Research into the ways that media influence children and adolescents has mainly revolved around two interrelated themes: that media messages, especially those featuring violent or sexual content, often teach objectionable beliefs and behaviors and that young people are particularly vulnerable to such messages (Roberts, 1993). These concerns continue to underlie most of the studies focusing on sexual content despite the emergence of recent interest in other areas of media influence (Singer & Singer, 1998). Some segments of the general public have recently become particularly vocal about their anxiety regarding sexual content in the media, for they have perceived a dramatic increase in the frequency of such content. By way of protest, for example, the Parents Television Council, chaired by celebrity Steve Allen, placed full-page ads in major newspapers seeking to support political and fund-raising campaigns against media “filth and sex” (as well as violence), primarily because of the alleged effects on children (e.g., see the Parents Television Council ad in the Los Angeles Times on October 7, 1999, p. E4). One ad claims that there is “massive evidence” to support a wide range of negative effects.

In response to such public concerns, technological and legal mechanisms have been introduced to enable parents to restrict their children’s exposure to “objectionable” media. For example, the V-chip is an electronic device that allows parents to filter out programs that contain certain content that they do not want their children to view. Naturally, the success of this system is dependent on the accu-
racy of the program ratings provided by the television industry. Unfortunately, however, a recent systematic evaluation of these ratings found that a large majority of programs that contain sexual behavior were not appropriately labeled as sexual in nature (Kunkel et al., 1998).

Similarly, the U.S. Supreme Court will soon decide a case involving a challenge to the Playboy Corporation. It is based on a law that requires cable companies producing sexually explicit programs to block "signal bleed." Congress passed the "signal bleed" law as part of the Communications Decency Act of 1996 (Exon, 1996), parts of which have been judged unconstitutional by the Supreme Court (Reno v American Civil Liberties Union, 1997). The purpose of this segment of the law was to protect young people from inadvertent exposure to fleeting images or sounds that might come through to nonsubscribers even though the program is scrambled or largely blocked. In both of these instances, it appears that the currently available technological means of restricting what some people perceive as intrusive sexual content into American homes may not sufficiently change the availability of such content. It is likely that the controversy over this matter will become even more heated in the next few years.

This chapter is designed to examine scientific theory and research regarding the effects of sexual content in the mass media on children’s and adolescents’ attitudes about sex and their sexual behaviors. Research on sexual media has often been divided into two categories. The first may be referred to as "embedded sexual content." Here the sexual content is embedded within a larger context that includes considerable nonsexual content; the primary purpose is not to sexually arouse the consumer, although this may be one of the varied effects of exposure and a significant contributor to its mass appeal. Such content would be illustrated by a soap opera in which some of the scenes, although typically not a majority, include references to or actual portrayals of sexual interactions. Such embedded sexual content would often be depicted with only opaque or limited explicitness. The second category, which we will refer to as "sexually explicit media," consists of materials that primarily depict nudity and simulated or actual sexual acts (e.g., intercourse, fellatio, etc.) not embedded or interwoven with much nonsexual content. The primary function of such portrayals for consumers is to view nudity or sex, often as a stimulant for sexual arousal. Sometimes the distinction between embedded and explicit sexual content is not so clear. For example, Playboy magazine regularly includes considerable nonsexual content (e.g., interviews with jazz artists) as well as nude portrayals, and the Starr Report, an official state document focusing on President Bill Clinton, included much sexually explicit content. Nevertheless, there are still some meaningful distinctions that may be made between these two types of media that will help frame our discussion.

This chapter is primarily focused on research on "embedded sexual content," but we also briefly consider some relevant findings on sexually explicit media. Although in focusing on the first category we primarily consider research in which the participants have been below the age of 18, some of the studies we draw on used young adult participants, typically college students. Because there are sound theoretical and empirical reasons to assume that the effects found with these young adults would also be expected for younger individuals, we include these studies as well.

