program in the United States. The smoking fetish videos also seem to be more prevalent than those of antismoking on YouTube—we found only 1,480 antismoking videos, including the well-known *truth* antismoking advertisements (American Legacy Foundation, 2007), when entering *anti-smoking* into YouTube's search engine. Moreover, the number of smoking fetish videos on YouTube shows a steep increase (see Figure 1), although the pattern only represents the video clips that were available within our time frame (measured at 1-week intervals from the beginning to the end of the study).

RQ 2: Accessibility of Smoking Fetish Videos to Nonadult Users on YouTube

Research question 2 asked how accessible the smoking fetish videos on YouTube are to youths (i.e., nonadults younger than 18 years old). YouTube's code of conduct policy currently outlaws sexually explicit content, including pornography and the depiction of dangerous or illegal acts. For those videos, users can click on the link that appears below each video to flag the video clip as inappropriate for

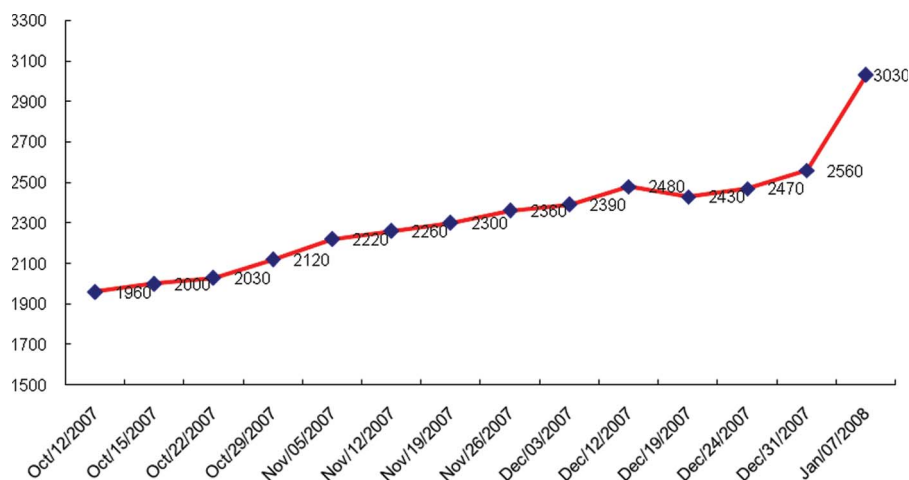


FIGURE 1 Change in the number of smoking fetish videos on YouTube.

some users (e.g., youths). Based on these flaggings, YouTube’s staff determines within 48 hours whether the flagged videos should be deleted (Freeman & Chapman, 2007). To view the flagged videos, users are required to verify they are 18 or older by creating a user account. Although our sampling frame includes only “unflagged” videos that any age group can watch, we found that only 149 smoking fetish videos out of 1,000 required age verification. In other words, 85.1% of the videos were completely accessible to youths who visit YouTube.

RQ3: General Characteristics of Smoking Fetish Videos on YouTube

The third research question asked about the general characteristics of smoking fetish videos with regards to smoking portrayals, ratings, and model portrayals. Tables 2 and 3 illustrate the following results. First, the absolute majority of smoking fetish videos on YouTube (96.9%) explicitly portrayed smoking behaviors, including portrayals of inhaling and exhaling the smoke of tobacco products. In addition, 97.9% of smoking fetish videos featured images of models holding their tobacco products, and 49.9% showed the models lighting up. The percentage of smoking fetish videos that featured all of these behaviors—inhaling, exhaling, holding, and lighting up—is 46%. Second, tobacco products appeared in almost all smoking fetish videos on YouTube (98.5%). Specifically, 91% of tobacco products were cigarettes, followed by cigars (3.2%), pipe tobacco (1.6%), hookah (0.5%), and others (3.7%), such as marijuana (see Table 2). This result is consistent with the trend that cigarettes have been the most widely used tobacco product among smokers aged 12 or older (Substance Abuse

