MEASURING THE EFFECTS OF

SEXUAL CONTENT IN THE MEDIA:

A Report to the Kaiser Family Foundation

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Anyone who watches television, goes to the movies, or picks up a magazine today knows sex is prominent across all media. Research has shown that some media do incorporate prosocial messages about sex and sexual issues, like the risks and consequences of unprotected sex, but most do not. These messages, whether incorporating positive or negative themes, are seen by many people today, and raise legitimate questions about what effect they have on influencing the behaviors and attitudes of young viewers.

Many parents say conversations with their children about sensitive topics like teen pregnancy or AIDS have been sparked by something they saw on television. And, in fact teens say that some media are important resources for them about sexual health issues. On the other hand, some young people say that sexual messages on television and in movies influence teens in a negative way, and many adults also worry about this.

While there has been a great deal of research on the impact of violence in media, there has been almost no research on the impact of sexual portrayals. On the other hand, there is no shortage of opinions about the effect of sexual content on TV, ranging from "it just goes over their heads" to "it causes teen pregnancy." It is especially important to learn, through empirical research, not only which kinds of depictions might have a negative impact on young viewers, but also how the media can provide positive models of behavior.

Designing such research is a challenge. To help determine how best to proceed, the Kaiser Family Foundation convened a day and a half forum of many of the nation's leading scholars in sexuality, sexual development, media analysis, and media effects at which these issues were explored. This report, which was informed by this gathering of experts, is intended to encourage researchers to take the next step and investigate the impact on young viewers of sexual content in the media.

We hope that this report, written by three of the most prominent researchers in the study of media effects, serves as a building block for future research in this area.

Listed below are the titles and publication numbers of other Kaiser Family Foundation reports related to this topic. You can obtain copies of any of these reports by calling 1-800-656-4KFF.

- *Sex and the Mass Media*, Jane D. Brown & Jeanne R. Steele, The University of North Carolina at Chapel Hill, School of Journalism and Mass Communication, September 1995 *(#1093)*

- *Sex and Hollywood: Should There Be a Government Role?* Jane Brown, Lionel Chetwynd, October, 1996 *(#1209)*

- *Sex, Kids and the Family Hour: A Three Part Study of Sexual Content on Television*, Content Analysis by: Dale Kunkel, Kirstie M. Cope, & Carolyn Colvin, Department of Communication, University of California, Santa Barbara, December 11, 1996 *(#1209)*

- *Sexual Activity on Daytime Soap Operas: A Content Analysis of Five Weeks of Television Programming,* Katharine E. Heintz-Knowles, University of Washington, School of Communications, September 7, 1996 *(#1190)*

- *Soap Operas and Sexual Activity,* Bradley S. Greenberg & Rick W. Busselle, Michigan State University, October 1994 *(#1010)*

- *Who Watches Daytime Soap Operas?* Bradley S. Greenberg & Lynn Rampoldi, Michigan State University, October 1994 *(#1010)*

- *The Content of Television Talk Shows: Topics, Guests and Interactions,* Bradley S. Greenberg & Sandi Smith, Departments of Communication and Telecommunication, Michigan State University, November 1995 *(#1101)*

- *Sexual Health Coverage in Women's, Men's, Teen and Other Specialty Magazines*, Kim Walsh-Childers, University of Florida, College of Journalism and Communications, April 18, 1997 *(#1258)*

For additional copies of this report, call 1-800-656-4KFF and ask for publication #1389.

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Executive Summary

The Kaiser Family Foundation has an ongoing interest in sexual health among young people and the potential contributions of mass media to sexual behavior. This report was prepared at the request of the Foundation to examine the methodological options for investigating the effects of sexual content in the media on children and adolescents. In preparing the report, we convened a Forum of twenty scholars with expertise in sexuality, sexual development, media analysis, and media effects to discuss these issues.

The purposes of this report are to review what we know about the relations of entertainment media to sexual development during childhood and adolescence, to consider methodological issues and challenges in studying this topic, and to propose some fruitful directions for future research.

There are many opinions about the effects of sexual content in the mass media, and they are often couched in political or religious overtones. This report is not intended to debate these opinions, rather, it is a review and discussion of social scientific methods which provide publicly shared, objective, empirical, and replicable information that can be used to build a cumulative body of knowledge of this area.

Although the effects of sexual content have received relatively little attention from researchers, there have been content analytic studies of the portrayals of sexuality in television and movies and there is evidence that sexual messages in entertainment media have been increasing.

Studies of sexual messages in movies and on television (prime time, soaps, and music videos have been studied most heavily) have found that over the past twenty years, there has been an overall increase in the number of portrayals and the amount of talk about sex in these media and an increase in the explicitness of these portrayals. Furthermore, the television research shows a fairly consistent sexual message across TV genres: most portrayals of sex depict or imply heterosexual intercourse between unmarried adults, with little reference to STDs/AIDS, pregnancy, or use of contraception.

There are sound theoretical reasons to believe that television and other media can play an important role in educating children and adolescents about sexuality. Media portrayals surround children and adolescents, and young people are intensely interested in sexuality, romance, and relationships.

Yet, there are very, very few studies of the effects of sexual messages in the media on child and adolescent viewers. The few experimental studies show that television has the potential to change viewers' attitudes and knowledge. Correlational designs provide weak evidence that television viewing is linked with sexual behavior and beliefs, but the measures of viewing are crude at best. There also is some evidence that such personal factors as interest in sexual content, level of understanding, perceived reality, and parental mediation modify the influence of sexual messages. Much more empirical work is needed to substantiate the claim that naturally occurring sexual content in the media actually does

cause changes in attitudes, beliefs, and behaviors. Such changes need to be examined as a function of what individuals are watching, the messages they are receiving, how they are interpreting them, and other factors that influence a young person's sexual personae.

Two approaches to sexual development are reviewed in this report. *Healthy sex,* or the role of sex in individual mental health and in healthy relationships, focuses on enabling people of all ages to develop the attitudes, values, and behaviors that promote healthy sexual functioning. In this approach, sex is considered good and essential to human functioning. The second orientation, *sexual health,* has a narrower focus based in public health concerns about the physical disease, mental health, and social problems that can arise from sexual behavior. The majority of the literature in this area is concerned with STDs, including HIV, and unwanted, early, or out-of-wedlock pregnancy, but sexual violence and coercion, including rape, and mental health problems (e.g., depression, low self-esteem, distorted body image) also are considered. The sexual health literature tends to focus on prevention through encouraging young people to abstain from or postpone sexual intercourse, especially with multiple partners, and by encouraging them to use "safer sex" practices when they do have intercourse.

Research designed to understand the influence of mass media on sexual health must be informed by an understanding of the developmental changes in sexuality during childhood and adolescence, as well as socioeconomic, cultural, family, and peer influences. At the very least many of these influences must be controlled in studying media effects. Perhaps more important, it is likely that the processes involved and outcomes of interest will differ for different groups of young people. If we are to completely understand the effects of sexual content in the media we need to consider a range of outcomes – <u>cognitive</u>, <u>emotional</u>, <u>attitudinal</u>, <u>behavioral</u> – either separately or in combination with one other. In addition, we need to be cognizant of vast individual differences in how viewers respond to sexual depictions.

There are several inherent ethical and practical problems in doing research on children's and adolescents' sexual knowledge, attitudes, and behavior. The broad outline of these issues can be subsumed under several general principles regarding the protection of human subjects, which have been articulated by the federal research directors. Specific concerns regarding how various institutional research boards (IRBs) interpret these general guidelines, and gaining parental consent when children and adolescents are the subjects in a study also pose barriers to research.

The report suggests that researchers can design and conduct important research within these national and local guidelines. We recommend research based on the following premises:

(1) Research in this area should be conducted by interdisciplinary teams of investigators, some with expertise in the area of sexual development and others with expertise in media research.

(2) There is need for an accumulated body of systematic studies using a variety of methods with a variety of populations. Given the paucity of available studies and the need to develop a systematic research base, no one grand study will provide definitive answers.

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(3) Research on the effects of sexual media content should in general begin with small-scale studies and move to larger field and longitudinal studies. Small-scale studies (laboratory, survey, observational) can permit refinement of questions, measures and methods in a relatively low-cost and efficient way.

(4) Research must take into account developmental, gender and ethnic differences. The functions and effects of sexual media content in sexual development may vary substantially for boys and girls, for different ethnic groups, and across different age groups.

(5) There is a need for the development of valid and reliable measures of the use of media sexual content and of outcome measures of sexual knowledge, attitudes, and behaviors. One cannot generalize the validity or reliability of measures used with adult populations to children and adolescents, particularly in this research domain.

In addition to the premises laid out above, the report provides some more specific recommendations about what kinds of studies should be conducted. We encourage researchers to think creatively about additional research design options.

There is little existing research literature that addresses the issue of children's media use patterns. Any attempt to understand the influence of media on young people should begin with an assessment of both the amount and patterns of media use among children. Given the recent explosion in new media choices such as the Internet, computer games, and niche cable channels, it is imperative that we have an understanding of what media kids are using, and how and why they are using them.

Though many studies have looked at the amount and nature of sexual depictions on television, future content analyses should be more theoretically guided and contextually situated. Future research should include in its framework theories about sexuality, sexual development, and media effects. In addition, most content analyses have been limited to certain genres of television programming. Future content analyses should include cable programming, advertising, news, talk shows and new media.

In studying the effects of sexual media content on viewers, it is important to consider the various types of outcomes, including cognitive, emotional, attitudinal, and behavioral. In the early stages of conducting research on this topic, small experimental studies are likely to be more useful than correlational studies. Some of the proposed experimental techniques include manipulating outcomes of sexual media messages to measure immediate effects on children's knowledge, schemas, attitudes and even behaviors.

A second phase of research could employ the field experiment technique, best used in cooperation with the media industry. The body of the report identifies two successful examples of field experiments, and recommendations for future field experiments on sexual content.

Once preliminary research is conducted on the effects of sexual content, an accelerated longitudinal design with overlapping cohorts would be the next recommended approach. This design would maximize the information obtainable in a five-year period, and would allow for follow-up in later years, were funding available.

Our final recommendation concerns the process for bootstrapping research in this entire area. As we have previously noted, there is little systematic knowledge about the effects of sexual content. We certainly encourage research across many disciplines and funding agencies (both federal and private), but a central guiding framework is needed. We believe that an initiative akin to the Surgeon General's 1970 study of Television and Social Behavior would be useful. A collaborative effort by the Kaiser Family Foundation, working with other foundations, could produce a coordinated research base collected in a major report that would provide a solid foundation for understanding the effects of sexual media content and could serve as a basis for future funding and research.

I. Introduction

The Kaiser Family Foundation has an ongoing interest in sexual health, young people and the potential contributions of mass media to sexual behavior. This report was prepared at the request of the Kaiser Family Foundation to address the methodological options for researching the effects of sexual content in the media. It contains discussions of the research in the area; possible methods for undertaking effects studies; and recommendations for research directions.

In connection with our review of the area, we were privileged to have the ideas and wisdom of a group of over 20 scholars with expertise in sexuality, sexual development, media analysis, and media effects. These people gathered in a Kaiser Family Foundation Forum over a two-day period to discuss issues and share ideas. We refer to comments and ideas from this forum throughout the manuscript.

Sex is a biologically-given facet of human nature. Sexual sensations and behavior are normal throughout life, and they have the potential for both positive and negative psychological and physical consequences. Sex can cement our most intimate personal relationships; it can also become distorted, coercive, and violent. It can enhance physical and psychological health, and it can lead to life-disrupting and life-threatening outcomes.

The purposes of this report are to review what we know about the relations of entertainment media to sexual development during childhood and adolescence, to consider methodological issues and challenges in studying this topic, and to propose some fruitful directions for future research.

There are many opinions about the effects of sexual content in the mass media, and they are often couched in political or religious overtones. This report is not intended to debate these opinions, but rather to state unequivocally that in order to speak to the issue of sexual content and its impact we require a specified set of principles and guidelines for our inquiry. Consequently, we take the position that the answers to questions about mass media sexual content are best examined using the scientific method which provides publicly shared, objective, empirical, and replicable information that can be used to build a cumulative body of knowledge.

II. Background and Literature Review

Media effects have been demonstrated for many aspects of social behavior, including aggression, social stereotyping, prosocial behavior, and social attitudes. Effects of television violence have been studied most extensively, and most social scientists agree that exposure to violent television has a causal effect on aggressive behavior (cf. Comstock, 1991; Huston et al., 1992). Although the effects of sexual content have received relatively little attention from researchers, there are strong theoretical reasons to believe that media may play an especially important role in the socialization of sexual knowledge, attitudes and behavior. These were well summarized by Elizabeth Roberts (1982): "(1) the adult nature of most programming children watch; (2) children's limited access to or experience with countervailing information or ideas; (3) the 'realism' with which roles, relationships, and lifestyles are portrayed; and (4) the overwhelming consistency of the messages about sexuality that are communicated" (Roberts, 1982, p. 209).

Each of these points is even more pertinent in 1998 than in 1982. Children watch a great deal of adult programming, and there has been a steady increase in the frequency and explicitness of sexual content on broadcast television. Young people have access to a much wider range of video content as well as to other entertainment media than they did in the early 1980s. Many of these portrayals show glamorous, young individuals with whom many children and adolescents are likely to identify. Young people in this age range often name media figures as the people whom they would like to emulate. Finally, the United States has not moved very far toward providing sex education or other sources of sexual information for young people, leaving them to get sexual information largely from peers and mass media.

In this section, we consider what is known about the role of sexual media content in children's and adolescents' sexual development. First, we examine content analyses to determine what is available to young viewers. Then we ask about how, when, and what kind of media children and adolescents use. Finally, we consider the small body of information about how television influences knowledge, schemas, attitudes, and behavior.

Content Analyses

Most content analyses have concentrated on entertainment television, particularly prime time programming, soap operas, and music videos, but, in recent years, they have expanded to other genres and other media, including talk shows, magazines, advertising, film/movies, and news. Definitions of sexual content include verbal references to sexual activity, innuendo, implied sexual activity, and visual presentation. For children and young adolescents, the type of presentation is especially likely to be important because of their limited or often incorrect knowledge about sex. With these caveats in mind, the results of content analyses are consistent.

Prime Time Television

Over the last 20 years, references to heterosexual intercourse have increased and have become much more explicit, but many of the "messages" have remained relatively

unchanged. (1) Sexual behavior typically takes place between two adults who are not married to each other (Greenberg et al., 1980; Lowry & Shidler, 1993; Sapolsky, 1982; Sapolsky & Taberlet, 1991). (2) The potential consequences of sexual intercourse are rarely addressed; pregnancy, contraception, and sexually transmitted diseases are generally absent from character dialogue and portrayals (Kunkel, Cope, & Colvin, 1996; Lowry & Shidler, 1993; Lowry & Towles, 1989; Sapolsky & Taberlet, 1991). Talk about sex is more common than physical depictions, and when instances of sexual intercourse occur, they are often implied rather than being visually portrayed (Kunkel, et al., 1996).

In one content analysis, changes in the numbers and types of sexual behaviors (verbal, implied, and physical) in prime time network TV programs were tracked from fall 1987 to fall 1991. The average of 10 instances of sexual behavior per hour reflected a decrease from 1987 in the least explicit content category (i.e., physical suggestiveness) and a substantial increase in the rate of heterosexual intercourse. When prime time promos were included, the rate of sexual behavior increased from 10 to at least 15 instances per hour. When messages pertaining to sexual responsibility, STDs, or pregnancy were present, they often occurred in a "joking" or humorous context (Lowry and Shidler, 1993). A few shows were exceptions. For example, *Beverly Hills 90210* occasionally incorporated messages of sexual responsibility as part of an ongoing story line across a number of episodes.

Ward (1995) analyzed the 12 prime time programs that were most preferred by children and adolescents in 1992-1993 (*Fresh Prince of Bel Air, Blossom, Roseanne, Martin, The Simpsons, Beverly Hills 90210, In Living Color, Full House, Hanging with Mr. Cooper, Home Improvement, Step-By-Step,* and *Family Matters*). Verbal references to sexual issues were quite frequent, and there was a recreational orientation toward sex rather than a procreational orientation. The importance of "physical attractiveness as an asset" was emphasized for both males and females (Ward, 1995).

The "Family Hour" Report

Many programs that are viewed most widely by children and adolescents are aired during the first hour of prime time, commonly known as the "Family Hour." A Kaiser Family Foundation study conducted by Kunkel, Cope, and Colvin (1996) examined the sexual messages (both portrayals of and talk about sex) during the "Family Hour" in 1976, 1986, and 1996. Depictions of sexual content (both talk and behavior) increased over 20 years; by 1996, such content was found in ¾ of programs. Messages about STDs/AIDS, pregnancy, and use of contraception were minimal, and, when they did occur, were relatively superficial. The authors remind us that "socially responsible themes may have occurred in other episodes of a series that did not happen to fall into the sampling period" (Kunkel, et al., 1996, p.34).

Movies

Adolescents see movies in theaters, and the same movies are soon available on pay TV channels and video tape. Many of these movies are "R-rated." They contain more frequent and more explicit portrayals of sexual behavior than broadcast TV – an average of 17.5 per film in one analysis (Greenberg, Siemicki, Dorfman, Heeter, Stanley, Soderman, & Linsangan, 1993). Like TV, the most frequent sexual activity shown is unmarried sexual intercourse. Sex is often in the context of profanity, alcohol and drug use, and nudity.

Soap Operas

Soaps have been a consistent staple in broadcast entertainment. In two Kaiser Family Foundation studies, sexual content on daytime soap operas in the 90's was analyzed (Greenberg & Busselle, 1994; Heintz-Knowles, 1996). The viewing audience is large, and specific subgroups are regular viewers (i.e., adolescent females, non-whites, women, people with low levels of education and income) (Greenberg & Rampoldi, 1994). Several types of behavior consistently reappear, with unmarried sexual intercourse as the most frequent. Long, passionate kissing is common (Greenberg & Busselle, 1994). Prostitution, rape, petting, and homosexuality are typically quite low in frequency. When comparing 1985 and 1994 soaps of the same titles, Greenberg and Busselle (1994) noted that a long running story line about date-rape increased the frequency and incidence in the rape content category. A focus on specific topics within story lines (e.g., rape) should be considered when making general statements about the increase or decrease of particular types of sexual content within a genre over time. In a study of soap operas in 1996, sexual activity was three times as likely to be visually depicted as discussed, as opposed to 1994, where sexual behaviors were twice as likely to be talked about as shown (Heintz-Knowles, 1996). Approximately one out of every ten sexual behaviors involved planning for sexual activity, a discussion about "safer sex," or possible consequences of sexual activity (Heintz-Knowles, 1996).

Although discussions and portrayals of safe sex and contraception continue to be infrequent, there was some increase in references to "taking sexual precautions," and more focus on pregnancy, both wanted and unwanted, than in previous years. Characters talk about pregnancy, often in a positive way, but there is little portrayal of the consequences of pregnancy or the realities of raising an infant (Greenberg & Busselle, 1996).

Music Videos

Channels specializing in music videos such as Music Television (MTV), Video-Hits One (VH-1), Black Entertainment Television (BET), and Country Music Television (CMT) target preadolescent, adolescent and young adult audiences. Music videos may be especially influential sources of sexual information for adolescents because they combine visuals of popular musicians with the music; many of these visual elements are implicitly or explicitly sexual (Brown & Steele, 1995). Videos frequently combine sexuality with violence or aggression (Baxter et al., 1985; Sherman & Dominick, 1986), and with objectification and sex-role stereotyping (Seidman, 1992; Sommers-Flanagan, Sommers-Flanagan, & Davis, 1993). Visual presentations of sexual intimacy appeared in more than 75 percent of a sample of "concept" videos; 81% of those that contained violence also portrayed sexual imagery (Sherman and Dominick, 1986). In a sample of MTV videos, females wore revealing clothing and initiated and received sexual advances more often than did males (Seidman, 1992). The lyrics and visual content used in videos vary widely depending on their genre (Tapper, Thorson, and Black, 1994). Rap music is particularly explicit about both sex and violence (Brown & Steele, 1995), and MTV frequently shows combinations of aggression, sex-role stereotypes, and sexual imagery. Country music videos (CMT) also use sexual images, but common themes include break-ups/divorce, dating, and romantic love.

Magazines

Many teens, especially teen girls, rely on magazines as a source of information about sex, birth control and STDs (Kaiser Family Foundation, 1996). In a study of women's, men's, teen and other specialty magazines commissioned by the Kaiser Family Foundation (Walsh-Childers, 1997), teen magazines devoted an average of 2 ½ pages per issue to sexual issues, with an average of 1 page devoted to sexual health coverage, and 1 ½ pages devoted to other sexual topics. Of all articles devoted to sexual issues in teen magazines, about 42% focused on a sexual health issue. The author did note that though teen magazines devote significant attention to unintended pregnancy and sexually transmitted diseases, much of the coverage is in the form of advice columns, and that teens could benefit from more in-depth articles on these topics. Teen magazine articles discussing other sexual topics (non-health related) mainly focused on decision-making about becoming sexually active. Magazines incorporate a substantial amount of information about sexual issues into their articles, and are an important source of information for young readers.

Content may be available in many venues, but its effects on children and adolescents depend, of course, on whether and why they use it. Even young children are not simply passive recipients of the media in their environment. They choose what to use, what to attend to, and what to ignore or avoid. They use media for many purposes – entertainment, information, stimulation, relief from boredom, and emotional arousal, to name only a few. We turn now to what we know about how young people use mass media.

Media Use and Functions

Media Use

Research on media use by children and adolescents has focused primarily on television (Huston & Wright, 1997; Kubey & Cziksenmiyalhi, 1990), yet there is some evidence that young people use a wide range of print and electronic media. Children in early adolescence (roughly ages 9-13) are heavy television viewers (Comstock, 1991). According to a summary of several studies by Arnett (1995), adolescents spend slightly more than two hours a day with television (less than older elementary school children) and listen to music about four hours a day. Teenage girls are heavy users of teen magazines; three quarters of white teen girls aged 12 to 14 report reading a teen magazine monthly (Klein et al. 1993). Teenagers are the target age group for most mass marketed movies today and are the age group most likely to go to movie theaters (Arnett, 1995). Anecdotal evidence suggests that teenage boys are heavy Internet and video game users. When newspapers, comic books, radio and videos are added to this mix, it is clear that adolescents are heavy media users.