According to public perceptions, both children and adults believe that the media have become a very central source of information about sex for young people. Louis Harris and Associates (1987) found that 64% of U.S. adults think that television encourages young people to initiate sexual activity. In addition, a study of roughly 1,000 adolescents revealed that television is considered to be their greatest source of pressure to become sexually active (Howard, 1985). According to a Time/CNN poll (Stodghill, 1998), 29% of U.S. teens cited television as their principal source of information about sex, up from 11% in a similar
poll conducted in 1986. While 45% mentioned “friends” as their major source, only 7% of teens identified parents, and 3% cited sex education. Of course, such studies seek to disentangle these influences into separate categories, but, in reality, these factors may actually interact in important ways. For example, children may be more influenced by sexual media when they watch television with friends as opposed to alone. The act of viewing enticing sexual images with friends may affect pressures that teens already feel to talk about or engage in various sexual activities in order to fit in and feel normal.

Of course, the public at large may believe that children and adolescents are influenced by sexual portrayals in the media, but scientific research may or may not support such beliefs. Before proceeding to discuss theory and research pertaining to potential influences of mass media containing sexual content, we will first consider the extent to which youth are actually exposed to such content and the nature of the portrayals to which they are exposed.

Content and Frequency of Exposure to Sexual Content

In this section, we summarize research on the frequency of both media with embedded sexual content and sexually explicit media.

Embedded Sexual Content

Various commentators have recently noted that there has been a dramatic increase in sexual content in the media. For example, USA Today noted that “prime time is saturated with sex, and more explicitly so than ever. A look at the TV season that is unfolding this week will leave even jaded viewers stunned of what they see” (Levin, 1999, p. E1). Similarly, a recent cover article in the magazine Entertainment Weekly (Jacobs, 1999) bore the headline “Sex on TV: It’s Everywhere You Turn, but

Just How Far Will It Go?” This article focused on how television programs are engaging in fierce competition to lure teenage audiences by dramatically increasing the sexual content of their programs:

In this post-Lewinsky world, as networks compete with cable, and cable competes with Internet, and everyone competes with R-rated antics on the big screen, it seems TV has sex on the brain. It’s everywhere. Flip to Ally McBeal and see the under-the-knee orgasm trick. Check out Friends, where Chandler and Monica have all-day nooky sessions. Drink in Howard Stern’s CBS shows, where he slathers mayonnaise and bologna on a woman’s naked tush. Look at MTV’s new series Undressed, where, in the first episode, a character snuggles up to a seven-inch vibrator. And sample the WB’s Dawson’s Creek, Buffy the Vampire Slayer, and Felicity, where there’s more deflowering going on than in a badly managed greenhouse. (pp. 22-23)

Does systematic research support the common perception that sexual images and messages are increasing in frequency? There have not yet been published analyses of the content in the last year or so, when the alleged dramatic increases in sexual content are purported to have been particularly sharp. But even studies analyzing the content of prime-time television, soap operas, and music television in earlier years found what by most standards would be considered large amounts of implicit sexual activity. An average of three sexual acts per hour across all types of television programming was documented by Greenberg (1994). On the basis of an estimate of 1 hour of viewing per evening on weekdays and 2 hours on the weekends (low estimates compared to adolescents’ actual viewing averages), Greenberg calculated that a viewer would be exposed to 27 sexual acts per week, or a minimum of 1,400 per year. Studies focusing on sexuality in advertising conducted in the mid-1980s generally reported that sexu-
ally oriented appeals were quite prevalent and increased over time (e.g., Soley & Kurzbard, 1986; Soley & Reid, 1988). Reichert (1999) found similar results by assessing images of men and women in magazine ads in 1983 and 1993. The data showed a significant increase in the proportion of sexually oriented appeals over a 10-year period. They reported a 32% increase between 1983 and 1993 in the number of couples engaged in sexually suggestive contact. More specifically, in 1983, 21% of the couples in the ads were shown engaging in sexually suggestive contact; by 1993, more than half (53%) did so. These changes were more substantial in “gendered magazines” such as Cosmopolitan and Esquire than in general interest magazines such as Time or Newsweek.