TABLE 3
Model Characteristics of Smoking Fetish Videos on YouTube

Number of models (<i>n</i> = 200)	
One	95.5%
Two	3.0%
More than two	1.5%
Gender (<i>n</i> = 191)	
Male	11.5%
Female	87.4%
Neither	1.0%
Perceived age (191)	
Younger than 18	3.1%
18–24	53.4%
25–34	37.2%
35–59	6.3%
Ethnicity (191)	
White (including European)	84.8%
Asian (including Asian American)	7.9%
African American	1.6%
Latino	3.1%
Others	2.6%

Note. Numbers in parentheses for each item indicate the sample size.

and Mental Health Services Administration, 2007). Third, we examined how the videos would be rated following the MPAA movie guidelines. Only 40% of the videos were PG rated. Conversely, more than half of the smoking fetish videos were PG-13 (31.9%) or R rated (27.2%), which indicates that those videos might include adult activity, harsh language, sexually oriented nudity, or drug abuse, and therefore would not be suitable for adolescents (MPAA, 2005). For example, one of the smoking fetish videos entitled “Smoking Fetish Dreamgirl,” which was R rated, featured a young adult woman who seductively smokes with partial nudity and some strong sexual words. Fourth, with regards to the model portrayals, a single model appeared in over 95% of all smoking fetish videos among which female models held a large majority (87.4%). More than half of the models appeared to be young adults aged from 18 to 24 (53.4%) and about 85% of the models were Caucasian. Among those models, 39% of them were “demure” or dressed in casual clothes, but 25% of the videos featured the models with suggestive clothing or partially clad (19.8%) or nude (5.2%). The degree of fetishism measure revealed that 21.5% of smoking fetish videos contained at least one of the five fetish elements (*mean* = .38, *SD* = .82).

DISCUSSION

As a result of the heavy regulation against prosmoking messages in traditional media, the Internet has become one of

TABLE 2
General Characteristics of Smoking Fetish Videos on YouTube

<i>Smoking portrayal</i> (<i>n</i> = 200)	%
Explicitly portraying smoking behaviors (Inhaling and exhaling)	96.9
Images of the models holding tobacco products	97.9
Images of the models lighting tobacco products	49.9
Featured all behaviors above	46.0
Types of tobacco products (200)	
Appearing tobacco products	98.5
Cigarettes	91.0
Cigars	3.2
Pipe tobacco	1.6
Hookahs	0.5
Others (e.g. marijuana)	3.7
Ratings (200)	
G	1.1
PG	39.8
PG-13	31.9
R	27.2

Note. Numbers in parentheses for each item indicate the sample size.

the major venues for conveying prosmoking messages. Nevertheless, it is difficult to monitor and regulate prosmoking messages online because of the vast size of the Internet and the lack of current restrictions governing tobacco-related Internet content (Ribisl et al., 2003). There have only been a small number of close examinations of specific prosmoking messages which appear online. This study explored the extent to which smoking fetish videos are available and what kinds of images they portray on YouTube. Images of smoking linked with sexual content may lead adolescents toward more favorable attitudes and higher smoking intention (Halpern-Felsher et al., 2004; Paek, 2008). Given the extreme popularity of the website among adolescents between the ages of 12 and 17 (Cheng et al., 2007), the eroticized prosmoking images available on YouTube may exert as much of an impact upon adolescents as, if not more than, that of prosmoking messages in traditional media.

Our findings suggest that adolescents may form the perception that smoking is sexy through the vicarious learning process. Youths are generally considered to be more susceptible to media portrayals than adults, and thus may more favorably view images of young, sexy, and healthy females smoking (Borzekowski et al., 1999; Ribisl et al., 2003; Watson et al., 2003). As DuRant et al. (1997) explained, adolescents consider smoking to be more socially desirable when smoking is viewed in the context of sexuality (DuRant et al., 1997). Sussman (2005) also argued that sexual imagery of smoking may be even more influential than smoking or sexual content alone because both smoking and sexual content have addictive qualities. It is thus alarming that more than half of smoking fetish videos featured young and healthy Caucasian females aged 18 to 24, because by presenting sexually attractive and seductive female smokers, the smoking fetish videos on YouTube may provide viewers with the short-term benefits of smoking, such as looking cool and sexy, and related positive outcome expectations (Bandura, 1988, 1997, 2001; Hong & Cody, 2002).

