

The Secondhand Effects of College Drinking: The Need For Media Relations

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Heavy episodic drinking can lead to significant harmful effects for the drinker and others. Rates of heavy alcohol use on college campuses have remained high, despite increased educational interventions. This study examines the coverage of the negative consequences of drinking among college students. This content analysis looks at coverage from 1996-2006 in 32 major US newspapers. Of the total 255 articles, 209 covered at least one negative consequence of college drinking. Consequences were framed as individual in nature and did not acknowledge the impact on other individuals and institutions. Those related to damage to self were covered most often in newspapers from this time period, appearing in nearly every article that mentioned a negative consequence. Damage to others and damages to institutions were mentioned very infrequently. In addition, in 2006, damages to self outnumbered damages to others 4:1 and damages to institutions 10:1. While a range of negative consequences of heavy episodic drinking are covered, the most common harm covered is death, which is severe but highly unlikely. Coverage of more commonly occurring negative consequences were far less frequent. Coverage varied by region and was not consistent with where the greatest college drinking problems are found. The focus on individual harms and particularly those that are uncommon could lead readers to inaccurately perceive the issue as episodic and unrelated to environmental determinants. The study concludes that public relations and public health professionals can use media advocacy to work with the media to illuminate the secondhand impact of episodic drinking beyond those affecting the drinker.

LITERATURE REVIEW

Existing research strongly indicates that public relations and media relations in particular, are effective advocacy tools. Information subsidies (e.g., news releases, news conferences, public relations campaigns, etc.), standard elements of the public relations practitioner's tool kit, influence how journalists package news (Berger, 2001; Curtin, 1999). More specifically, Hutton et al. (2001) found that public relations activities and media coverage impact corporate reputations while Kioussis, Popescu, and Mitrook (2007) report a positive correlation between the tone of public relations messages and the tone of related media coverage.

Agenda setting reveals that media salience of topics increases the general public's perception of salience of those topics (McCombs & Shaw, 1972). Framing theory suggests that the focus media place, or do not place, on a given attribute actually influences how people think about a particular topic. In the context of financial

performance, Kiouisis, Popescu, and Mitrook (2007) found support for both agenda setting and framing.

In this study we examine how print media covered college drinking and we explore how health-focused public relations practitioners and health care professionals might work together to provide a more balanced perspective regarding the individual consequences and secondhand effects of heavy episodic drinking in college settings. Heavy episodic drinking, or five or more drinks in a row on one or more occasions in the past two weeks and, for women, four or more drinks in a row, can lead to significant harmful effects to oneself and to others (e.g., Perkins, 2002; Wechsler, Davenport, Dowdall, Moeykens, & Castillo, 1994; Wechsler, Moeykens, Davenport, Castillo, & Hansen, 1995). Rates of heavy episodic drinking on college campuses have hovered at approximately 44% nationwide, despite increased educational interventions (Wechsler et al., 1994; Wechsler, Dowdall, Maenner, Gledhill-Hoyt, & Lee, 1998; Wechsler et al., 2002; Wechsler et al., 2003). Negative consequences from heavy drinking to self, other individuals, and institutions include academic impairments, blackouts, personal injuries and violence, short- and longer-term physical illnesses, unintended and/or unprotected sexual activity, suicide, sexual coercion/victimization, impaired driving, property damage, noise disturbances, and poor town/gown relations. These consequences have also remained high and stable in the last decade (Perkins, 2002). There are approximately 1,400 deaths per year attributed to excessive drinking among college students (Hingson & Howland, 2002). While death is unlikely, many other consequences such as academic impairment, short-term physical illnesses (hangovers, nausea, vomiting), noise disturbances, and unintended and/or unprotected sex impact over 50% of college students (Perkins, 2002).

