Tobacco and Alcohol Use Behaviors Portrayed in Music Videos: A Content Analysis

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ABSTRACT

Objectives. Music videos from five genres of music were analyzed for portrayals of tobacco and alcohol use and for portrayals of such behaviors in conjunction with sexuality.

Methods. Music videos (n = 518) were recorded during randomly selected days and times from four television networks. Four female and four male observers aged 17 to 24 years were trained to use a standardized content analysis instrument. All videos were observed by rotating two-person, male-female teams who were required to reach agreement on each behavior that was scored. Music genre and network differences in behaviors were analyzed with chi-squared tests.

Results. A higher percentage (25.7%) of MTV videos than other network videos portrayed tobacco use. The percentage of videos showing alcohol use was similar on all four networks. In videos that portrayed tobacco and alcohol use, the lead performer was most often the one smoking or drinking and the use of alcohol was associated with a high degree of sexuality on all the videos.

Conclusions. These data indicate that even modest levels of viewing may result in substantial exposure to glamorized depictions of alcohol and tobacco use and alcohol use coupled with sexuality. (*Am J Public Health.* 1997;87:1131–1135)

Introduction

Despite widespread public health campaigns, tobacco and alcohol continue to be used by a substantial proportion of adolescents.[1–7] Tobacco and alcohol use appear to be occurring at younger ages, and they are correlated with one another, as well as with other problem behaviors.[5–13] This clustering of problem behaviors is a particular concern with regard to adolescents who initiate tobacco and alcohol use during early adolescence.[5,7,10] These data suggest that public health approaches may need to target other sources of influence on these behaviors.

Adolescents have high normative expectations about many health risk and problem behaviors, such as tobacco and alcohol use and sexual behaviors.[14–21] Adolescents tend to overestimate both the number of their peers who engage in these behaviors and their peers' norms concerning the acceptability of engaging in these behaviors. There is evidence that adolescents with high normative expectations concerning health risk and problem behaviors, indicating that they view these behaviors as acceptable among their peers or among a significant proportion of the population, are more likely to engage in those behaviors than adolescents with low normative expectations.[14,21,22] Role models such as musicians, actors, and athletes have a substantial influence on adolescents' normative expectations about health risk and problem behaviors when they are observed engaging in these behaviors in the media, such as music videos.[21,23–25] When viewed in the context of sexual or erotic scenes, these behaviors may be viewed by adolescents as desirable.

Adolescents are heavy users of television.[24,25] The entertainment industry has often been accused of promoting adolescent health risk and problem behaviors by portraying adolescent role models engaging in these activities.[25] Cognitive priming theory proposes that problem behaviors seen on television trigger additional information in memory related to the behavior being encoded.[26] Thus, viewing tobacco and alcohol use by role models on television primes semantically related thoughts and behavioral inclinations about tobacco and alcohol use. Social learning theory explains the acquisition of unencountered behavior by proposing that seeing health risk and problem behaviors on television both reduces inhibitions and desensitizes viewers, resulting in more positive attitudes toward the behaviors and enabling viewers to engage in behaviors in which they might not otherwise participate.[27] These theories have been supported by both experimental and quasi-experimental studies of the influence of music videos on attitudes and behaviors of high school and college students.[26–30]

Although some content analyses of the portrayal of problem behaviors on music videos have been reported, these have been primarily of rock videos aired on Music Television (MTV). There is

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TABLE 1—Distribution of Genres of Music Video Recorded from Each Network (n = 518)

	Genre									
	Adult Contemporary		Country		Rock		Rap		Rhythm and Blues	
Network	No.	%	No.	%	No.	%	No.	%	No.	%
MTV	8	5.3	0	0.0	114	75.0	24	15.8	6	3.9
VH1	19	22.9	9	10.8	47	56.6	0	0.0	8	9.6
CMT	1	1.0	100	99.0	0	0.0	0	0.0	0	0.0
BET	3	1.7	2	1.1	1	0.6	89	48.9	87	47.8

Note. MTV = Music Television; VH1 = Video Hits 1; CMT = Country Music Television; BET = Black Entertainment Television.

little information on the proportion of televised music videos that portray the use of tobacco and alcohol by role models. It is also unknown whether there are differences between MTV and other networks in the frequency with which these behaviors are portrayed and whether rock music differs from other music genres such as adult contemporary, rap, rhythm and blues, and country. The purpose of this study was to conduct a content analysis of the positive portrayal of tobacco and alcohol use behaviors on music videos televised on MTV, Video Hits One (VH1), Country Music Television (CMT), and Black Entertainment Television (BET). From our observations of videos, we hypothesized that rock and rap music videos televised on MTV and BET would contain more tobacco and alcohol use. We also analyzed the level of sexuality or eroticism that was portrayed concurrently with the use of tobacco or alcohol.