Are there general developmental trends in media use over the course of adolescence? Most researchers have found that television use peaks at about age 12 and decreases during middle and late adolescence; use of other media – music, music videos, magazines and the Internet – increases during this period. Larson (1995), for instance, reports that during early adolescence, about 6th or 7th grade, adolescents lose interest in the types of programs they used to watch heavily, in particular cartoons, and watch more music videos. Teenagers report less emotional involvement with television than do younger children (Larson, 1995). There are gender differences: adolescent girls report reading teen magazines and watching soap operas more than boys do. Young boys spend more time

playing video games than girls do (Huston, Wright, Marquis, & Green, 1997), and there is anecdotal evidence that adolescent boys use the Internet (now estimated to be in 30% of American homes) more than girls do.

Media use varies by family social class (parents' education, occupational status) and ethnic group. The less well-educated and affluent a family is, the more entertainment television the children and adolescents watch (Huston & Wright, 1997). African Americans watch more television than European Americans, even when social class is controlled. This ethnic difference is greater for middle income groups than for low income groups (Comstock, 1991; Condry, 1989; Huston & Wright, 1997). With the proliferation of cable channels aimed at specific groups, children and adolescents, like adults, have dispersed across a wide range of channels and away from exclusive concentration on the major networks. For example, Spanish-speaking Hispanics, particularly older viewers, are heavy users of Spanish language TV. Many Hispanics prefer telenovelas and Spanish-language radio to English-language soap operas and radio. Perhaps more important is evidence that children and adolescents prefer watching programs with characters of their own ethnic group (Greenberg & Brand, 1994). Immigrants and some minority groups are especially likely to use television to learn about the real world and to consider its depictions as realistic (Comstock, 1991; Zohoori, 1988).

In a special issue of the Journal of Youth and Adolescence (1995) devoted to adolescents and the media, several studies suggest a changing hierarchy of media use during adolescence which varies across gender and ethnic groups. Anglo early adolescent boys and girls move from television and toward music as the most important medium. According to participants in our Forum, among Anglo middle class girls, teen magazines, then movies (on TV and in theaters) and movie videos are most important. According to Forum participants, white males are likely to move from television to music, music videos, action movies, video games, and the Internet. Yet, substantially more research is needed to understand the nature of adolescent media diets and the various ethnic and social class differences in such media use. Indeed, regular and ongoing analysis of media use during childhood and adolescence is strongly recommended to fill the substantial gaps in our knowledge of how media form part of adolescent development.

Media Functions

Why do adolescents use media? What functions do different media and media contents serve in the emotional, social, and intellectual lives of young people? In recent years, several researchers have developed innovative ways of addressing these questions. For example, Larson (1995) used an experience sampling technique (sometimes called the "beeper" method because subjects are given beepers that are used to signal them periodically to record what they are doing and how they are feeling) to analyze the relationship between emotional states and the use of television and other media. He argues that adolescents experience increased emotionality (the "moody adolescent" who has negative feelings and swings in emotions) and that such emotionality may be related to increased use of music because "it both speaks to adolescents' personal issues and helps them create a separate experiential space at home...music is also important to adolescents because it helps define their public self outside the family" (Larson, 1995, p. 543). Private, solitary use of both music and television use by adolescents is important in providing them an opportunity to deal with the stress and emotionality of this stage of development.

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Brown and her colleagues (Steele & Brown, 1995) examined adolescent girls' use of media in their bedrooms. Teens use their bedroom to read magazines, watch television, listen to music, do their homework, and talk on the phone. The bedroom, they argue, is a place where teens use media to help them make sense of themselves and their lives.

Media can be a personal expression of adolescent identity development. Furthermore, media consumption, in particular, preference for certain kinds of music and films, is a mechanism for connecting youth from across the country and the world into a common youth culture or subcultures. In a study of Swedish youth, Roe (1995) suggests that identification with certain kinds of music defined a youth subculture of adolescents who were having difficulty in school; their music listening helped identify them as alienated and reinforced their oppositional subcultural position. In short, media are thought to be part of the process by which adolescents acquire, or resist acquiring, the behaviors and beliefs of the social world and the adult culture in which they live (Arnett, 1995).

In summary, adolescents select media which entertain them, contribute to their identity formation, help them cope with their problems and emotional mood states, and form the basis of their selection into youth subcultures. How different adolescents, boys and girls, European American, Hispanic American, Asian American and African American, rich and poor, make choices about media use and the specific functions media content serves for them have not been well documented. What we do know is that adolescent media use today is often an expression of development into adulthood; media use both marks one's identity as youth and distinguishes subgroups from one another. Media socialize adolescents into various adult roles and relationships, and they provide glamorous, young models to emulate.

In this context, it is interesting to speculate on the role of media sexual content in adolescent sexual development. Although earlier generations could peruse National Geographic or Playboy to see pictures of nude women and sexual role models, today's generation of youth has easier access to sexual content. From television, movies, magazines, and advertisements (billboards, print, and electronic), to music (on radio and in music videos) and the Internet, youth who are interested in nudity, sexual role models, romance and depictions of sex and intercourse, have a range of media options readily available. Why do adolescents seek out sexual content in the media? Curiosity about the other gender, information about how to act in romantic or sexual situations, role models of appropriate attitudes and behavior, and pleasurable experiences, have all been offered as reasons for using sexual content (Greenberg, Brown, & Buerkel-Rothfuss, 1993). Some adolescents seek sexual content to emulate or to reinforce their own attitudes and behaviors. Others (e.g., younger adolescent girls), may avoid sexual content that repulses and frightens them (Brown & Steele, 1995). Adolescent girls often use teen magazines to answer questions about how to act in romantic and sexual encounters and as a source of information on kissing, flirting, and other early sexual practices. In this case, media provide perhaps the least embarrassing way to get information about sex and romance. Moreover, teen magazines and music offer role models for female sexuality, including among some new female musicians (e.g., Madonna and Fiona Apple) models of powerful female sexuality tinged with anger and depression. How such role models may function in the development of adolescent sexual attitudes, behaviors and emotional states, can only be speculated about at present.

The functions of media content in the development of adolescent sexuality need further study. We need much more information about how, in what contexts, and for what purposes different kinds of media content and especially media diets, are used by different groups of adolescents – younger versus older adolescents, girls versus boys, various ethnic and economic groups. Further, regular analysis of the changing nature of media use across childhood and adolescence is needed as the available media in the U.S. and internationally change with the growth of cable and satellite television, as well as Internet and other electronic media.

Thus far, we have established that children and adolescents growing up in the United States today have plenty of opportunities for exposure to sexual content in the media; in fact, a parent would be hard-pressed to protect a child from any such content. Moreover, children and young adolescents are often intensely curious about sex. They often seek information from both print and electronic media, and they use many forms of these media extensively. We turn now to our central question: How are young people affected by sexual media content?

Media Effects

Although many parents and educators are concerned about the influences of sexual media content, there is relatively little empirical information for children and adolescents younger than college age. Hence, we turn first to theories of media influence to provide questions and hypotheses for future research. Then we review the small body of empirical literature.

Theory

Sexual messages in the mass media can have both immediate and long-term effects. Viewing a television program may change a person's immediate state by inducing arousal, leading to inhibition of impulses, or activating thoughts or associations. It may also contribute to enduring learned patterns of behavior, cognitive scripts and schemas about sexual interactions, attitudes, and beliefs about the real world.

Immediate effects are the focus of Zillmann's arousal theory. According to that theory, if television content produces emotional and physiological arousal, *some* type of behavior is likely to follow. Whether or not that behavior is "sexual" depends on both the personality of the viewer and the environmental circumstances. Because arousal is non-specific, it can also lead to aggression, altruism, or other forms of behavior if the conditions are conducive to those behaviors.

Theories based on observational learning and information processing emphasize lasting effects of exposure to media content. Bandura's observational learning theory suggests that children will learn not only the mechanics of sexual behavior, but the contexts, motives and consequences portrayed. They will attend to and learn from models who are attractive, powerful, rewarded, and similar to themselves. Children do not usually act immediately on what they learn from television; instead, they store such knowledge to be used when their own circumstances elicit it.

Berkowitz's cognitive neoassociationist theory was proposed as a way of understanding effects of violent content, but it appears equally applicable to sexual content. Although similar to observational learning theory in many respects, the theory gives a central place to the viewer's emotional responses as the links between learned media content and later behavior. As emotional responses to sexual content are likely to be intense, this idea seems especially pertinent to "effects" of such content.

Huesmann argues that children learn social and sexual schemas (expectations) and scripts for sexual interactions from exposure to television. This view implies that it is important to examine what is learned about the circumstances for sexual activity, communication, negotiation, and decision-making. Scripts and schemas learned in childhood have particular importance because children do not have well-developed ideas and understandings of sexuality. Content viewed later may modify such schemas or reinforce them, but will not have quite the "primacy" of what was initially learned. Cultivation theory (Signorielli & Morgan, 1990) also predicts that mass media convey images of socially normative behavior and that children absorb impressions and assumptions about who, when, how often, under what circumstances sexual interactions occur.

All of these theories recognize that media "effects" are not unidirectional. Children are not just recipients of media messages; they choose the content to which they are exposed, and they interpret the content within their own frames of reference. But, some theories give prime importance to the active nature of viewers in selecting and using media. From this viewpoint, "effects" result from availability of content to serve different functions and from understanding the viewer's interactions with the medium.

Cognitive developmental theory is especially important for the topic of sexuality because of the very large age differences in both comprehension and interest in sex. Collins' research on children's understanding of violent content has demonstrated that children interpret media content according to their level of cognitive development generally and their knowledge about the content more particularly. Similarly, one would expect children in late childhood, early, and middle adolescence to interpret and react to media content very differently.

In the communications field, "uses and gratifications" theories emphasize that people use media to serve different functions. If we want to understand the "effects" of sexual content, we must know why a child or adolescent views it. Is that individual looking for information, for arousal (either alone or with a partner), for rebellion (forbidden fruit), or for something else?

What the Studies Show

Many have argued that mass media are a particularly important resource for sexual information because parents provide little information and schools tend to emphasize a biological approach with little attention to romance and interpersonal relationships (Brown, Walsh-Childers & Waszak, 1990; Strasburger, 1989; Strouse & Fabes, 1985). In one early investigation, family variables exerted no influence on an individual's sexual self-evaluation, but media and peers were significant influences (Courtright, & Baran, 1980).

Experimental studies. The ideal method for establishing a causal relationship of media exposure to child outcomes is the experiment. The few experimental studies measuring attitudes and knowledge show some differences between adolescents exposed to media sex

and a control group not shown the same fare. For example, boys and girls who were exposed to content portraying pre, extra or non-marital sexual relations rated these portrayals as significantly less bad than did their peers who viewed either sexual relations between married partners or non-sexual relations between adults (Bryant & Rockwell, 1994). In another study, young adolescents who watched selected scenes from television programs containing sexual content learned the meaning of the language used to refer to sexual activities such as homosexuality and prostitution (Greenberg, Linsangan, & Soderman, 1993). Exposure to music videos led teenagers to state that premarital sex is more acceptable compared to those teens who were not exposed (Greeson & Williams, 1986). Students who were shown programs containing basic sex information (menstruation and reproduction) knew more factual information than students who were not shown the videos (Greenberg, Perry, & Covert, 1983).

While most of the sexual portrayals on prime time programs or in soap operas are not pornographic, many children and adolescents have access to explicitly erotic or pornographic materials. Experiments exposing individuals to pornography have not been conducted with adolescents for ethical reasons, but studies with young adults generally find that pornography that is combined with violence leads men to hold more callous attitudes about rape and sexual coercion (Zillman, 1982; Donnerstein & Linz, 1986). Whether sexual content without violence has these effects is less clear. Some find that massive experimental exposure to nonviolent erotic material leads men (and to some extent women) to be more callous towards women's issues and sexuality (Zillmann & Bryant, 1982). Others have found a desensitization toward violence in general and sexual violence in particular only after viewing explicit sexual content containing violence. Participants exposed to explicit sexual content without accompanying violence did not become desensitized (Linz, Donnerstein, & Penrod, 1988; Linz, Donnerstein, & Adams, 1989).

Correlational studies. Correlational studies do not permit causal inference, but they do allow assessment of ways in which naturally occurring media use is related to sexual knowledge, attitudes, and behavior. Teenagers who chose TV diets containing a lot of sexual content were more likely than those who viewed a smaller proportion of sexual content on television to have engaged in sexual intercourse. Because of the cross-sectional nature of the study, it is unclear whether viewing sexy television contributed to a teen's decision to engage in intercourse (Brown & Newcomer, 1991). In a longitudinal design, Peterson, Moore, and Furstenberg (1991) found no evidence that amount or content of television viewing reported by early adolescents predicted early initiation of intercourse, but the measures of viewing were quite superficial. Strouse, Buerkel-Rothfuss, and Long (1995) found a positive correlation between music video exposure and attitudes about premarital sex, especially for females.

Television may also influence adolescents' beliefs about social context and the consequences of sexuality. For example, compared to those who do not watch soap operas, soap opera viewers believed that single mothers have relatively easy lives: they have good jobs, are educated and do not live in poverty. Viewers also were more likely than non-viewers to believe that a single mother's male friends will be important in their children's lives (Larson, 1996). If single motherhood is glorified, marriage is not. There is a positive relationship between viewing television and ambivalence towards happy marriage as a way of life (Signorielli, 1991).

Television and other media may also influence adolescents' sexual vulnerability indirectly by the messages concerning physical attractiveness and the ideal body. Women's bodies are frequently used in advertisements to sell a variety of products to both men and women (Henderson-King & Henderson-King, 1997). The media provide images of an unattainable "ideal" that may have a cumulative effect on individuals' satisfaction with their appearance. In several experiments, adolescents were shown slides of models who were thin, average, or large. Those who saw thin models had lower self-evaluations and body dissatisfaction than those shown models with other body types (Irving, 1990; McElroy, 1992; Stice et al. 1994 cited in Kalodner, 1997). Repeated exposure to such images may lead some adolescents to extremes of dieting and eating disorders. Although females are thought to be especially vulnerable to such media messages, males may be affected as well.

Factors Moderating the Effect of Viewing Sex

How sex on television affects young people's attitudes, knowledge and behavior may depend on age, gender, parental involvement, perceptions of reality, and reasons for media use, to name only a few possibilities. The appeal and characteristics of the media presentation are also likely to affect how it influences young viewers.

Age. There are developmental differences in understanding and interest in television portrayals of sexuality. For example, 14- and 16-year olds had a better understanding of televised sexual innuendoes than did 12-year-olds (Silverman-Watkins, & Sprafkin, 1983). In a focus group of 8-12 year olds who viewed various clips portraying sexual topics, most of the children (even the youngest ones) understood that the clips were sexual in nature. Most jokes and innuendoes about sex were understood by 10-12 year olds, but the younger children (8-10 year olds) were often uncomfortable with portrayals of intimacy and sexuality in the clips (Kaiser Family Foundation & Children Now, 1996). In an ethnographic study of 11-15 year old girls, girls who were least interested in sexual content in the media were the least physically mature and were least likely to have had an intimate relationship with a boy (Brown, White, & Nikopoulou, 1993). The most physically mature girls had some experience with romance and were often critical of media sexual portrayals. In the middle was a group of girls who actively sought out media messages and were interested in teen characters and how they solved problems similar to ones that the teens themselves were experiencing.

Gender. There is some evidence that girls use the media to learn about interpersonal relationships more than do boys. Girls reflected about a video about teen pregnancy more than boys did (Thompson, Walsh-Childers, & Brown, 1993), and females were more likely to enjoy sexual content than boys (Greenberg, Linsangan, & Soderman, 1993).

Parent involvement. Parent involvement in adolescent television viewing could moderate the relationship between viewing and initiating intercourse. Adolescents who do not discuss television with their parents have higher rates of intercourse compared to those who do discuss television content with their parents (Peterson, Moore, & Furstenberg, 1991). Family communication patterns (concept orientation versus socio orientation) seem to influence the way adolescents make inferences and draw connections about sexual media (Thompson, Walsh-Childers, & Brown, 1993). Strouse, Buerkel-Rothfuss, and Long (1995) found that the relationship between music video exposure and premarital sexual permissiveness for females was much stronger in unsatisfactory home environments than for females in satisfactory home environments.

Perceived realism and use of media.   Most theories predict that media messages will be most influential if children or adolescents perceive them as realistic and valuable guides to behavior. Adolescents do understand that television portrays romance and sexuality in ways that omit some of the real-life issues such as contraception. But, adolescents who use television to learn about social relationships believe that TV portrayals are more realistic than do other adolescents (Truglio, 1992). In cases where teenagers have little other knowledge about sexuality, media may create expectations. Teenagers were most likely to be dissatisfied with their first intercourse experience if they considered media messages to be accurate and if they perceived television characters to be their sexual superiors. On the other hand, teens who reported satisfaction with their initial coital experience reported that they perceived TV portrayals of sex as accurate (Baran, 1976a), and students who believed that media characters experienced high levels of sexual satisfaction reported being less satisfied with their own state of virginity (Baran, 1976b).

Appeal and quality.   Messages that people perceive as high quality seem to have a greater impact on beliefs and attitudes than those they judge to be of low quality (Duck, Terry, & Hogg, 1995).   The typical portrayals of non-marital sex may be more appealing than those of marital intercourse. For example, when shown a collection of clips, adolescents enjoyed married intercourse scenes the least and considered them least funny and least sexy while they thought unmarried intercourse scenes were the sexiest (Greenberg, Linsangan, & Soderman, 1993). In another study using sexual clips, young children said that their favorites were ones that gave prosocial messages such as using contraception and postponing sex until one is ready (KFF & Children Now, 1996).

Conclusion

There are good theoretical reasons to believe that television and other media can play an important role in educating children and adolescents about sexuality.   Media portrayals surround children, and young people are intensely interested in sexuality, romance, and relationships. The few experimental studies show that television has the potential to change viewers' attitudes and knowledge. Correlational designs provide weak evidence that television viewing is linked with sexual behavior and beliefs, but the measures of viewing are crude at best. There is also some evidence that such personal factors as interest in sexual content, level of understanding, perceived reality, and parental mediation modify the influence of sexual messages. Much more empirical work is needed to substantiate the claim that naturally occurring sexual content in the media actually does cause changes in attitudes, beliefs and behaviors. What those changes are need to be examined as a function of what individuals are watching, the messages they are receiving, how they are interpreting them, and other factors that influence a young person's sexual personae.

III. What Outcomes Are Important?

Any research agenda for understanding media effects on sexual development must be informed by a clear understanding of what outcomes are of interest. Are we concerned with educating young people about sex in general, about health risks associated with sex, about relationships, about morality? How is sexuality defined and conceptualized? What related risks to mental and physical health may be posed by sexual media content (e.g., negative body image, eating disorders)? The answers to these questions will help to determine how research is constructed, including the media content of interest and the attitudinal and behavioral outcomes measured.

Healthy Sex or Sexual Health?

The participants in our forum represented two major points of view about this issue. One of these emphasizes *healthy sex,* the role of sex in individual mental health and in healthy relationships. Many sex educators and scholars interested in human development approach the topic with this orientation. It encompasses a wide range of human sexual behavior, including but not limited to heterosexual intercourse. Publications of The Sexuality Information and Education Council of the United States (Haffner, 1995) include five criteria of healthy interpersonal sexual behavior; it is *consensual, honest, mutually pleasurable, protected, and non-exploitative.* The focus of this approach is upon enabling people of all ages to develop the attitudes, values, and behaviors that promote such healthy sexual functioning. Sex is considered good and essential to human functioning.

The second orientation, *sexual health,* has a narrower focus based in public health concerns about the physical disease, mental health, and social problems that can arise from sexual behavior. The majority of the literature in this area is concerned with STDs, including HIV, and unwanted, early, or out-of-wedlock pregnancy, but sexual violence and coercion, including rape, and mental health problems (e.g., depression, low self-esteem, distorted body image) are also considered. The sexual health literature tends to focus on prevention through encouraging young people to abstain from or postpone sexual intercourse, especially with multiple partners, and encouraging "safer sex" practices when they do have intercourse.

Some people argue that the preoccupation with preventing the negative consequences of sexual behavior has led away from education and socialization for sexual health. "The place of sexuality as a major and positive dimension of human development seems to be increasingly neglected in the empirical study of human sexuality and in our messages to young people" (Ehrhardt, 1996, p.1525). Some public health specialists provide the counter argument that the life-threatening nature of AIDS and the long-term negative social consequences of teen pregnancy, for example, demand that attention be focused narrowly on educating young people about prevention and risks. Others in the public health community believe that elements of the "healthy sex" approach should be part of public health campaigns, arguing that more open communication about sex can contribute to better health outcomes.

Health Risks

Should all sexual behavior by young people be categorized as "risky?" Or is "risk" only associated with certain sexual practices – having multiple partners and failing to use contraceptives/condoms? There are no simple answers, nor is there consensus among researchers or the general public.   Available data show that initiating sexual intercourse in early adolescence may be a marker of developmental risk, but engaging in intercourse in later adolescence (age 16-19) is statistically "normative," and may be associated with overall mental health (Day, 1992).   About 80% of Americans have their first sexual intercourse as teenagers; the average age is 16 for boys and 17 for girls (Fisher & Hall, 1988; Kaiser Family Foundation and YM Magazine, 1998; Moore, Driscoll, & Lindberg, 1998; Strasburger, 1997). Usually there is a progression from kissing to petting to intercourse and oral sex that occurs over a span of about four years (Hyde & Delamater, 1997; Kaiser Family Foundation and YM Magazine, 1998). Recent data show that Black male teens become sexually active at a younger age than White or Latino adolescents do, and Black and Hispanic female teens become sexually active at a younger age than White female adolescents do (Moore et al., 1998). One explanation for Black teens becoming sexually active at a younger age is they are likely to spend a shorter time in the "preparatory" period of non-coital behaviors (Smith & Udry, 1985).

Public health experts have linked certain sexual behaviors to negative health outcomes, including early onset of sexual intercourse, significant age gaps between partners, failure to use contraception, failure to protect against the spread of disease, conceiving an unplanned or out-of-wedlock child, multiple sexual partners, and sexual coercion. Many of these risky behaviors tend to co-occur, and they are linked to the probability of contracting sexually transmitted diseases. For those attempting to study the impact of media messages on sexual health of adolescents, these would be the behaviors of interest.

Adolescent pregnancy is a target of prevention because of the negative psychological, social, and financial consequences for adolescent mothers, their children, and society. "Poverty and various manifestations of social disorganization are statistically associated with adolescent childbearing…and are among the causes of teenage childbearing as well as the consequences" (Kirby, 1997). When adolescents give birth, they become 1) less likely to complete school, 2) more likely to have large families, and 3) more likely to become a single parent (Kirby, 1997). The children of teenage mothers are also at risk. On average, they have 1) a less stimulating home environment, 2) poorer health, 3) lower cognitive development, 4) worse educational outcomes, 5) higher rates of behavior problems, and 6) higher rates of adolescent childbearing themselves than children of older mothers (Maynard, 1996, cited in Kirby, 1997).