Our findings address several regulatory issues. First, it is a matter of concern that over 85% of the smoking fetish videos on YouTube were accessible to youths without any restriction. In addition, given the prevalence of the videos on the website, the tobacco control efforts within the area of traditional media seem unable to eradicate prosmoking messages online. Considering its popularity among and potential impact upon youths, YouTube should be required to make more self-regulatory efforts so as not to promote prosmoking messages. More attention to YouTube by anti-smoking activists and public health officials may prompt the website to take more rigorous self-regulatory action. Second, almost 60% of the smoking fetish videos fell within the categories of PG-13 and R on the basis of the MPAA movie rating guideline. This finding seems to suggest that anyone, regardless of his or her age, can freely watch sexually

suggestive smoking videos. Furthermore, anybody (including adolescents) can watch a greater level of adult content, which YouTube *does* regulate, by providing false identification. Third, while we applied the MPAA movie rating system—mostly based on sexuality and violence—to smoking fetish videos, there seems to be a need for stricter guidelines for smoking-related content. For example, the age portrayal should be stricter in smoking content because the use of human models aged between 18 and 24 is considered to be “an apparent violation of the tobacco industry’s voluntary advertising code” (Mazis, Ringold, Perry, & Denman, 1992, p. 22). According to the Cigarette Advertiser’s Code, human models who are portrayed as smokers in tobacco advertising should be at least 25 years old (Mazis et al., 1992).

Despite its significant implications for tobacco control, our study has several limitations. First, we chose the 200 sample video clips that were most relevant (according to YouTube’s relevance sorting function) to the keywords *smoking fetish* or *smoking fetishism*. It was our intention both to produce a manageable sample size for coding and to include video clips most relevant to the topic of smoking fetish while filtering out irrelevant ones. However, our filtering procedure may have missed some relevant smoking fetish video clips. Future research should replicate and expand our findings in examination of smoking-related video clips on YouTube. Further research could also benefit from a more rigorous sampling procedure, preferably one based on audience usage data (e.g., the statistics for page views and thus video consumption). Second, we used the MPAA movie rating system to rate the video clips on YouTube, and although we provided a strong rationale as to why the MPAA rating system may be applicable to our study context, a more appropriate measure to rate those video clips as well as other video content online is necessary. Third, we focused on a specific kind of smoking-related issue at the suggestion of previous prosmoking studies (e.g., Hong & Cody, 2002; Ribisl, 2003; Ribisl et al., 2003). However, we also acknowledge that smoking fetishism is one particular kind of prosmoking image, and future research should explore more content-specific prosmoking issues, including those targeted to adulthood, sociability, and/or other types of sexual smoking images, on YouTube as well as on other websites. While examining the prevalence of smoking fetish videos on YouTube, we found that videos featuring other health risk behaviors, such as drinking and drug use, are also numerous. For example, with the keywords *drinking* and *drug*, there were 50,600 and 30,100 results, respectively. Given that YouTube is already in the spotlight of the business world as an ideal platform for advertising and marketing, health communication researchers and practitioners should examine the beneficial and detrimental impact of YouTube, or similar kinds of user-generated, video-sharing websites, on various health behaviors. Finally, although a content-analytic study is an

important first step for exploring what kind of content is available to target audiences (Ribisl et al., 2003), it is limited in terms of implications of the content. A consumer response study is necessary to investigate whether these prosmoking video clips produce any prosmoking beliefs, attitudes, and behaviors among adolescents. In particular, there is an interesting and important empirical question regarding the extent to which the impact on adolescent smoking differs between sexual and other types of prosmoking images, and between smoking images in the traditional media and the nontraditional media, such as YouTube.

