

Entertainment Media and Sexual Health: A Content Analysis of Sexual Talk, Behavior, and Risks in a Popular Television Series

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Abstract Recent landmark content analyses of sexual content on television (e.g., Kunkel, Biely, Eyal, Cope-Farrar, Donnerstein, & Fandrich, 2003) provide a baseline for interpreting depictions of sex on individual programs. The present study was designed to investigate the nature and extent of sexual content on HBO's popular television series *Sex and the City*. Compared to television in general, *Sex and the City* is more likely to depict sexual content (including sexual talk and behavior), intercourse between established partners (rather than between partners who had just met), and sexual risks and responsibilities (including sexual patience, precaution, and risks/negative consequences). *Sex and the City* does not differ from television in general in terms of pairing alcohol or drugs with sexual intercourse. The results suggest that *Sex and the City* is more likely than television in general to depict "healthy" sex.

Keywords Sex · Television · Content analysis · *Sex and the City*

On April 2, 2000, the *New York Times* (Jarrell, 2000) reported that it was becoming increasingly common for adolescents, some as young as 13, to regularly engage in oral sex. In response, the writers of the hit cable television series *Sex and the City* created an episode entitled "Hot Child in the City" (Heinberg & Spiller, 2000) that depicted a main character, the sultry Samantha Jones, scolding a group of sexually active 13-year-olds. Samantha's scolding is an example of an embedded health message, a subtle message worked into an existing program to influence

personal and/or public health (Brown & Walsh-Childers, 2002). Embedded health messages have been shown to influence viewers' attitudes and beliefs in a number of studies (e.g., drunk driving, DeJong & Winsten, 1989; emergency contraception, Folb, 2000; knowledge and use of an AIDS hotline, Kennedy, O'Leary, Beck, Pollard, & Simpson, 2004), and they are perceived as more practical than overt persuasive attempts (e.g., public service announcements) in countries with sophisticated media markets (i.e., where viewers have a variety of media options).

"Hot Child in the City" was not a unique episode. Indeed, it was neither the first nor the last time the writers of *Sex and the City* embedded health messages into the show. Over the seasons, *Sex and the City* addressed a number of important health issues (e.g., smoking, cancer), and paid special attention to issues of sexual health (e.g., sexually transmitted diseases, unwanted pregnancies). As a result, *Sex and the City* garnered a number of awards, including SHINE (Sexual Health in Entertainment) awards in 2000 and 2002 for the show's "exemplary job incorporating accurate and honest portrayals of sexuality" and the National Council on Family Relations Media Award in 2001 for the show's portrayal of STDs/AIDS (Home Box Office, 2006).

Despite this praise, not everyone agreed that *Sex and the City* positively influenced public attitudes and beliefs concerning sexual health. For example, shortly before *Sex and the City's* premiere in 1998, a writer for the *Buffalo News* criticized the show for a "total lack of discussion of safe sex" (Pergament, 1998, p. C4). Margaret Polaneczky, an obstetrician-gynecologist at New York-Presbyterian Hospital in Manhattan, accused the show of sparking an STD epidemic: "[Human papillomavirus] is the epidemic right now. It's the whole *Sex and the City* thing" (Ochs,

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2004, p. A17). Even when *Sex and the City* included sexual health information, for instance by portraying Charlotte's problems with the STD vulvodynia in an episode entitled "The Real Me" (King, 2001), some people still argued that the show "failed miserably at portraying the serious and complicated nature" of sexual life (Mate, 2001, para. 3).

Many scholars (e.g., Aubrey, Harrison, Kramer, & Yellin, 2003; Bandura, 1977; Harrison, 2000; Vaughan, Rogers, Singhal, & Swalehe, 2000; Wilson, Smith, Potter, Kunkel, Linz, Colvin et al., 2002) believe that the public can vicariously learn healthy (or unhealthy) social behavior through the mass media. That is, programs such as *Sex and the City* have the potential to influence public health by depicting normatively "good" or "bad" social behavior. For example, longitudinal survey research (Collins, Elliot, Berry, Kanouse, Kunkel, Hunter et al., 2004) has shown that adolescents with high exposure to televised sexual content, as opposed to their peers with low exposure, were twice as likely to initiate sexual intercourse in an upcoming year. This finding suggests that frequent exposure to sexual content in the media establishes a norm that promotes or at least accelerates the initiation of intercourse. However, on the positive side, that same study showed that some adolescents with high exposure to television programs that contained messages and/or portrayals of sexual risk or safety were less likely to initiate intercourse. In other words, sexual content in the media has the potential to affect public sexual health in both negative and positive ways. As a result, highly popular television programs such as *Sex and the City* are worthy of academic study because they have the ability to influence public health.

In our investigation, we aimed to quantify depictions of sex in *Sex and the City* and to compare our findings to the television landscape in general. The idea was to assess how *Sex and the City* portrays sex and sexual health by juxtaposing the controversial show against other television content. Fortunately, other scholars have recently completed a number of landmark content analyses of sexual content on television (Kunkel, Cope, Farinola, Biely, Rollin, & Donnerstein, 1999; Kunkel et al., 2003; Kunkel, Cope-Farrar, Biely, Farinola, & Donnerstein, 2001), which provided both a useful schema for quantifying depictions of sex and a baseline for understanding the resulting data.

