A review of 25 years of research in "Human Communication Research" indicated that the mass media are a significant source of learning and that the media can and do affect attitudes, which in turn influence behaviors. Based on a community sample, a study sought to extend such findings by establishing a direct link between media use, sexual attitudes, and risk-taking behaviors. Study participants were randomly selected from several communities in western Pennsylvania; 162 adolescents and adults anonymously completed the survey instrument. Overall media use was found to be related to a number of risk behaviors and to the age of first sexual encounters. Better indicators of risk behavior were attitudes toward the media, preference for sexually explicit films, listening to music, and viewing television. Findings suggest the need to study preferences for individual media within different context for different users, to establish a link between media use and risk behaviors. (Contains 3 tables of data and 27 references.) (Author/NKA)
Monkey See, Monkey Do?
Sexual Attitudes and Risk Taking Among Media Users

Dr. John Chapin
Penn State University

Presented at the 2000 Convention of the National Communication Association (NCA), Seattle, WA.
A review of 25 years of research in *Human Communication Research*, indicates that the mass media are a significant source of learning and that the media can and do affect attitudes, which in turn influence behaviors. Based on a community sample, this study sought to extend such findings by establishing a direct link between media use, attitudes, and risk-taking behaviors. Overall media use was found to be related to a number of risk behaviors and to the age of first sexual encounters. Better indicators of risk-behavior were attitudes toward the media, preference for sexually explicit films, listening to music, and viewing television. The findings suggest the need to study preferences for individual media within different contexts for different users, in order to establish a link between media use and risk-behaviors.

Poster

The poster will consist of a large communication model with the study design and major findings. I hope the poster will generate discussion of media effects models as well as the impact of sexually-oriented media on youth.

Key-Terms

mass media, social effects of media, risk-behavior
Sexual Attitudes and Risk Taking Among Media Users

...if they watched *Dallas*, they already have a working familiarity with lust. They learned about impotence from *Donahue*... Soap operas offer daily classes in frigidity, menopause, abortion, infidelity, and loss of appetite. If they've watched more than one made-for-television movie, they know about rape... It took television to finally get sex education out of the schools and back in the home, where it belongs. Call it educational TV (Linda Ellerbee, 1986; in Strasburger, 1995; p. 38).

If Ellerbee could have gazed ahead a decade or so to the era of *Passions*, NBC's new soap opera boasting more sex and more violence, *Dawson's Creek, Sex in the City,* and *Jerry Springer*, she may have become more concerned about the lessons learned from TV. By the age of 18, the average American has seen 200,000 violent acts, and 16,000 murders, 450,000 commercials (TV-Free America, 1999).

As a result of 10 years of study regarding the role of the media in sexual socialization, Greenberg, Brown, and Buerkel-Rothfuss (1993) concluded that the mass media are important sex educators for Americans, and as such, should take responsibility for providing accurate and beneficial portrayals. The prevalence of the media as sexual socialization agents coincides with the decline of the influence of the institutions that previously served the purpose.

A review of 25 years of research in *Human Communication Research*, indicates that the mass media are a significant source of learning and that the media can and do affect attitudes, which in turn influence behaviors (Emmers-Sommer & Allen, 1999). The current study seeks to contribute to the existing literature and extend such findings by establishing a direct link between media use, sexual attitudes and risk-taking behaviors.
While church attendance has remained stable, the number of people saying religion is "very important" in their lives declined from 75% in 1952, to 54% in 1987. In 1950, 9% of American households had televisions; in 1960, the figure was 87%; today it is 98%, with 59% having 2 or more sets (Nielson Media Research, 1999). While the message of religion is self-restraint, self-control and self-sacrifice, the message of the media is self-indulgence, self-satisfaction and immediate gratification. Since individuals are exposed to a daily diet of messages advocating the unrestrained pursuit of pleasure, it is not surprising that some heed the message.

Teen pregnancies account for over 39% of births and over 20% of abortions in Pennsylvania (National Center for Health Statistics, 1996). The national AIDS death toll is quickly approaching the half-million mark (CDC, 1998). Although people are knowledgeable about the risks associated with "unprotected sex," they fail to take appropriate precautions (Chapin, 2000).