One way in which the public can learn about the harms caused by excessive alcohol consumption among college students is through the media (Bandura, 2001, 2004). Media are important sources of health information (Hesse et al. 2005), since they can frame issues for the public (Chyi & McCombs, 2004; Entman, 1993; Noakes & Wilkins, 2002), lead policy makers to take action (Yanovitzky, 2002), and influence the public's attitudes (Domke, Shah, & Wackman, 1998; Iyengar, 1990; Sotirovic, 2001). Yanovitzky and Stryker (2001) found evidence that news stories indirectly impacted youth heavy episodic drinking behavior by mediating policy actions and changes in social acceptability of the behavior. Similarly, Yanovitzky and Bennett (1999) found that media attention to drunk driving impacted the social and cultural environment which could impact behavioral choices. Therefore, it is important to examine the messages the public and policymakers receive through media. This study examines the coverage of the negative consequences of heavy episodic drinking among college students in the past decade in 32 major US newspapers.

Framing

The media can frame issues for the public and policymakers by alerting them to important issues and influencing how they think about issues (Chyi & McCombs, 2004; Iyengar, 1990 Noakes & Wilkins, 2002). Framing is important to health because the

framing of an issue can help set policy and shape the course of debate around an issue (Menashe & Siegel, 1998), and examining frames over time can give insight into the course of public debate (Lawrence, 2004; Lemmens, Vaeth, & Greenfield, 1999; Menashe & Siegel, 1998). Content analysis based on framing has been used to examine a range of health topics including: obesity (Lawrence, 2004; Mastin & Campo, 2006), SARS (Tian & Stewart, 2005), breast health (Andsager & Powers, 2001), breastfeeding (Frerichs, Andsager, Campo, Aquilino, & Dyer, 2006; Henderson, Kitzinger, Green, 2000), and violence (Anastasio & Costa, 2004). It is not just the inclusion of information, but the lack of coverage or information that can shape public attitudes and public debate (Anastasio & Costa, 2004; Brittle & Zint, 2003; McCombs & Shaw, 1972). For example, coverage of sexually transmitted diseases in print media typically fails to include information that would be vital to help people protect themselves, such as causes, prevention, signs, symptoms, screenings, and infection rates (Davidson & Wallack, 2004).

Framing of a problem can also point to appropriate strategies to address it. Rodgers and Thorson (2001) found that coverage of crime and violence in the *Los Angeles Times* was framed predominantly as isolated events and not as patterns that were caused by factors that could point to the need for prevention programs. In addition, reporting as isolated events led to individual blaming of the problem and did not report the public health context in which crime and violence was occurring. Similarly, Campo and Mastin (2007) examined coverage of overweight and obesity in major women's magazines using Social Cognitive Theory (Bandura, 1986, 2001) as a foundation. Social Cognitive Theory clearly suggests that human health is a social matter and not just an individual one (Bandura, 2004). According to this theory, human behavior is the result of three interdependent factors which include behavioral patterns, personal determinants (e.g., cognitive, affective, and biological), and environmental features. Campo and Mastin found that contrary to this perspective, coverage of overweight and obesity was focused almost exclusively on individual strategies to address the problem and ignored environmental influences such as the availability of fresh fruits and vegetables, the presence of sidewalks, or safe neighborhoods. Like the issues of crime/violence and overweight/obesity, how the consequences of heavy episodic drinking are covered could impact whether the reader views heavy episodic drinking as impacting just individuals or others as well. In addition, problems that are considered individual are likely to have individual-focused solutions, while problems that are considered environmental have solutions based in systemic changes.

Prior Alcohol-Related Content Analysis Research

There have been very few previous content analysis studies of alcohol coverage by the media. The only college alcohol content analysis study to date was conducted by Atkin and DeJong (2000). They examined a sample of news coverage of alcohol and other drugs in US college newspapers published in 1994-1995. The negative consequences examined included personal consequences and damage to others. The most commonly described were interpersonal assaults and "other health consequences." The coding scheme for this study did not include an exhaustive list of possible consequences and

the study was conducted more than a decade ago. It also focused on college newspapers, which are frequently read only by college students, faculty and staff. There is no study to date examining the consequences reported in more mainstream media that would be read by parents and the general public. Other content analyses have focused on the coverage of alcohol issues more generally, including a study of tobacco and alcohol coverage in California newspapers between 1997-1998 (Myhre et al., 2002), a content analysis of tobacco and alcohol use in music videos aired in 1994 (DuRant et al., 1997), and a study examining coverage of alcohol control policies in mainstream and Black-oriented newspapers between 1993-1995 (Jones-Webb, Baronowski, Fan, Finnegan, & Wagenaar, 1997). Nearly all prior alcohol content analysis studies have lacked any type of theoretical framework (e.g., Atkin & DeJong, 2000; DuRant et al., 1997; Jones-Webb et al., 1997).