The movement to counteract prosmoking content on the Internet still remains in its infancy (Ribisl, 2003). With the unique features of the Internet and websites such as YouTube, health communication researchers and practitioners as well as policymakers face a unique challenge. This study presents a small but important step to urge more research and monitoring efforts of smoking-related content online. Hopefully, future research can build upon the insights illuminated in this study and provide more concrete measures for preventing or reducing the potentially harmful impact upon adolescents of these widespread prosmoking messages.

REFERENCES

- Altman, D. G., Slater, M. D., Albright, C.L., & Maccoby, N. (1987). How an unhealthy product is sold: Cigarette advertising in magazines, 1960–1985. *Journal of Communication, 37*, 95–106.
- American Legacy Foundation (2007). *Programs: Truth*. Retrieved from <http://www.americanlegacy.org/111.htm>
- Bandura, A. (1988). Organization application of social cognitive theory. *Australian Journal of Management, 13*, 275–302.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman.
- Bandura, A. (2001). Social cognitive theory of mass communication. *Media Psychology, 3*, 265–299.
- Biener, L., & Siegel, M. (2000). Tobacco marketing and adolescent smoking: More support for a causal inference. *American Journal of Public Health, 90*, 407–411.
- Blue, V. (2006). GooTube's porn opportunities: The expending world of upload-it-yourself smut. *SFGate*. Retrieved from <http://www.sfgate.com/cgi-bin/article.cgi?f=/g/a/2006/11/02/violetblue.DTL&hw=GooTube+Porn+Opportunists&sn=001&sc=1000>
- Bock, B. C., Graham, A. L., Sciamanna, C. N., Krishnamoorthy, J., Whiteley, J., Carmona-Barros, R., Niaura, R. S., & Abrams, D. B. (2004). Smoking cessation treatment on the Internet: Content, quality, and usability. *Nicotine & Tobacco Research, 6*, 207–219.
- Borzekowski, D., Flora, J., Feighery, E., & Schooler, C. (1999). The perceived influence of cigarette advertisements and smoking susceptibility among seventh graders. *Journal of Health Communication, 4*, 105–118.
- Brown, J. D., & Witherspoon, E. M. (2002). The mass media and American adolescents' health. *Journal of Adolescent Health, 31*, 153–170.
- Charlesworth, A., & Glantz, S. A. (2005). Smoking in the movies increases adolescent smoking: A review. *Pediatrics, 116*, 1516–1528.
- Cheng, X., Dale, C., & Liu, J. (2007, July 25). *Understanding the characteristics of Internet short video sharing: YouTube as a case study*. Retrieved from http://arxiv.org/PS_cache/arxiv/pdf/0707/0707.3670v1.pdf
- De Silva, P. (1993). Fetishism and sexual dysfunction: Clinical presentation and management. *Sexual and Relationship Therapy, 8*, 147–155.
- DuRant, R. H., Rome, E. S., Rich, M., Allred, E., Emans, S. J., & Woods, E. R. (1997). Tobacco and alcohol use behaviors portrayed in music videos: A content analysis. *American Journal of Public Health, 87*, 1131–1135.
- Escamilla, G., Craddock, A. L., & Kawachi, I. (2000). Women and smoking in Hollywood movies: A content analysis. *American Journal of Public Health, 90*, 412–414.
- Fixmer, A. (2007, July 26). Walt Disney to snuff smoking in some films. *Washington Post*. Retrieved from <http://www.washingtonpost.com/wpdyn/content/article/2007/07/25/AR2007072502103.html>