Content Analysis

In an analysis of the 12 primetime shows most popular with adolescent audiences, Ward (1995) found that discussions of sexuality were quite common (roughly one third of the content), reflecting 17 sexual scripts. The most sexually oriented show consisted of nearly 60% sexual dialogue and innuendo. Male sexuality was featured more often than female sexuality. The three most frequent scripts were sexual/romantic relations as competition, men value and select women on the basis of physical appearance, sex is the defining act of masculinity (to be male is to be sexual with women); combined, these scripts account for about a third of televised sexual themes. These findings are consistent with previous content analyses (see Franzblau et al., 1977; Greenberg, Richards, &
Henderson, 1980; Sprafkin & Silverman, 1981). Sexually deviant behavior typical of TV talk shows may also be regarded as the product of scripted behavior that reinforces and replicates culturally normative views of gender and sexuality (Nelson & Robinson, 1994). On primetime TV, premarital and extra marital sex far outnumbers sex between spouses, with the rate soaring to 24:1 in soap operas (Lowry & Towles, 1989) and 32:1 in R-rated movies (Greenberg et al., 1993). Although a wide range of Americans say they are horrified by sexual content of entertainment TV today (Zinsmeister, 1999), the amount of sexual depictions continues to increase. Between 1980 and 1985, for instance, references to or depictions of sexual activity increased 103%, so the average adolescent viewer in 1985 was exposed to around 2,000 sexual references (Greenberg et al., 1993). The increase in sexual depictions has not been accompanied by the concept of safe sex. Content analysis of soap operas find no reference to or depictions of efforts to prevent pregnancy or disease (Lowry & Towles, 1989), and no one on prime-time TV apparently uses contraception (Harris, 1994).

Similarly, Sherman and Etlins’ (1991) content analysis of more than 40 hours of music videos found the genre to be violent, male-oriented, and laden with sexual content, with sex and violence often linked. Others (Brown and Campbell, 1986; Kaplan, 1987) also note the stereotypic roles afforded to women in videos. More recently, Wester, Crown, and Quatman (1997) linked gangsta rap lyrics with negative attitudes toward women. In addition, the pairing of sexual and religious imagery noted in nearly 25% of videos aired on MTV validates continued concern about the music format (Pardun & McKee, 1995).
Although most attention has been paid to TV and music, similar results are found for films (Sinclair, Lee, & Johnson, 1995) and video (Allen, D’Alessio, & Brezgel, 1995). Since different mass media serve various social/psychological functions at different life stages (Fine, Mortimer & Roberts, 1990), one should expect differences according to time spent with and preferences for various media formats.

Hypotheses

Theory discussed in the previous sections leads to several hypotheses and research questions related to the influence of media use on sexual attitudes and behaviors. Hypotheses and research questions are listed in the order they will be tested and presented in subsequent sections.

Regarding patterns of media use:

**H1.** Overall media use will be related to age, gender, and geographic location.

**H2.** Individual media use (i.e. TV viewing vs. pleasure reading) will be related to age, gender, and geographic location.

Regarding the effect of media use on sexual attitudes and behaviors:

**H3.** As overall media use increases, individuals believe others begin sexual activity at increasingly early ages.

**H4.** As overall media use increases, individuals believe it is OK for people to begin sexual activity at increasingly early ages.

**H5.** As overall media use increases, the actual age of first sexual experience decreases.

**H6.** As overall media use increases, the number of health risks and sexual risks increases.
H7. As overall media use increases, the frequency of health risks and sexual risks increases.

Regarding differences in effects due to media format preferences:

R1. How do attitudes toward the media impact patterns in risk-taking?

R2. What patterns in risk-taking and attitudes toward the media emerge as a result of media format preference (music listening, movie viewing, pleasure reading, TV viewing, computer/video game playing)?

Data and Methods

Study Participants

Study participants were randomly selected from several communities in Western Pennsylvania. 162 adolescents and adults anonymously completed the survey instrument for a nominal payment. Similar to the composition of the communities, the sample was 61% female, 99% Euro-American, and ranged in age from 14 to 78 ($M = 34.9$, $SD = 16.1$). Most (78%) resided in rural areas, fewer in suburban (13%) and urban (9%) areas.