In summary, prior content analysis research is not current, has focused on alcohol more generally than college alcohol use, has focused on specific rather than larger, mainstream audiences (e.g., California, college students), and has not been theoretically driven. This content analysis will address each of these issues, using framing theory to examine mainstream newspapers' coverage of the harms of drinking among college students during the past decade.

Research Questions

From a public relations perspective, it is particularly important to examine media content in order to gain a better understanding of the messages targeted publics are receiving regarding the potential negative consequences of college heavy episodic drinking. Therefore, the following research questions are offered:

RQ1: How much coverage has college drinking received and has it changed over time?

RQ2: What negative consequences of college heavy episodic drinking are covered in major US newspapers?

RQ3: What is the relative mix of negative consequences to self, to other individuals, and to institutions?

RQ4: How has coverage of negative consequences changed over time?

RQ5: How has coverage of negative consequences varied by region?

METHOD

This project is part of a larger content analysis examining newspaper coverage of the negative consequences of heavy episodic drinking and strategies to reduce its harmful effects. The content analysis included articles in 32 major US newspapers¹ published between 1997 and 2006. This period was selected because it includes approximately five years before and five years following the release of the Call to Action Report issued by NIAAA (Task Force of the National Advisory Council on Alcohol Abuse and Alcoholism, 2002). Articles were obtained from LexisNexis Academic using the search terms 'college drinking,' 'college binge drinking,' or 'college alcohol abuse.' The initial

search yielded 465 articles. However, after unrelated articles such as movie reviews or international stories were removed, the final sample included 255 articles.

The coding scheme was developed using Perkins' (2002) list of potential negative consequences, which included damages to self, damages to other individuals, and institutional costs. See Table 1. Coding was conducted by two of the authors. Inter-coder reliability was established from a random sample of 20% of the articles. The coders coded the entire subset and simple agreement was calculated. Holsti's formula was used to compute level of agreement for each variable. The values ranged between 93% and 100%, with an average score of 98.25 ($SD = 2.10$). Scott's pi values were computed for each variable and the average score was .90 ($SD = 0.17$), with a range of .36 to 1.00. The low scores obtained using Scott's pi despite consistently high Holsti's scores are a result of Scott's pi assuming equal distribution of coding (e.g., consequence mentioned in 50% of the articles). The statistic fails to allow for significant inequality in the distribution of cases such as only 5% of the articles include a particular consequence (Neuendorf, 2001; Potter & Levine-Donnerstein, 1999). This problem has been noted by others as a serious limitation of the statistic because it ignores validity issues (Potter & Levine-Donnerstein, 1999). Other recent studies have noted similar problems (e.g., Andsager et al., 2006; Mastin & Campo, 2006). Once inter-coder reliability was established, the remaining articles were randomly divided between the two coders. The analysis included frequencies, percentages, and Pearson's chi-square statistic, where appropriate, to determine associations between consequences and year and region. In order to examine coverage trends by region, the newspapers were categorized into the four geographical regions provided by LexisNexis Academic. *USA Today* and the *Christian Science Monitor*, as national papers, were excluded from the regional analysis.

RESULTS

RQ1 queried how much coverage this topic had received and how it varied over time. Major newspapers included in this analysis covered college drinking stories 255 times in the ten-year period. Coverage varied from year to year, peaking in 2002 ($n = 45$), with the least amount of coverage occurring in 2003 ($n = 12$). See Table 1 and Figure 1. Coverage of the number of negative consequences per article ranged from zero to thirteen, with an average per article of 3.51 ($SD = 2.78$) consequences. The vast majority of articles mentioned seven or fewer consequences. Only one article mentioned 13 different negative consequences. Thirty-six, or 14.1%, mentioned two consequences, which was the mode.