Content analyses of soap operas reveal a similar increase in sexual portrayals, although the frequency estimates vary considerably (Greenberg & Brand, 1993; Greenberg & Busselle, 1996; Lowry & Towles, 1989). In such soap operas, it is primarily unmarried rather than married heterosexuals who have sex and these differences have increased over the years. For example, Greenberg and Busselle (1996) found that the average hourly number of sexual incidents in soap operas increased from 3.7 in 1985 to 5.0 in 1994. Rates of intercourse among married couples stayed the same, whereas rates of unmarried sex increased; the ratio of unmarried to married intercourse increased from 2:1 to 3:1 over the decade. In contrast to what is portrayed in the media world, studies with representative samples have shown that, in the “real world,” there are not substantial differences in the frequency of sex as a function of people’s marital status (Laumann, Gagnon, Michael, & Michaels, 1994).

In addition to changes in the frequency of sex among unmarried individuals, Greenberg and Busselle’s 1996 soap opera analysis indicated that differences across the decade can be accounted for by an increase in date-rape story lines (there were none in 1985) and issues related to pregnancy. The 1994 soap operas depicted considerable amounts of negative consequences of engaging in various sexual acts as well as rejection of sexual overtures. The researchers state that the growing frequency of sexual incidents in recent years can be attributed to increases in “disgust” as well as “lust” themes. They state that viewers are currently “provided with a more balanced presentation of the benefits and the consequences of sexual activity than reported in earlier studies” (p. 160).

Ward (1995) reviewed the 12 prime-time television programs that children and adolescents watched most during the 1992-1993 season. Her study is an intriguing content analysis of the thematic content of discussions about sexuality on television. The results revealed that the most common types of messages about sexuality centered on the male sexual role. The theme that men typically view women as sexual objects and value them based on their physical appearance was particularly common. Fewer messages focused on the female sexual role, but the most common theme was that women are attracted to specific types of men (i.e., physically attractive, wealthy, romantic, or sensitive). Surprisingly, few messages were concerned with women’s passivity or the idea that women set limits on men’s sexual advances. Another common theme was the presentation of sexual relations as a competition between men and women. In her discussion of the content analysis, Ward points out:

On the one hand, frank discussions of sexuality on television may seem to be liberal and progressive, a powerful step forward from the days in which the word “pregnant” was unacceptable and married couples slept in separate beds. However, the content of these discussions is still traditional in many respects, especially concerning the importance of physical appearance for women and “scoring” for men. (p. 611)

In another recent study, Grauerholm and King (1997) conducted a content analysis of 48 hours of prime-time television focusing on the portrayal of sexual harassment. According to their definition of such harassment, many in-
stances were portrayed, but none were labeled as harassment. Instead, they were typically portrayed in humorous ways, and victims experienced little harm or difficulty in stopping the harassment.

**Sexually Explicit Media**

The “pornography industry” was recently described by *Forbes* magazine as a $56 billion global industry that has become much more mainstream in recent years. Some “hard core” Internet pornography companies are now even listed on the Nasdaq stock exchange (Morais, 1999). When writers describe this sexually explicit media industry, they are typically referring to the type of sexually explicit media consumed primarily by male audiences (Malamuth, 1996). This is also our focus here. Indeed, when it comes to obviously sexually explicit media, this is a much larger segment of the media compared with content designed for female audiences. For example, the number of magazines featuring female nudity (e.g., *Playboy*, *Penthouse*, *Oui*, etc.) is many times greater than the similar content for females (e.g., *Playgirl*), where a substantial number of the consumers are gay men.

There are many content analyses of sexually explicit media. The findings were summarized by Malamuth (1996). Most commonly, the portrayals are of female nudity and of men having casual sex with numerous, easily accessible young women. Most of the focus is on physical attributes and activities (rather than emotional or relational elements). It should also be noted, however, that there is a very large media industry called “romance novels,” which often have a high degree of sexual explicitness as well (Abramson & Pinkerton, 1995). These novels are consumed mostly by females, including many teenage girls, but they generally have very different content than the sexually explicit content primarily consumed by men (summarized above). (As described by Symons, 1979, similar differences in male and female patterning are evident in homosexual sexually explicit media.) Malamuth (1996) analyzed the explanations for these gender differences in some detail.