Sexual coercion, including but not limited to rape, and sexual abuse of children in particular, are major public health problems in the United States.   A review of the literature by the National Research Council concluded that between 6% and 62% of females and between 3% and 31% of males had experienced sexual abuse. The large variation in estimates depends on whether non-contact (e.g., exhibitionism) as well as contact abuse is counted. Perhaps more important for our purposes, 56% of child molestations are committed by someone under age 18, and the majority of adult sexual offenders report that their deviant sexual behavior began before age 18 (Panel on Child Abuse and Neglect, 1993, p. 84).

Young sex offenders are likely to have had their own variety of childhood disruptions including sexual and physical abuse (Ryan, Miyoshi, Metzner, Krugman, & Fryer, 1996).

Early onset of sexual intercourse, especially when the partner is significantly older, is associated with sexual coercion. The younger the age at first intercourse, the more likely it is that the experience is coerced (Moore, Miller, Sugland, Morrison, Glei, & Blumenthal, 1995). In one study, two-thirds of a sample of 535 young adolescents who became pregnant had previously been sexually abused. Girls who had been sexually abused were less likely to use contraception in future encounters compared to their non-abused peers (Boyer & Fine, 1992). Girls who lack self esteem are vulnerable to sexual victimization (Vicary, Klingaman, & Harkness, 1995).

Sexuality is a central part of human functioning and is, of course, multiply determined. Research designed to understand the influence of mass media must be informed by an understanding of the developmental changes in sexuality during childhood and adolescence, as well as socioeconomic, cultural, family, and peer influences. At the very least, many of these influences must be controlled in studying media effects. Perhaps more important, it is likely that the processes involved and outcomes of interest will differ for different groups of young people. In this section, we provide a very brief and admittedly incomplete summary of some of the developmental and environmental influences on sexual development. The reader seeking a more thorough treatment of the topic is referred to the review sources cited.

Sexual Development

As children grow from infancy through adolescence, there are obvious and important developmental changes in (1) knowledge or understanding, including "scripts" for sexual interactions, (2) attitudes, values and beliefs, and (3) sexual behavior. Both cognitive developmental change and physical/physiological growth may contribute to age changes in comprehension, attitudes, and sexual behavior. Although age is a rough index of both cognitive and physical development, there are important individual differences within age groups.

Infancy and Early Childhood

Young children engage in both hetero- and homosexual play (Thornburg, 1974). Children's sex play is motivated largely by curiosity and is a natural part of learning (Hyde & Delameter, 1997). By age 3 or 4, most children realize that there are genital differences between girls and boys (Hyde & Delameter, 1997). Most of the sexual information provided to young children concerns "where babies come from." Because of poor analogies and wording by parents and because of lack of cognitive understanding, many children do not have an accurate understanding of the process of sexual intercourse until they reach late elementary school (Bernstein, & Cowan, 1975; Goldman & Goldman, 1982).

Early Adolescence (9-13 years)

The average age at which puberty begins is 9-10 for girls and about two years later for boys, but there are large individual variations. Menarche occurs on average at age 12.77. The average age of menarche is slightly earlier for Black girls than for White girls (Ehrhardt & Wasserheit, 1992). Masturbation increases in this age period; kissing games and dating are common; but genital fondling rarely takes place (Hyde & Delameter, 1997; Martinson, 1994). Children become more aware of their own sexuality, but most of them consider intercourse before marriage as wrong (Schoof-Tams, Schlagel, & Walczak, 1976).

Adolescence

The increase in sexual interest and activity during and after puberty is based on both biological changes and cultural expectations (Hyde & Delameter, 1997). By age 15 most boys have masturbated. While there is an increase in incidence of masturbation for girls during this time it is not nearly as pervasive as it is for boys (Hyde & Delameter, 1997). As children age they have more liberal attitudes about sex (Fisher & Hall, 1988), become more accepting of intercourse before marriage, and consider sex as a pleasurable and important part of a relationship (East, Felice, & Morgan, 1993; Schoof-Tams et al., 1976). High school students' permissive attitudes toward sex do not necessarily reflect a casual attitude toward sex; rather many view sex as a way of expressing love for someone who is close to them (Jessor & Jessor, 1975; Strouse, Buerkel-Rothfuss, & Long, 1995). For the most part, intercourse between teenagers occurs in a pattern of serial monogamy (Ehrhardt & Wasserheit, 1992).

A recognition of one's sexual orientation emerges during adolescence. According to studies of gay, lesbian and bisexual youth and adults, sexual feelings toward a member of one's own sex or of the other sex is followed by thinking about one's own sexual identity, and then by self-identification as gay/lesbian or bisexual. Females take longer than males to consider and solidify their identification as lesbian or gay (Rosario, Meyer-Bahlburg, Exner, Guadz, Keller & Hunter, 1996). Gay, lesbian and bisexual youth often are forced to contend with a variety of psychosocial problems: they are rejected by their parents, verbally and sometimes physically abused by peers and are more likely than heterosexual youth to attempt suicide. However, gay, lesbian and bisexual youth who exist in a supportive, caring environment present with no more psychosocial problems than heterosexual adolescents (Remafedi, Resnick, & Blum, 1992; Smith & McClaugherty, 1993).

Initiating Sexual Intercourse

Physical maturation, attitudes and beliefs, family, peers, and sociocultural factors are all related to the likelihood of beginning sexual intercourse in adolescence. The hormonal and physical changes associated with puberty are important predictors of sexual behavior; early maturing youth of both sexes are apt to initiate sexual activity earlier than others (Udry, 1988). For girls, early maturity is generally associated with higher levels of psychological distress than on-time or late maturing girls (Ge, Conger, & Elder, 1996).

Early onset of sexual intercourse is most likely for adolescents who are loosening ties to their families; are in conflict with their families; and who are involved in peer groups with norms that support sexual activity. Among early adolescents in a prospective longitudinal study from 6th to 9th grades, sexual intercourse was more likely when the peer group provided support for such behavior and was relatively uninvolved with conventional behavior and institutions. Young people who became "non-virgins" were loosening their ties to their families and valued independence (Jessor & Jessor, 1975). Whether peer involvement encourages sexual activity or not probably depends on the norms of the group. Adolescents generally have friends whose sexual experience is similar to their own, and males' sexual behavior is influenced by that of their friends (Billy, Rodgers, & Udry, 1984; Smith, Udry, & Morris, 1985). At least for white adolescents, boys who are popular with girls and girls who have a lot of girlfriends are most apt to be sexually active (Newcomer, Udry, & Cameron, 1983). According to Strasburger (1997) a Harris Poll found that over 61% of teenagers

surveyed cited social pressure and 55% cited "feelings" as the reasons for engaging in intercourse. Peer influences appear to be most salient after adolescents have reached puberty (Smith et al., 1985).

What is the parent's role in influencing and shaping teen sexual behavior? In a review of the literature on parent-teen communication about premarital sex and premarital pregnancy, Jaccard and Dittus (1993) concluded that the studies showed unclear and varied outcomes. In some cases there was 1) no relationship between parent-teen communication and sexual and contraceptive behavior; 2) an association for one gender and not the other; 3) communication with mother or father as more important depending on the study; and 4) an overall weak effect. A number of studies indicate that adolescents rely primarily on peers and printed material for information about sex and birth control (Jaccard & Dittus, 1993). The authors do indicate that there are gaps in the literature. Few studies 1) assess the content of the dialogue between parents and teenagers, 2) distinguish between the topics of sex and birth control, 3) try to elucidate why a given source is more or less useful, and 4) examine why certain parents have lengthy discussions about sexual topics and why others avoid the topic.

Sexually Risky Behavior

Many adolescents take few sexual risks. Those who do take risks tend to have low IQs, poor school performance, poor communication with their parents, little parental monitoring, a history of sexual abuse, and circumstances of poverty. For example, in one investigation, several characteristics differentiated sexual risk-takers from those who engaged in responsible sexual behavior. For females, these were low GPA, frequent alcohol consumption, and lack of communication with mother about birth control; for males, they were low GPA, frequent alcohol consumption, low levels of parental support, and a history of sexual abuse (Luster & Small, 1994). Adolescent boys who have traditional gender role beliefs take less responsibility for contraceptive use and believe that getting a girl pregnant validates their masculinity (Pleck, Sonnenstein, & Ku, 1993).

The association of alcohol consumption with sexual risk raises the issue of whether adolescents who engage in one risky behavior are more likely to engage in other risky behaviors. Alcohol and drug use are of particular interest because of the possible role of media portrayals in modeling them (Terre, Drabman, & Speer, 1991). Moreover, men who report being high during sex also report infrequent condom use (Ku, Sonenstein, & Pleck, 1993). Among African American youth, there is not a clear relationship between initiation of sex and other risky behaviors. After assessing a number of potential problem behaviors (e.g., sexual intercourse without a condom, truancy from school, smoking cigarettes, drinking, using drugs, selling drugs), Stanton and colleagues (1993) found that sexual intercourse was perceived differently than the other problem behaviors.

Pregnancy

Adolescents in the United States and Western Europe report about the same rates of sexual activity, but our rates of pregnancy are considerably higher. The most immediate reason appears to be that American teens use contraception less effectively. There has been an increase in condom use among teenagers in recent years (Forrest & Singh, 1990; Moore et al., 1998), and discussions about contraception prior to intercourse may also be increasing (Poppen, 1994; Kaiser Family Foundation and YM Magazine, 1998). The factors

that may influence the specific course of behavior and the possibility of pregnancy include: the adolescent's knowledge about reproduction and contraception, future orientation, academic achievement, personal identity, sexually active peers, ethnicity, socioeconomic status, level of parental education, parents' attitudes about sex, and the like (Gordon, 1996; Kirby, 1997). For a summary of antecedents of the initiation of sex, see Kirby, 1997, p.49-50.

Adolescents who live in poverty, whose parents have little education, who invest little effort in school, and who have low expectations for their future are most likely to engage in unprotected sex, possibly resulting in pregnancy. Early sexual activity is correlated with low academic performance (Strasburger, 1997), but sexual activity at a later age is not consistently related to school performance. In one study, interview, discussion, and observational data were collected on how adolescents (inner-city high-school females) made decisions about becoming pregnant. Most students were pregnant by choice, but they also expressed a number of erroneous beliefs, for example, that an individual can only get pregnant on one day in each month (Gordon, 1996). Gordon suggests that the United States has a "misplaced focus on sexual activity rather than on early childbearing as the problem" and that we need more information about adolescents' decision-making processes and further understanding of the varied range of adolescent sexual experiences.

Among many groups of teenage girls, those with a strong sense of control over their own lives, high self esteem, religious beliefs, positive attitudes toward school, and high educational expectations are less likely to become pregnant premaritally than their counterparts, but it is unclear how much of the difference is due to different rates of sexual activity and how much to contraception. Young women with these attributes (except religious belief) are also more likely to end a pregnancy with abortion (Plotnick, 1992). For example, teens who had never been pregnant were less susceptible to peer pressure and more independent than those who had been pregnant (Morgan, Chapar, & Fisher, 1995).

We turn now to a discussion of the methods used in media effects research, considering their appropriateness for studying the effects of sexual content. In the next three sections we will discuss (1) the advantages and disadvantages of various research methods, (2) measures of media use and of sexual outcomes, (3) special problems in doing research on this topic. In the final section, we present recommendations for future research.

Scientific Method

As we stated at the outset, our approach is fundamentally rooted in the scientific methods. There are several unique features of the scientific method of knowing which allow us to speak with confidence about mass media effects. Science is public. Unlike for instance, personal opinion, the evidence for a scientifically based claim is open to public scrutiny. A scientist cannot claim some private knowledge or source for his or her findings. If a researcher states that sexual content in the media leads to the early onset of sexual behavior another researcher can examine these claims openly because the research will be published in a scientific forum where other researchers in the field can examine the evidence for the scientist's claim. The researcher's peers decide if the claim meets the proper standards of "proof," and others have the necessary information to replicate the research. In science, replication is critical. In the area of sexual mass media content, this is even more germane.

Science is objective. There is a set of explicit rules and procedures that we follow to answer a question so that judgments and personal biases cannot enter into the process. The individual researcher usually cannot change the procedures from those that are accepted by the rest of the academic community. Science is objective because facts rather than subjective interpretations are emphasized. When the results of a study are unexpected, the outcome is not dismissed; rather, the researcher's initial expectations are called into question.

Perhaps most importantly, science is empirical. We assume that we live in a world that is knowable and that features of our environment can be measured. A critical task in measuring the concepts and abstract ideas we work with is to define them in such a way as to allow for observation. When someone claims that "media sex leads to bad behavior," what do they mean by "media sex" or "bad behavior?" What are "sexual content" and "sexual behavior?" Such concepts must be transformed into exact observable terms. These operational definitions specify the procedures that must be followed to measure a concept in ways that are reliable and valid. Reliability refers to measurements and observation procedures that are dependable and consistent across the people who use them and across the occasions in which they are used. Concepts are valid to the degree that they measure what they are supposed to measure.

Finally, science is systematic and cumulative. Researchers generally undertake a series of studies to answer the questions they raise, and they plan their own work according to the findings obtained by other scientists. This activity produces an accumulation of new facts that refine our knowledge, insuring that no piece of knowledge rests on a single research finding

and that no idea falls on the basis of the failure of a single study. Because science as a method of knowing is actually a system of knowledge acquisition and verification it is not static. What we claim to "know" about the effects of sexual content in the mass media on attitudes, emotions, cognitions and behavior is always in a state of change.

The Research Methods Available: Advantages and Disadvantages

The accumulation of scientific knowledge often involves approaching the same problem from several research perspectives. Two major approaches often used to examine media effects are broadly defined as quantitative and qualitative methods. The former, which include experiments, surveys, content analyses, and correlational designs, have been the predominant choice of media effects scholars (i.e. Cooper, Potter, & Dupagne, 1994). Qualitative methods such as focus groups, field observations, in-depth interviews, and case studies also play a role in our understanding of media effects. There is no overall "best" approach, but rather the method chosen should depend on the questions one seeks to answer. Moreover, there is a definitive strength in multiple methods, particularly in the area of mass media sexual content, which presently lacks a substantial body of literature.

In this section, we will address the advantages and disadvantages of various research approaches within each of these broad methodological categories. In the long term, an integration of many research approaches will help guide our understanding of the impact of sexual content on the individual. We will examine first those approaches that have been the most often employed in quantitative studies. The major research methods used to generate knowledge about the effects of media content on behavior are surveys, correlational and longitudinal studies, and experiments. Content analysis has been used to systematically document the amount of sexual content found on television, in the movies, and across other mediums.

The Survey

Descriptive surveys or public opinion polls are typically based on a carefully chosen representative sample. For example, Winick and Evans (1994) surveyed 10 states with random samples of adults (N=4,621) between 1976 and 1985 and found that a statistically significant majority of the respondents in each state indicated acceptance of sexually explicit content in the mass media. In each state, respondents felt that 1) standards have changed so that such material has become more acceptable; 2) adults have the right to obtain such materials; and 3) it is all right for adults to obtain and see materials containing exposure of the genitalia and various kinds of sexual activity.

The major advantage of drawing a sample of people and asking them questions is efficiency. The number of persons from whom the researcher solicits opinions needs to be only a small fraction of the total population. How are we confident that these results accurately reflect the views of over 200 million Americans despite the fact that only 4,621 people were actually questioned in the above example? The procedure used to select the sample allows the researchers to estimate the discrepancy between their sample and the larger population. When these discrepancies are low, researchers can be confident that the answers given by people in their sample are representative of the population as a whole. If the sample is randomly selected so that all members in the population have an equal chance

of being included it is assumed, within certain limits, to be representative of the larger population.

The survey researcher can place a confidence interval around the percentages for or against an issue by calculating certain statistics based on the assumption that a random sample of respondents has been chosen for participation in the study. Questions asked of small samples of people, randomly chosen, as a rule more accurately reflect the opinions of the population than groups of respondents comprised of millions of people selected non-randomly. The results from a self-selected sample of one million callers (or even 10 million for that matter) are far less informative than those that would be obtained from a much smaller sample selected in a scientific manner (randomly) so as to be representative of the population of the U.S.

Survey research need not be limited to one or two questions in a public opinion poll. Surveys are often conducted to explain why certain situations exist (Wimmer & Dominick, 1997). For example, Luster and Small (1994) were interested in what characteristics of teens and their families distinguish sexual risk-takers from those sexually active teens who engage in responsible sexual behaviors. Sexual risk-takers were defined as those who have multiple sex partners and who do not use contraceptives consistently. The sample consisted of 2,567 adolescents attending schools in the rural Midwest. The adolescents responded to a 160-item questionnaire incorporating these measures: number of partners; birth control use; grade point average; sexual abuse; physical abuse; alcohol consumption; suicidal ideation; parental monitoring; parental support; and discussing birth control with parents. The researchers found that those factors associated with sexual risk-taking among females included low GPA, frequent alcohol consumption, low levels of parental monitoring, and lack of communication with parents about birth control. Factors for males included low GPA, frequent alcohol consumption, suicidal ideation, low levels of parental support, and a history of sexual abuse.

Every technique has its problems. There is a price to pay for the ease and efficiency of using a small number of people to make statements about an entire population. There will always be a certain amount of error in the estimate of the population value from the sample. When the percentages are close, often the researcher cannot be sure how a majority of the population feels about an issue. However, the researcher can usually specify with some exactness the amount of error. Another problem is that the entire study often hinges on one or two critical questions. When questions are poorly worded the results can be confusing and even worthless. The major disadvantage of a public opinion survey is that it cannot tell us about the actual relationship between sexual content in the media and behavior. Surveys can be used to correlate self-reports of media use with reports of sexual behavior or to tell us what percentage of people in the population believes there is a relationship, who they are and why they believe it exists. A survey cannot answer the question of whether sexual content is, in fact, directly related to real behavior.

Second, we have stressed the importance of random samples. It is important that in no way should our samples of respondents be biased. Given the nature of many surveys that examine sexual behaviors, concerns over non-respondents, drop outs, and self-selection need to be examined. If those who give consent to participate in surveys are significantly different from those who do not consent, we have a major problem with generalizing the results and improving upon our knowledge base. There is danger of bias by gender, age, ethnicity, and socioeconomic status.

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Finally, given the nature of the questions about sexual viewing habits and behaviors, concerns about privacy are important. It is quite possible that respondents will be inhibited about responding to personal and intimate questions whether in surveys or experiments with self-administered questionnaires. Romer, Hornik, Stanton, Black, Li, Ricardo, and Feigelman (1997) suggested one innovative way around this problem. These authors demonstrated that interviews delivered by talking computers would elicit more reports of sexual experience and positive feelings toward sex than traditional face to face interviews with children in the 9-15 age range. Computer interviews were reliable and did not produce higher levels of missing responses than the face to face method.

Another innovative method was employed by Brown, White, and Nikopoulou (1993). They administered both questionnaires and interviews in the bedrooms of their teenage female subjects. It was believed that given the use of one's bedroom for all types of behaviors, discussions, media viewing, and other activities, that these young girls would feel more comfortable and less inhibited in their responses. In addition, it would also allow the researcher the ability to incorporate a more qualitative approach by observing how these girls use the mass media in their natural environment. This is an interesting research approach and one that should be given more consideration.

The Correlational Study

Surveys, questionnaires, or other measurement techniques can be used to examine the level of association between variables. The amount of sexual television content that an adolescent watches may vary along a continuum from none, to very little, to a medium amount, to large amounts. Likewise, particular sexual behaviors (e.g., frequency of condom use) may vary from virtually never to almost always. Each of these concepts, "sexual content" and "sexual behavior," can be observed and measured. In technical terms, when we ask if watching sexual content in the media is related to sexual behavior we are asking if these variables are correlated with one another. A positive correlation exists when the value of one variable increases as the other variable increases. A negative correlation indicates that when one variables increases, the other declines (e.g., more television associated with less condom use). It is also possible, of course, that viewing sex in the mass media is not related to sexual behavior at all and that there is neither a negative or positive correlation between the two variables. In this case, the correlation would be said not to differ from zero.

Two studies are good examples of this type of approach. Strouse, Buerkel-Rothfuss, and Long (1995) surveyed over 200 teenagers about their family environment, music video exposure, and their attitudes towards premarital sexual permissiveness and sexual behavior. Male virginity was unrelated to exposure to R- and X-rated films, popular music or music videos. There was a stronger relationship between music video exposure and premarital sexual permissiveness for females than for males. The association for females was much stronger in unsatisfactory home environments. Likewise, Brown and Newcomer (1991) in a study of 391 adolescents (ages 13-18) found that those who chose heavier diets of sexy television programs were more likely to have engaged in sexual intercourse than those who viewed a smaller proportion of sexual content on television. This relationship endured regardless of perceived peer encouragement, pubertal development, race, or gender.

The major problem with most correlational studies is that correlation does not mean causation. We often cannot tell which variable came first, watching television or sexual

behavior. In order to determine a causal relationship between two variables, we must be able to show that one variable precedes another variable in time. From the two studies discussed above, we cannot say that exposure to sexual content causes increased sexual behavior in teens. It may be just as likely that individuals who are already sexually active prefer to watch sex on television.

Another problem with a correlational study is that a third variable may account for the relationship between viewing televised sex and sexual behavior. Perhaps permissive parents both reinforce sexual behavior in their adolescents and at the same time approve of viewing television programs that have sexual content. This third variable, parental approval, explains the correlation between viewing sexual content and sexual behavior. One way of dealing with this problem is to control statistically for possible confounding variables. If the correlation between viewing sexual content and sexual behavior remains when parent permissiveness is controlled, then one can be assured that parent permissiveness does not account for the media-behavior correlation. For that reason it is extremely important to have adequate measures of potential extraneous variables so that appropriate multivariate techniques can be employed to rule out a spurious relationship. Logically, however, even with many controls, it is impossible to be sure that the association observed is not due to some unmeasured third variable.

Many factors might contribute to a relationship between media content and behavior, e.g., biology, parent communication, income, and sexual education. While many of them are not difficult to measure, selection of those to control should be based on a theoretical framework that specifies important contributors. It is neither methodologically reasonable nor appropriate to "throw" all factors that come to mind into the equation. Selection should be based on a background of empirical data and model building. Good multivariate techniques are based upon good theoretical deductions.