Table 2 illustrates the negative consequences covered by newspapers from 1997-2006 as asked in RQ2 and RQ3. Of the total 255 articles, 209 covered at least one negative consequence of heavy episodic drinking. *Death* was the most widely cited consequence. Over half of the articles (65.9%) referred to death. Consequences related to *damage to self* were covered most often in newspapers from this time period. *Damage to others* was the next most frequently cited group of negative consequences. *Fights or assaults* were the most often covered consequences related to *damage to*

others. Seventy-one articles had references to fights or assaults in this period. Consequences to the educational institutions were very infrequently covered. There was no coverage of *student attrition* related to college drinking. The *time* educational institutions must devote to addressing college drinking was only cited in one article.

The answer to RQ4 is visually depicted in Figure 2. Coverage of all negative consequences has decreased since 1997. The year 2002 saw a spike in the otherwise declining coverage. It appears that in the past two years the coverage of negative consequences was slowly increasing. *Damages to self* are mentioned in 207 of the 209 articles that mention any type of negative consequence, or more than 80% of the total number of articles. *Damage to others* was mentioned in 36.47% of the articles and *damage to universities* was mentioned 7.06% of the time. The changes over time in coverage of *damage to self* were statistically significant, peaking in 2002 [$\chi^2(9, N = 255) = 31.242, p <.001$]. Coverage of *damage to others* and *to institutions* was minimal. The variations in coverage over time for these two groups of variables were not statistically significant. When all of the consequences are analyzed together, the changes throughout the period are statistically significant, with coverage peaking in 2002 [$\chi^2(9, N = 255) = 31.864, p <.001$].

The differences between regions for total consequences, RQ5, were not statistically significant. The northeast region had the most coverage of all types of consequences. Sixty articles, or 80.9% of the articles, in the northeast region mentioned consequences. The coverage of *damage to self* varied by region [$\chi^2(3, N = 222) = 8.073, p <.05$], as seen in Table 2. Although not statistically significant, the northeast region also had the most coverage of *damage to others* and the most coverage of *damage to institutions*. Death [$\chi^2(3, N = 222) = 16.45, p = .001$] and suicide [$\chi^2(3, N = 222) = 12.52, p = .006$] coverage also differed among the regions.

DISCUSSION

This study examined media coverage of the harms associated with college drinking to self, to others, and to institutions while also providing an example of how monitoring media coverage of issues can be a valuable tool used to gain a sense of what information targeted publics may or may not be receiving from the media. It is the first study to examine coverage of the consequences of heavy episodic drinking among college students in mainstream U.S. papers. The results of this study indicate that there has been little coverage of this issue in the past decade. However, the coverage that exists mentions at least some negative consequences in more than four out of five articles, and on average 3.51 consequences per article.

The most striking result is that consequences are largely being framed as an individual problem, with little attention being given to the impacts on other individuals and institutions. Previous content analysis research has similarly failed to find broader public health frames for other health issues such as overweight and obesity (Campo & Mastin, 2007) and violence (Rodgers & Thorson, 2001). Consequences related to *damage to self* were covered most often in newspapers from this period, appearing in nearly every

article that mentioned a negative consequence. *Damage to others* was the next most frequently cited group of negative consequences (roughly one-third of articles). However, *damage to others*, when mentioned, was primarily still related to an individual or a few individuals making a bad decision (e.g., fighting). The broader consequences to others, e.g., damage to institutions, were rarely ever covered (less than 10% of articles). In two years there was no coverage of damage to institutions and, in its peak year of 2002, *damage to institutions* appeared in six articles, or 13.33% of the articles. In addition, in 2006, damages to self outnumbered damages to others 4:1 and damages to institutions 10:1.