The data summarized earlier indicate that exposure to various types of embedded sexual content is likely to be very frequent among many youth, but there are also data suggesting that many young people are often exposed to at least some sexually explicit media, even though, by law, much of this material is supposed to be restricted from children. For example, Bryant (1985) conducted a study to obtain normative information on the amount of exposure that children have to various types of R- and X-rated media. The findings indicated that, by age 15, 92% of males and 84% of females had looked at or read *Playboy* or *Playgirl*; by age 18, the proportion rose to 100% of males and 97% of females. The average age of first exposure was reported to be 11 for males and 13 for females. With regard to X-rated films, 92% of 13- to 15-year-olds said they had already seen such a film, with an average reported age at first exposure of 14 years, 8 months. Similar findings were also recently reported by Kahn-Egan (1998). This investigator conducted a study of the ease of accessibility of various types of sexually explicit media, including the Internet, and also surveyed several hundred third through eighth graders about their actual exposure to such media. She found evidence for easy accessibility to such media, including many sites on the Internet that are supposed to be restricted to adults only. In addition, a high percentage of the sample (48%) reported having visited Internet sites with various types of “adult” content. Sexual content was the most popular type of adults’ site visited.

**Theorized Influences**

In this section, we discuss some general theoretical issues pertaining to media effects. Although these are clearly relevant to the topic of sexual media, they are applicable to many other content areas as well. We will later consider the extent to which research on sexual
media can benefit from more systematic guidance by relevant theory.

*Reality and Fantasy*

One of the most important questions regarding media effects concerns the extent to which people may be immune to influence when they are aware that portrayals are fictional. (Of course, it should be noted that much of the sexual content in the media in recent years, such as the explicit descriptions of President Clinton’s interactions with Monica Lewinsky, described nonfictional events.) Much of the content we are focusing on (e.g., soap operas) presumably is recognized as fiction by many observers. In some ways, it might be argued that the distinction between fantasy and reality is somewhat different in the sexual arena than it is in many other areas. For example, when someone is portrayed as having shot another individual in a fictional media episode, the viewer can assume that the person was not actually shot. However, when someone undresses in front of the camera, viewers can reasonably assume that the person has actually consented to be portrayed in the nude (except in rare cases when “body doubles” or computer morphing is used).

The distinction between fantasy and reality is an important one. The perceived realism of fiction affects its impact on judgments and behavior (e.g., Busselle, 1998; Geen, 1975). However, media research has documented reliable effects even when participants are clearly aware that they are viewing or reading fictional portrayals. For instance, Strange and Leung (1999) recently found that both factual and fictional news stories had similar influences on changing participants’ judgments about the causes and solutions for societal problems (e.g., education and health care). In addition, the authors found that the greater the extent that the stories (factual or fictional) evoked participants’ memories of related experiences, the more likely they were to influence the participants’ subsequent judgments.

These data fit in well with recent theorizing and integration of the available scientific literature regarding how people comprehend and validate social information. For example, Wyer and Radavsky (1999) describe a model that views comprehension as a process of constructing “situation models.” They note that, in modern societies, a major source of the situation models that people construct is the mass media, particularly television. They further note that an important feature of human information processing is the ability to add “tags” to representations (e.g., situation models) to denote that they are false (e.g., no matter how many times you see Santa Claus on television, you still perceive him as a fictitious character). However, they argue that, because information acquired from television is typically not extensively thought about (also see Silverblatt, 1995), situation models constructed about fictitious people and events via the mass media are unlikely to be tagged as such. These models may therefore be stored in ways similar to models of events that have occurred in real life and often not be subject to source monitoring (Johnson, Hashtroudi, & Lindsay, 1993). Consequently, the models of fictitious events may be retained and used as a basis for inference without discounting (based on the context in which they were formed).

Support for these predictions has been found in various studies in which people estimated the incidence of different situations that were overrepresented on television relative to real life. As expected, the magnitude of their overestimates increased with the amount of television they watched (Shrum & O’Guinn, 1993; Shrum, O’Guinn, Semenik, & Faber, 1991; Shrum, Wyer, & O’Guinn, 1998).