In summary, studies that rely on correlations do not allow us to infer causality. Technically speaking, a correlation between two variables only indicates that the two variables are associated with each other. Studies that employ correlational analysis, like the ones we just described, are useful because they examine relationships between variables that are naturally occurring and have a high degree of realism (real television shows and sexual activity). These are realistic measures of televised sex and behavior; hence, these studies have high external validity. No matter how realistically the variables are operationalized and measured it would still be wrong to state that one variable causes change in another on the basis of a correlational study. Although correlations alone cannot be used to deduce causality, they can be used to disconfirm causal hypotheses. If there is no correlation between viewing and behavior, for example, then a causal effect of either variable on the other is not likely.

The Longitudinal Study

One solution to the confusion about the causal ordering of variables is to conduct a longitudinal study, where, for example a panel of children is followed over a period of many years. With a longitudinal study one can tell with some accuracy which variable comes first, watching sexual content or being sexually active, because one variable precedes another in time. While there have been no systematic longitudinal studies on sexual behavior and media exposure (Strasburger, 1995), an example of this type of approach comes from a

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study which queried children about their exposure to TV programs containing sexual content, first in 1976 when the children were 10-11 years old and then again 5 years later when they were teens, about age 16 (Peterson, Moore, & Furstenburg, 1991). The teens were asked after the five-year period to report about their sexual experiences. Early exposure to TV sex was examined in relation to later sexual activities.

Longitudinal studies have provided valuable information about the effects of exposure to media violence; two of the best studies may serve as prototypes for investigations into sexual content. The first was a 22-year study of youth in Columbia County, New York, examining the long-term relation of television violence to aggressive and criminal behavior in individuals (Huesmann, Eron, Lefkowitz, & Walder, 1984). In 1960, when the children were in the third grade, they and their parents were questioned about their television viewing. A measure of peer-rated aggression was also obtained. Twenty-two years later, when the subjects were about 30 years old, the investigators re-interviewed 409 of the original subjects again and collected criminal justice data on 632 of the original subjects. There was no relation between the men's current television viewing habits and aggressive or antisocial behavior, but the amount of violence they had viewed as 8-year-olds correlated with self-reported aggression at age 30 (especially aggression under the influence of alcohol) and added a significant increment to the prediction of seriousness of criminal arrests accumulated by age 30 (as recorded by New York State).

In a second study (Huesmann & Eron, 1986), two cohorts of children were followed: one from first to third grade and another from third to fifth grade. The amount of television violence the children watched and peer-rated aggression were measured at each age level. The study was replicated by investigators in five nations, providing cross-national comparisons. For both boys and girls, there was evidence of bi-directional effects. Early viewing predicted later aggression, and early aggression predicted later preference for violent television.

Although longitudinal studies indicate the temporal ordering of variables, they do not allow one to infer causality because of the "third variable" problem. Some unmeasured third variable may account for the relationship between viewing televised violence and aggressive behavior over 22 years. The best protection against this problem is to know at the time of the first measurement the types of factors that might have a long-term influence so that they can be correctly measured and become part of the statistical analysis. In the case of sexual content and behavior, for example, the information on socioeconomic, cultural, family, peer, and other influences on sexual behavior and development should be used to identify important variables to measure at the outset of a longitudinal study.

Longitudinal studies also risk respondent attrition and the potential bias of selectivity in the final wave of the design. Once individuals are asked about a topic, e.g., sexual messages on television, they may become sensitized to subsequent exposure. Respondents may try to maintain consistency in their responses (Atkin, 1995). Given the real lack of longitudinal studies in the area of sexual content and behavior, we have little or no track record to know the potential biases these problems might create.

The Experiment

The only method that solves the third variable problem and allows for a definitive statement about causality is the random assignment experiment. When conducting an experiment, the researcher is interested in how changes in the independent variable affect changes in the dependent variable. For example, in a study by Bryant and Rockwell (1994), teenagers (ages 13-14) were randomly exposed to 15 hours of television programs with one of three contents: a) sexual relations between unmarried partners, b) sexual relations between married partners, and c) non-sexual relations between adults. To determine whether sex exposure on television had any effect on the subjects' moral judgments, the teens returned to watch video vignettes that featured non-sexual and sexual transgressions or improprieties. For both genders massive exposure to prime time television programming that dealt with pre, extra, or non-marital sexual relations caused the young viewers to rate the sexual indiscretions depicted in the vignettes as significantly less bad than their peers in either of the two other viewing conditions rated them.

There are three features to an experiment of this type that allow researchers to make a statement about causality – manipulation of an independent variable, random assignment to conditions, and control over extraneous variables that may cloud the causal relationship between the independent and dependent variables. Random assignment to conditions is the key feature of an experiment. When subjects are randomly assigned to conditions, we can rule out the possibility that differences in the subjects' individual histories will account for average differences between the experimental and control treatments. By randomly assigning subjects to the experimental and control groups we distribute individual differences randomly, making the two groups equivalent to one another with regard to these subjects' background factors.

Even though experiments are the only form of scientific investigation that allow for inferences about causality, they too have problems. In his discussion of experimental research on alcohol advertising, Atkin (1995) notes a number of issues. First, the procedures are intrusive. Subjects often realize they are being "measured" and may produce self-serving responses and behaviors. Second, viewing is typically "enforced," and the independent variable is often lifted out of context from normal viewing situations. It is difficult to track cumulative effects with this type of design. Third, responses are usually measured immediately after exposure, something rare in the real world. It is often not practical or ethical to measure behavioral outcomes days, weeks, or years later. Fourth, the samples are usually unrepresentative of the population, often involving college students. Many critics have wondered if the results from laboratory experiments found with this population generalize to other non-college age and less well educated populations. Fifth, the dependent variables are primarily measured indirectly, tapping attitudes or self-reported behaviors. Finally, the "control" condition is a treatment too, and it is possible that the control stimuli have an influence. It is advisable to have at minimum three conditions: the experimental stimuli, the control stimulus, and a no exposure condition.

In summary, the major criticism is that experiments, particularly those undertaken in the laboratory, lack external validity. External validity refers to the ability to generalize the results of the experiment to other situations, populations and time periods. Critics of laboratory experiments wonder if behaviors studied in the laboratory represent the kind of serious acts that most of us deem to be problematic for our society.

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Sometimes, researchers have undertaken field experiments to address the problems with generalizing to real world behaviors and populations. An interesting example of this approach is a study on the effects of rape depictions (Wilson, Linz, Donnerstein, & Stipp, 1992). In 1990, NBC aired a made-for-TV movie about the trauma and aftermath of acquaintance rape. This program, entitled She Said No, was featured during prime time hours and attracted a large audience. These researchers undertook an evaluation of the effectiveness of this movie in promoting more sensitive attitudes about rape. The study measured audience responses to the movie, specifically, whether exposure to this movie would decrease acceptance of rape myths and/or increase awareness of date rape as a serious social problem. Unlike many laboratory experiments, this study possessed both high external and internal validity. First, the participants were a nationally representative sample of adults in the United States, permitting generalization of the findings to a broad range of American viewers. Second, individuals from this representative sample were randomly assigned to view or not view the made-for-TV movie, allowing cause and effect conclusions to be drawn. Third, subjects viewed the television movie in their own home – a more naturalistic viewing environment than is achieved in most media experiments.

A total of 1,038 adults, randomly selected from four locations in the United States, were assigned to view or not to view She Said No over a closed-circuit channel, prior to the network broadcast of the film. Therefore, viewers could not have seen the movie before, and were unlikely to be influenced by any publicity or controversy that might have occurred over the prime time depiction. The viewers and non-viewers were contacted the next day and asked about acceptance of rape myths and perceptions of rape as a social problem. The results of this study indicated that the television movie was a useful tool in educating and altering perceptions about date rape. While field experiments like this theoretically have external validity, they are more costly than laboratory studies and often fail because the experimenter does not have the same degree of control over extraneous variables in the field as in the laboratory. In addition, people still know they are being studied, perhaps making the viewing not entirely natural. If the researcher can "hide" the dependent measures of interest within the context of other measures there is a greater chance of obtaining valid results.

There are not many experiments on the effects of sexual content in the media; those that exist have been conducted primarily with college students. The question for researchers and critics alike is: To what extent do the activities portrayed in the media and the behavior of subjects measured after exposure to these media depictions conform to the definition of sexual behaviors agreed upon by both social scientists and members of the policy-making community? The researcher who attempts experimental work in the domain of sexual content and sexual behavior cannot ethically devise an experimental manipulation that will cause a subject to actually engage in potentially risky behaviors. Furthermore, with underage subjects there is the question of the types of sexual materials that would be permissible for viewing. Thus, social science research could continually be subject to the criticism that it is impossible to investigate adequately the effects of sexual content because (1) it requires that the experimenter create exactly the kind of behavior that no researcher in a laboratory may seek to cause and (2) no real-world observer can hope to witness systematically.

One possible solution to this dilemma is found in the research on exposure to mass media sexual violence and subsequent aggression against women. While behavioral scientists cannot inflict actual harm in the laboratory, scientists in this area are not prohibited from leading subjects to believe that they are actually inflicting harm on another person, as

long as the subject is thoroughly debriefed after participating in an experiment. This is important for two reasons: First, there is good evidence that subjects in laboratory aggression experiments do in fact perceive themselves as inflicting actual harm although they recognize that the harm is of a rather unique variety (i.e., administering shocks or blasts of noxious noise). Second, although the violent act committed by the laboratory subject is rather unique, it is far from meaningless or inconsequential to the aggressor. It is this meaning – the idea of inflicting harm to a woman, the intention behind the aggressive act – that can be generalized from the laboratory to the real world. Similar procedures have been used with children from age 5-9 in the study of media violence; they were told that pushing a button "heats" the handle that another child is using to perform a task. The button was labeled HURT, and the child assumed that pushing it would hurt the other child.

The basic point here is that the generalizability of laboratory results to real-world behaviors does not depend solely on the physical similarity between the activity performed in the laboratory and a behavior outside the laboratory. The validity of a laboratory study – the degree to which its results can be generalized to the real world – depends upon the meaning that subjects assign to the situation. Available evidence points strongly to the fact that subjects define the act of giving a female an electric shock in a laboratory experiment as aggressive, as a means of inflicting harm. Likewise, the child who pushes a button labeled HURT assumes harm is being inflicted. That is, there is a heightened tendency to inflict harm as a result of exposure to violent sexual depictions or prime time TV violence. There is good reason, then, to believe that people exposed to violent mass media depictions outside the laboratory will exhibit a greater tendency toward harmful behavior.

The validity of an experiment does not hinge on whether or not the setting has surface realism (Berkowitz & Donnerstein, 1982). It is quite appropriate to generalize from the results of a laboratory experiment if we can be sure that persons inside and outside the laboratory assign the same meaning to events around them. More importantly researchers are able to demonstrate that the measures have a high degree of construct validity, adding further to our ability to generalize the findings. It is therefore important that approaches that can ascertain the construct validity of sexually related behaviors in the laboratory be undertaken to increase our understanding of the effects of sexual mass media content.

Combining Methods

The accumulation of scientific knowledge about sexual mass media effects involves approaching the same problem from several research perspectives. Before we are willing to make strong statements about a causal relationship between mass media sexual content and viewer attitudes, thoughts and behaviors, findings must be replicated across a variety of situations and with a variety of methods. Each of the methods we have described, the survey, correlational and longitudinal studies, and laboratory experiments, allow us to gain more insight and understanding into the complex nature of sexual content in the mass media.

Qualitative Methods

Qualitative methods including focus groups, intensive interviews, and field observations, although less popular in analyzing media effects, have a number of advantages (see Wimmer and Dominick, 1997). They take place in natural situations, and they provide a great deal of depth in examining an issue because the researcher has great flexibility in gathering

information. They elicit the participants' definitions and perspectives, allowing new information to emerge that might not be captured by quantitative methods. They can be extremely valuable for formulating questions and design strategies in quantitative studies and for complementing and interpreting the results of such studies.

The general disadvantages of this approach are small sample sizes. In fact, some studies concentrate on only one individual, family, or organization. Likewise, there is a concern about reliability, as often there is only one observer who may be involved with the subjects. It is important in these instances for observations to be cross-validated by other researchers.

Field observations. According to Cooper, Potter, and Dupagne (1994) just 2% of mass media studies have employed observational field methods in which the researcher observes, for example, children and families in their home environment viewing television. Although it is expensive, this method offers a number of possibilities for research on effects of media sexual content. Family viewing situations and teenagers' use of the Internet in their school computer rooms are potential research settings where in-depth background information could be gathered for the formulation of later hypotheses. It is appropriate in a survey to ask parents how they respond to questions their children have about sexual situations depicted in the media, but a detailed observation of a family actually watching television in their home environment provides a rich data set for more elaborate quantitative approaches.

In addition to the problems of sample size and observer reliability, field observations run the risk of reactivity. The mere presence of an observer in the home may change viewers' "normal" behaviors. A study by Lull (1985) indicated that about 20-25% of viewers indicated some influence on their behavior with the presence of an observer in their household. It is important for observers to consider additional data gathering techniques to "bolster" their findings and lessen the risk of reactivity (i.e., Wimmer & Dominick, 1997).

Focus Groups. In our December forum there was a good deal of discussion regarding the use of focus groups. There is no doubt that these controlled group discussions can provide valuable information for future survey and experimental studies. For example, a well conducted focus group with teenagers discussing their media viewing habits can certainly provide more in-depth and expanded information than traditional surveys. The ability to clarify issues, snowballing effects (respondents commenting upon each other), and the generation of issues often in a non-inhibiting context can be extremely beneficial. In other words, letting the teenager set the agenda can be extremely valuable.

Like other qualitative methods, focus groups have questionable generalizability. Respondents are rarely selected at random and sample sizes are rather small. Even if all members of the focus group indicate they watch a particular program, we cannot say anything about other teenagers in the population. We also need to be mindful of one particular group member "monopolizing" the discussion and having a strong influence on other participants.

Intensive Interviews. In depth, one-on-one interviews are another good procedure for gathering detailed information. Like focus groups, but in more detail and usually with smaller samples, the researcher is able to collect information on a whole range of verbal and nonverbal responses from subjects. The interviews can be customized to specific respondents on the basis of their distinctive answers to questions. If a good relationship can

be established between the researcher and respondent, there is reasonable evidence that responses to sensitive issues (like sexuality) can be obtained. Like many qualitative approaches, this approach helps gather richly detailed information that is often impossible to obtain with other procedures. Concerns about generalizing results are important with this technique. Samples are rarely random, and customizing questions for each respondent adds additional problems to generalizations. This is also one technique where interviewer bias (ones own values) may play an unwelcome role. Nonverbal cues, voice tone, and other reactions could unintentionally create some bias in the respondents' answers.

Media Effects Processes: Formation, Reinforcement and Change

The selection of methods for understanding mass media effects will be based partly on the assumptions made about how media effects come about. We turn now to some general points about the processes by which media effects are likely to occur. It was once assumed that the mass media's influences were so powerful that they would automatically alter the ideas, attitudes and behaviors of anyone who came into contact with them. Today, we recognize what we should have known all along – that human behavior is complex. It is often difficult to change people's attitudes and actions under most circumstances. The mass media are but one, albeit important, social influence on a person's thoughts, attitudes, emotions and behavior.

New attitudes, cognitions and behaviors may be formed as the result of exposure to messages in the mass media. Most often, however, messages in the mass media probably reinforce or strengthen attitudes that already exist or behavioral patterns that are already established. There are times when mass media messages change existing attitudes, cognitions and behaviors. For most people exposure to mass media messages changes attitudes and behaviors in a subtle way. As we noted earlier in this section, for a smaller number of people, however, the effect may be dramatic.

Because of the influence of peers, parents, and others in society on our thoughts, attitudes and behaviors, it is probably most accurate to speak of the relative contribution of the mass media. Most often mass media influences operate to reinforce or strengthen attitudes, beliefs and behavior patterns that have already been formed via these other influences. The media have some socialization effect, but it is unlikely that this effect occurs independently of such additional socializing agents as parents, teachers, peers, and schools. It is important, therefore, in our research initiatives to take into account both methodologically and statistically these other important influences.

Issues to Consider

Within these broad parameters, there are questions to consider when contemplating research designs to investigate the effects of sexual content in the media on individuals. The methods we choose need to address these issues so that we are more confident about the generalizations we can make of our research findings.

First, how long does it take for the mass media to have an effect? For some effects, such as physiological or emotional changes in a viewer, we might expect almost immediate results. For other media influences the time interval could be minutes, days, months, and even years. Second, are we concerned about a particular media depiction of sex or is it cumulative

viewing over many years? For example we may ask of many study outcomes: Does the effect occur after a single exposure or does the effect depend on multiple exposures?

Another temporal question concerns the duration of the effect. How long does sexual arousal last after exposure to a sexual film? Do most effects wax and wane over time? For physiological arousal, the answer would be that the effect may last for only a few minutes and additional media exposure would be required to keep arousal high. For outcomes like sexual attitudes, however, the effect can last a lifetime. We should keep in mind that although it might appear that a particular media effect has vanished, or is short lived, it can appear sometime in the future. Media messages can be stored in memory for long periods of time and are reactivated later when conditions are suitable.

What type of content, shown in what context, produces effects? The content of most mass media messages is complex, and sexual media depictions are certainly not an exception. In fact, they may be the most complex of all media messages. All types of sexual materials do not facilitate changes in behaviors, attitudes, or arousal patterns. The context in which the message is delivered and received is extremely important.

Still another issue is, exactly "who" is affected by the mass media. We can conceive of influences ranging from individuals to whole societies. Just as individuals will react differently to the mass media, various subgroups within the population will also vary (i.e., age, gender, and ethnicity factors). There has been a tradition in our research to emphasize "microlevel" or individual units of analysis. Yet, we are well aware of the more "macro" level in which the media can have its influence on groups in our society. These subgroup analyses have been important in our discussions and need to be incorporated into research designs. Peer group norms will influence not only how mass media depictions are processed but their influence as well.

Viewing takes place within a context. Many of us have been alone watching a late night horror movie and found ourselves suddenly aware of every sound in the house and feeling a little anxious. Yet, when we saw this movie last year in the local theater we did not experience the same feelings. Where we view the mass media depiction, with whom we view, and the reactions of fellow viewers are significant parts of how we interpret a media stimulus. For example, research has shown that young men react differently to a violent horror film and to their female viewing companions when young women co-viewers make comments about the film indicating that they are squeamish about the violence (Zillmann, Weaver, Mundorf, & Aust, 1986). Children perceive television to be less realistic when they are watching with their parents than when they view alone (Dorr, Kovaric, & Doubleday, 1989). These studies suggest that the viewing situation always needs to be considered when we speak of mass media effects. This is even more important in the area of sexual content. Given new technologies like the Internet, children will now have access to a wide range of sexual content often in an isolated viewing context. We need to be cognizant of these situations and be able to develop strategies for not only determining their impact but also when and how often they occur.

Finally, mass media may facilitate two types of changes – small changes in a large number of individuals (such as a slight inclination for many viewers to be more accepting of violence against women after exposure to sexually violent mass media) or larger, more profound changes in a very small group of people (actually raping a woman after exposure to a sexually violent film). Changing people is not an easy thing to do. For example, it is

unlikely that most people who have been socialized to practice safe sex will be changed by exposure to depictions of "risky" sexual behavior. However, for a small number of people the effect may be dramatic. Even if one or two percent of the viewers are affected it in a strong way, this could translate into a very large effect for society. Any one message may have millions of viewers and listeners.

VI. Measurement Issues in Designing Effects Research

The discussion of research designs has thus far avoided questions about how to define the major constructs – sexual content, viewing, and sexual outcomes. In this section, we turn to more detailed discussion of issues in operationally defining these constructs and measuring them. We then consider some barriers to conducting research on sexuality, particularly among children and adolescents.

Measuring Media Content: Content Analysis

One critical component of studying sexual media content is defining and measuring the sexual content of messages. Content analysis is the principal technique for identifying relevant messages. Questions about <u>what</u> is portrayed in the mass media can be answered with content analysis, that is, the systematic, objective and quantitative study of the content of communicative messages. In an earlier section, we discussed the findings from content analyses. In this section, we present what we consider to be the essential ingredients of a reliable and valid content analysis.

Basic Features of a Properly Conducted Content Analysis

First, the researcher chooses a population of messages to be examined and selects a representative sample from this population. A common procedure is to examine a single intact week of network programming in which programs on each network are sampled during a consecutive seven-day period, with the time slots limited to prime time and Saturday morning hours. One possible problem with this approach is that the week selected may not be representative of the overall television season. Larger samples are generally superior to smaller ones, because the inclusion of more programs across more day-parts and days is more likely to be representative of the total population of television programming. The patterns of sexual content may be relatively stable year to year, but not necessarily day-part to day-part or day to day. Small samples and limited sampling can sometimes lead to erroneous conclusions and not present a database sufficient to properly make conclusions about genres.

One sampling approach is that reported by the National Television Violence Study (1996). Rather than sampling intact days or weeks of programming, these researchers selected each individual <u>program</u> randomly from a population of all programs appearing from October through June. Therefore, this sample technically involves literally thousands of sampling units (programs) rather than seven units (days). When a sample relies on large units like entire days, there is a greater risk of an anomalous event occurring (e.g., a breaking news story) that could make that block of programming unrepresentative. With programs as the unit, the sample is large enough to make scientifically valid comparisons between television content in various categories of programming and times of day. These types of large and representative samples are available to other researchers who might be interested in coding a different type of content. The National Television Violence Study sample, while collected for the analysis of violence, is an ideal collection of programs for the coding of sexual content.

After selecting a sample, the researcher decides on the units of analysis. Next, content categories are developed so that instances of the events can be counted. The categories should be both mutually exclusive and exhaustive. Mutually exclusive categories do not overlap with one another. The same act or event should not be counted twice or more. An exhaustive set of categories would reflect all important aspects of the sexual programming. The researcher should strive for multiple units of analysis. In order to capture thorough information about the context of each sexual behavior, it is essential that acts considered to portray sexual behaviors not be viewed in isolation. Each act is considered part of an ongoing exchange between characters, and each exchange between characters is situated within the larger setting of a scene and, ultimately, a program. With this approach, one can capture microscopic details as well as macroscopic concepts embedded in the content under examination.