Sex and the City

Sex and the City premiered in 1998 on the premium cable channel Home Box Office (HBO). Billed as a romantic sitcom about four single, 30-something women dating and having sex in New York City, the Sunday night showings consistently garnered between seven and eight million viewers throughout its six season run (Carter, 2002). The

show was based on Candace Bushnell's *New York Observer* column of the same name, and it boasted more female viewers aged 18–34 than any other original HBO series (Mansfield, 2000). Executive producer Darren Star claimed that *Sex and the City*'s success came, in part, from its ability to portray sex from a women's perspective (Jones, 2002). Although the series ended in 2004 (10.6 million viewers tuned in to see the final episode), *Sex and the City* continues to garner attention, especially from audiences without access to HBO (Sims, 2004). Today, people can rent or buy the program in VHS or DVD format. Syndicated versions of the show (censored for nudity, swearing, and graphic sex) are also regularly featured on the TBS and FOX television networks.

The Sex on Television Studies

Bandura (1977, 1986) was one of the first scholars to postulate that individuals can learn behavior vicariously through others. That is, individuals can learn indirectly by observing the successes and failures of other people. This framework suggests that media portrayals of social interactions have the potential to impact individuals' behavior. Bandura became interested in exploring how media content influences behavior, and one of his first concerns was how television might shape people's sexual behavior. He concluded:

Sexual modeling can affect sexual behavior in several ways. It can teach amorous techniques, reduce sexual inhibitions, alter sexual attitudes, and shape sexual practices in a society by conveying norms about what sexual behaviors are permissible and which exceed socially acceptable bounds. (Bandura, 1986, p. 133)

Bandura's argument that television portrayals of sexual content can vicariously affect sexual behavior provided a meaningful framework for those interested in studying the sexual content of the media. Analytic work on sexual content in the media blossomed from the Bandurian premise that media content can affect real world behavior.

Of course, quantifying depictions of sex on television is not a novel idea (e.g., Fisher, Hill, Grube, & Gruber, 2004; Gorham, 1994; Greenberg & D'Alessio, 1985; Larson, 1991; Lowry & Towles, 1989; Olson, 1995; Sapolsky & Tabarlet, 1991; Signorielli, 2000; Silverman, Sprafkin, & Rubinstein, 1979); however, a series of recent landmark studies have notably altered the research environment and created unique opportunities for further work (Kunkel et al., 1999; 2001; 2003). Funded by the Kaiser Family Foundation, the Sex on TV studies (henceforth the SOTV studies) are three large-scale content analyses designed to "enhance the level of knowledge that exists about the nature and

extent of sexual messages on American television” (Kunkel et al., 2003, p. 2). The SOTV studies are landmark, much like the National Television Violence Studies that preceded them (Wilson, Kunkel, Linz, Potter, Donnerstein, Smith, Blumenthal, Berry, 1998), because they involved a large number of coders who analyzed a massive sample of programs over an extended period of time. As such, the SOTV studies afford researchers a “clear and comprehensive picture of the patterns of sexual content across the overall television landscape” (Kunkel et al., 2003, p. 2).

To gain a “clear and comprehensive picture” of the overall television landscape, the SOTV researchers analyzed a diverse sample of television programs. The SOTV studies include a sample of television programs from ten channels, including four major commercial broadcast networks (ABC, CBS, FOX, NBC), one independent broadcast station (KTLA), one public broadcasting station (KCET), three basic cable channels (Lifetime, TNT, USA Network), and one premium cable channel (HBO) (Kunkel et al., 2003). Although not perfectly comprehensive, this sample does provide a window into the larger television landscape.

The SOTV studies were focused on two categories of sexual content: sexual talk and sexual behavior. In general, the researchers found that television contained 3–4 scenes per hour that had some sort of sexual content (i.e., sexual talk or behavior). Sexual talk was more frequent than sexual behavior; more than one-half of television programs included some talk about sex, and about one-third featured sexual behavior. In addition, the SOTV studies showed that the frequency of sexual talk and behavior on television had increased over time (i.e., from 1998 to 2002; Kunkel et al., 2003).

Concerning sexual health specifically, the SOTV researchers coded several variables relevant to the present study. First, they coded whether sexual intercourse scenes (a subcategory of sexual behavior) also included alcohol or drugs. Several studies (e.g., Santelli, Robin, Brener, & Lowry, 2001; Stueve, O’Donnell, Duran, Doval, & Geier, 2002) have shown that the combination of substance use and sexual intercourse is potentially hazardous. That is, some research demonstrates that this combination increases the likelihood of both unprotected and unplanned sexual encounters (e.g., Leigh, Schafer, & Temple, 1995; Poulin & Graham, 2001). The SOTV studies demonstrated that alcohol was present far more often than drugs, but intercourse scenes rarely included alcohol or drugs. This discrepancy is probably related to the fact that alcohol is both legal and readily available within the United States, whereas, for the most part, drugs are not.

Second, the SOTV researchers examined the relationship between characters engaged in or planning to engage in sexual behavior. Results of several studies have suggested that individuals who have sex with people they do not

know or with whom they do not have an established relationship are at an increased risk for developing sexual health problems. For instance, a recent study showed that adolescent African American women who had had sex with “new” partners were unlikely to get tested for STDs and therefore were at high risk for living with an untreated STD (Chacko, Weimann, Kozinetz, DiClemente, Smith, Velazquez et al., 2006). Similarly, another recent study showed that people who had bought sex or had had sex with multiple, new partners were less likely to disclose HIV-serostatus to their sexual partners, which put their partners at an increased risk for unknowingly contracting the disease (Raj, Cheng, Levison, Meli, & Samet, 2006). The SOTV studies showed that the majority of sexual activity on television occurs between people who are in an established relationship or who have met each other before the encounter transpires.