- Freeman, B., & Chapman, S. (2007). Is "YouTube" telling or selling you something? Tobacco content on the YouTube video-sharing website. *Tobacco Control, 16*, 207–210.
- Griffiths, M. (2000). Excessive Internet use: Implications for sexual behavior. *Cyber Psychology & Behavior, 3*, 537–552.
- Halpern-Felsher, B. L., Biehl, M., Kropp, R. Y., & Rubinstein, M. L. (2004). Perceived risks and benefits of smoking: Differences among adolescents with different smoking experiences and intentions. *Preventive Medicine, 39*, 559–567.
- Hackbarth, D. P., Silvestri, B., & Cospser, W. (1995). Tobacco and alcohol billboards in 50 Chicago neighborhoods: Market segmentation to sell dangerous products to the poor. *Journal of Public Health Policy, 16*, 213–230.
- Hong, T., & Cody, M. J. (2002). Presence of pro-tobacco messages on the web. *Journal of Health Communication, 7*, 273–307.
- Hoskyn, J. (2006, June 26). YouTube hailed as advertising medium the future. *vnunet.com*. Retrieved from <http://www.vnunet.com/vnunet/news/2159133/youtube-lauded-advertising-site>
- Internet World Stats. (2007). *Internet usage statistics for the Americas*. Retrieved from <http://www.internetworldstats.com/stats2.htm>
- Keelan, J., Pavri-Garcia, V., Tomlinson, G., & Wilson, K. (2007). YouTube as a source of information on immunization: A content analysis. *Journal of American Medical Association, 298*, 2482–2484.
- Krippendorff, K. (2004). Reliability in content analysis: Some common misconceptions and recommendations. *Human Communication Research, 30*, 411–433.
- Krohn, M. D., Skinner, W. F., Massey, J. L., & Akers, R. L. (1985). Social learning theory and adolescent cigarette smoking: A longitudinal study. *Social Problems, 32*, 455–473.
- Leone, R. (2006). Contemplating ratings: An examination of what the MPAA considers "too far for R" and why. *Journal of Communication, 52*, 938–954.
- Lombard, M., Snyder-Duch, J., & Bracken, C. C. (2002). Content analysis in mass communication research: An assessment and reporting of inter-coder reliability. *Human Communication Research, 28*, 587–604.
- Mazis, M. B., Ringold, D. J., Perry, E. S., & Denman, D. W. (1992). Perceived age and attractiveness of models in cigarette advertisements. *Journal of Marketing, 56*, 22–37.
- Meidaco (2007). *Using YouTube*. Retrieved from <http://www.media.co.uk/newsletter/251006/get-your-brand-on-youtube.htm>
- Motion Picture Association of America. (2005). *What do the ratings mean?* Retrieved from http://www.mpa.org/FilmRat_Ratings.asp
- Motion Picture Association of America. (2006). *2006 MPAA advertising handbook*. Retrieved from <http://www.mpa.org>
- National Association of Attorneys General. (2000). *Tobacco*. Retrieved from <http://www.naag.org/tobacco.php>
- Nelson, M. R., & Paek, H.-J. (2005). Cross-cultural differences in sexual advertising content in a transnational women's magazine. *Sex Roles, 53*, 371–383.
- Nelson, M. R., & Paek, H.-J. (2007). A content analysis of advertising in a global magazine across seven countries: Implication for global advertising strategies. *International Marketing Review, 24*, 64–86.
- Noveck, J. (2007, November 27). RJ Reynolds to stop print ads next year. *ABC News*. Retrieved from <http://abcnews.go.com/US/wireStory?id=3922429>