Finally, the content is coded. In a properly conducted content analysis at least two individuals, working independently, watch the programs and code them for their sexual content. The level of agreement between these two coders is then calculated. This form of agreement is termed intercoder reliability. If coders are asked to view the same program, they should apply the definitions and measures of sexual content in the same way and their resulting judgments regarding the presence or absence of sex should show high agreement. One procedure that we endorse is that followed by the National Television Violence Study. The strength of that study was that researchers tested for the reliability of coders in several phases. First, coders were continually tested for reliability during training procedures. Second, they were consistently checked on a weekly basis in order to "flag" problem coders. Third, coders were continually monitored through the entire length of the project in order to identify any coder fatigue.

Linking Content With Behavior

The major disadvantage of content analysis is that it does not answer any questions about the effects of a media portrayal. It does not tell us whether viewing sexual content in the media violence causes viewers to be more sexually active. We cannot conclude that since children's or teens' programming contains "risky behaviors" that there is a causal link between exposure to this content and risky behavior. A content analysis measures only what the mass media contain, not their effects. Furthermore, it is very often the case that content codes are selected and coded by "adults" whose perceptions and interpretations of what is sexual or violent could be quite different from a child viewer. While the researcher may achieve a high degree of coder reliability, the issue of content validity might be questionable. As with the entire area of media sexual content, a firm knowledge base of children's interpretations and processing of these types of messages needs to be part of the decision process in defining the content codes.

Measuring Media Use and Functions

Although content analysis describes what is contained in the media, it does not provide information about who watches it, for how long, and for what reasons. Recent studies have adopted innovative ways to measure adolescent media use and the functions media serve for them. Beeper studies and qualitative observational studies of teens and their bedrooms are examples. More traditional methods include survey interviews and questionnaires, viewing diaries (either written or oral), video observations and people meters. Each method

has both benefits and drawbacks. Some methods are specific to television viewing, such as the home video observation and people meters. Other methods can assess use of all media.

One of the most accurate, but most cumbersome and expensive, methods of measuring media use is the home video observation which utilizes video equipment to record what is on the television and who is in the room when the set is turned on. Actual viewing patterns can be correlated with changing action on the television set. Anderson and his associates (Anderson & Field, 1991; Anderson, Field, Collins, & Nathan, 1985) used such methods in examining children's and families' attention to television programs. While such methods yield accurate measures of attention, they are also extremely intrusive and expensive.

People meters, used by the Neilsen Company to determine ratings, provide accurate information about what is being shown on the television set without the intrusiveness of video recording equipment. The people meter is installed in the television set and records the channel and time when the television is turned on. There is a "box" on which someone in the household is supposed to record who is in the room. While this technique improves on the older Nielsen method of simply recording what the set is showing by collecting data on who is watching, it does have drawbacks. The major problem with people meters is that it depends on the individuals in the home to record entries and exits of different viewers; children and adolescents may be especially unlikely to use the recording device at all or with accuracy. Moreover, there is no way of determining whether people in the room are attending to the program.

Viewing diaries are also used by the major ratings services. They are usually written records (usually completed at the time of viewing) showing what television program is on and who is watching. Ideally, viewing information is recorded as viewing occurs or shortly thereafter, but participants may wait to fill out the diary at the end of the day or even longer. One advantage to diaries is the possibility for including viewing context (e.g., simultaneous activities, where the viewing takes place). In a comparison of diaries with video tape records, Anderson, Field, Collins, Lorch and Nathan (1985) showed that diaries slightly overestimated viewing time, but were highly correlated with actual viewing. They were considerably more accurate than parents' estimates of the amount of viewing. The major drawback of diaries is that they are time consuming and demanding to fill out and that people often wait until "later" to complete them.

Diaries can also be collected in a time use interview (Juster & Stafford, 1985). Individuals are asked to describe their activities, or the activities of their child, sequentially for the past 24 hours. Such diaries are reliable and valid if collected reasonably soon after the period being described, and they have provided information about media use from large samples in many countries around the world (Robinson & Godbey, 1997). They were also used successfully in a longitudinal investigation of children's media use (Wright & Huston, 1995). Time use diaries collected by interview have the advantage of being easier for the respondent than written diaries and of providing information about all types of media use as well as other activities that form the context of media use (Huston et al., 1997). Children and adolescents can recall activities over a short period of time (Posner & Vandell, 1994). The principal disadvantage is the time required; one diary typically takes about 20-25 minutes to collect.

The most frequent method of measuring viewing is the respondent's report of media use in a questionnaire or interview. Question wording can vary by specifying context or time. In general, the more specific the question, the more accurate the response. For example, one

question asking for an estimate of daily or weekly viewing time provides less accurate information than questions about specific time periods, e.g., "How much time do you usually spend watching television on weekdays?" "Weekends?" "After school?" or "How much time did you spend watching television yesterday?" "Did you spend time reading a magazine yesterday?" The major benefit of this method is convenience; a large amount of data can be gathered quickly and inexpensively for large samples of respondents. Time estimates of television viewing in general or of specific programs are less accurate than diaries (Anderson et al., 1985).

The beeper method offers a new approach to coupling diary methods with sampling of experiences and emotions. Rich data regarding the context of media use (is the person alone or with friends or family, in his/her bedroom or family living room) can be assessed and recorded at the time it occurs. Some logistical problems may arise, however, in the use of beepers and the availability (throughout the day) of the recording diary forms. Also, such sampling methods may disrupt the subject's daily activities.

Measuring Sexual Knowledge, Attitudes, and Behavior

We have been discussing the advantages and disadvantages of various research designs because we are interested in the effects of sexual content on individuals. But, what is affected? When an adolescent sees a sexually explicit scene in the movies does it prime thoughts about sex; provide information about sex; produce emotional arousal; affect attitudes and beliefs about appropriate sexual behaviors; instigate behavior; or perhaps all of these? In other words, what outcomes are affected by the mass media? Four major categories of "sexuality" can be measured – cognitions and comprehension, emotion, attitudes, and behavior.

Types of Effects

Cognitive effects. When we turn on the news tonight and hear about the increasing rate of HIV infection in women and how this might be avoided we have learned something about safe sexual practices. Learning a fact from the mass media is the most straightforward type of cognitive effect. Less obvious, and considerably more complicated, are the ways that mass media stimulate different cognitive processes. Mass media theorists argue that elements of thought and prior memories can be thought of as "nodes" in a network of associative pathways in the brain (Anderson & Bower, 1973; Berkowitz & Rogers, 1986). The strength of these associative pathways is determined by a variety of factors, the most important being semantic relatedness. When a thought is brought into awareness or "activated" this activation radiates from its particular node along the associative pathways to other nodes (Collins & Loftus, 1975). The result is that after an idea is activated by a mass media message there is a greater likelihood that it and associated thought elements will come to mind again.

This process of thought activation has been termed a priming effect (Berkowitz & Rogers, 1986). How various types of sexual content prime sexual thoughts and the relationship of these thoughts to beliefs and behaviors is one important area for consideration. Existing models within cognitive psychology and the research on priming effects with violent content should serve as a model for these inquiries. Research using outcome measures such as (a) word associations, (b) impressions and evaluations of other people, or (c) thought listing have

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all been used in media violence research. In the area of sexual content, for example, researchers have examined such reactions as (a) smiling at a woman, (b) leaning forward in a conversation with a women, (c) eye gaze, (d) body gaze, as well as (e) evaluations of female job applicants.

Developmental psychology also offers models for understanding children's and adolescents' understanding and processing of media information. Media content will be understood within the framework of existing knowledge; hence, it is important to obtain responses that reflect the subject's frame of reference. Story completions are one method. For example, Truglio (1990) asked adolescents to complete stories about a married couple whose children were away for the night and about a teenage couple in a secluded setting. Such stories can be coded for the types of behavior described and for the contexts and consequences in the stories.

Emotional effects. When we see two individuals in the movies embrace, take their clothes off, fall into bed, and begin to have sex, some viewers become flush, excited, embarrassed, or laugh. These emotional reactions are often accompanied by some physiological change. Some effects, like crying during a sad scene we are readily aware of, but others like an increase in blood pressure may not be accessible at a conscious level. For some mass media theorists, excitement and its accompanying physiological arousal is an indispensable component in explaining the relationship between media exposure and behavior (e.g. Zillmann, 1982). Zillmann believes that people are drawn to some forms of television entertainment primarily because of the excitement they generate. Researchers interested in the effects of pornography have sometimes measured men's penile tumescence while viewing sexual violence in the laboratory as a predictor of behavior outside the laboratory (Malamuth, 1989).

Members of our forum suggested naturalistic measures of self reported emotional arousal. Excellent procedures exist for measuring children's emotional arousal to mass media in laboratory experiments (Cantor, 1991; Wilson, 1987). Children's or adolescents' reactions to sexual materials may be best measured in environments where they feel comfortable, such as their own rooms. It is possible to obtain random time samples of viewers' immediate emotional reactions via beepers or pagers (or as suggested earlier with computers) (e.g., Larson, 1995).

Attitudinal effects. Attitudes toward premarital sex, abortion, condom use, women, and monogamous relationships are just some of the outcomes we would be interested in exploring in relation to media influences. Attitudes predict behavior, but they are also important in their own right. For example, media portrayals in which the victim is shown reacting positively to sexual assault have been tested with the hypothesis that they influence viewers' attitudes about rape (Malamuth, 1985). Malamuth did not predict that viewing such rape scenes would directly cause most people to behave in a sexually aggressive manner, but that viewing such materials leads many men to accept the "rape myth," that women are secretly turned on by force and enjoy being victims of sexual violence. These are mass media effects although they are not direct behavioral effects. Such beliefs may lead to any number of effects short of violence, such as greater tolerance for rape in our society or the communication of an insensitive attitude towards rape to younger, more impressionable males. Attitudes can contribute to behavioral effects. Men who possess the rape myth attitude in conjunction with certain other characteristics are more likely to have engaged in aggression against women than men who do not have these attitudes (Malamuth, 1986).

Behavioral effects. For many, in particular policy makers, behavior is the most powerful or important outcome of media effects. After all, if we are concerned about televised sexual content shouldn't our concern be with changes in actual sexual behavior? If we believe that pornography has damaging effects on viewers, shouldn't we look at its influence on rape related behaviors?   Yet, direct behavioral reactions to media events, particularly antisocial reactions, are relatively infrequent. It is often a person's exposure to mass media in combination with some other important characteristic that leads to a behavioral response.

Measurement Techniques

In the area of sexuality, measurement of attitudes and behavior is often difficult because most indices are based upon self-report and retrospection. Much of our information about human sexuality has been obtained by surveys that ask individuals about their sexual experiences, knowledge, or attitudes through face-to-face interviews or in written form via paper-and-pencil questionnaires (Crooks & Baur, 1990). Questionnaires may include: demographic questions, Likert-type questions on attitudes and expectations, specific questions requesting numbers of partners or types of behaviors engaged in, or bipolar adjectives assessing self-concept or self-esteem (Strouse & Buerkel-Rothfuss, 1993). Research on the sexual attitudes of children and adolescents has been limited, partially by the difficulty in developing an appropriate instrument for this age range. Few assessments developed to study sexual attitudes have been appropriate for use with children and adolescents, as questions often contain both advanced vocabulary and concepts. An example is the Sex Knowledge and Attitudes Test (SKAT), a widely used sexual attitudes scale designed to assess knowledge, attitudes and behavior for individuals 18 years and older. Calderwood's Checklist of Attitudes Toward Human Sexuality (1971) was developed for use with young adolescents, but incorporated items that were considered inappropriate by other researchers. Based on the Calderwood's Checklist, Fisher and Hall (1988) developed the Attitudes Toward Sexuality Scale (ATSS) to compare the attitudes of early, middle, and late adolescents and their parents, deleting topics such as masturbation and oral sex. The ATSS measures several dimensions of sexual attitudes, can be used on a wide range of age groups, and responses do not seem to require a great deal of sophistication about sexuality (Fisher & Hall, 1988).

Each measurement technique has both advantages and disadvantages. Questionnaires provide more anonymity than do face-to-face interviews, which is an important consideration with a sensitive topic such as sexuality. Face-to-face interviews allow the interviewers to clarify confusing questions, but the respondent may be uncomfortable answering sensitive questions orally. As discussed elsewhere in this report, computerized interviews seem to provide a promising alternative to the aforementioned methods. Talking computers may be particularly successful with children and pre-adolescents, groups who pose unique challenges. They may feel uncomfortable in face-to-face interviews, which could result in responses lacking completeness or honesty, or may not possess the reading or writing skills necessary to complete a paper-and-pencil questionnaire.

Other unique assessment techniques have been incorporated into research methodology. Story completion tasks (Truglio, 1990) and picture stories or comics (Schoof-Tams, Schlaegel, & Walczak, 1976) are two such examples. For example, children were asked the following type of question: "Four boys of your age talk about future sexual

relationships to girls. Whose opinion is closest to yours? Mark the word bubble with an X."
The options were: 1) I don't want to have sexual intercourse until I'm married; 2) I only want to
have sexual intercourse with a girl I'm really in love with; 3) I want to have sexual intercourse
with many girls I like, even if I don't love them; or 4) I mainly want to have sexual intercourse
with girls I love. But occasionally with others too (Schoof-Tams, Schlaegel, & Walczak,
1976).

One major concern about self-report measures is truthfulness. Many participants in our
forum stressed that self-reports of intercourse by married adults appear to be valid (i.e., two
partners agree), but we know less about the validity of reports by younger individuals or
reports about socially taboo behavior (cf. Atkin, 1995, Malamuth, 1985). As an example,
Malamuth (1985) has shown that many males will self-report no sexual arousal to depictions
of a woman being raped, yet when penile tumescence is measured there is sexual arousal.
Validity and measurement issues within the domain of sexual behavior need further study.

In summary, if we are to completely understand the effects of sexual content in the media
we need to consider a range of outcomes – cognitive, emotional, attitudinal, behavioral, –
either separately or in combination with one other. In addition, we need to be cognizant of
vast individual differences in how viewers respond to sexual depictions.

There are several inherent problems in doing research on children's and adolescents' knowledge, attitudes toward and behavior regarding sexual media content and sexuality. The broad outline of these issues can be subsumed under several general principles regarding: (1) use of human subjects concerns which have been articulated by the Department of Health and Human Services Belmont Report; (2) specific concerns regarding how various institutional research boards (IRBs) interpret these general guidelines; and (3) the specific issue of gaining parental consent when adolescents are the subjects in a study.

Current federal regulations concerning research on adolescent health issues (under which sexuality research would fall) are outlined generally in the Belmont Report (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1978). These regulations include a section outlining special considerations in conducting research with children and adolescents. For the purposes of federal guidelines, a child is anyone below the legal age of consent, age 18. Many issues, however, are not addressed directly in these guidelines and require individual IRBs to interpret the ethics of various research practices.

These guidelines require, in principle, assurance of confidentiality of the information; a requirement of minimal risk to the participants or, where more than minimal risk may be at stake, an assurance that benefits outweigh the risk to the participant; informed consent of the participant; and under some circumstances, parental consent for their adolescent's participation. It is generally acknowledged that the federal guidelines are more ethical guidelines than legal restraints, and, as such, they are often interpreted differently by various institutional review boards.

It is important to point out that certain kinds of research are exempt from these guidelines, such as research which involves observations of public behavior with no identification of subjects, research involving existing data if the data are publicly available or the subjects cannot be identified, and demonstration projects evaluating public benefit or service programs (Ray & English, 1995).

In general terms, the underlying principle guiding regulation of research practices is that the researchers show respect for the persons involved in the research. For children and adolescents, this means insuring protection of their rights and welfare. The second ethical principle is beneficence; that is, the researcher should do no harm to the subjects, and indeed the researcher should maximize the possible benefits and minimize possible harm to the subjects. The third ethical principle for conducting research on human subjects involves that of justice, or the requirement that individuals who are "vulnerable" receive special protections and "individuals who are vulnerable be protected from bearing the burdens of participation in research without appropriate justification; moreover, their access to the benefits of research are to be facilitated" (Levine, 1995).

These general federal guidelines are interpreted differently in different states and localities because of variations in state laws and in practices of Institutional Review Boards.

For instance, laws vary from state to state regarding the legal status of adolescents with respect to consent for participation in research involving media treatments. State laws also vary regarding the legal requirements binding researchers to report evidence of child abuse. In all cases, it is clear that researchers must be aware of first, the general guidelines outlining research on human subjects, and second, any state laws which may apply. Finally, as several participants in our forum noted, IRBs vary widely in their interpretation of ethical concerns involving research on sexuality issues with adolescents, especially because there are unique questions associated with the participation of children and adolescents in health related research.

Perhaps this issue of IRB variation in setting standards for conducting research on adolescents and sexuality is most clearly seen in considerations of the circumstances under which researchers must obtain either active or passive parental consent to their youth's participation in a study. In general, a researcher is obligated to obtain a person's informed consent for participation in a study. When respondents are children under age 18, consent must also be obtained from their legally authorized representative, who is usually the parent. In some states, minors who have attained a certain status (such as married minors under the age of 18) can give their own consent. But in most cases, research that involves interviews with adolescents involving sexual information and questions would probably be deemed as needing parental consent.

Federal requirements are also changing. According to one participant in the Forum discussion, you cannot ask adolescents any questions regarding sex without parental permission; moreover, the newest practice among federal agencies is to require that researchers gain active consent from parents including showing parents the entire questionnaire and not just informing them of the types of questions that will be asked of their children. The use of passive consent (such as informing parents via a letter sent home with the youth that unless the parent otherwise notifies the researcher their child will be participating in a research project) is more often being rejected by IRBs. Indeed, passive consent is no longer acceptable in any project funded by the Centers for Disease Control. Other participants in the conference suggested that some agencies, such as NIH, may allow passive consent under certain circumstances (especially when the research is deemed to pose negligible risk to the participating subjects). Clearly, researchers must review the requirement of the particular federal agencies funding the research and the practices of the IRB at their institution.

Legal changes governing parental consent are on the horizon as well. Three states have adopted laws (and 22 states as well as the Congress are considering them) to require active parental consent when children and adolescents are the subjects of research. Such laws require that when anyone under 18 is interviewed, even if they are only being asked their name, age and eye color, active parental consent will be required.

If active parental consent is required, this may pose special constraints on conducting research on adolescents' sexuality. It may be difficult to gain parental consent from families of high risk adolescents in particular. This problem may be increasing. Some researchers at the Forum, however, found that getting active consent for a survey on sexual issues has not been difficult when adequate justification was provided to parents for asking questions regarding their son or daughter's sexual behaviors. Indeed, if one believes that parental consent is necessary regarding sensitive topics, then active or passive consent processes are a secondary consideration to the desire to inform the parent of the research procedures.

In addition, to issues of informed consent, research on adolescent sexuality involves a range of ethical questions regarding the appropriateness of showing adolescents sexually-explicit stimuli, the use of language to elicit responses (colloquial or not, as well as the use of special ethnic or language minority terms), and providing subjects with appropriate debriefings or follow-up information after research participation. Again, the guidelines to insure respect for individuals, beneficence and justice should be considered. However, research practices may be influenced by individual IRB's preferences for certain kinds of protections of children, the various local community (or school districts') concerns about dealing with sexual issues in schools, and the particular political climate of the community and state in which the research is being conducted. After reviewing the published literature in this area and hearing from experts at our conference, it is clear that there are no agreed upon rules – apart from the general federal guidelines noted above – that can be invoked in a blanket manner for research in this area. Individual researchers will need to be cognizant of their community, state, federal agency, and IRB regulations.

With all of this as caveat, it is important to note that the challenge for researchers in the area of adolescents and sexuality is to find ways to approach this research area more ambitiously within ethical standards for research conduct. It may be that researchers' fear of dealing with the topic of sexuality has brought about self-censorship, and thus, there is a paucity of studies on the effects of sexual messages in the media on youth. There was considerable support among forum participants for trying to be more ambitious in some of the ideas that we generate and the research we attempt to accomplish.

VIII. Recommendations for Future Research

In this section we present our recommendations for research on the effects of sexual media messages on children and adolescents. We begin with some fundamental premises that should guide future research and then make recommendations for studying media use, media content and media effects. These recommendations are at two levels of specificity: important questions in several domains and a more detailed suggestion for a promising way to investigate effects of sexual content.

Premises

- Research in this area requires interdisciplinary teams of investigators. We are struck by the fact that research on sexual development and media studies of sexual content and effects often do not intersect one another. This has led to content analyses that are not informed by expertise about sexual behavior and development. We recommend that teams containing individuals with expertise in these two areas conduct research.

- There is need for an accumulated body of systematic studies using a variety of methods with a variety of populations. Given the paucity of available studies and the need to develop a systematic research base, no one grand study will provide definitive answers. In the domain of media violence research, for example, our conclusions about effects rest on many studies using multiple methods and multiple populations, accumulated over many years. Similarly, the answers about sexual content in media will not be obtained simply or quickly; nonetheless, we must begin to accumulate a serious, systematic research base.

- Research on the effects of sexual media content should, in general, begin with small-scale studies and move to larger field and longitudinal studies. Small-scale studies (laboratory, survey, observational) can permit refinement of questions, measures and methods in a relatively low-cost and efficient way. Because substantial conceptual and methodological development is needed in this research domain it would be wise to start with less costly small scale research before moving to larger, more expensive field work.

- Research must take into account developmental, gender and ethnic differences. The functions and effects of sexual media content on sexual development may vary substantially for boys and girls, for different ethnic groups, and across different age groups. Gaps in the research include fewer studies of male than female sexuality and fewer studies of media use among children and adolescents from ethnic minority groups. When investigations do include African Americans or other children of color, there is a danger of simplistic interpretations because race/ethnicity is confounded with social class and income.

- There is a need for the development of valid and reliable measures of the use of sexual media content and of outcome measures of sexual knowledge, attitudes and behaviors. One cannot generalize the validity or reliability of measures used with adult populations to children and adolescents, particularly in this research domain.

Research Questions

As a result of our review of the research literature and of hearing ideas offered by many experts at the Forum, we have organized our recommendations into a series of research questions that we consider ripe for investigation. These include studies of media use and functions, new sorts of media content analyses, and media effects studies. We have offered greater detail in suggesting possible research designs for effects studies as that is the major focus of this report and because public policy focuses on these issues.

Media Use and Functions

Children and adolescents are not passive consumers of media content. They are active in seeking out and choosing or avoiding certain media and certain content. This may be especially true for sexual media content. For instance, when interest in sexuality, romance and relationships increases as a function of the changes associated with adolescence, adolescents' interest in seeking media information about sexuality is likely to increase as well. Media provide one of the most easily accessed, least embarrassing, and risk free sources of sexual information. Media also provide an easily accessible source of sexual stimulation and arousal. Because sexuality is both salient and somewhat taboo in society, children's use of sexual content in the media may differ in some respects from use of other media content. Despite these good reasons to believe that media content may be important, we have little information on children's use of and exposure to sexual media content.