Finally, the SOTV researchers coded the percentage of programs that contained sexual content *and* messages about sexual risk and responsibility (Kunkel et al., 2003). Sexual risk and responsibility messages include information about topics such as waiting to have sex, using condoms and/or other methods of contraception, and getting tested for sexually transmitted diseases. In light of the importance of this issue to public health, the SOTV researchers quantified the frequency of risk and responsibility messages at a number of different levels including the average number of scenes per hour, the percentage of programs that include at least a mention of sexual risk and responsibility, and whether or not the risk and responsibility messages were the emphasis of the scene. The SOTV studies demonstrated that few television shows paired sexual content with risk and responsibility messages. Indeed, less than 15% of all programs that contained some sexual content even mentioned risk and responsibility. Over time, television shows were more likely to include such messages, but they rarely constituted the focus of a scene. For example, sexual risk and responsibility was the focus of less than 3% of sexual risk and responsibility scenes.

Hypotheses and Research Questions

One of the benefits of the SOTV content analyses is that researchers can use the same coding scheme and have access to baseline data. That is, subsequent researchers have a quantitative map that details the norms for a particular type of content. The alternative (to construct a new content scheme for each project) affords researchers greater flexibility but sacrifices meaningful opportunities for comparison. Indeed, one criticism Kunkel et al. (2003) leveled against previous content analyses of sexual content on television is that “idiosyncrasies across the research

strategies employed render comparisons from one project to another difficult” (p. 2). In order to compare *Sex and the City* to television programming in general, we decided to forgo the temptation to construct a new content scheme and pursued instead a replication of the scheme utilized in the SOTV studies.

With the SOTV studies as a guide, it was possible to craft a number of hypotheses and research questions. The first major coding category in the SOTV studies is sexual content, which includes both sexual talk and sexual behavior. *Sex and the City* is a television show with sex as a major theme; therefore, it was logical to predict that *Sex and the City* would contain more sexual content than television in general.

H1: *Sex and the City* would contain more sexual content per hour than television in general.

In terms of sexual talk and sexual behavior, *Sex and the City* commonly depicted main characters conversing about sex or engaging in various sexual behaviors. Thus, two additional hypotheses seemed justified.

H1a: *Sex and the City* would contain more sexual talk per hour than television in general.

H1b: *Sex and the City* would contain more sexual behavior per hour than television in general.

What is less clear is the extent to which *Sex and the City* depicted “healthy” sexual content. The SOTV studies provide three sexual health categories in which *Sex and the City* might be compared to television in general, namely the pairing of alcohol or drugs with sexual intercourse, the stage of relationship between sexual partners, and the depiction of sexual risks and responsibilities. As a result, three research questions were posited concerning the depiction of sexual health on *Sex and the City*.

RQ1: How does *Sex and the City* compare with television in general in terms of the depiction of alcohol or drugs in scenes that contain sexual intercourse?

RQ2: How does *Sex and the City* compare with television in general in terms of the depiction of sexual behavior between partners with an established relationship?

RQ3: How does *Sex and the City* compare with television in general in terms of the depiction of sexual risks and responsibilities?

Method

Sample

Sex and the City ran for six seasons (1998–2004) on the cable television channel HBO. Season 1 aired in 1998 (June

1998 through August 1998), Season 2 in 1999 (June 1999 through October 1999), Season 3 in 2000 (June 2000 through October 2000), Season 4 in 2001 and 2002 (June 2001 through February 2002), Season 5 in 2002 (July 2002 through September 2002), and Season 6 in 2003 and 2004 (June 2003 through February 2004). To maximize comparability with the SOTV data, all episodes from 1998 (Season 1), 2000 (Season 3), and 2002 (end of Season 4 and all of Season 5) were included in the analysis.¹ Episodes of the show were obtained by purchasing the entire series on DVD.

In the SOTV studies, all data were reported by hourly increments (i.e., amount of sexual talk per hour). *Sex and the City* episodes are always 30 min long; therefore, all data was collected by episode and later aggregated up to the hour level (i.e., by combining two episodes). In reality, of course, the hourly data reported in the SOTV studies are, except for the occasional program, an aggregation of 30-min programs as well.

Content categories

All sexual content on *Sex and the City* was coded using a scheme identical to that used in SOTV3 (Kunkel et al., 2003). Interested readers are encouraged to consult that text for an extended discussion of the coding instrument; a brief summary of the categories are provided here.

In SOTV3, Kunkel et al. (2003) coded most variables at the level of a scene, which they defined as “a sequence in which the place and time generally hold constant” (p. 7). The three major categories for scene level variables were sexual talk, sexual behavior, and sexual risks and responsibilities.

Sexual talk All statements were coded that were made by characters about the topic of sex, including topics related to sex (e.g., sexually-transmitted diseases). Examples of sexual talk include comments about own/others’ sexual actions/interests (verbal exchanges about sexual relations that people wish they were having now or may want to have in the future), talk about sexual intercourse that had already occurred (comments about specific instances of sexual intercourse that had actually occurred), talk toward sex (comments intended to promote sexual activity that are conveyed directly to the desired partner), talk about sex-related crimes (any reference to illegal sex acts), and expert

¹ The SOTV researchers coded sexual content on television in 1998, 2000, and 2002. *Sex and the City* ran from 1998–2004. That is, baseline data (i.e., the SOTV data) do not exist for all six seasons of *Sex and the City*. Our solution to this problem was to code *Sex and the City* episodes that ran during 1998 (Season 1), 2000 (Season 3), and 2002 (Part of Season 4 and all of Season 5).

advice (the seeking or delivering of sincere advice about sex from someone who has received formal training relevant to the advice they deliver).