Data Collection

Households were randomly selected from local telephone directories and called by a research assistant. People who received calls were informed about the survey and asked if they and/or other members of the household (ages 14 and up) would participate. Calls continued until 200 individuals agreed to have surveys mailed to their home (23% success rate). Of the individuals who agreed to participate by phone, 81% (162) completed consent forms and surveys and returned them by mail.
Measures

In addition to demographic information (age, gender, geographic location), individuals self-reported the age of initiation of sexual activity. Several domains of risk behavior were measured using an instrument adapted from Arnett (1996). Participants indicated past risk by reporting whether they had ever had protected (with a condom) sex and/or unprotected (without a condom) sex.

Consistent with the literature concerning “problem behaviors” (Jessor, 1993), similar items regarding speeding, smoking cigarettes, and alcohol consumption were included to measure non-sexual risk-taking. Present risk was measured by asking participants to estimate the number of days they had engaged in each of the five risk-behaviors in the past 30 days. Five response categories were provided: none, 1-2 days, 3-10 days, 11-20 days, almost every day.

Sexual attitudes were measured with an instrument used by Chapin (2000), which asked participants when they thought it was OK to start having sex and when they thought MOST people started having sex. The four response categories included in middle school, in high school, after high school, and after marriage.

Media use and format preferences were measured by asking participants to indicate how many hours is a typical weekday they spent watching TV, listening to music, reading for fun, and playing computer or video games. These items and another asking for movie-ratings preferences (G, PG, R, etc.) were taken from Greenberg, Tokinoya, Ku, and Li’s (1989) international study of uses of the mass media. Participants used a 5-point scale to report the number of hours they were engaged in media activities (0 = none, 5 = 5 or more). A composite measure was created by
summing the amount of time participants reported using the media. Two additional items were adapted from Greenberg et al to measure “attitude toward the media,” or more specifically, public service announcements promoting safer-sex. These items asked participants to indicate how much they liked and trusted PSAs using a four-point-scale (0 = “very little”, 3 = “very much”). The items loaded onto one factor and the resulting scale demonstrated internal consistency ($\alpha = .57$). The resulting measure ranges from two to eight, with higher numbers indicating a more favorable attitude toward safer-sex messages.

Findings

The first two hypotheses predicted patterns in media use. Participants indicated that they spend an average of 2.4 hours listening to music, 2.3 hours watching TV, and less than one hour reading for pleasure or playing computer/video games on a typical weekday. Hypothesis 1 predicted that overall media use would be related age, gender, and geographic location. Findings indicate that rural participants ($M = 6.0$ hours) spend more time with the media than do their suburban counterparts ($M = 4.8$ hours), $t (143) = 2.07$, $p < .05$. There was no significant relationship between media use and age or gender.

Hypothesis two predicted that individual media use would be related to age, gender, and geographic location. As predicted, age was negatively related to music listening ($r^2 = -.25$) and playing computer/video games ($r^2 = -.22$). Younger participants preferred both activities. Age was not related to television viewing or pleasure reading. Only pleasure reading was related to gender, with females ($M = 1.0$ hours) reading more than males ($M = .60$ hours), $t (157) = 2.70$, $p < .02$. Geographic area was unrelated to media preferences.
The remaining hypotheses predicted the effect of media use on sexual attitudes and behaviors. Contrary to predictions, no relationship was found between overall media use and sexual attitudes. Hypotheses three and four were not supported. Participants believed that most people began having sex in middle school, but did not think it was OK for people to begin having sex until after high school graduation.

Table 1 shows the relationship between overall media use and several risk-taking behaviors. As predicted by hypothesis 5, media use is most strongly related to the age of sexual initiation ($M = 13.7$, $SD = 7.7$), with heavy media users initiating sexual activity at earlier ages than lighter media users. Most of the participants reported initiating sexual activity between the ages of 15 and 18 (50.6%), less between the ages of 12 and 17 (26.6%), and fewer still between the ages of 19 and 26 (22.8%). Counter-hypothetical to the direction of the relationship predicted by hypothesis 6, Table 1 also indicates a small negative relationship between overall media use and the number of lifetime risks, and one risk in particular, speeding. The majority of the participants (86.5%) admit speeding 10 miles per hour over the speed limit at least once. Considering that 12.9% had to skip the item because they did not yet possess licenses, speeding is hardly considered a risk by the participants. More than 25% of the participants also stated that they speeded several times in the past 30 days. Speeding was the most frequent risk reported by participants ages 16 and above. No relationship was found between overall media use and the four remaining risks (smoking, drinking, unprotected sex, and protected sex). Hypothesis 7 is partially supported. The strong positive correlation between the age of first sexual intercourse and the number of lifetime risks makes a strong case for Jessor’s (1993)
argument that risk-takers take multiple risks simultaneously, often referred to as the “problem behavior” perspective.