Methods of studying media use have been presented in the body of the report. Such methods might profitably be used to address the following research questions:

- What kinds of sexual content do different groups of children watch on television and why do they watch this content? What functions does viewing sexual content serve for different groups of children? Which children intentionally select sexual content and which children intentionally avoid sexual content? What are the reasons for such viewing behavior?

- What media other than television, including magazines, movies, video games, and the Internet, do children use to seek sexual content? How does such media use vary for different groups of children? Do different media serve different functions for their users? For instance, it was suggested at the Forum that adolescent girls rely on magazines for information about sex and romance and that adolescent boys are more likely to use the Internet for such information. Is this the case?

- To what extent do children and adolescents from different ethnic groups seek out programming designed for and featuring characters from their own ethnic group?

- Can we construct diets of exposure to sexual media content that meaningfully distinguish among different groups of children? Are there particular sexual topics, characters or programs that are salient to their users and may therefore contribute more to effects than simple amount of time spent with them would suggest?

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Media Content Analyses

There have been many analyses of sexual content on television. Although they have provided a great deal of information about the frequency and explicitness of sexual behavior, we (and many Forum participants) believe that more theoretically guided and contextually situated content analyses are needed. Theory about sexuality and sexual development as well as about media influences could be usefully employed. Moreover, it would be useful to include a wider range of television programming (e.g. cable, advertising, news and talk shows) than the prime time programs usually studied, and to study other media (e.g. the Internet and video and computer games). New studies might address the following issues:

- Do different media portray healthy interpersonal sexuality, that is, sexuality that is consensual, honest, mutually pleasurable, protected and non-exploitive? How do different genres of television and other media portray sexuality?

- What interpersonal contexts for sexual behavior are portrayed in the media? What sorts of relationships characterize the participants in sexual activity? How can we characterize sexual situations? What events lead up to sexual activity? How do participants report feeling about sexual activity? What motivates such behaviors and what are the consequences (psychological and otherwise) of sexual behaviors?

- How do individuals communicate or negotiate about sexual interactions? Do participants discuss issues of "safe sex," or feelings, or the meaning of sex to relationship development?   What sorts of messages about sexual power and vulnerability are provided in portrayals of sexual negotiation?

- To what extent do sexual interactions in the media take place in coercive or abusive relationships? What are the messages about such relationships? How are depictions of sexual interactions related to violence?

- How do different groups, such as parents and children, peers, and doctors and patients talk about sexual topics in the media? What healthy sexual practices are discussed? What public health concerns are discussed?   Do media provide public health guides for audiences?

Media Effects

What outcomes to study. Regardless of the method used, studies of media effects face some common issues about what outcomes to examine. Whatever the method, it is important that outcomes should be selected and measured using a theoretical framework. It was evident at the Forum that researchers in different domains and perspectives have quite different notions of what outcomes are important. For example, people who emphasize healthy sex as an outcome advocate measuring outcomes that reflect such attributes of healthy sex as whether it is exploitive or mutually satisfying. Researchers concerned with sexual health focus on such risky sexual practices as multiple partners and use of condoms. We recommend an interdisciplinary approach that involves measuring multiple aspects of sexual development. Within the major categories of cognitive, emotional, attitudinal and behavioral outcomes, we suggest measuring the following:

- *Cognitive Outcomes* include knowledge about sexuality and sexual terms, comprehension of television and other media messages about sexuality, sexual self schemas about how one perceives oneself as a sexual being, sexual scripts about how sexual encounters proceed, beliefs about what is normative or deviant in sexual practices for people like oneself and for others. In studies of media effects, individuals' perception, comprehension, and interpretation of media messages about sex is an important outcome as well.

- *Emotions* or mood states may be manifested in physiological changes, self-reports of feelings, and nonverbal facial and body cues. Emotions may lead to the use of sexual media content or result from it.

- *Attitudes* are defined by the valence one puts on different sexual behaviors for oneself and for other people. They include such things as what you believe is right and wrong, your feelings about "healthy" sexual practices, in particular "safe sex," about contraception, and the types of partners you would choose or avoid.

- *Behavior.* Public health concerns suggest that there are two major behaviors that pose risks for HIV, STDs and other sexually transmitted diseases. These are multiple partners and unprotected intercourse. Other behavioral outcomes to study include: onset and frequency of various sexual behaviors (kissing, petting, masturbation, intercourse, etc); number and type of sexual partners; use of contraceptives; relationships among sexual participants; regular reproductive health care; and pregnancy. Using a broader framework, the interpersonal and subjective aspects of sexual encounters can be measured using the criteria of whether the interaction is consensual, honest, mutually pleasurable, protected and non-exploitive. The quality of sexual relationships, the kinds of communication about sex between partners, and coercive, abusive or otherwise violent interactions are important to measure.

Methods of study. We reiterate the premise that, in order to make definitive statements about the effects of sexual media content, conclusions will need to be based upon multiple studies using multiple methods, diverse populations, and an accumulation of research knowledge. Fundamentally, there are two types of methods. In correlational methods, naturally occurring media use is examined in relation to naturally occurring sexual outcomes at one time or over a period of time (longitudinal). In experimental studies, the researcher systematically manipulates some aspects of media use or exposure and outcomes are measured. We have concluded that experimental methods provide the most useful tool for investigating effects of sexual media content given the current state of knowledge. A body of small-scale experimental studies could provide a substantial knowledge base about how children of different ages interpret and understand media messages; effects on sexual knowledge and attitudes; and possibly effects on behavior. This method has the major advantage of permitting causal inferences; when groups exposed to different content make different responses, one can be confident that the treatment is responsible for the outcome. Research on television violence began with laboratory experiments with both children and adults that provided a clear basis for understanding the processes of modeling. A similar strategy is appropriate for sexual content.

We think the payoff from correlational studies at this juncture is likely to be smaller than that from experimental studies for three reasons: (1) the many unknowns in this topic area

(e.g., how to determine media diets and exposure, what outcomes to measure, what processes may be operating), (2) the many economic, cultural, family, and individual differences that would need to be controlled, and (3) the serious issues of determining causal direction when correlations are found.

While longitudinal studies will ultimately offer very important information about how sexual media content is related to development, they require a strong theoretical foundation and a base of data about component processes that is lacking at present. This foundation can be built with a careful systematic plan of studies, primarily those employing experimental methodologies. These studies would be useful not only in elucidating the major factors associated with effects, but also in guiding content analysis studies. It was strongly suggested by our forum participants that a framework analogous to that of the National Television Violence Study be considered for future content analyses. This framework is based upon an accumulation of experimental studies on media violence that allow us to point to factors that facilitate or inhibit effects of exposure to media violence. Such an approach would allow us to determine those factors that are harmful with respect to sexual content and those which are protective.

Specific Recommendations. We suggest a series of systematic experimental studies designed to examine the immediate effects of sexual content messages on children's knowledge, schemas, and attitudes. Innovative ways of measuring behavioral responses, or perhaps stated intentions to behave in certain ways, are also possible. These studies should incorporate designs that systematically manipulate within the same media presentation such variables as:

(a) Communication between characters about sexual decisions; contraception; health issues; mutual satisfaction or interest; and other variations in the interpersonal context suggested in our review of the literature
(b) Endings which focus upon positive and negative consequences of sexual activity
(c) Formal features and genre cues (e.g., whether content is presented humorously or seriously), and
(d) Characters' attractiveness, power, and similarity to the viewer.

Such studies would help to tease out what features can promote healthy attitudes and beliefs. They could be conducted with children and adolescents of different ages and from different ethnic groups. Experiments can use stimuli that are relatively mild sexual depictions to answer many questions, just as many questions about violence were addressed with stimuli that showed mild forms of aggression. Stimuli can be created by the researcher so that content and form can be systematically controlled and varied, or can be selected from existing media content so that "real-world" content can be evaluated. Both are useful, but it may be best to begin with experimental materials made primarily for these experiments. By creating media content, the researcher has complete control over variables and more importantly can produce materials that are appropriate at all age, gender, and ethnic levels (e.g., control of language).

Additional studies should be undertaken using existing media content in which examples of influential factors considered to be important are present. Standard experimental procedures can be used to create a full range of independent variables with complete controls. While we would advocate examining all types of media programming we suggest starting with prime time programs because they represent normal viewing materials seen on a

regular basis and may seem more "natural" to children. Parental permission may also be easier to obtain when program materials are those commonly available.

One concern about laboratory experiments is generalizability. One direction to be taken in the second stage of research on sexual content is to conduct field experiments in cooperation with the media industry; these combine sound experimental design and control with generalizability. We suggest a series of studies that could bring together the best features of two experimental field studies of media violence funded by NBC and CBS. The first one, described earlier (Wilson, et al., 1992), was an investigation of the effects of rape depictions in the NBC made-for-TV movie She Said No. A national random sample of 1,038 male and female adults were randomly assigned to view or not to view the movie over a closed-circuit channel prior to the network broadcast of the film. Afterward, acceptance of rape myths and perceptions of rape as a social problem were measured in telephone interviews. The use of a random sample plus experimental control allows the researcher confidence in terms of both internal and external validity. Random assignment to the experimental and control group eliminates concerns about individuals selecting media that reinforce existing attitudes.

In the second study, three different endings to the popular prime time show Medical Center were created by CBS showing different consequences to the perpetrator of an anti-social act (Milgram & Shotland, 1973). These versions were randomly assigned to adults in a theater setting; a week later, the dependent variable (stealing money) was measured. Independent of the choice of the dependent measure, the creation of differing versions of a well-known prime time program provides a strong measure of external validity. It is one thing to incorporate what we might consider an important message into a popular show such as E.R., and to evaluate its effectiveness. We would have far more ability to not only study its effectiveness but to measure a large number of outcome measures with proper experimental controls if we were able to create differing versions of the important aspects of these messages. Once these experimental materials are created they could be used for many different studies.

One of many potential experiments might be to create differing versions of a popular soap opera in which, for example, consequences of unprotected sexual intercourse are manipulated. The differing versions would be based upon our knowledge of potential outcomes from exposure to these consequences. A series of studies from these creations could be undertaken with some of the following possibilities:

(a) Regular adolescent viewers of the soap opera, as well as those who have never seen the program, are recruited in a random national sample to view over closed cable channels what they believe are "future episodes" of the program which are being evaluated. This is similar to the NBC study. Viewers are randomly assigned to the various versions. By having both viewers who naturally expose themselves to this particular program and those who have not, the researcher has the ability to make more generalizable statements and maintain experimental control. It was evident from our forum participants that studies investigating programs that viewers normally choose to watch and studies in which researchers assign them to programs are equally important. This type of study allows both possibilities with control and generalizability. The primary difficulty with this method is collection of the dependent measure; telephone surveys need to be carefully designed to elicit relevant attitudes and knowledge.

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(b) Nonrandom samples could be recruited to view the programs in a laboratory environment (or at home). In later experimental sessions more detailed outcome measures could be collected. For example, Malamuth and Check (1981) found that men exposed to the popular film <u>The Getaway</u> as part of a campus film festival tended to endorse common myths about women desiring rape and indicated that in some circumstances women deserved sexual abuse. These later measures were taken days later in their classrooms as part of a "national survey" of college student attitudes. Such methods are used frequently with college students, but could be adapted for younger students as well. Moreover, some of the questions in this area may need to be studied with adults (18+) before they are addressed with younger individuals.

We, as well as members of our forum, believe that sound longitudinal studies will provide invaluable information, but the costs and time frame of such studies make it imperative that critical measures and controls are in place at the start. One can not go back in time. While there are many possibilities to pursue along these lines, one particular study has been suggested and seems quite rational. Differing variations along this theme, as with any study of this nature, are quite appropriate and reasonable.

The study suggested is one that will maximize the amount of information in its current time frame while at the same time allowing for a follow-up in additional years should funding exist. An accelerated longitudinal design has overlapping cohorts and different age ranges. For example, one could do a five-year study following children across the age ranges of 9 to 13, 11 to 15, and 13 to 17, covering the ages 9 to 17 in five years. Measures of media use, outcome variables, family characteristics, and other information are collected periodically. As many of the interesting effects probably emerge during this age period, such a five-year study would produce a significant amount of information. Measuring different cohorts at the same time also allows one to evaluate the possible effects of changes in media content over time as opposed to age changes. For instance, if 9- and 11-year-olds have similar patterns in 1999, but are different from 11-year-olds in 2001, then we might infer that the difference is a result of something that changed in those two years, not the age of the child.

A longitudinal study would require extensive information about economic, demographic, family, school, and peer group characteristics to control for the effects of these features of children's lives on the associations between media use and sexual outcomes. Measures would need to be adapted for children at different developmental levels. Even with these controls, it is never possible to say with certainty that the media uses measured are the "cause" of the outcomes with which they are associated.

A New Surgeon General's Report

Our final recommendation is not about design but about process. As we have previously noted there is little systematic knowledge about the effects of sexual content. We certainly encourage research across many disciplines and funding agencies (both federal and private), but a central guiding framework is needed. The quantity and quality of research on media violence is an excellent example of theories, research questions, and methods to investigate the effects of media content. One reason for the existence of this framework was the program initiated by the Surgeon General in 1970 to generate and bring together a set of

interrelated studies focused upon a central theme. At the Surgeon General's request NIMH established an initiative that funded content analyses, experimental studies, surveys, correlational research, and literature reviews. These were organized in a comprehensive report that provided a strong knowledge base, served as a catalyst to stimulate further research, and brought a cadre of young investigators into the area. Studies of media violence converge with a synergy, so that the sum is greater than their parts. We believe that such an initiative would be useful here. A collaborative effort by the Kaiser Family Foundation working with other foundations could produce a coordinated research base collected in a major report that could provide a solid foundation for understanding media sexual content effects and could serve as a basis for future funding and research.

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Sexual Development/Adolescent Pregnancy/Body Image

Allen, J.P., Philliber, S., Herrling, S., & Kuperminc, G.P. (1997). Preventing teen pregnancy and academic failure: Experimental evaluation of a developmentally based approach. *Child Development, 64,* 729-742.

An experimental evaluation was conducted of a national volunteer service program, Teen Outreach. The primary focus of Teen Outreach is to engage young people in a high level of structured, volunteer community service that is closely linked to classroom-based discussions of future life options, such as those surrounding future career and relationship decisions (Allen et al., 1997). The evaluators tried to determine whether Teen Outreach 1) influenced teen pregnancy rates; 2) influenced school suspension and school failure rates; and 3) varied depending on upon student sex, parent education, household composition, and ethnic status.

Evaluations occurred in 25 nationwide sites (N=695) from 1991-1995; high school students (grades 9-12) were randomly assigned to participate in a Teen Outreach program or a control condition. Rates of teenage pregnancy, school failure, and academic suspension at exit of the study were substantially lower in the Teen Outreach group, even after accounting for student demographic characteristics and entry differences between groups. The authors emphasize the potential of interventions that prevent problem behaviors through the use of broad developmental tasks rather than focusing on individual problem behaviors themselves. For example, Teen Outreach does not explicitly focus on teen pregnancy, but rather tries to enhance adolescents' decision-making competence, social interactions, and handling of emotions.

Carroll, J.L., Volk, K.D., & Hyde, J.S. (1985). Differences between males and females in motives for engaging in sexual intercourse. *Archives of Sexual Behavior, 14,* 131-139.

Two hundred and forty-nine college students between the ages of 18 and 23 were surveyed about their sexual attitudes and behaviors and their motivation for engaging in sexual intercourse. There were clear gender differences. Males' motivation for intercourse more often included pleasure, fun and physical reasons, whereas females' motives included love, commitment and emotion. 84% of the males had engaged in sexual relations without an emotional involvement, whereas only 42% of the females had done so. Results are discussed in terms of gender socialization.

Day, R.D. (1992). The transition to first intercourse among racially and culturally diverse youth. *Journal of Marriage and the Family, 52,* 749-762.

This study explored the transition to first sexual intercourse among Chicano, Latino, black, and white teens. It is suggested that age of first intercourse is not a simple process but rather there is a compelling need to perform separate analyses by race and gender. As a child passes from adolescence to adulthood, the locus of influence shifts from proximate (one's attitudes and beliefs and family) to distal (one's community and culture). In terms of age at first intercourse, Chicano men are not significantly different from white men. While Black women do have first intercourse at ages which are lower than the other groups of

women, they did not report the 2-year difference that exists between black and white men. Women are guided by such things as religion, locus of control orientation, occupational desire and self esteem. Men are typically more responsive to family and community environmental variables. For some, living in a rural community is a strong factor in the decision to engage in sexual activity. When adolescents are younger, low confidence and confused life direction increase the chance that they will make poor relationship decisions. When teens were older, had higher self-esteem, and were internally controlled they were more likely to find sexual partners. Only for some groups did future occupation and educational dreams have an impact on sexual decisions.

De Gaston, J.F., Weed, S., & Jensen, L. (1996). Understanding gender differences in adolescent sexuality. *Adolescence, 31,* 217-231.

Over 1,900 junior high school students were surveyed regarding their sexual activity. Females were less likely to have engaged in sexual activity than were males. Among female non-virgins, rates of sexual activity were nearly as high as those of non-virgin males. Females were also more likely to see adolescent sexual activity as an impediment to future goal attainment than were males. Females reported to have more dating rules than their male counterparts. No gender differences were found for smoking and drinking.

Desmond, A.M. (1994). Adolescent pregnancy in the United States: Not a minority issue. *Health Care for Women International, 15,* 325-331.

Adolescent pregnancy is on the rise in the United States. This fact is often stressed in the media with an emphasis on minority cultures. It is true that the United States ranks seventh in the industrialized world in the incidence of teen pregnancy and the highest incidence is found among black adolescents of low socioeconomic status. However, care must be taken in linking early childbearing with race. The persistence of poverty, joblessness, and lack of hope for the future are recurring themes in the quest for understanding the phenomenon of adolescent pregnancy, and these factors are increasingly being experienced by white as well as black adolescents.

Fisher, T.D., & Hall, R.G. (1988). A scale for the comparison of the sexual attitudes of adolescents and their parents. *Journal of Sex Research, 24,* 90-100.

Fisher and Hall developed a 14-item sexual attitudes scale (ATSS) in order to compare the sexual attitudes of early, middle, and late adolescents and their parents. Factor Analysis yielded four major dimensions of the scale: a large general factor, legality/morality, alternative modes of sexual expression, and individual rights. Construct validity of this scale was measured against subscales of the already established Sex Knowledge and Attitudes Test (SKAT). The authors state that the responses to the scale do not seem to require much sophistication about sexuality, nor did it cause embarrassment to the respondents. The total possible score ranged from 14 to 70 (14, most conservative; 70, most liberal). No questions about personal behavior were included.

Franklin, D.L. (1987). Black adolescent pregnancy: A literature review. *Child & Youth Services, 9,* 15-39.

Adolescent childbearing and parenthood are growing phenomena in this society, which has given rise to an increased concern and a concomitant proliferation in the literature. This chapter examines studies that have endeavored to identify the causes and consequences of adolescent pregnancy. Special attention is given to those studies that have evaluated the influences of race and socioeconomic class, in that higher rates of out-of-wedlock births to

adolescents are found among lower-income Blacks. While the literature is in theoretical disarray, this chapter identifies five primary explanatory theories and organizes these studies by linking them to one of these theoretical frameworks. The discussion delineates the conceptual strengths and weaknesses of these studies in explaining the race and class-specific aspects of the problem, and explores implications for intervention.

Gordon, B.N., Schroeder, C.S., & Abrams, J.M. (1990). Age and social-class differences in children's knowledge of sexuality. *Journal of Clinical Child Psychology, 19,* **33-43.**

One hundred and thirty children between the ages of 2 and 7 were questioned on their sexual knowledge. Children's age, social class and sexual education experience were the only significant predictors of children's sexual knowledge. Young children knew less than older children in terms of gender, sexual and non-sexual body parts and functions, sexual behavior, pregnancy, and abuse prevention. None of the children showed much understanding of adult sexual behavior. Children from lower SES demonstrated very little knowledge of sexual body parts, pregnancy and abuse prevention, perhaps due to their parents' more restrictive attitudes about sexuality and lack of sex education. 74% of the parents in the study reported that their children asked questions about sexuality, however only 20% indicated that they provided their children with sex education.

Gordon, C.P. (1996). Adolescent decision making: A broadly based theory and its application to the prevention of early pregnancy. *Adolescence, 31,* **561-584.**

The paper presents a broadly based theory of adolescent decision-making incorporating the following factors: 1) cognitive factors (i.e., concrete vs. formal reasoning, knowledge, and age/grade), 2) social and psychological factors (i.e., personality characteristics such as egocentrism and locus of control, and interactions with those in the environment), and 3) cultural and societal factors (i.e., religion, health system, ethnicity, SES status, and others). Participants resided in predominantly lower-income neighborhoods and attended an inner-city vocational high school. The data was collected in interviews. Several unexpected findings (self reports) included: 1) most young women at this school desired their pregnancies; 2) many of them preferred single parenthood to the traditional family structure; and 3) low academic skills and poverty often resulted in pregnancy rather than pregnancy causing high school dropouts and poverty.

Heinberg, L.J., & Thompson, J.K. (1995). Body image and televised images of thinness and attractiveness: A controlled laboratory investigation. *Journal of Social and Clinical Psychology, 14,* **325-338.**

One hundred and thirty-nine women viewed television commercials that contained either Appearance-related commercials (demonstrating societally-endorsed images of thinness and attractiveness) or Non-Appearance-related advertisements. Pre-post measures of depression, anger, anxiety, and body dissatisfaction were examined. Participants were blocked by a median split on dispositional levels of body image disturbance and sociocultural attitudes regarding appearance. Individuals high on these measures became significantly more depressed following exposure to the Appearance videotape and significantly less depressed following a viewing of the Non-Appearance advertisements. In addition, individuals high on the level of sociocultural awareness/internalization became more dissatisfied with their appearance following exposure to commercials illustrating thinness/attractiveness. Participants who scored below the median on dispositional levels of disturbance either improved or showed no change on dependent measures in both

Appearance and Non-Appearance video conditions. The findings are discussed in light of factors that might moderate media-influenced perturbations in body image.

Henderson-King, E., & Henderson-King, D. (1997). Media effects on women's body esteem: Social and individual difference factors. *Journal of Applied Social Psychology, 27,* 399-417.