Sexual behavior Behaviors were coded if they were a substantial part of the scene (e.g., two people kissing in the background did not qualify) and if they conveyed sexual intimacy (e.g., a kiss between friends did not qualify). After a behavior was identified as sexual, it was placed into one of six categories: physical flirting (behavior meant to arouse or promote sexual interest), passionate kissing (kissing that conveys a sense of sexual intimacy), intimate touching (touching of another's body in a way that is meant to be sexually arousing), sexual intercourse strongly implied, sexual intercourse depicted, and other (e.g., masturbation). In addition, all sexual behavior was coded for the presence of alcohol or drugs (present or not present).

Sexual risks and responsibilities All scenes that contained sexual content (i.e., sexual talk or sexual behavior) were also coded for discussions/depictions of sexual risks and/or responsibilities. If sexual risk and responsibility information was present in the scene, then it was sorted into one of three categories: sexual patience, sexual precaution, or depiction of risks and/or negative consequences of sexual behavior. To be placed in the first category (i.e., sexual patience), a scene had to mention/depict abstinence from sex or waiting for sex as either a positive moral stance or as a sound approach to avoiding risks such as STDs or unwanted pregnancies. The second category (i.e., sexual precaution) included all information related to the use or discussion of preventive measures to reduce sexual risks (e.g., condoms). The final category (i.e., depiction of risks and/or negative consequences of sexual behavior) encompassed all life-altering or life-threatening outcomes associated with sexual intercourse (e.g., unwanted pregnancy, transmission of STDs). In addition to the aforementioned categories, coders also noted whether the sexual risk and responsibility information was a primary, substantial, minor, or inconsequential focus of the scene.

Coding procedures

After three training sessions, the authors coded all episodes. To assess intercoder reliability, Cohen's Kappa was calculated for each content category: sexual talk (.87), sexual behavior (.89), presence of alcohol (.92), presence of drugs (.80), sexual risks and responsibilities (.91), and scene focus (.87). Overall, reliability was quite high.

Results

Analyses

Two basic statistical tests were used in this analysis. First, one sample *t* tests were used to compare per hour data (e.g., number of sexual talk scenes per hour) for *Sex and the City* with data from corresponding SOTV studies. In other words, in this analysis the per hour SOTV data are treated as a population mean against which sub-samples of the data can be tested. Second, Fisher's exact tests (chi-square tests for comparison in which small numbers are expected in some cells) were used to test all other data. To accomplish this task, raw frequencies from both datasets (i.e., the present study and the SOTV studies) were entered into two-by-two tables in SPSS.

Statistical tests were not required to test differences across *Sex and the City* data (e.g., to compare amount of sexual content in 1998 and 2000 episodes of *Sex and the City*) because all episodes were coded for a given year (i.e., as population data all observed differences are real). Likewise, to avoid unnecessary clutter, differences across SOTV data are not replicated in the tables of the present study. Interested readers should consult the original studies for that information (e.g., Kunkel et al., 1999).

H1: sexual content per hour

Hypothesis 1 asserted that *Sex and the City* would depict more sexual content per hour than television in general. The results of a series of *t* tests support this hypothesis. Across all 3 years (see Table 1), *Sex and the City* featured more sexual content scenes per hour than television in general, 1998: $t(5)=12.3, p<.001$; 2000: $t(8)=14.2, p<.001$; 2002: $t(6)=8.2, p<.001$. It is interesting to note that sexual content increased slightly over time in television in general and decreased over time in *Sex and the City*. So, even though *Sex and the City* depicted more sexual content per hour, the gap decreased over time (from a gap of roughly 35 scenes per hour in 1998 to a gap of about 19 scenes per hour in 2002).

H1a: sexual talk per hour

Hypothesis 1a asserted that *Sex and the City* would depict more sexual talk per hour than television in general. The results of a series of *t* tests support this hypothesis. Across all 3 years, *Sex and the City* featured more sexual talk scenes per hour than television in general, 1998: $t(5)=6.3, p=.002$; 2000: $t(8)=7.8, p<.001$; 2002: $t(6)=6.3, p<.001$. However, similar to sexual content, sexual talk increased slightly over time in television in general and decreased in *Sex and the City*. So, once again, even though

Table 1 Depictions of sexual content, sexual talk, and sexual behavior.

	Sex and the City			Sex on TV 1, 2, & 3		
	1998	2000	2002	1998	2000	2002
Any sexual content						
Average scenes per hour	37.8***	36.1***	23.7***	3.2***	4.1***	4.4***
N of Scenes	227	325	166	1,930	2,830	2,992
Sexual talk						
Average scenes per hour	25.0**	20.7***	14.4***	3.0**	3.8***	3.8***
N of Scenes	150	186	101	1,719	2,470	2,453
Sexual behavior						
Average scenes per hour	22.2***	24.2***	15.1***	1.4***	1.8***	2.1***
N of Scenes	133	218	106	420	608	870

One sample *t* tests were used to compare *Sex and the City* data with corresponding SOTV data (e.g., to compare the average number of scenes in *Sex in the City* in 1998 to the average number of scenes in the 1998 SOTV data). In the table, 1.0=1 scene per hour.