We speculate that the extent of influence via experiencing an event in the mass media may be related to the fact that, although humans have some ability to “decouple” fiction and reality, our evolutionary environments did not have selection pressure to develop highly attuned mechanisms for such distinctions. For instance, in some recurring ancestral environments of our species, storytellers probably of-
Sex in the Media: Effects on Children

Social Learning Theory

Although it has been argued that sexual portrayals in the media often provide young people with powerful messages concerning how to be sexual, why to have sex, and appropriate sequences of sexual activities (e.g., McCormick, 1987), there is not currently a well-developed theoretical perspective to guide research specifically in this area. However, as Huesmann and Malamuth (1986) noted, social learning theory provides a particularly useful framework for guiding research on media effects in various areas. By summarizing here some of the key points of this theory and related research in areas other than sexual media, we hope to contextualize the existing research and to help develop an agenda for future research.

Although various scholars have contributed to the development of social learning theory (see Hogben & Byrne, 1998), we rely here on the most influential version, that of Albert Bandura (1973, 1977, 1986). A central tenet of this theory is that both children and adults are often influenced by observing other humans, both by direct observations and via the media. With respect to sexual behavior, social learning theory suggests that both what is portrayed in the media and what may be left out (e.g., caring, mutual respect, tenderness) may (a) affect interpretations, perceptions, attitudes, perceived norms, and other cognitive/emotional processes; (b) teach novel modes of sexual behavior; (c) facilitate already learned behaviors perceived as socially acceptable; and/or (d) strengthen or weaken inhibitions concerning previously learned but socially discouraged forms of sexual behavior. Some of the findings reported below support such predictions, but it is clear that there is much more research needed to systematically assess such potential varied influences and the conditions under which they do or do not occur.

Some scholars have criticized social learning theory on the grounds that it is a simplistic "imitative model" that "assumes that people are made of unimprinted wax and stamped with whatever messages role models present" (Bart & Jozsa, 1980, p. 217). We believe that such criticism is largely unwarranted. Social learning theory is not simply a "monkey see, money do" theory. Bandura (1977) has emphasized that learning through modeling others is not simply a matter of copying or mimicking what others do but involves abstracting rules concerning appropriate behavior and the likely consequences of various types of actions. The circumstances and the actual actions that an individual might engage in do not have to be identical to those depicted in the media for modeling to occur via the learning of a symbolic rule or message. It is therefore important in research to consider the specific messages that are communicated (e.g., sex between unmarried individuals is OK) rather than the sexual content per se (although the very inclusion of sexual portrayals may at times communicate messages, such as those regarding the appropriateness of public displays of sexual behavior). Some of the research described below on embedded sexual media supports this general prediction regarding the importance of the message conveyed.

Through observation of others (in the media or in daily life), children gradually build a repertoire of knowledge containing mental models of different types of social situations, possible behavioral responses to those situations, and possible outcomes resulting from
different behavioral choices. Thus, the form of behavior, the situations in which the behavior occurs, its appropriateness for certain situations, and the probabilities of various consequences can be learned by children. The organized mental representations of this learned information are called scripts (Huesmann, 1988). Although observing others is a critical component of social learning, it is further strengthened when a child actually enacts what has been learned via observational mechanisms by actual direct experience (enactive learning). But these, of course, are not necessarily mutually exclusive or even independent processes, and observing others engage in a behavior may increase the likelihood that the observer will attempt the behavior and thereby learn via direct experience. Observational learning may be particularly important in some areas of behavior, such as in environments where experimentation with actual sexual behaviors may be strongly frowned on. Moreover, the use of sexual media to stimulate sexual arousal, sometimes accompanied by masturbation and sexual pleasure, may have conditioning effects influencing sexual desires and behaviors (Check & Malamuth, 1986).

Social learning theory places emphasis on the interactive influences of environmental factors (e.g., media exposure) and other mediating and moderating influences. This is encapsulated in the concept of reciprocal determinism, which Bandura (1977) defined as “a continuous reciprocal interaction between personal, behavior and environmental determinants” (p. 194). This concept encompasses bidirectional influences by which individuals’ characteristics (e.g., gender, personality, etc.) may affect selecting or attending to certain content in the media and the extent to which such experiences are pleasurable or otherwise influential. In general, this concept points to the need to consider various moderating variables that affect the impact of media exposure. In briefly describing some of the research on sexually explicit media, we consider findings relevant to the concept of reciprocal determinism.