While a range of negative consequences of heavy episodic drinking are covered, the harms are often ones that are either focused on individual harms and/or focused on harms that are severe but unlikely. *Death* was the most widely cited consequence, occurring in nearly two-thirds of the articles. Hingson et al. (2002) estimate that there are 1,400 alcohol-related deaths per year among college students. While this may seem high, there are more than 8,000,000 college students enrolled in the United States. While student deaths are important to cover and are highly newsworthy, deaths occur among far less than 1% of the student body. Other consequences, while less severe, are far more likely. A 2001 study of college drinkers reported that in the current academic year, 29.5% missed a class, 22.9% argued with friends, 29% drove after drinking, and 35% did something they regretted after drinking (Wechsler et al., 2002). A survey of students from 89 colleges, suggest that nearly half of all college students have experienced nausea or vomiting in the past year as a result of consumption of alcohol and/or other drugs (Presley et al., 1996). Many secondhand effects were far more common than covered. Sixty percent of non-excessive drinkers report having their sleep or studying disrupted, 47.6% have taken care of a drunk student, 29.2% have been insulted or humiliated, and one in five have experienced an unwanted sexual advance from another student that had been drinking (Wechsler et al., 2002). In terms of institutional costs, more than one-quarter of college administrators surveyed at colleges with low drinking levels and more than half of those from colleges with high drinking levels report moderate to major problems with damage to campus property (Wechsler et al., 1995).

While individual consequences are the most common in reality (Perkins, 2002), the focus on individuals has both public opinion and policy implications. Previous researchers have noted that many issues are framed by media as episodic rather than thematic (Iyengar, 1991; Wallack, Woodruff, Dorfman, & Diaz, 1999). In episodic news coverage, issues are treated as single events unrelated to a broader context. Thematic coverage provides the reader with broader information about the social problem and directs the reader to understand this is not an isolated incident. In the framing of crime and violence, episodic coverage focused on isolated events without referring to the broader context that contributes to crime, such as poverty, lack of employment opportunities and other societal or environmental contributors (Rodgers & Thorson, 2001). Rodgers and Thorson suggest that since a reader is led to believe that the crime is committed because of a 'bad person,' the logical inference is that the solution is punishment, rather than addressing the underlying contributors through prevention.

In the case of college drinking, episodic coverage could lead the reader to believe that solutions such as punishing the student or providing alcohol treatment are sufficient. In addition, without a recognition of broader social causes of heavy episodic drinking (e.g., widespread availability, social acceptance among many college students), negative consequences will clearly be framed as the sole responsibility of the individual who made a poor choice or was not able to 'handle their alcohol.' This places blame squarely on individuals for making poor choices (Guttman & Ressler, 2001). More thematic coverage is needed to suggest to readers that prevention strategies are needed and that environmental factors, including policy changes, may need to be addressed.

Campo and Mastin (2007) similarly found that overweight and obesity have been framed in the media as individual problems. Rather than focusing on episodic and thematic framing, they argue that consistent with Social Cognitive Theory, health behaviors are a product of both individual and social causes (Bandura, 1986). They suggest that without recognition of the impacts on broader society, other social solutions will not be considered. For example, while tobacco use was historically framed as an individual choice, recent efforts in medical and public health research to reframe the issue as one that impacts the health of non-smokers (secondhand smoke that impacts the health and healthcare costs of non-smokers) have caused a shift in how advocacy groups and the public perceive the tobacco issues. The US Surgeon General (US Department of Health and Human Services, 2006) has led to media advocacy efforts to reframe tobacco as everyone's problem in order to impact the public's willingness to consider alternative solutions, such as smoking bans, in addition to individual education and smoking cessation services for smokers themselves (Seffrin, 2006). Other efforts by the American Legacy Foundation have led to health campaigns that address the role the tobacco industry has played in fostering addiction with little concern for public health. This has shifted attention from smoking cessation campaigns and interventions that focus on increasing knowledge of the health consequences of tobacco to understanding efforts to address the broader environmental and economic factors driving tobacco use. The shift has been far more effective than previous prevention campaigns among youth (Farrelly, Davis, Haviland, Messeri, & Heaton, 2005).