** $p < .01$ *** $p < .001$

Sex and the City was depicting more sexual talk per hour, the gap decreased over time (from a gap of 22 scenes per hour in 1998 to a gap of roughly 11 scenes per hour in 2002).

H1b: sexual behavior per hour

Hypothesis 1b asserted that *Sex and the City* would depict more sexual behavior per hour than television in general. The results of a series of *t* tests support this hypothesis. Across all 3 years, *Sex and the City* featured considerably more sexual behavior scenes per hour than television in general, 1998: $t(5) = 6.4$, $p = .001$; 2000: $t(8) = 10.5$, $p < .001$; 2002: $t(6) = 8.0$, $p < .001$. Parallel to sexual content and talk, the number of scenes per hour that depicted sexual behavior increased over time in television in general and, more or less, decreased in *Sex and the City*. Therefore, even though *Sex and the City* depicted more sexual behavior per hour, the gap decreased over time (from a gap of almost 21 scenes per hour in 1998 to a gap of 13 scenes per hour in 2002).

RQ1: alcohol and drugs in sexual intercourse scenes

The first research question asked how *Sex and the City* would compare to television in general in terms of the depiction of drugs and alcohol in sexual intercourse scenes (see Table 2). Concerning the former, both *Sex and the City* and television in general contained very few scenes that combined sexual intercourse and drug use. Fisher exact tests revealed that *Sex and the City* did not differ from television in general in this regard, 1998: $\chi^2(1, N=127) = .9$, $p = .914$; 2000: $\chi^2(1, N=206) = 2.5$, $p = .143$; 2002: $\chi^2(1, N=223) = .4$, $p = .937$.

The pairing of alcohol and sexual intercourse was more common than the pairing of drugs and sexual

intercourse; however, Fisher exact tests revealed that *Sex and the City* did not differ statistically from television in general in this regard, 1998: $\chi^2(1, N=127) = 2.4$, $p = .146$; 2000: $\chi^2(1, N=206) = .0$, $p = .991$; 2002: $\chi^2(1, N=223) = 2.2$, $p = .169$. It is worth noting, however, that the pairing of alcohol and sexual intercourse did increase over time on *Sex and the City* (from 5.1% in 1998 to 10.1% in 2000 to 21.7% in 2002).

RQ2: relationship between partners in sexual intercourse scenes

The second research question asked about the nature of the relationship between intercourse partners. Fisher exact tests revealed several statically significant differences between *Sex and the City* and television in general (see Table 3). First, in the 2000 and 2002 seasons *Sex and the City* was more likely than television in general to depict sexual intercourse between partners with an established relationship, 2000: $\chi^2(1, N=206) = 5.2$, $p = .030$; 2002: $\chi^2(1, N=223) = 4.0$, $p = .046$. Second, in 1998, *Sex and the City* was less likely than television in general to depict sexual intercourse between partners who had met before, 1998: $\chi^2(1, N=127) = 11.1$, $p < .001$. Third, in 2000 and 2002 *Sex and the City* was less likely than television in general to depict sexual intercourse between partners who had just met, 2000: $\chi^2(1, N=206) = 5.9$, $p = .017$; 2002: $\chi^2(1, N=223) = 4.7$, $p = .026$. Thus, generally speaking, *Sex and the City* was more likely to depict sexual intercourse between established partners, and television in general was more likely to depict sexual intercourse between partners who had just met. In addition, *Sex and the City* was more likely to depict sexual intercourse between established partners over time (e.g., 62% of intercourse scenes were between established partners in 1998, and 87% were between established partners in 2002).

Table 2 Use of drugs or alcohol in intercourse scenes.

	Sex and the City			Sex on TV 1, 2, & 3		
	1998	2000	2002	1998	2000	2002
Drugs	0%	5%	0%	2%	1%	1%
Alcohol	5%	10%	22%	15%	10%	11%
<i>N</i> of intercourse scenes	39	59	23	88	147	200

Fisher exact tests were used to compare *Sex and the City* data with corresponding SOTV data (e.g., to compare the percent of programs that depicted alcohol in intercourse scenes in *Sex in the City* in 1998 to the percent of programs that depicted alcohol in intercourse scenes in the 1998 SOTV data). For simplicity, all percentages are shown here rounded.

RQ3: sexual risks and responsibilities

The final research question asked how portrayals of sexual risks and responsibilities on *Sex and the City* would compare with television in general. As in the SOTV studies, we considered risks and responsibilities at three different levels: (a) the percent of programs that contained any mention of sexual risks and responsibilities, (b) the percent of programs that contained a scene primarily focused on sexual risks and responsibilities, and (c) the percent of scenes that contained specific sexual risk and responsibility messages (i.e., sexual patience, sexual precaution, and risks/negative consequences). Table 4 displays the results of our analyses.

Initially, we examined the percent of programs that devoted any time to sexual risks and responsibilities. The results of a series of Fisher exact tests reveal that in 1998 and 2000 *Sex and the City* was more likely than television in general to depict sexual risks and responsibilities, 1998: $\chi^2(1, N=540)=8.8, p=.017$; 2000: $\chi^2(1, N=660)=30.3, p<.001$.

Next, we examined the percent of programs that contained a scene with a primary focus on sexual risks and responsibilities. This second analysis is important because it is possible that *Sex and the City* frequently

mentioned, but rarely focused on, sexual risks and responsibilities. This does not appear to be the case as, in 1998 and 2000, *Sex and the City* was more likely than television in general to include scenes that focused primarily on sexual risks and responsibilities, 1998: $\chi^2(1, N=540)=36.2, p=.001$; 2000: $\chi^2(1, N=660)=36.3, p<.001$.