This study examined individual difference and social factors (including media exposure, social judgments of attractiveness, weight, and self-monitoring) in moderating the effects of media images on women's body satisfaction. 87 undergraduate women (average age 19 years) heard a conversation wherein 2 people were either judgmental about a mutual friend's weight gain or discussed their friend's recent move. Subjects (Ss) then viewed slides which were either neutral or depicted "ideal" images of women. The Body Esteem Scale was used to measure Ss' self-evaluations. Results underscored the importance of individual differences. When exposed to ideal images, thinner women more positively evaluated their sexual attractiveness, while heavier women reported more negative self-evaluations. Compared to low self-monitors, high self-monitors who were exposed to ideal images do not similarly affect all women's body esteem. The findings demonstrate that media images do not similarly affect all women's body esteem.

Jaccard, J., & Dittus, P. (1993). Parent-adolescent communication about premarital pregnancy. *Families in Society: The Journal of Contemporary Human Services, 74,* 329-343.

The literature on parent-adolescent communication about premarital sex and pregnancy is reviewed. Current theoretical frameworks and research methodologies are evaluated, and issues that need to be addressed are discussed. Such issues include the need to develop better measures and theories of the communication process between parents and teenagers and the need to study the problem from the perspective of parents as well as teens. Gaps in the literature seem to be: 1) few studies have assessed the content of communication between parents and teenagers; 2) few studies make distinctions between the topics of sex and birth control, in general, and the avoidance of premarital pregnancy; 3) few studies have tried to elucidate why a given source is perceived as useful or not useful; and 4) few studies have examined why certain parents have lengthy discussions with their adolescents about sexual topics and why other parents avoid the subject.

Kalodner, C.R. (1997). Media influences on male and female non-eating-disordered college students: A significant issue. *Eating Disorders, 5,* 47-57.

Few studies have addressed the importance of media influences on persons who do not have an eating disorder. These persons are usually considered a control group. However, the influence of the media on non-eating-disordered females and males is a significant issue. The purpose of this study is to assess the immediate impact of very brief exposure to images taken from media on the self-consciousness and anxiety of male and female college students. There was a significant effect of looking at pictures of thin models on female participants only. In the group of college women who looked at pictures of thin female models, there were significantly higher levels of private self-consciousness, body competence, and stated anxiety. For the male college students, there were no differences in self-consciousness or anxiety between those who looked at the pictures of thin male models and those who looked at control pictures.

Luster, T., & Small, S.A. (1994). Factors associated with sexual risk-taking behaviors among adolescents. *Journal of Marriage and the Family, 56,* 622-632.

The central question addressed in this study is the following: What characteristics of teens and their families distinguish sexual risk-takers from those sexually active teens who engage in responsible sexual behaviors? Sexual risk-takers were defined as those who have multiple sex partners and who do not use contraceptives consistently. The sample consisted of 2,567 adolescents attending schools in the rural mid-west. The adolescents responded to a 160-item questionnaire incorporating these measures: number of partners; birth control use; grade point average; sexual abuse; physical abuse; alcohol consumption; suicidal ideation; parental monitoring; parental support; and discussing birth control with parents.

Adolescents were categorized into three groups: high-risk (i.e., multiple sexual partners and rarely or never used contraception), low-risk (i.e., one partner and always used contraception), and abstainers. Those not fitting into these groups were excluded from the analyses. Factors associated with sexual risk-taking among females included low GPA, frequent alcohol consumption, low levels of parental monitoring, and lack of communication with mom about birth control. Factors for males included low GPA, frequent alcohol consumption, suicidal ideations, low levels of parental support, and a history of sexual abuse (Luster & Small, 1994).

Luster and Small emphasize that schools and the media can increase public awareness of the problems in this area, but parents need to play a role in reducing risks among their children. These sexual risk-takers are also more likely than the other two groups to experience troubled relationships with their parents, however, making it less likely that parental involvement will occur or be effective. In light of these findings, media may play an especially important role for this group of adolescents.

MacFarlane, R.M. (1995). Adolescent pregnancy. In M.W. O'Hara, R.C. Reiter, S.R. Johnson, A. Milburn, & J. Engeldinger (Eds.), *Psychological aspects of women's reproductive health.* **New York, NY: Springer Publishing Co.**

A literature review on factors related to adolescent pregnancy. Reviews 1) some of the research bearing on societal and psychological factors that influence adolescents' decisions (when confronted with pregnancy); 2) factors associated with the incidence of adolescent pregnancy; 3) determinants of childbearing including the sequence of the decision-making process; 4) psychological factors of adolescent motherhood (socioeconomic, psychiatric, impact of offspring, implications for intervention). The author argues that as a society we give very mixed messages to young people about sexuality – promoting sexual behavior on the one hand and giving adolescents very negative messages about it on the other hand. Discusses the prevention of adolescent pregnancy, the decision to abort the pregnancy or carry it to term, the decision to keep or adopt out the infant, and the consequences of motherhood for the economic, physical, and social health of the mother. Outlines the various roles that professionals have in intervening with the adolescent woman at each of these points in the childbearing process.

Morgan, C., Chapar, G.N., & Fisher, M. (1995). Psychosocial variables associated with teenage pregnancy. *Adolescence, 30,* 277-289.

Do psychosocial factors differentiate sexually active teenagers who become pregnant (ever-pregnant) from those who do not (never-pregnant)? Data was collected from 64 unmarried, suburban, white teenage girls. The girls completed The Life Events Checklist, The Multidimensional Health Locus of Control (MHLC) Scale, and The Self-Perception Profile for Adolescents. Other demographic information (i.e., race, religion, mom's education level,

age at menarche, history of alcohol use, type of contraception used, etc.) was obtained from their medical records.

Psychosocial factors and demographic variables did not differentiate the groups of interest. Age of first intercourse was significantly different between the groups; however, the finding does not explain why certain females begin sexual intercourse before their peers. Ever-pregnant adolescents had higher scores on the "powerful other" dimension of the MHLC Scale; the "powerful other" dimension assesses beliefs that one's health is determined by powerful other people such as doctors, nurses, family, and friends. Investigators suggest that these findings could mean that adolescents who are dependent on others for health decision-making are also more susceptible to peer pressure or more dependent on authority figures who could put them at higher risk for unintended pregnancy (Morgan, Chapar, & Fisher, 1995). One should consider that the sample may have been too homogeneous to detect demographic or psychosocial differences and there was no non-sexually active control group.

Plotnick, R.D. (1992). The effects of attitudes on teenage premarital pregnancy and its resolution. *American Sociological Review, 57,* 800-811.

Plotnick examines the influence of attitudes and related personality variables (e.g., self-esteem, locus of control, educational expectations, religiosity, gender role attitudes) on the probability of teenage pregnancy. In addition, when pregnancy does occur is it resolved by having an abortion, having an out-of-wedlock birth, or marrying before the birth? The sample is drawn from the National Longitudinal Survey of Youth and is restricted to white, non-hispanic females ages 14-19 (N=1,142). The nested logit statistical method was used to analyze the social behaviors. Those scoring high on locus of control (strong internal locus of control), positive attitudes toward school, and high educational expectations were less likely to become premaritally pregnant. Religiosity was associated with premarital pregnancy and its resolution, but with mixed findings. The likelihood of resolving a premarital pregnancy by abortion was positively related to high self-esteem and high educational expectations. The findings that high educational expectations and favorable attitudes toward school reduce the rate of premarital pregnancy and increase the likelihood of abortion is consistent with previous findings in the literature.

Stanton, B., Romer, D., Ricardo, I., Black, M., Feigelman, S., & Galbraith, J. (1993). Early initiation of sex and its lack of association with risk behaviors among adolescent African-Americans. *Pediatrics, 92,* 13-19.

Objective. High rates of adolescent homicide, pregnancy, substance abuse, and sexually transmitted diseases underscore the importance of interventions designed to reduce problem behaviors. However, the definition of "problem" behavior and the association with other activities may change between youth cultures. Therefore, greater attention to defining the "problem" behaviors to be targeted will permit more effective utilization of primary vs. secondary intervention strategies and identification of high-risk individuals.

Design. Two studies of African-American adolescents regarding sexual intercourse, school truancy, substance abuse, and drug trafficking are presented. The first study involved 57 youths (10 to 14 years of age) from a pediatric primary health center and data was gathered through pile-sorting. The second study of 300 youths (9 to 15 year of age) from six public housing sites used a questionnaire administered by a "talking" computer. Both studies assessed different self-reported behaviors, feelings about engaging in specific behaviors, and perceptions of friends' behaviors.

Results. While 40% of subjects reported having had sex, substantially smaller proportions reported school truancy (14%); illicit drug use (2% and 6%), or drug trafficking

(6%). Analyses of reported behaviors, feelings, and perceived peer norms revealed that sex was consistently depicted as forming a different domain from other problem behaviors.

Conclusions. Interventions that rely on primarily prevention strategies for sexual intercourse and that identify sexually active youths as at risk for problem behaviors may not be appropriate for African-American adolescents growing up in resource-depleted urban areas.

Strasburger, V.C. (1997). Adolescent sexuality and health-related problems. In V. Strasburger & R. Brown (Eds.) *Adolescent medicine: A practical guide.* **Philadelphia: Lippincott-Raven.**

This chapter provides an excellent review of sexual behaviors among teenagers, reasons teens engage in sex (e.g., gaining sense of physical attractiveness, adult status, intimacy, feeling good), factors affecting teenage sexuality (e.g., family, religion, SES, and race), and the influence of media and biology. The author also discusses teenage pregnancy rates in the U.S. and other countries, as well as the roles of physicians.

Udry, J.R., & Billy, J.O. (1987). Initiation of coitus in early adolescence. *American Sociological Review, 52,* **841-855.**

This paper examines the determinants of initiation of coitus in 1,153 adolescents (aged 11-17 years). Using a panel design on the population of whole schools, the researchers tested determinants in three domains: motivation, social controls, and attractiveness. Measures of variables were obtained from subjects, their identified friends, parents, and interviewers. White males' initiation was dominated by motivational hormone effects and social attractiveness with no observed effects of social controls. Neither same-sex nor opposite-sex friends' intercourse behavior is significant in predicting transition. White females' initiation was dominated by the effects of social controls. Attractiveness, home, and sexual motivation effects were not observed. Black females' initiation was determined by their level of pubertal development (an attractiveness dimension), with no observed effects of social controls. School performance and deviance are not related to transition to intercourse, nor are friends' sexual behavior and popularity with the same and opposite sex. In terms of parent factors, highly educated mothers, mothers who are married to and living with the fathers, and mothers who were less sexually active as adolescents have daughters with reduced probability of coital transition.

Wertheim, E.H., Paxton, S.J., Schutz, H.K., & Muir, S.L. (1997). Why do adolescent girls watch their weight? An interview study examining sociocultural pressures to be thin. *Journal of Psychosomatic Research, 42,* **345-355.**

This study examined body concerns, dieting, and weight-watching in 30 tenth-grade girls (aged 14-16 years). Semi-structured interviews consisting of open-ended and rated questions assessed descriptions of and reasons for weight loss attempts, with an emphasis on noting sociocultural influences. Audio-taped and transcribed interviews were assessed for themes, coded, and rated. Findings suggest a strong role of sociocultural influences leading to both healthy and unhealthy body attitudes and eating behaviors. Media and fashion were reported to exert the strongest pressures to be thin. While a few girls reported direct pressures to diet from friends and parents, indirect social influences were more common. These influences included social comparison, joint dieting, and avoidance of social disapproval.

Baxter, R.L., De Riemer, C., Landini, A., Leslie, L., & Singletary, M.W. (1985). A content analysis of music videos. *Journal of Broadcasting and Electronic Media, 29,* **333-340.**

The music video, as shown on Music Television (MTV), is a contemporary hybrid of rock music and film imagery. This study analyzed a sample of 62 MTV music videos in 23 content categories. Of the content categories studied, frequent occurrences were found in visual abstraction, sex, dance, violence, and crime. MTV sexual and violent content is characterized by innuendo and suggestiveness, perhaps reflecting MTV's adolescent audience appeal.

Greenberg, B.S., Brown, J.D., & Buerkel-Rothfuss, N.L. (1993). *Media, sex and the adolescent.* **New Jersey: Hampton Press.**

This book is an excellent source, addressing the following issues:

Patterns of exposure: 1) Gender and race were strongest demographic correlates of adolescent TV and movie exposure; 2) Females' exposure to daytime serials propelled them significantly above males in exposure to total televised sexual activity; 3) More TV viewing by blacks in both day and night periods placed them well above whites in levels of exposure to sex; 4) Teens who had regular boy/girlfriends were likely to view more sexual activity; 5) At home, greater religiosity limited experiences with prime-time sex; out of the home, it was related to more frequent attendance at R-rated movies; 6) High school boys went to and saw more R-rated movies, had fewer rules about watching TV, and had less parental control over movie choices than did girls; 7) In a college sample, all exposure differences to sexually explicit materials reflected more exposure by males.

Patterns in Selectivity: 1) Gender and relationship stereotypes held by teenagers varied as a function of their own race and gender and the programs they watched; 2) Girls talked more about TV and the movies with their parents and watched TV and movies more so with them than did the boys; 3) Children still residing with their original parents selected less sex content on TV – in part because they watched less TV; 4) American adolescent girls appear to have their primary media sex experiences in the soaps, in girls' confession and advice magazines, and in the music they listen to and watch; 5) Adolescent boys seem to wander among a stronger set of sexual content-they seek sex in R-rated movies, in men's magazines and in music videos and move on to occasional X-rated content.

Understanding and Responses to Media Sexual Content: 1) Intensive study of adolescent girls showed that there were 3 different groups in terms of how they chose and thought about sexual media content: disinterest, intrigue, and resistance; 2) Regarding music videos, girls had more complicated responses to the videos than did the boys; the girls drew more complex inferences, made more complex connections, and exerted more effort in each of these cognitive areas. The girls' own level of personal sexual experience related to the complexity of the insights they obtained from viewing the video.

Greenberg, B.S., & Busselle, R.W. (1996). Soap operas and sexual activity: A decade later. *Journal of Communication, 46,* **153-160.**

The purpose of the present content analysis was to identify what types of sexual behaviors are common in soap operas, frequency of sexual behaviors, and who is involved; in addition, what sexual information and themes are prevalent in soap operas? This study systematically analyzed sexual content in a sample of five 1994 daytime soap operas and replicates a 1985 study of three of the same soaps. The soaps coded were *General*

Hospital, All My Children, One Life to Live, The Young and the Restless, and *Days of Our Lives.* The unit of analysis was the sex act or references to sexual activity within a scene. Across 10 episodes of each of the five soaps analyzed in 1994, 333 incidents were identified. Results indicated that there were 6.6 sexual incidents per hour-long episode (across all 5 soaps). Incidents related to unmarried sexual intercourse were the most frequent (2.4 incidents per hour), followed by rape (1.40 per hr), long kisses (1.14 per hr), married intercourse (.72 per hr), miscellaneous (.70 per hr), prostitution (.14 per hr), petting (.14 per hr), and homosexuality (.00 per hr). Although there was an increase in intercourse among unmarried partners, a substantial portion of the activity was frowned upon by both participants and nonparticipants. When compared to prior content analyses of soap operas, more focus was given to pregnancy, wanted or unwanted. Safe sex was still an infrequent topic.

Greenberg, B.S., & D'Alessio, D. (1985). Quantity and quality of sex in the soaps. *Journal of Broadcasting and Electronic Media, 29,* **309-321.**
    A sample of soap operas was recorded, and references to sex abstracted and analyzed. Analysis indicated that the representation of sex on soap operas is more complex than previous studies have suggested. Talking about sex not only is far more prevalent than engaging in it, but the talk frequently consists of rejecting it, fantasizing about it, and desiring it, in addition to consenting. The vocabulary of sexual euphemisms was also abstracted. Researchers should examine young viewers' understanding of the verbal and visual incidents.

Greenberg, B.S., Graef, D., Fernandez-Collado, C., Korzenny, F., & Atkin, C.K. (1980). Sexual intimacy on commercial TV during prime time. *Journalism Quarterly, 57,* **211-215.**
    This study reports a profile of sexual content in two sample weeks of prime-time fictional television (fall 1977 and summer 1978). It finds substantial sexual intimacy in prime time, but less than earlier studies reported. There was a distinct downward slope in overall rate of occurrence. Most sexual behavior occurs between unmarried partners.

Kunkel, D., Cope, K.M., & Colvin, C. (1996). *Sexual messages on Family Hour television: Content and context.* **Oakland: Children Now and The Henry J. Kaiser Family Foundation.**
    Programming viewed most widely by children and adolescents occurs in the early evening during the first hour of prime-time, commonly known as the "Family Hour". The authors examined the nature and extent of sexual messages (both portrayals of and talk about sex) presented during the "Family Hour" on broadcast network television. Programs aired in 1976, 1986, and 1996 were compared, yielding the following results: 1) Depictions of sexual content have consistently increased from 1976 to 1996, and such content is found in the majority of programs aired during the "Family Hour"; 2) The presence of sexual behaviors account for the increase; 3) The presence of risk and responsibility messages were minimal; messages that were present did not address issues of STDs/AIDS, pregnancy, and use of contraception in any depth.

Larson, S.G. (1991). Television's mixed messages: Sexual content on *All My Children. Communication Quarterly, 39,* **156-163.**
    One year's worth of episodes from *All My Children* were content analyzed. Previous studies of morality on soap operas have exaggerated both the bad and the good. The abundance of sexual activity out of wedlock, which is typically characterized as immoral,

ignores the degree of commitment in relationships and the punishment of deception. The fact that rapes are infrequent in the context of socially responsible stories ignores less extreme physical aggression in relationships, which is both present and rewarded. The subtle message, that when women say "no" they really mean "yes," contradicts overt attempts to demonstrate the seriousness of sexual aggression.

Lowry, D.T., & Shidler, J.A. (1993). Prime time TV portrayals of sex, "safe sex" and AIDS: A longitudinal analysis. *Journalism Quarterly, 70,* **628-637.**

The primary purpose of this study was to replicate Lowry and Towles (1989) and track changes in the numbers and types of sexual behaviors in prime time network TV programs. A probability sample of eighty-eight hours of programs and promos was analyzed for a wide variety of sexual behaviors (verbal, implied, and physical). Contrary to public perceptions, the results indicated a decrease in the hourly rates of sexual behaviors in the programs from fall 1987 to fall 1991. There was far less physical suggestiveness, but the frequency (behaviors per hour) of heterosexual intercourse did increase. In addition, sexual content is present in network promos, not just in the programming itself. Similar to Lowry and Towles' study of 1987 programming, the networks seldom portray the consequences of sexual behavior in 1991 programming. There was also no change (from 1987 to 1991) in the ratio of unmarried to married intercourse. Overall, the networks have reduced the total number of sexual behaviors presented per hour in the programs, but are using sexual content in their promos. The networks do not present a message of responsibility or possible negative consequences of sexual behavior. In a time of epidemic teen pregnancy, AIDS, and STDs, television is certainly not contributing to the public health solution and may in fact be part of the problem (Lowry & Shidler, 1993).

Lowry, D.T., & Towles, D.E. (1989). Prime time TV portrayals of sex, contraception, and venereal diseases. *Journalism Quarterly, 66*, **347-352.**

The underlying premise of this study is that all television to some extent is educational, in that attitudes, values, and coping behaviors are constantly being taught to the viewer. It is necessary, therefore, to examine what prime time television is teaching (or maybe more importantly, what it is not teaching) about sex. The content analysis sample consisted of all ABC, CBS, and NBC prime time programming from October 4 through November 20, 1987. Findings indicate a general increase in the rate of sexual behavior. It is difficult to draw conclusions based on this increase, however, due to differences in operational definitions and procedures in various studies conducted over the last decade. It seems necessary for a group of researchers to conduct a longitudinal study (incorporating consistent definitions, categories, and procedures), tracking changes in rates over time. There was no portrayal of possible consequences. For example, there was no instance during a soap opera or prime time program of anyone acquiring a sexually transmitted disease. Network television is not a realistic source of information about sexual behavior and its possible consequences.

Lowry, D.T., & Towles, D.E. (1989). Soap opera portrayals of sex, contraception, and sexually transmitted diseases. *Journal of Communication, 39,* **76-83.**

This study attempted to replicate the D.T. Lowry et al. (1981) study of 1979 soap operas (SOs) to determine whether the networks' alleged upward curve of permissibility could be seen to have manifested itself in the amount of sexual contact on ABC, CBS, and NBC afternoon SOs during the 1987 season. Results showed only a slight increase in the amount of sexual behavior on SOs in 1987 as compared with SOs in 1979. The value of measuring both the frequency and duration of behaviors appeared to be limited as they were highly

correlated. There was no treatment (verbal, implied, or physical) of pregnancy prevention or sexually transmitted diseases prevention in the 1987 sample.

Sapolsky, B. (1982). Sexual acts and references on prime-time TV: A two-year look. *The Southern Speech Communication Journal, 47,* 212-226.

A two year content analysis of prime-time network television (one week in April in 1978 and 1979) revealed a substantial increase in sex on television from 1978-9. The largest increase occurred in sexual acts, which most frequently involved unmarried partners. Intercourse appeared minimally as an implied behavior. Sex on TV continued predominantly as reference and not overt action. Although sex was most often treated humorously, the portrayal of sex within dramatic forms increased. Little sexual activity occurred in an antisocial context. The bulk of non-criminal sexual acts were classified as affection in 1978 and kissing in 1979. Males and females did not fare equally in sexual encounters: While no sex bias appeared in the initiator of sexual acts, males were shown to use sexual language more and females were more often the target of verbal innuendo. The family viewing hour contained as much sex as later evening hours.

Sapolsky, B.S., & Tabarlet, J.O. (1991). Sex in primetime television: 1979 versus 1989. *Journal of Broadcasting and Electronic Media, 35,* 505-516.

One week of primetime network television from 1989 was content analyzed with a coding scheme previously used to examine sex on television in 1979. At a time when AIDS and high rates of teenage pregnancy call for sexual responsibility, the study found that sexual behavior and language have not diminished over the 10-year period. Instances of suggestive sexual displays and non-criminal sex acts declined, while sexual touching increased. Explicit intercourse, not in evidence in 1979, was shown in 1989. Issues of safe sex, sexually transmitted disease, and contraception are rarely addressed. Sex in primetime occurs predominantly among the unmarried, and white males typically initiate sexual acts and words. Adolescents who regularly watch prime time television are offered a steady mix of marital infidelity, casual sex, objectification of women, and exploitative relationships. Characters can display two extremes: calculating/exploitative sexual behavior or warm/loving sexual behavior. Content analyses of sex on television have not considered the context of sexuality-the degree to which sexual interactions are positively or negatively portrayed. Future research should consider the context as well as quantity of sexual behaviors presented.