Implications

The lack of match between the reality of the harms that are occurring and what is being covered in the media suggests that the public may be misled about the commonness of many consequences of heavy episodic drinking. Taken together, these suggest a need for media advocacy (Wallack & Dorfman, 1996). Media advocacy theory provides direction regarding how to promote more accurate coverage of excessive drinking consequences among college students to themselves and the secondhand effects to their communities. Consistent with SCT, media advocacy theory upholds environmental-based solutions, as opposed to solely individual-based solutions, for public health problems. This approach has been used with tobacco (Mindell, 2001). Furthermore, this perspective suggests a way in which public relations practitioners can work in tandem

with public health professionals and the media to help establish the frames in which public health issues are discussed. For example, based on the results of this study, individuals working on this issue might begin a concerted effort to direct more focus toward both the secondhand effects of heavy episodic drinking and the more common consequences to self, such as unplanned or unprotected sex. When well executed, media advocacy-driven public health coverage shifts from a primarily personal/individual view to a broader social understanding of health (Wallack & Dorfman, 1996). The results of this study suggest a need for public relations and public health professionals to work together to advocate for content that more accurately reflects the broader consequences of heavy episodic drinking. Specifically, this could include framing the issue holistically, which would, for example, provide information on how the environment shapes individual behavior.

In this realm, the public relations profession could learn from anti-tobacco advocates who have been greatly successful in their tactic to place tobacco use within a secondhand effects frame. Existing studies detail the secondhand effects of college drinking. Almost 40% of traffic deaths involve alcohol, resulting in high societal costs, which fall primarily on those who either drink responsibly or don't drink at all. More specifically, 60% of those costs are paid for individuals other than drunk drivers (Harwood, 2000). Furthermore, there is a positive relationship between alcohol consumption and physical assault (Scott, Schafer, and Greenfield, 1999). Similarly, communities that have a high density of liquor stores and bars have more violent assaults (Scribner, MacKinnon, Dwyer, 1995). Moreover, Wechsler, Lee, Hall, Wagenaar, and Lee (2002) found that individuals living in neighborhoods near college campuses report a reduced quality of life that stems from noise, vandalism, and public disturbance as a result of students abusing alcohol. These findings provide clear evidence that a secondhand effects frame may serve the public relations and public health communities well in their efforts to bring attention and action to heavy episodic drinking-related issues.

Limitations and Future Studies

Content analysis can be a valuable method to examine potential observational learning experiences of media consumers; however, content analysis does not provide insight regarding individuals' use of content, nor what they learn from content. However, in general, media tend to be an important source of health information, and newspapers are reliable and credible sources of health information (Atkin & Wallack, 1990; Dutta-Bergman, 2004). It is also important to point out that while college students are an important, at-risk audience for the consequences of heavy episodic drinking, the broader adult population is susceptible as well. A recent study shows that lifetime prevalence of any alcohol use disorder was 30.3% of the general adult population (Hasin, Stinson, Ogburn, & Grant, 2007). Future studies need to continue to examine the coverage of heavy episodic drinking and the corresponding negative consequences including the secondhand effects.

CONCLUSION

This study reveals that coverage of the negative consequences of heavy episodic drinking among college students is heavily focused on individual consequences and extreme but unlikely consequences such as death. The paucity of coverage of the negative consequences to institutions and to communities, or secondhand effects of college drinking, suggests a strong focus on framing this as an individual problem with individual causes, which is inconsistent with Social Cognitive Theory. Despite the epidemic prevalence of heavy episodic drinking and its effects on morbidity and mortality, the issue has failed to garner much attention in the past decade. Public relations practitioners specializing in health communication, as well as those who are employed in higher education, are particularly well placed to work with the media to bring attention to this issue. Framing this issue within a secondhand effects frame may provide an angle that many more stakeholders are willing to support.

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Table 1.
Number of Articles Showing at Least One Consequence Out of 255 Newspaper Articles (1997-2006)

Variables	Total	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total number of articles	255	30	39	26	25	19	45	12	16	15	28
Any type of consequence	209	29	37	22	16	12	37	6	16	13	21
Damage to self	207	29	37	22	16	12	35	6	16	13	21
Damage to others	93	14	17	12	7	5	21	3	4	5	5
Damage to institutions	18	4	1	1	2	1	6	0	0	1	2

Table 2.
Number of Total Consequences Shown in 255 Newspaper Articles (1997-2006)