Finally, we examined the percent of scenes that depicted specific sexual risks and responsibilities. Generally speaking, both *Sex and the City* and television in general devoted only a small percentage of time to scenes that depicted specific sexual risks and responsibilities. This is not surprising as embedded health content, by its very nature, is intended to be a small part of the overall story narrative. Thus, it is more interesting to consider how *Sex and the City* fared compared to television in general. *Sex and the City* contained a higher percentage of scenes that depicted specific risks and responsibilities in both 1998 and 2000, and did not statistically differ from television in general in 2002. By category, *Sex and the City* devoted more time in 1998 and 2000 to sexual patience, 1998: $\chi^2(1, N=2,157)=21.8, p<.001$; 2000: $\chi^2(1, N=3,155)=8.2, p=.011$, in 2000 to sexual precaution, $\chi^2(1, N=3,155)=5.6, p=.026$, and in 2000 to depictions of risks/negative consequences, $\chi^2(1, N=3,155)=4.0, p=.054$.

Table 3 Relationship between partners in intercourse scenes.

	Sex and the City			Sex on TV 1, 2, & 3		
	1998	2000	2002	1998	2000	2002
Established	62%	68%*	87%*	53%	50%*	61%*
Met before	4%***	15%	9%	28%***	25%	19%
Just met	18%	3%*	0%*	10%	16%*	7%*
Can't tell	18%	14%	4%	8%	9%	13%
<i>N</i> of intercourse scenes	39	59	23	88	147	200

Percentages represent the percent of intercourse scenes that portrayed intercourse between partners exhibiting the relationship in question (e.g., 62% of intercourse scenes in *Sex and the City* in 1998 were between established partners). Fisher exact tests were used to compare *Sex and the City* data with corresponding SOTV data (e.g., to compare the percent of scenes that portrayed intercourse between established partners in *Sex in the City* in 1998 to the percent of scenes that portrayed intercourse between established partners in the 1998 SOTV data). For simplicity, all percentages are shown here rounded.

* $p<.05$ *** $p<.001$

Table 4 Sexual risks and responsibilities.

	Sex and the City			Sex on TV 1, 2, & 3		
	1998	2000	2002	1998	2000	2002
Program level						
Programs mentioning R/R	33%*	50%***	14%	9%*	10%***	16%
Programs with primary focus on R/R	25%***	28%***	0%	1%***	3%***	1%
Total <i>N</i> of programs	12	18	14	528	642	595
Total <i>N</i> of Hours	6	9	7	594.5	685	679
Scene level						
Risks/negative consequences	2%	3%*	1%	2%	2%*	2%
Sexual precaution	1%	4%*	1%	2%	2%*	3%
Sexual patience	4%***	4%**	0%	1%***	1%**	1%
<i>N</i> of scenes	227	325	166	1,930	2,830	2,992

R/R = risks and responsibilities. Fisher exact tests were used to compare *Sex and the City* data with corresponding SOTV data (e.g., to compare the percent of programs that mentioned R/R in *Sex and the City* in 1998 to the percent of programs that mentioned R/R in the 1998 SOTV data). For simplicity, all percentages are shown here rounded.

* $p < .05$ ** $p < .01$ *** $p < .001$

Discussion

It is no surprise that *Sex and the City* changed over time. Change is a part of story telling and it may be essential to the enduring success of any television series. The results of the present study suggest that *Sex and the City* transitioned from a show focused on sexual content (e.g., the decrease in sexual content per hour) to one primarily concerned with relationships (e.g., the increase in sexual intercourse between established partners). Though speculative, this interpretation makes sense in that character development likely necessitates such a transition. That is, the natural progression for a show like *Sex and the City* may be for the characters eventually to locate suitable partners (to open up new storylines that involve children, marriage, etc.).

This transition may explain why *Sex and the City* devoted less time to sexual risks and responsibilities in 2002 (compared to prior seasons). In other words, increased attention to sexual intercourse between established partners may translate into decreased time devoted to depictions of sexual risks and responsibilities, possibly because such information is deemed less relevant in established relationships. Research indicates that sexual intercourse between established partners is not devoid of sexual risk (e.g., Juarez & Martin, 2006), but people tend to assume as much.

Changes over time aside, the results of the present study suggest that *Sex and the City* was more likely than television in general to depict “healthy” sex; the show was more likely to portray intercourse between established partners (rather than between partners who had just met) and, in 1998 and 2000, to devote increased time to depictions of sexual risks and responsibilities (i.e., sexual patience, precaution, and risks/negative consequences). Concerning the latter, *Sex and the City* offered more than

just a token acknowledgment of sexual risks and responsibilities. Indeed, when depicting sexual risks and responsibilities, the show often made those topics the focus of the scene. For example, in an episode entitled “Are We Sluts?” (Chupack & Anders, 2000), Aiden, a new love interest of Carrie, the show’s main character, did not want to sleep with her for several weeks after their first date. Carrie, confused by Aiden’s refusal to spend the night, asked Aiden if he was not sexually attracted to her. Aiden proceeded to explain that because he *was* attracted to her and wanted their relationship to develop further, he wanted to base their initial time together on something other than physical intimacy. Aiden was not the only character to promote sexual patience on the show. In “Drama Queens” (Star & Anders, 2000), Charlotte, one of Carrie’s three best friends, met and was instantly attracted to Trey. Over the next few episodes, Charlotte continued to practice sexual patience because she suspected that Trey might be her “Mr. Right,” and she wanted to appear to be sexually responsible.