The two research questions were exploratory in nature. No directions were predicted. R1 asked how attitudes toward the media impact patterns in risk-taking. Table 2 indicates that media attitudes were negatively related to the frequency that four of the five risk behaviors were engaged in during the past 30 days. Recall that “attitude toward the media” was measured in relation to public service announcements, specifically safer-sex messages. Although, most (59.3%) said they had some trust for PSAs, less than 10% indicted “strong” trust and few (8.7%) said they liked such messages. Using the combined scale (like + trust), participants that had a relatively negative attitude toward the media more frequently had unprotected sex, speeded, consumed alcohol, and smoked cigarettes than peers with more trust and liking of the media. Given the safer-sex context of the scale, the high negative correlation between attitude toward safer-sex messages and frequency of unprotected sex is significant.

R2 asked what patterns exist in risk-taking and attitudes emerge as a result of media format preference. These relationships are reflected in Table 3. Participants were asked to indicate their preference for adult (vs. general or “G-rated”) films. Preference for adult-oriented films was related to the belief that it is OK to begin sexual activities at earlier ages, the belief that peers began having sex at earlier ages, earlier onset of actual sexual intercourse, increased frequency of sexual activity, and increased consumption of alcohol. Heavy music listeners also began sexual intercourse at earlier ages than light listeners did. However, heavy TV users tend to speed less than light viewers do. Pleasure reading and playing computer/video games were unrelated to specific risk
behaviors and attitudes. Again, the high intercorrelations between attitudes and behaviors shown on Table 3 lend support to the "problem behaviors" perspective.

Discussion

Consistent with recent reviews, supporting the notion that the media can and do affect attitudes, which in turn influence behaviors, the current study sought to establish a direct link between the media and behaviors within the context of risk-taking. The findings were mixed. In the wake of public tragedy, politicians and community leaders are quick to point to the media, leaving the public with a "monkey see - monkey do" model of media effects. While a simple, linear, direct effects model would simplify the study and understanding of mass media, it is far from reality. The current findings suggest the need to study individual media within different contexts for different users. Elaborating such differences is a necessary first step in understanding how people interact with the media, learn from it, and are effected by it.

Future research should consider the difference between time spent with the media, media preferences, and attitude toward the media. In the current study, overall media use failed to predict attitudes but was related to actual risk behaviors. The results are consistent with the assertion of Fine, Mortimer, and Roberts (1990) that different mass media serve different social/psychological functions at different life stages. Film attendance and music listening in particular appeared to be predictive of sexual risks in the current study, while TV viewing, pleasure reading and video/computer game playing were not. The results are also consistent with Jessor’s (1994) "problem behavior" perspective in that many of the risk-behaviors considered here were intercorrelated with each other and with attitudes toward risks (sexual risks in particular). Finally, the results
are consistent with Chapin’s (2000) findings that attitudes toward the media are often better predictors of risk behaviors than media use alone. The inconsistencies in the findings also support the notion that media use should continue to included in study design, but is only one of many better indicators of media effects.

Limitations

The findings of this study result from a random sample of one geographic location. Although the sample demographics are typical of western Pennsylvania, they may differ from the rest of the country in significant ways. The sample size is also relatively small.
References


Table 1

Zero-Order Correlations Among Media Use and Risk-Taking

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Note. Due to the number of variables, only those significantly related to media use have been included in this table.

*p<.05, **p<.01, ***p<.001
Table 2

Zero-Order Correlations Among Attitude Toward the Media Risk-Taking Frequency

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Note. *p< .05, **p< .01, ***p< .001
### Table 3

**Zero-Order Correlations Among Media Preferences and Risk-Taking**

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**Note.** Due to the number of variables, only those significantly related to movies, music, or TV have been included in this table. No variables were significantly related to pleasure reading or computer/video game playing.

*p < .05, **p < .01, ***p < .001
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