Methods

Sample

From May 26 to June 23, 1994, 518 unduplicated music videos were recorded from four television networks: MTV (n = 152), VH1 (n = 83), CMT (n = 101), and BET (n = 182). The videos were recorded during the times when adolescents would have the most opportunity to view televised videos: 3:00 PM to 9:00 PM Monday through Thursday, 3:00 PM to 1:00 AM Friday, 10:00 AM to 12:00 AM on Saturday and Sunday. The four networks were randomly assigned to morning, afternoon, and evening time slots and to days of the week by means of a random numbers table. Each network had a similar number of recording opportunities on weekends vs weekdays and in morning, afternoon, and evening time slots. The networks reported that they rotate between 400 and 700 videos at a time and most rotations are 7 days. The differences in these sample sizes reflect the number of unduplicated videos that were televised during the randomly assigned recording times.

Data Collection Instrument

Before recording the videos, the investigators developed and pretested a data collection instrument that measured individual occurrences of multiple types of smoking-related behaviors, smokeless tobacco use, alcohol use behaviors, violence and weapon carrying behaviors, and alcohol and tobacco advertising. For each behavior the location of the scene; emotional tone of the person engaging in the behavior; proximity of the behavior (closeup shot vs background); duration of the shot (brief vs prolonged); and age, gender, and race/ethnicity of the person(s) engaging in the behavior were recorded. Finally, the degree of sexuality or eroticism of the video as a whole was assessed. These assessments were based solely on observed behavior and not the words of the songs. The data collection instrument is available from the authors.

Smoking-related behaviors included lighting a cigarette; holding a cigar or pipe in the mouth or the hand; and portrayal of a cigarette, pipe, or cigar in an ashtray or any other location. We also assessed whether there was an explicitly negative message concerning tobacco use. Smokeless tobacco use included holding a can or bag, putting tobacco into the mouth, spitting tobacco, or having a tobacco bulge visible in the cheek or lower lip. Alcohol use behaviors included holding a drink or bottle, drinking or pouring alcohol, offering or serving a drink or bottle, and portrayal of a bottle or glass on a table. We also recorded whether there was an explicitly negative message about alcohol use, such as an Alcoholics Anonymous public service announcement at the end of the video. Nonstandard advertising included visible cigarette machines and visible cigarette, smokeless tobacco, beer, wine, wine cooler, or hard liquor signs, logos, or enlarged products. Sexuality was measured on a 4-point ordinal scale: (1) no references to sexuality, (2) present but minor references to sexuality (incidental), (3) moderate level of sexuality, (4) sexuality a significant or major part of the video. In addition to these behaviors, the duration of the video (brief vs prolonged) and the genre of music were recorded. Each video was classified as country, rock, rap, rhythm and blues, or adult contemporary on the basis of the song's classification in the June 18, 1994, issue of *Billboard* magazine. In cases where the song or music video was not listed in *Billboard,* the classification was made by the two content analysis scorers. The distribution of genres of music recorded from each of the networks is recorded in Table 1.

Content Analysis

Four female and four male college students ranging in age from 17 to 24 years conducted the content analysis. Two students were Asian-American, two were African-American, one was East Indian–Canadian, and three were Anglo-American. After 12 hours' training in the use of the data collection instrument while viewing videos, the students were randomly assigned to two-person, male-female teams. Each team viewed 10 videos from different genres of music that had previously been scored by the investigators. The two-person team had to reach an agreement before each behavior or variable observed could be recorded on the data collection instrument. This approach produces a more reliable measure of the behaviors than if a single individual conducted the content analysis. The interobserver reliability between the students' and the investigators' recordings for these 10 videos resulted in a mean percentage of agreement of 89.25 ± 7.1 and a mean Kappa of 0.73 ± 0.20.

The eight students were randomly assigned to rotating two-person, male-female teams to conduct the content analysis of the videos. This resulted in each male being teamed with each female an approximately equal number of times. The teams scored videos during 2-hour

viewing periods. There were three viewing periods per day, separated by 1-hour rest periods. The teams rotated viewing periods over a 3-week period. No person scored videos during more than two viewing periods per day. Tapes of videos recorded from the four networks were randomly assigned to viewing periods so that the rotating teams had an equal opportunity to view videos from all genres of music. Videos were viewed and scored in a private research office on a 21-inch Panasonic television/VCR combination unit. When a behavior was observed, the video was stopped so that the observers could record it without missing any other behaviors. Individual scenes on a video could be watched as many times as necessary for the two-person team to agree on the behavior and associated variables. When the team could not agree, the principal investigator (R.H.D.) observed the scene and made the final decision on whether the behavior or any other variable was to be recorded.