The “success” of *Sex and the City* is only visible in comparison to the larger television landscape. It is possible that our interpretation of these results would have been considerably different without a corresponding baseline. For instance, an alternative approach to the present study would have been to code all six seasons of *Sex and the City* and to consider the merits of the show in isolation (many content analyses have been carried out in this fashion). In isolation, it would have been tempting to say that *Sex and the City* devoted very little time to sexual risks and responsibilities (even though the show devoted more time to this than television in general), was very likely in the first season to depict sexual intercourse between partners who were not in an established relationship (even though

such depiction was not significantly different from television in general that year), and was increasingly likely to pair alcohol and sexual intercourse (even though the show never significantly differed from television in general in this regard). This hypothetical study/analysis highlights the advantages of having a baseline for comparison in content analysis.

What comparison does not reveal is whether *Sex and the City* included sufficient depictions of “healthy sex” to affect viewers’ health behaviors. This is a question the research community still needs to answer. Embedded health content is intended to be a small part of the overall story narrative, thus it should constitute a minority of the scenes in a program. However, research has yet to clarify how much embedded content is needed to impact public health behavior positively. The answer to this question is likely mediated by a number of factors, including the nature of the media environment, the health issue in question, and the target population. Still, research could help to identify mediating factors as well as basic quantity thresholds necessary for change across factors. Continued research in this area would also provide further tests of the efficacy of embedding health content and potential guides for television writers.

Limitations

Comparing one program to a larger baseline offers several advantages, but it also limits a study in several ways. First, instead of coding every season of *Sex and the City*, we opted to code only those seasons that mirrored the SOTV data. It is possible that coding every season of the show would have yielded a different interpretation of the results. However, we believe that coding every other season (more or less) of the show likely minimized this limitation. Second, the coding scheme utilized in the present study was identical to the one constructed for the SOTV studies, hence it was not tailored to *Sex and the City* itself. A coding scheme designed specifically for *Sex and the City* would have provided additional insight into the program (e.g., the accuracy of portrayals of sexual risk), but it also would have limited the comparability of the findings. For example, altering an existing coding scheme may introduce potential bias by burdening coders with additional coding decisions and by encouraging them to consider content in alternative ways. As our primary interest was in comparison, we opted to forgo the potential benefits of constructing a unique scheme. Of course, nothing precludes the pursuit of additional content analyses of *Sex and the City*. Future researchers could consider the show in isolation and opt to construct an original scheme to capture nuances possibly brushed over in our analysis. Such research would further illuminate *Sex and the City* and potentially provide

researchers with alternative coding categories for describing sexual content.

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References

- Aubrey, J. S., Harrison, K., Kramer, L., & Yellin, J. (2003). Variety versus timing: Gender differences in college students’ sexual expectations as predicted by exposure to sexually oriented television. *Communication Research*, *30*, 432–460.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice-Hall.
- Brown, J. D., & Walsh-Childers, K. (2002). Effects of media violence. In J. Bryant & D. Zillmann (Eds.), *Media effects: Advances in theory and research* (2nd ed., pp. 453–488). Mahwah, NJ: Erlbaum.
- Carter, B. (2002, May 13). Big networks show respect to “Sopranos.” *New York Times*, p. C–1.
- Chacko, M. R., Wiemann, C. M., Kozinetz, C. A., DiClemente, R. J., Smith, P. B., Velasquez, M. M., et al. (2006). New sexual partners and readiness to seek screening for chlamydia and gonorrhea: Predictors among minority young women. *Sexually Transmitted Infections*, *82*, 75–79.
- Chupack, C. (Writer), & Anders, A. (Director). (2000). Are we sluts? [Television series episode]. In M. P. King (Producer), *Sex and the city*. New York: HBO.
- Collins, R. L., Elliot, M. N., Berry, S. H., Kanouse, D. E., Kunkel, D., Hunter, S. B., et al. (2004). Watching sex on television predicts adolescent initiation of sexual behavior. *Pediatrics*, *114*, 280–289.
- DeJong, W., & Winsten, J. A. (1989). *Recommendations for future mass media campaigns to prevent preteen and adolescent substance abuse*. [Special Report]. Cambridge, MA: Harvard School of Public Health Center for Health Communication.
- Fisher, D. A., Hill, D., Grube, J., & Gruber, E. (2004). Sex on American television: An analysis across program genres and network types. *Journal of Broadcasting & Electronic Media*, *48*, 529–553.
- Folb, K. (2000). “Don’t touch that dial!” TV as a—What!?!—positive influence. *SIECUS Report*, *28*(5), 16–18.
- Gorham, J. (1994). Sex in prime-time television: An analysis of content trends, context categories, and sampling considerations. *Communication Research Reports*, *11*, 177–188.
- Greenberg, B. S., & D’Alessio, D. (1985). Quantity and quality of sex in the soaps. *Journal of Broadcasting & Electronic Media*, *29*, 309–321.
- Harrison, K. (2000). The body electric: Thin-ideal media and eating disorders in adolescents. *Journal of Communication*, *50*, 119–143.
- Heinberg, A. (Writer), & Spiller, M. (Director). (2000). Hot child in the city [Television series episode]. In M. P. King (Producer), *Sex and the city*. New York: HBO.
- Home Box Office (HBO). (2006). *Sex and the city*. Retrieved June 11, 2006, from <http://www.hbo.com/city/news/index.shtml>.
- Jarrell, A. (2000, April 2). The face of teenage sex grows younger. *New York Times*, p. 1.
- Jones, K. (2002, October 11). Lucky (Darren) Star. *Austin Chronicle*. Retrieved June 11, 2006, from <http://www.austinchronicle.com>.
- Juarez, F., & Martin, T. C. (2006). Safe sex versus safe love? Relationship context and condom use among male adolescents in the favelas of Recife, Brazil. *Archives of Sexual Behavior*, *35*, 25–35.