In keeping with the concept of reciprocal determinism, social learning theory emphasizes that the consumer’s interpretations and evaluations of media messages strongly mediate the effects of exposure. Therefore, various dimensions powerfully influence what is learned from observing others and how such learning may affect behavior. Some of the dimensions suggested by social learning theory have been verified by various studies on children and adults in a wide variety of content areas. These include the consequences of the behaviors depicted; the extent to which the viewer perceives the depiction to be realistic; the extent to which he or she identifies with the protagonists; and whether the information is distinctive, functional, and salient and not contradicted by direct experience or other more “primary” influences such as strong peer groups or influential family members (Bandura, 1977; Basil & Brown, 1997; Comstock, 1978).

In keeping with such research findings, below we describe research showing that dimensions such as familial or parental influence and a person’s degree of actively cognitively processing media information both moderate the effects of sexual portrayals in the media.

Age may also be an important moderator of observational learning via the media and other sources. Children as young as 2½ years old acquire much information through symbolic media, including television; very young children (e.g., 2-year-olds), however, may not yet be able to use symbolic representation and may therefore not be similarly influenced (Troseth & DeLoache, 1998). Even after infancy, it is generally the case that, as children age, they are better able to attend to, process, and understand media messages (Emmers-Sommer & Allen, 1999). However, it is generally expected that among youth there is an inverse correlation, though far from perfectly linear, between age and susceptibility to media influences (see Roberts, 1982, 1993). This is expected since young people’s behavioral patterns may be less well established, they may be less skillful in analyzing the degree of realism of mediated information (Markham,
Howie, & Hlavacek, 1999), and they may be less confident about their own values or views. Therefore, findings of media influences on young adults may serve as a sound basis for anticipating at least the same degree of effects with younger individuals (Malamuth, 1993). This is important in this area because conducting experimental research in which participants are exposed to various types of sexual stimuli may be more ethically acceptable with young adults than with preadults.

Research Findings on Effects of Sexual Media

Effects of Exposure to “Embedded Sexual Content” on Youth

In presenting the relevant research findings, we first examine studies that have used correlational data and then research that has randomly assigned participants to various conditions (i.e., experimental methods). Next, we consider both correlational and experimental research that has included some key moderating variables.

Correlational Studies

Varied studies have extended the research on people’s beliefs about the effects of sexual media on children and have actually investigated the association between children’s exposure to sexual images and their attitudes and behaviors. One line of research addressed the impact of viewing soap operas on estimates of “real-life” events related to sexuality. Buerkel-Rothfuss and Mayes (1981) surveyed 290 college students and found that exposure to soap operas was related to their perceptions of certain problems in the real world. Even after the researchers controlled for grade point average, year in school, age, gender, and self-concept, they found that soap opera viewers estimated more occurrences of divorce, illegitimate children, and abortions than did nonviewers. This study suggests that higher television watchers tend to believe that what they see on television represents reality.

If viewers tend to believe that media images represent reality, how do they react when their own experiences do not match those portrayed on television? Perhaps exposure to sexual media images generates expectations of immediate sexual gratification that are not matched in “real life.” To address this question, Baran (1976b) examined the association between exposure to sexual media and adolescents’ satisfaction with their own sexuality. The researcher surveyed 202 high school students and found that the more pleasure teens perceived television characters as having during sexual acts, the less the viewers were satisfied with their own experiences of intercourse. In addition, students who thought that television accurately portrayed sexual behavior were more likely to be dissatisfied with either their first experience of intercourse or their virginity (if sexually inexperienced). Baran (1976a) replicated these findings in a study of 207 college students.

Another line of research focused on the association between exposure to sexual media and adolescents’ premarital sexual permissiveness. Premarital sexual permissiveness is often conceptualized and measured with both attitudinal (i.e., the extent to which participants agree with the statement “Young people should not have sex before marriage”) and behavioral (i.e., the age when the participant experienced his or her first act of intercourse) components. Some survey research has found that, among young people, the volume of general media consumption is not correlated with sexual permissiveness; however, some measures of exposure to sexually suggestive materials, including Music Television (MTV) and R-rated films in particular, have been found to be associated with premarital sexual permissiveness (Brown & Newcomer, 1991; Strouse & Buerkel-Rothfuss, 1987).