Statistical Analysis

The frequencies with which each behavior occurred on the videos were significantly skewed. This prevented us from using parametric statistical tests to compare networks and genre differences in these behaviors. The frequency variables were recoded into dichotomous variables of any occurrence of smoking-related behavior, smokeless tobacco use, and alcohol use. Sexuality of the video as a whole remained as a 4-point ordinal scale. Network and genre differences in each behavior and in sexuality were tested with chi-square tests performed with SAS software (SAS Institute Inc, Cary, NC).

Results

MTV had the highest percentage of videos with smoking-related behaviors ($P \leq .028$), followed in order by VH1, BET, and CMT (Table 2). Only 5 of the 518 videos contained smokeless tobacco use, and percentages did not differ by network. There were no significant differences among the networks in any other tobacco or alcohol use behaviors. Rap music videos had the highest percentage of smoking behavior ($P \leq .001$), followed in order by adult contemporary, rock, country, and rhythm and blues (Table 3). Eleven videos contained 10 or more instances of smoking behaviors. Five of these were rock videos; four were aired on MTV and three were aired on VH1. Ten videos portrayed 20 or more instances of alcohol use. Five of these videos were aired on BET and three were aired on MTV. Rap music accounted for four of the videos and rock music for three. There were no differences among the genres of music videos in any other tobacco or alcohol use behaviors.

TABLE 2—Percentage of Music Videos with Any Tobacco or Alcohol Use Behaviors, by Network

	MTV	VH1	CMT	BET
Smoking*	25.7	22.9	11.9	16.5
Smokeless tobacco	1.3	0.0	1.9	0.6
Alcohol	26.9	25.3	20.8	18.7
Cigarette advertising	2.6	2.4	1.0	0.6
Alcohol advertising	3.9	4.8	6.9	2.8

Note. MTV = Music Television; VH1 = Video Hits 1; CMT = Country Music Television; BET = Black Entertainment Television.
*$P \leq .028$.

TABLE 3—Percentage of Music Videos with Any Tobacco or Alcohol Use Behaviors, by Music Genre

	Adult Contemporary	Country	Rock	Rap	Rhythm and Blues
Smoking*	22.6	11.7	21.6	30.1	10.9
Smokeless tobacco	0.0	1.8	0.6	0.9	1.0
Alcohol	19.4	20.7	24.7	27.4	16.8
Cigarette advertising	0.0	0.9	2.5	1.8	1.0
Alcohol advertising	3.2	6.3	4.3	4.4	1.9

*$P \leq .001$.

Alcohol use was portrayed on a significantly ($P \leq .014$) higher proportion of videos with minimum (30.3%), moderate (33.3%), and high (27.6%) levels of sexuality than of videos with no reference to sexuality (19%). Sexuality was not associated with tobacco use in the videos. Sexuality constituted a greater ($P \leq .0001$) part of videos shown on BET, followed in order by VH1, MTV, and CMT (Table 4). Rhythm and blues and adult contemporary videos contained the most sexuality and country music videos contained the least.

In the music videos that portrayed smoking and alcohol use, the lead singer or performer was twice as likely to smoke (this occurred in 19% of the videos) and three times as likely to drink (in 18.8% of the videos) as a background singer or musician (10% and 6%, respectively). Similarly, during scenes in which the musicians were acting, rather than singing or playing an instrument, the main actor was substantially more likely to be the person who was smoking tobacco or drinking alcohol than was a background actor. In music videos where smoking or drinking occurred, it was young adults who portrayed smoking behaviors in 76% of the videos and alcohol use in 68% of the videos. The apparent illegal use of tobacco and alcohol by children and adolescents occurred in between 6% and 10% of this subset of videos. In nearly all of these videos smoking (90%) and alcohol use (85.5%) were engaged in by males, but 41% of the videos also portrayed women smoking and 48% of the videos showed women drinking alcohol. Although in most cases the person smoking or drinking was White, half of the videos portrayed an African American drinking. In fewer than 5% of these videos was a Latino, an Asian, or an individual from another ethnic group shown smoking or drinking. A majority of the time the emotional tone of the scene in which smoking (74%) or alcohol use (76.9%) was portrayed was positive.

Most of the videos that contained tobacco advertising were on MTV (n = 4) and VH1 (n = 3). The videos with the most alcohol advertisements were on BET

TABLE 4—Degree of Sexuality or Eroticism in Televised Music Videos, by Network and Genre

	No Reference	Present But Minor	Moderate Level	Significant/ Major Part
Network*				
MTV	73.7	16.5	5.9	3.9
VH1	68.7	13.3	15.7	2.4
CMT	80.2	13.8	4.9	1.0
BET	59.3	21.4	82	10.9
Genre*				
Adult contemporary	54.8	19.4	19.4	6.5
Country	81.1	13.5	4.5	0.9
Rock	76.5	14.2	6.8	2.5
Rap	71.7	15.9	3.5	8.9
Rhythm and blues	45.5	26.7	15.8	11.9

Note. The table shows percentages of videos that fell into each category.
*$P \leq .0001$.