- Paek, H.-J. (2008). Adolescent pre- and post-orientations that determine antismoking campaign effectiveness: Applying the O-S-O-R Model. *Journal of Communication*, 58, 84–105.
- Paek, H.-J., Yu, H., & Bae, B. J. (2009). Is online health promotion culture-bound? Lessons from cross-cultural examination of U.S. and South Korean antismoking websites. *Journal of Advertising*, 38(1), 35–48.
- Parsons, J. T., Siegel, A. W., & Cousins, J. H. (1997). Late adolescent risk-taking: Effects of perceived benefits and perceived risks on behavioral intentions and behavioral change. *Journal of Adolescent*, 20, 381–392.
- Perreault, W. D., & Leigh, L. E. (1989). Reliability of nominal data based on qualitative judgments. *Journal of Marketing Research*, 26, 153–148
- Pew Internet & American Life Project. (2007). *Reports: Family, friends & community*. Retrieved from http://www.pewinternet.org/PPF/r/225/report_display.asp
- Reichert, T., & Carpenter, C. (2004). An update on sex in magazine advertising: 1983 to 2003. *Journalism and Mass Communication Quarterly*, 81, 823–837.
- Ribisl, K. M. (2003). The potential of the Internet as a medium to encourage and discourage youth tobacco use. *Tobacco Control*, 12, 48–59.
- Ribisl, K. M., Lee, R. E., Henriksen, L., & Haladjian, H. H. (2003). A content analysis of web sites promoting smoking culture and lifestyle. *Health Education & Behavior*, 30, 64–78.
- Romer, D., & Jamieson, P. (2001). Advertising smoker imagery and the diffusion of smoking behavior. In P. Solvic (Ed.), *Smoking: Risk, perception, & policy* (pp. 127–155). Thousand Oaks, CA: Sage.
- Rust, R. E., & Cooil, B. (1994). Reliability measures for qualitative data: Theory and implications. *Journal of Marketing Research*, 31, 1–14.
- Sargent, J. D., Dalton, M. A., Beach, M. L., Mott, L. A., Tickle, J. J., Ahrens, B., & Heatherton, T. F. (2002). Viewing tobacco use in movies: Does it shape attitudes that mediate adolescent smoking? *American Journal of Preventive Medicine*, 22, 137–145.
- Schooler, C., Basil, M. D., & Altman, D. G. (1996). Alcohol and cigarette advertising on billboards: Targeting with social cues. *Health Communication*, 8, 109–129.
- Shields, D. L. L., Carol, J., Balbach, E. D., & Sarah, M. (1999). Hollywood on tobacco: How the entertainment industry understands tobacco portrayal. *Tobacco Control*, 8, 378–386.
- Slater, M. D. (2006). Specification and misspecification of theoretical foundations and logic models for health communication campaigns. *Health Communication*, 20, 149–157.
- Straub, D. M., Hills, N. K., Thompson, P. J., & Moscicki, A. (2003). Effects of pro- and anti-tobacco advertising on nonsmoking adolescents' intentions to smoke. *Journal of Adolescent Health*, 32, 36–43.
- Substance Abuse and Mental Health Services Administration. (2007). *Results from the 2006 national survey on drug use and health: National findings*. Retrieved from <http://www.oas.samhsa.gov/nsduh/2k6nsduh/2k6results.cfm#Ch4>
- Sussman, S. (2005). The relations of cigarette smoking with risk sexual behavior among teens. *Sexual Addiction & Compulsivity*, 12, 181–199.
- Sweney, M. (2007). First ads appear on YouTube clips. *Guardian*. Retrieved from <http://www.guardian.co.uk/media/2007/aug/22/advertising.digitalmedia>
- U.S. Food and Drug Administration. (2000, March). *Tobacco*. Retrieved from <http://www.fda.gov/oc/oms/ofm/budget/2001/tobacco.htm>
- Wakefield, M., Flay, B., Nichter, M., & Giovino, G. (2003). Role of the media in influencing trajectories of youth smoking. *Addiction*, 98, 79–103.
- Walsh, D. A., & Gentile, D. A. (2001). A validity test of movie, television, and video-game ratings. *Pediatrics*, 107, 1302–1308.
- Watson, N. A., Clarkson, J. P., Donovan, R. J., & Giles-Corti, B. (2003). Filthy or fashionable? Young people's perceptions of smoking in the media. *Health Education Research*, 18, 554–567.
- Wimmer, R. D., & Dominick, J. R. (2005). *Mass media research: An introduction*. (8th ed.). Belmont, CA: Wadsworth.
- Wired. (2006). *Now starring on the web: YouTube*. Retrieved from <http://www.wired.com/techbiz/media/news/2006/04/70627>
- YouTube. (2007). *About YouTube*. Retrieved from <http://www.youtube.com/t/about>
- YouTube. (2007). *YouTube Community Guidelines*. Retrieved from http://www.youtube.com/t/community_guidelines