Seidman, S.A. (1992). An investigation of sex-role stereotyping in music videos. *Journal of Broadcasting & Electronic Media, 36,* 209-216.

This study investigated sex-role stereotyping of occupational roles and the behaviors of music-video characters in a random sample of 182 MTV music videos videotaped during the first 20 days of February 1987. Coders were given charts that listed affective behaviors and manifestations. Findings indicated that both male and female characters were shown in sex-typed occupations. Male characters were more adventuresome, domineering, aggressive, violent, and victimized than female characters, while females were more affectionate, dependent, nurturing, and fearful than males. It was also found that a large percentage of female characters wore revealing clothing and that they initiated and received sexual advances more often than males. Interestingly, Caucasian women pursued others sexually more frequently than did white males, but this was not true for non-white females.

Sherman, B.L., & Dominick, J.R. (1986). Violence and sex in music videos: TV and rock'n'roll. *Journal of Communication, 36,* 79-93.

This study examined the extent of violence and sexual content in 166 "concept" videos appearing on *Night Tracks*, *Friday Night Videos*, and Music Television (MTV). "Performance" videos are those in which the artists perform the songs as if they were in concert or studio setting; a "concept" video is described as a video mini-movie or mini-melodrama. The video interprets or embellishes the song. Visual dimensions of the videos were coded by 3 graduate students over a 7-week period.

The general demographic make-up of rock music performers are young adult, white males. The expected findings parallel that group – most video characters were white males aged 18-34 years. Episodes of violence occurred in 56.6% of the videos. Visual presentations of sexual intimacy appeared in more than 75%, and 81% of the videos containing violence also included sexual imagery. Patterns of aggressor/victim portrayals in music videos and on conventional TV are compared. Like commercial television, "concept" videos contain violence; the aggressor/victim portrayals, however, are different than that of commercial television. Women, older adults, and nonwhites are all more likely to be the aggressors than the victims in music videos. The present study examined only the visual dimension of the music videos; in future research, the verbal component should be studied apart from and in combination with the visual dimension (Sherman & Dominick, 1986).

Signorielli, N. (1987). Drinking, sex, and violence on television: The cultural indicators perspective. *Journal of Drug Education, 17,* 245-260.

This article explores the portrayal of alcohol, alcoholics, and drinking in annual, week-long samples of prime-time network dramatic programs. While references to alcohol and drinking have increased rather steadily since 1969, the number of alcoholics in each yearly sample has remained stable. The harmful effects of drinking alcoholic beverages were rarely mentioned. Programs that mention alcohol were also likely to have references to sexual behavior. The characters seen drinking alcoholic beverages-about 37 percent of all major characters-do not differ dramatically from other major characters. Alcoholics, however, are treated quite negatively. Respondents, especially whites and those who have been to college, from the 1977, 1978, 1980, and 1983 NORC General Social Surveys who watch four or more hours of television each day are somewhat less likely to reply that they occasionally drink alcoholic beverages than respondents who watch less television. Data from these surveys also reveal that smoking is positively related to television viewing - those respondents who say they watch four or more hours of television each day are also likely to respond that they smoke.

Signorielli, N., McLeod, D., & Healy, E. (1994). Gender stereotypes in MTV commercials: The beat goes on. *Journal of Broadcasting and Electronic Media, 38,* 91-101.

This study examines gender portrayals and stereotyping in a sample of commercials on MTV. Advertisers use MTV to associate their products with a medium on the cutting edge of youth culture. The sample consisted of 119 individual commercials recorded on videotape during November 1991. The findings revealed that characters in MTV commercials, like those in music videos, are stereotyped. Female characters appeared less frequently, had more beautiful bodies, were more physically attractive, wore more sexy and skimpy clothing, and were more often the object of another's gaze than their male counterparts. MTV commercials preserve and perpetuate stereotypes about women. While we cannot say there is a causal relationship between commercial content and social problems (e.g., rape, eating disorders,

and discrimination in the work place), MTV commercials do not contribute to a reduction in misconceptions about women and women's roles in society (Signorielli et al., 1994).

Smith, C. (1991). Sex and genre on prime time. *Journal of Homosexuality, 21,* **119-138.**

Sexual activity is never explicitly represented on network television programs. Rather, realms of sexuality are suggested. These realms are represented differently according to the genre of the program; sitcoms explore the realm of the taboo, while nighttime soaps plumb the inevitable consequences of sexual activity. Detective shows display the sexual underworld. When a program shows sexuality from more than a generic perspective, it provides a more global representation and is also a more fruitful object of study.

Sommers-Flanagan, R., Sommers-Flanagan, J., & Davis, B. (1993). What's happening on music television? A gender role content analysis. *Sex Roles, 28,* **745-753.**

The study analyzed 40 Music Television (MTV) music videos across gender-role based content categories. Categories rated were: dominance/subservience; implicit aggression; explicit aggression; aggression with sexuality; objectification; implicit sexuality; and explicit sexuality. Videos were rated at 30-second intervals by four trained raters using a consensus model. Results included the following: a) men appeared nearly twice as often as women; b) men engaged in significantly more aggressive and dominant behavior; c) women engaged in significantly more implicitly sexual and subservient behavior; and d) women were more frequently the object of explicit, implicit, and aggressive sexual advances. Overall, MTV video content primarily included implicit sexuality, objectification, dominance, and implicit aggression. Implications of these findings with respect to sex role stereotyping and the development of negative attitudes toward women were discussed.

Suls, J., & Gastoff, J.W. (1981). The incidence of sex discrimination, sexual content, and hostility in television humor. *Journal of Applied Communication Research, 9,* **42-49.**

The present study was conducted to investigate whether women are portrayed more than men as the butt of humor on prime-time television. Other aims of the study were to assess the frequency of sexual and hostile humor on television and to determine whether the Family Viewing Hour contains less hostile and sexual humorous content than other times. Researchers sampled primetime viewing hours from the three major networks during one week in October 1977. The results indicated that in absolute terms males were more often the objects of humorous disparagement than were females. However, males appeared more frequently in principle roles on television and thus were more available as targets of disparagement. When the frequency with which males and females appear was taken into account, males disparaged females significantly more than females disparaged males. Thus, there is some support for the charge of sex discrimination. Other findings indicate that hostile humor is no more common than non-hostile humor. Finally, the survey indicated that sexual and hostile humor was as common during the Family Viewing Hour as during adult viewing hours. (Sexual humor was coded as present or absent.)

Ward, L.M. (1995). Talking about sex: Common themes about sexuality in the prime-time television programs children and adolescents view most. *Journal of Youth and Adolescence, 24,* **595-615.**

Although concern is often raised about television's role as a "teacher" about sexuality, little is known about the specific content of sexual messages on the programs children and adolescents view most. To explore this issue, a content analysis was conducted during 1992-1993 on the twelve prime-time television programs most preferred by children and adolescents. The programs were: *Fresh Prince of Bel Air, Blossom, Roseanne, Martin, The Simpsons, Beverly Hills 90210, In Living Color, Full House, Hanging with Mr. Cooper, Home Improvement, Step-By-Step,* and *Family Matters.* For three episodes of each program, all interactions between the characters were examined for the presence of verbal statements about sexual issues. Relevant statements extracted were coded using a list of 17 categories reflecting scripts about sexuality common in our culture.

Findings indicated that discussions about sexuality were quite common on these programs. On average, 29% of the interactions on an individual episode contained verbal references to sexual issues, with the level surpassing 50% for some episodes. There were more messages about the male sexual role than about the female sexual role, and more that emphasized a recreational orientation toward sex than a procreational orientation. The most frequently occurring types of messages were those in which sexual relations were depicted as a competition, in which men commented on women's bodies and physical appearance, and in which masculinity was equated with being sexual.   The importance of physical attractiveness as a key asset was emphasized for and by both sexes. Results are discussed concerning adolescents' potential uses of this input, and concerning directions for further study. Additional research is needed to better determine: 1) how adolescents from varied ethnic backgrounds use and interpret sexual messages; and 2) why they prefer certain programs and why specific characters influence them more than others. Conducting longitudinal research following preferred programs and characters, and following adolescents before, during, and after becoming involved in heterosexual relationships would be an important addition to the literature.

Effects of Sexual Media Content

Brown, J.D., Childers, K.W., & Waszak, C.S. (1990). Television and adolescent sexuality. *Journal of Adolescent Health Care, 11,* **62-70.**

Existing studies of the sexual content of television programming and advertising, and the effects of this content on adolescent viewers are reviewed. Content studies show that the frequency of sexual references has increased in the past decade and references are increasingly explicit. Studies of the effects of this content, while scarce, suggest that adolescents who rely heavily on television for information about sexuality will have higher standards of female beauty and will believe that premarital and extramarital intercourse with multiple partners is acceptable. They are unlikely to learn about the need for contraceptives as a form of protection against pregnancy or disease. Suggestions for future research and trends in television programming policies are explored. (This is a very good review article – deals with statistics regarding teen sexual activity, theories of television's influence and content and effect studies – although most effect studies reviewed were conducted with college students.)

Brown, J.D., & Newcomer, S.F. (1991). Television viewing and adolescents' sexual behavior. *Journal of Homosexuality, 21,* 77-91.

A survey of 391 adolescents (ages 13-18) found that those who proportionally chose heavier diets of sexy television programs were more likely than those who viewed a smaller proportion of sexual content on television to have had engaged in sexual intercourse. This relationship endured regardless of perceived peer encouragement and pubertal development, and across race and gender groups.

Bryant, J., & Rockwell, S.C. (1994). Effects of massive exposure to sexually oriented prime-time television programming on adolescents' moral judgment. In D. Zillman, J. Bryant, & A.C. Huston (Eds.), *Media, children, and the family: Social scientific, psychodynamic, and clinical perspectives,* **(pp.183-195). Hillsdale, NJ: Lawrence Erlbaum.**

Teenagers (ages 13-14) were exposed to 15 hours of one of three types of content: a) sexual relations between unmarried partners, b) sexual relations between married partners, and c) non-sexual relations between adults. To detect whether sex exposure on television has any effect on adolescent moral judgment, the teens returned to watch video vignettes that featured non-sexual and sexual transgressions or improprieties. For both genders massive exposure to prime-time television programming that dwelt on pre, extra, or non-marital sexual relations caused the young viewers to rate the sexual indiscretions depicted in the vignettes as significantly less bad than their peers in either of the two other viewing conditions rated them. Two other experiments demonstrated that family factors (well-defined family value system and open communication) can mitigate and possibly eliminate value changes from watching television.

Greenberg, B.S., Brown, J.D., & Buerkel-Rothfuss, N.L. (1993). *Media, sex and the adolescent.* **New Jersey: Hampton Press, Inc.**

This book provides a very thorough background of prior sex-on-television research, including content, effects, exposure, and understanding. It also provides a theoretical overview of how such influence might occur. New research is also presented. (See annotated description in the "sexual content in the media" section above.)

Greenberg, B.S., Linsangan, R., & Soderman, A. (1993). Adolescents' reactions to television sex. In B.S. Greenberg, J.D. Brown, & N.L. Buerkel-Rothfuss (Eds.), *Media, sex and the adolescent.* **New Jersey: Hampton Press, Inc.**

Ninth and tenth graders (n=443) were randomly assigned to one of two experimental treatments. One group was shown a tape containing different scenes of prostitution and portrayals of sexual activity between married characters. The second group was shown different scenes of homosexuality and portrayals of sexual activity between unmarried characters. Each group was a control group for the other. Students were asked how much they enjoyed each clip, how true, funny, and sexy it was, and whether it was OK for that scene to be shown on television. They were also asked about their general knowledge and beliefs regarding the content portrayed. Students were also questioned about their television viewing habits to obtain hours of prime time and soap opera viewing and exposure to sex acts. Self perception indices were used to obtain measures of self worth, religiosity, family satisfaction, peer satisfaction, dating, parent-child discussion over dating, school activities, boy/girl sex roles, and man/woman sex roles. Students were asked where they got most of their sexual information and were asked about their perceptions of television reality. Slight sexual terminology was gained from watching these clips but beliefs about sexual activity

weren't changed from watching these short clips. The study informs us about the attributes perceived in television's sexual messages in terms of those who find the content more or less enjoyable, acceptable, realistic, funny or sexy. The key to understanding the attribute judgments of the viewers is measures of television viewing-their life experiences with television guide their current ratings of specific television scenes. The individual's base level of judgment as to how realistic television is and the realism of their preferred TV shows in particular is a consistent correlate of how enjoyable, sexy, and so on these scenes were.

Greenberg, B.S., Perry, K.L., & Covert, A.M. (1983). The body human: Sex education, politics and television. *Family Relations, 32,* 419-425.

Two CBS television programs containing basic sex information and related affective content were shown to 5th and 6th graders attending a Michigan elementary school. One program was created for boys and the other for girls. Viewers and non-viewers were given questionnaires on basic sex knowledge and attitudes. The children who were shown the video knew more factual information than non-viewers. Attitudes of the 5th and 6th grade girls were influenced by the program in accord with the themes and values of the program. 5th grade boys showed a parallel influence, while 6th grade boys, already more accepting of the program's messages, were unchanged. Results also show that basic factual information on menstruation and reproduction was largely unknown among these 5th and 6th graders. The article also discussed the political context of the project. Ultimately, this project became a significant argument used to successfully recall school board members.

Hansen, C.H., & Hansen, R.D. (1990). The influence of sex and violence on the appeal of rock music videos. *Communication Research, 17,* 212-234.

Two experiments involving college students examined the effects of sex and violence in rock music videos on viewers' judgments of the appeal of the music and visuals and emotional responses to the videos. The effects of videos with high, moderate, or low visual sex content were compared in Experiment 1. Positive emotions and the appeal of both the music visuals were found to be positively related to the level of sexual content. In Experiment 2, the effects of videos with high, moderate, and low levels of visual violence content indicated that negative emotional responses and reduced appeal of both the music and the visuals were related to the level of violence. Evidence was obtained from both experiments that the combination of sex and violence also decreased appeal.

Kaiser Family Foundation & Children Now. (1996). *The Family Hour focus groups: Children's responses to sexual content on TV and their parents' reactions*. Menlo Park & Oakland: Authors.

In order to get a sense of how children interpret the sexual content on television, a series of focus groups with children ages 8-13 was convened. The children viewed a selection of clips containing sexual content from programs that aired in 1996 during the family hour. Findings indicated that 1) Most of the older children – and at least some of the youngest – understood the sexual content, even the jokes and innuendoes about sex; 2) Most of the children understood and enjoyed the programs with clear, positive messages; 3) Shows with mixed messages left the children confused; and 4) Parents expressed concern about some of the sexual messages on television, but also found TV to be a good way to broach important issues with children.

Larson, M.S. (1996). Sex roles and soap operas: What adolescents learn about single motherhood. *Sex Roles, 35,* **97-110.**

This study investigated the contribution of daytime television soap operas to the perception of the roles and lifestyles of the single mother. The perceptions of soap opera viewers and non-viewers were compared using 163 junior and senior high students as subjects, 9% of whom were ethnic minorities. In particular, viewers perceive that single mother have good jobs, are relatively well-educated and do not live in poverty. Further, they perceive that their babies will be as healthy as most babies and that their babies will get love and attention from adult men who are friends of their mothers. To the degree that these perceptions contribute to the gender role socialization of adolescents, we are faced with a problematic situation. Particularly in light of the fact that soap operas are increasingly targeting the adolescent viewer, the image portrayed on soap operas and the impact it appears to have is of great concern.

Peterson, J.L., Moore, K.A., & Furstenberg, F.F. (1991). Television viewing and early initiation of sexual intercourse: Is there a link? *Journal of Homosexuality, 21,* **93-119.**

Using data from the National Survey of Children, this paper examines the hypothesis that the amount of time children spend viewing television and the extent to which the content viewed is sexual in nature is related to the initiation of sexual activity. Several theories that would lead to this hypothesis are reviewed. The data do not provide any strong or consistent evidence that amount of television or the content viewed in 1976 or 1981 is related to early initiation of intercourse measured in 1981. However, some aspects of the context in which television is viewed are related to sexual activity. Moderator variables such as parental involvement and adolescent characteristics were related to early onset of intercourse for girls. There was a strong positive correlation between viewing time and sexual experience among boys who viewed television apart from their parents. Interestingly, for the group of boys that view with their parents, this correlation is negative and significant. The authors suggest ways in which the design and measures could be strengthened to provide a more rigorous test of the hypothesis.

Silverman-Watkins, L.T., & Sprafkin, J.N. (1983). Adolescents' comprehension of televised sexual innuendoes. *Journal of Applied Developmental Psychology, 4,* **359-369.**

Eighteen males and 18 females at each of three ages (12, 14, and 16 years) were asked to interpret a series of 24 television excerpts, each of which contained either a sexual innuendo or a non-sexual filler joke. Based on adult ratings, the innuendoes were systematically varied by the topic alluded to (intercourse, physical/sexual attributes, socially discouraged practices, and non-sexual) and the level of explicitness (high vs. low). Fourteen- and sixteen-year-olds yielded higher scores than twelve-year-olds. Innuendoes referencing discouraged sexual practices were most adequately explained and those referencing intercourse were least adequately explained.

Strasburger, V.C. (1989). Adolescent sexuality and the media. *Adolescent Gynecology, 36,* **747-773.**

Television plays a central role in "educating" children and adolescents about sexuality, even if the messages it gives are not always accurate, wholesome, or age specific. The article is a source of general information, and particular topics are discussed in depth. Children, if they watched *Dallas*, already have a working familiarity with lust. They learned

about impotence from *Donahue*. *Love, Sidney* taught them about homosexuality, and one hopes, tolerance. *Kojak* told them all about the street names for prostitution and prostitutes. 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. Johnny Carson gives graduate courses in divorce and Jerry Falwell has already spoiled all of it with his class, "An Overview of Sin 101."   The article addresses the following issues: 1) general television effects; 2) television as a source of sexual information; 3) sexual information teenagers may learn from television; 4) findings of experimental research; 5) can viewing be hazardous to adolescents' health; 6) effects of other media (i.e., movies, print, rock music); 7) contraceptive advertising; and 8) the role of the pediatrician.

Strouse, J.S, Buerkel-Rothfuss, N., & Long, E.C. (1995). Gender and family as moderators of the relationship between music video exposure and adolescent sexual permissiveness. *Adolescence, 30,* **505-521.**

Two hundred fourteen adolescents (13-18 year olds) were surveyed about their family environment, music video exposure and involvement, attitudes towards premarital sexual permissiveness and sexual behavior. More males than females were non-virgins and males expressed more liberal attitudes towards premarital sex. In contrast to females, analysis revealed that male virginity was unrelated to exposure to R- and X-rated films, popular music or music videos. There was a stronger relationship between music video exposure and premarital sexual permissiveness for females than for males. The association for females was much stronger in unsatisfactory home environments.

Truglio, R.T. (1992). *Adolescents' use of prime-time TV for sexual information: What are the risks?* **Paper Presented at the Society for Research on Adolescence, Washington, D.C.**

One hundred and forty-four adolescents in grades 8-10 were interviewed to investigate how viewing prime-time television programs is related to adolescents' knowledge, attitudes, and beliefs about sexuality. The results provide some evidence that adolescents do differentiate between events portrayed on fictional television programs and those that occur in real life. The only direct effect of prime-time television viewing was for adolescent girls' perceptions of contraceptive use. Results indicate that television may play an important role in the sexual socialization of adolescents, if not in directly influencing understanding.

Methodological Articles

Catania, J.A., Gibson, D.R., Chitwood, D.D., & Coates, T.J. (1990). Methodological problems in AIDS behavioral research: Influences on measurement error and participation bias in studies of sexual behavior. *Psychological Bulletin, 108 (3),* **339-362.**

An unprecedented number of human sexuality studies have been initiated in response to the acquired immune deficiency syndrome (AIDS) epidemic. Unfortunately, methodological developments in the field of sex research have been slow in meeting the demands of AIDS investigations focusing on the diverse populations at risk for infection with the human immunodeficiency virus (e.g., adolescents, gay men, intravenous-drug users, ethnic minorities, elderly transfusees). In this article, the authors review and integrate current literature on measurement error and participation bias in sex research, with an emphasis on collecting sexual information in the context of AIDS. The relevance of these findings for

AIDS-related research is discussed, and recommendations are made to guide future investigations.

Grunseit, A., Kippax, S., Aggleton, P., Baldo, M., & Slutkin, G. (1997). Sexuality education and young people's sexual behavior: A review of studies. *Journal of Adolescent Research, 12,* **421-453.**

Methodological issues regarding sexual behavior education and intervention are discussed: pre-post differences could be due to the interaction of time and interaction. The authors suggest longer follow up periods to see if education will endure in changing behavior. They also suggest that examining differences between entire groups only reveals aggregate change which may veil important differential change in a developmentally diverse group.

Romer, D., Hornik, R., Stanton, B., Black, M., Li, X., Ricardo, I., & Feigelman, S. (1997). "Talking" computers: A reliable and private method to conduct interviews on sensitive topics with children. *The Journal of Sex Research, 34,* **3-9.**

To obtain valid results, interviews on sex-related topics not only require confidentiality but also privacy. However, the typical solutions to this problem, self-administered questionnaires or telephone interviews, may not be appropriate for pre- and early adolescents who may require face-to-face (FTF) interviews. In this research, we tested the hypothesis that interviews delivered by talking computers would elicit more reports of sexual experience and positive feelings toward sex than FTF interviews with children. To test the hypothesis, we compared the results of both interview methods administered to separate samples of 396 black children ages 9 to 15 living in public housing. The results supported the hypothesis. In addition, a subsample of the children (N=31) who had completed both interviews reported more favorable feelings toward sex in the computer interview. Computer interviews were reliable and did not produce higher levels of missing responses than FTF interviews. The results suggest that talking computers can be used with children across a wide range to deliver a more private interview than FTF interviewing permits.

Wolf, M.A., & Kielwasser, A.P. (1991). Introduction: The body electric – human sexuality and mass media. *Journal of Homosexuality, 21,* **7-18.**

Wolf & Kielwasser provide an introduction to the Journal of Homosexuality volume about human sexuality and the mass media. They provide a brief summary of the studies and suggest a need for research that is not limited to "genitalization" of sexual relationships. Mass communication studies remain largely focused upon the more easily operationalized aspects of human sexuality but research would benefit from less ruptured conceptions of sexual consciousness. They propose that consideration of sexuality and mass communication in the larger context of love and affection makes good theoretical and practical sense.