- Kennedy, M. G., O'Leary, A., Beck, V., Pollard, K., & Simpson, P. (2004). Increases in calls to the CDC National STD and AIDS Hotline following AIDS-related episodes in a soap opera. *Journal of Communication, 54*, 287–301.
- King, M. P. (Writer & Director). (2001). The real me [Television series episode]. In M. P. King (Producer), *Sex and the city*. New York: HBO.
- Kunkel, D., Biely, E., Eyal K., Cope-Farrar, K., Donnerstein, E., & Fandrich, R. (2003). *Sex on TV III: A biennial report to the Kaiser Family Foundation*. Menlo Park, CA: Kaiser Family Foundation.
- Kunkel, D., Cope, K., Farinola, W., Biely, E., Rollin, E., & Donnerstein, E. (1999). *Sex on TV: A biennial report to the Kaiser Family Foundation*. Menlo Park, CA: Kaiser Family Foundation.
- Kunkel, D., Cope-Farrar, K., Biely, E., Farinola, W., & Donnerstein, E. (2001). *Sex on TV II: A biennial report to the Kaiser Family Foundation*. Menlo Park, CA: Kaiser Family Foundation.
- Larson, G. L. (1991). Television's mixed messages: Sexual content on *All My Children*. *Communication Quarterly, 39*, 156–163.
- Leigh, B. C., Schafer, J., & Temple, M. T. (1995). Alcohol use and contraception in first sexual experiences. *Journal of Behavioral Medicine, 18*, 81–95.
- Lowry, D. T., & Towles, D. E. (1989). Soap opera portrayals of sex, contraception, and sexually transmitted diseases. *Journal of Communication, 39*, 76–83.
- Mansfield, S. (2000). Sarah's sexy success. *USA Weekend*. Retrieved August 17, 2005, from http://www.usaweekend.com/00_issues/000528/000528s_j_parker.html#show.
- Mate, P. (2001). HBO's "Sex in the City" portrays a serious women's health condition with inaccuracy. National Vulvodynia Association. Retrieved January 3, 2005, from <http://www.nva.org/index.html>.
- Ochs, R. (2004, April 21). Rise in STDs blamed on "the whole Sex and the City thing": Increase in partners among young women putting them at risk, doctors say. *Ottawa Citizen*, p. A17.
- Olson, B. (1995). Sex and the soaps: A comparative content analysis of health issues. *Journalism Quarterly, 71*, 840–850.
- Pergament, A. (1998, June 4). "Sex in the City" is shallow, clichéd. *Buffalo News*, p. C4.
- Poulin, C., & Graham, L. (2001). The association between substance use, unplanned sexual intercourse and other sexual behaviors among adolescent students. *Addiction, 96*, 607–621.
- Raj, A., Cheng, D. M., Levison, R., Meli, S., & Samet, J. H. (2006). Sex trade, sexual risk, and nondisclosure of HIV serostatus: Findings from HIV-infected persons with a history of alcohol problems. *AIDS and Behavior, 10*, 149–157.
- Santelli, J. S., Robin, L., Brener, N. D., & Lowry, R. (2001). Timing of alcohol and other drug use and sexual risk behaviors among unmarried adolescents and young adults. *Family Planning Perspectives, 33*, 200–205.
- Sapolsky, B. S., & Tabarlet, J. O. (1991). Sex in prime-time television: 1979 versus 1989. *Journal of Broadcasting & Electronic Media, 35*, 505–516.
- Signorielli, N. (2000). Sex on prime-time in the 90s. *Communication Research Reports, 17*, 70–78.
- Silverman, L. T., Sprafkin, J. N., & Rubinstein, E. A. (1979). Physical contact and sexual behavior on prime-time TV. *Journal of Communication, 29*, 33–43.
- Sims, M. (2004). Fans bid a reluctant farewell to TV "Friends." *Fox News*. Retrieved August 16, 2005, from <http://www.foxnews.com/story/0,2933,113505,00.html>.
- Star, D. (Writer), & Anders, A. (Director). (2000). Drama queens [Television series episode]. In M.P. King (Producer), *Sex and the city*. New York: HBO.
- Stueve, A., O'Donnell, L., Duran, R., Doval, A. S., & Geier, J. (2002). Being high and taking sexual risks: Findings from a multisite survey of urban young men who have sex with men. *AIDS Education and Prevention, 14*, 482–495.
- Vaughan, P. W., Rogers, E. M., Singhal, A., & Swalehe, R. M. (2000). Entertainment-education and HIV/AIDS prevention: A field experiment in Tanzania. *Journal of Health Communication, 5*, 81–100.
- Wilson, B. J., Kunkel, D., Linz, D., Potter, J., Donnerstein, E., Smith, S., et al. (1998). *National television violence study, vol. 2*. Thousand Oaks, CA: Sage.
- Wilson, B. J., Smith, S. L., Potter, J., Kunkel, D., Linz, D., Colvin, C. M., et al. (2002). Violence in children's television programming: Assessing the risks. *Journal of Communication, 52*, 5–35.