(n = 12) and MTV (n = 17). However, CMT televised two videos with a total of four and three, respectively, alcohol advertisements in bar scenes.

Discussion

Television is a powerful socializing agent for children and adolescents.[31,32] Some social scientists argue that it should be considered as important as parents and teachers as a model of values, beliefs, and behaviors.[27] For public health reasons, the direct advertisement of tobacco products has been prohibited from broadcast television since 1971. Recently public health professionals have expressed concern about the potential effects on consumers, particularly children and adolescents, of alcohol and tobacco advertising on television.[33,34] Alcohol advertising in televised sports is common.[33] Also, indirect tobacco advertising in the form of stadium signs, product sponsorships, and so forth is common in many televised sports. Among fifth and sixth grade students, awareness of televised beer advertising was related to more favorable beliefs about drinking, to greater knowledge of beer brands and slogans, and to increased intentions to drink as an adult.[34] However, less is known about the degree to which children and adolescents are exposed to alcohol and tobacco use in other venues on television, such as music videos.

Television is a leading source of information about alcohol and other drugs for adolescents.[35] Considering that many adolescents watch music videos an average of 30 minutes each weekday and 1 1/2 to 2 hours on Saturday and Sunday,[26,36] and that the mean length of a video is from 3.21 minutes for country music to 4.16 minutes for adult contemporary music, these findings indicate that adolescents may be exposed to a considerable amount of alcohol and tobacco use by people they consider positive role models.

We found differences among the networks in the percentage of videos that portrayed tobacco and alcohol use. MTV had the highest percentage (25.7%) of videos that portrayed smoking behavior, while CMT had the lowest (11.9%). MTV also had the highest percentage (26.9%) of videos with alcohol use, although the differences among the networks were not statistically significant. These percentages are consistent with data collected in 1984 that showed that 24.2% of videos aired on MTV contained the use of narcotics, stimulants, and other substances.[32]

We observed substantial differences between musical genres. The highest proportion of videos with smoking (30.1%) and alcohol use (27.4%) were rap music videos. Rhythm and blues (10.9%) and country music (11.7%) videos had the lowest levels of smoking, and rhythm and blues had the least alcohol use. Many of the videos that contained tobacco and alcohol use provided multiple exposures in a single video. Several of the rock and rap videos televised on MTV, VH1, and BET contained over 10 exposures to smoking and over 20 exposures to alcohol use. This positive portrayal of tobacco and alcohol use in music videos is likely to have a considerable impact on adolescents' normative expectations and subsequent behaviors.[15,21,23,25–32,36]

What is not known is how often sexuality and eroticism are used to glamorize alcohol and tobacco on music videos. Baxter et al.[32] reported that 59.7% of the videos sampled from MTV in 1984 "portrayed sexual feelings or impulses." They stated that the sexual content in music videos was understated, relying on innuendo through clothing, suggestiveness, and light physical contact rather than more overt behaviors. We found that a lower percentage of videos portrayed sexuality or eroticism, but we also found that we were measuring more explicit behavior than was measured by Baxter et al.[32] We may have also underestimated the degree of sexuality or eroticism that was portrayed, because the male-female teams had to agree before scoring this variable. On occasions when the principal investigator had to determine whether a behavior should be scored because the members of a team could not agree, it became clear that male and female scorers often perceived this aspect of a video quite differently. Males tended to give videos higher scores on the sexuality scale than females. Of primary importance is that videos with measurable levels of sexuality or eroticism were significantly more likely to contain alcohol use than videos with no referral to sexuality. Experimental studies have found that viewing MTV music videos with sexually explicit themes influences adolescents' attitudes concerning premarital sex and other sexual risk behaviors.[27,37] We found that videos on BET contained the most sexuality, followed by VHI, MTV, and CMT. The positive pairing of alcohol use with sexually explicit themes on music videos could have a profound influence on adolescents' normative expectations concerning alcohol use.

We did not measure the actual length of time for which tobacco and alcohol use behaviors were portrayed on these videos. There may not be a linear trend between the frequency with which these behaviors are portrayed and the overall length of exposure. Because many videos produced for adolescents are characterized by a large number of very short scenes, we do not know whether the length of exposure or the number of exposures has the most effect on adolescents' normative expectations concerning these behaviors. Finally, we do not know if there are seasonal variations in the airing of videos that contain tobacco and alcohol use behaviors.

The response of the public health community to these findings may lead to

policy changes, such as the banning of portrayals of tobacco and alcohol use in music videos, as more explicit tobacco advertising was banned from broadcast television years ago. However, such a change would be difficult to implement owing to the well-financed corporate lobbies of these industries and concern for protection of the videomakers' First Amendment rights. □

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