Variables	Total	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Damage to self											
Academic	44	5	10	6	3	3	7	3	2	3	2
Injury	115	18	17	9	8	4	29	3	8	7	12
Death	168	26	34	18	10	6	30	4	13	9	18
Illness	113	24	16	16	10	5	14	3	10	8	7
Unprotected/ unplanned sex	36	3	8	2	1	1	14	3	1	3	0
Suicide	11	0	1	0	0	1	6	1	0	1	1
Rape/sexual assault	73	8	9	8	5	3	21	3	7	4	5
Drunk driving	92	11	19	6	5	5	23	4	4	5	10
Legal issues	71	12	17	7	8	5	9	2	3	1	7
Impaired athletic performance	2	1	0	0	0	0	0	0	0	0	1
Damage to others											
Vandalism	47	9	10	5	5	4	7	2	1	3	1
Fights/assaults	71	11	13	10	4	3	18	3	2	3	4
Hate-related incidents	1	0	0	0	1	0	0	0	0	0	0
Noise disturbances	10	2	1	1	2	0	3	0	0	1	0
Disrupted sleep/studying	14	5	1	3	2	1	1	0	1	0	0
Forced 'babysitting'	7	2	2	0	1	1	0	0	1	0	0
Damage to institutions											
Student attrition	0	0	0	0	0	0	0	0	0	0	0
Perceived rigor/standing	11	3	0	1	1	1	3	0	0	1	1
Town-gown relations	8	1	1	0	1	0	3	0	0	1	1
Time	1	0	1	0	0	0	0	0	0	0	0

Table 3.
Consequences Shown in Newspapers by Region (1997-2006)

Variables	Total	Midwest	Northeast	Southeast	West
Damage to self	207	34	60	38	46
Academic	44	9	10	8	8
Injury	115	17	32	20	28
Death	168	22	49	37	39
Illness	113	20	37	17	21
Unprotected/unplanned sex	36	4	8	8	12
Suicide	11	0	0	5	4
Rape/sexual assault	73	11	22	16	18
Drunk driving	92	12	27	19	20
Legal issues	71	9	26	16	15
Impaired athletic performance	2	0	2	0	0
Damage to others	93	18	29	15	19
Vandalism	47	9	16	7	7
Fights/assaults	71	13	22	12	15
Hate-related incidents	1	0	0	1	0
Noise disturbances	10	2	4	1	1
Disrupted sleep/studying	14	3	6	0	3
Forced 'babysitting'	7	0	4	0	3
Damage to institutions	18	6	7	2	1
Student attrition	0	0	0	0	0
Perceived rigor/standing	11	5	3	1	1
Town-gown relations	8	1	4	1	1
Time	1	0	1	0	0
Total consequences	209	35	60	38	46

Figure 1. Newspaper coverage of college drinking (1997-2006).

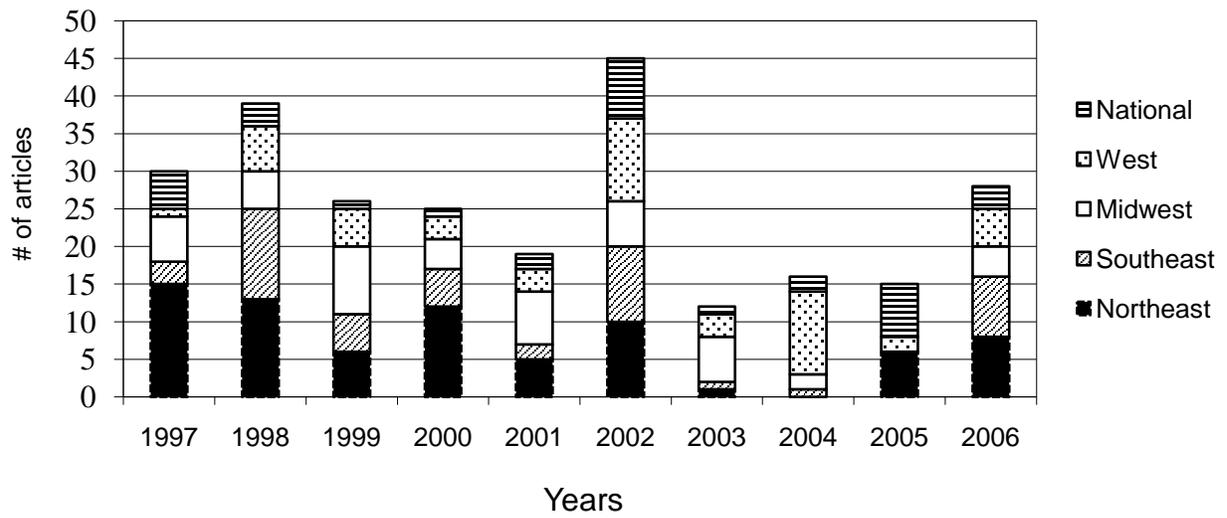
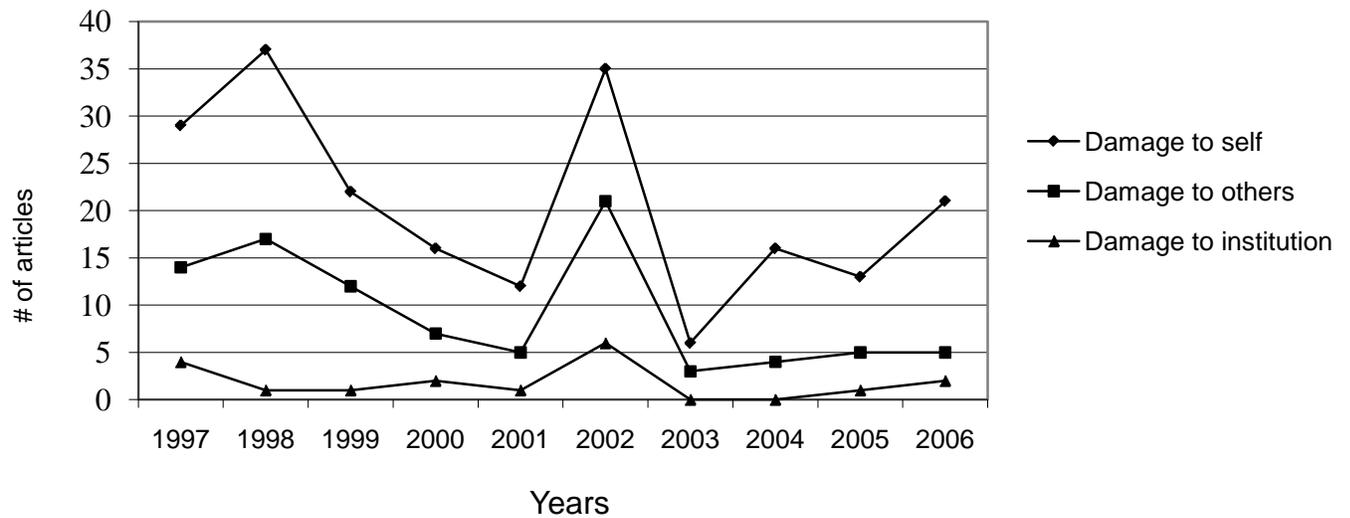


Figure 2. Coverage of negative consequences by major newspapers (1997-2006).



Mainstream newspapers included: the *Atlanta Journal Constitution*, *Baltimore Sun*, *Boston Globe*, *Boston Herald*, *Buffalo News*, *Columbus Dispatch*, *Chicago Sun Times*, *Daily News* (New York City), *Denver Post*, *Houston Chronicle*, *Milwaukee Journal Sentinel*, *New York Times*, *Omaha World News*, *Oregonian* and *Sunday Oregonian* (Portland), *Pittsburgh Post-Gazette*, *Plain Dealer* (Cleveland), *Rocky Mountain News* (Denver), *Sacramento Bee*, *San Antonio Express News*, *St. Louis Post*, *San Diego Union Tribune*, *San Francisco Chronicle*, *Seattle Times*, *Star Tribune* (Minneapolis), *St. Petersburg Times*, *Tampa Tribune*, *Times-Picayune* (New Orleans), *Wall Street Journal*, and *Washington Post*, The newspapers with wide national circulations included *USA Today* and the *Christian Science Monitor*.