For example, a three-wave longitudinal study of junior high school students (Brown & Newcomer, 1991) found that neither the total
amount of television viewing nor the total amount of sexually oriented television viewing related to the likelihood of engaging in heterosexual intercourse earlier or later. Rather, the proportion of sexual programming viewed relative to all types of programming viewed (conceptualized as assessing the extent to which adolescents seek out sexual content when watching television) was significantly related to adolescents' sexual activity status. This relationship held even after the researchers controlled for previous noncoital experiences and perceived influence of friends.

In addition, in a study of 457 college students, Strouse and Buerkel-Rothfuss (1987) found that, among females, MTV consumption was the most powerful predictor of sexual attitudes and expectations about sexuality and love relationships, as well as the number of sexual partners. For males, self-esteem was the most powerful predictor of sexual attitudes and behavior, while MTV consumption was the fourth most important predictor of the number of sexual partners.

A cautionary reminder needs to be mentioned concerning conclusions that can be drawn from such correlational studies. These studies demonstrate associations in “real-world” settings among frequency of using sexual media, various attitudes regarding sexuality, and sexual behaviors. Because they are correlational in nature, however, we cannot draw the conclusion that viewing a higher concentration of sexual content on television leads to changes in attitudes or behavior. Rather, the rival hypothesis that teenagers who are already sexually active and condone various sexual activities actively select sexual television programming cannot be fully discounted. It may well be, as suggested by the concept of reciprocal determinism described above, that both sequences are at work: As adolescents mature, some actively seek or pay more attention to media with greater amounts of sexual content, and there may be corresponding changes in attitudes and modeling of behaviors. In addition, “hidden” third variables such as social desirability in reporting, personality factors, or peer pressures may be responsible for the associations.

Experimental Studies

In contrast, experimental studies (in which participants are randomly assigned to contrasting conditions) provide a basis for reaching causal conclusions. Two such studies found support for the effects of exposure to sex music videos on sexual attitudes. One of these (Cafin, Carroll, & Schmidt, 1993) reported that college students who were exposed to a music video were more likely to exhibit more liberal attitudes toward premarital sex than were those who did not see the video. A study of even younger participants, seventh and ninth graders, found that those who were exposed to less than an hour of MTV were more likely than unexposed adolescents to approve of premarital sex (Greeseo & Williams, 1986).

Research Using Moderating Variables

As summarized above, several lines of research reveal an association between exposure to sexual materials and various attitudinal and behavioral changes among youth. Some studies document an association; others employ experimental methods to make stronger causal claims. Obviously, not all people are affected all of the time. An analysis of potential moderating variables may help to further explain why some children and adolescents are so susceptible to television messages while others remain relatively unaffected. We will consider two possible moderators of the impact of music videos in particular on youth: gender and family environment.

Because females are generally the more “reluctant” sex (whether because of social rearing or “biological” factors or both of these influences), Strouse, Buerkel-Rothfuss, and
Long (1995) posited that females might have more latitude than males to change their permissiveness in a "liberal" direction. Indeed, they found a stronger correlation between the amount of exposure to MTV and premarital sexual permissiveness for high school females than for high school males. Similarly, recall the study mentioned previously in which MTV consumption was the most powerful predictor of sexual attitudes and behavior for females but not for males (Strouse & Buerkel-Rothfuss, 1987).

Certain sexual messages may be more influential for females, but the opposite may be true for other types of sexual content. For example, Malamuth and Check (1981) conducted an experiment (i.e., randomly assigning participants to conditions) in a relatively naturalistic setting. This study used R-rated feature-length films (which have been shown on cable without any editing and on network television with minor deletions). Rather than testing the impact of sexual content per se, this study tested the effects of differing messages contained within sexual content (e.g., that sexual aggression against women has positive consequences). Male and female undergraduate students were randomly assigned to one of two exposure conditions. Participants in the experimental condition were given free tickets to view feature-length films (on two different evenings) that included portrayals of women as victims of sexual aggression, suggesting that the aggression was justified and/or had “positive” consequences (e.g., aroused the women sexually). On the same evenings, participants in the control condition were given tickets to other films that did not contain any sexual violence. Participants viewed these films with moviegoers who purchased tickets and were not part of the research. Classmates of the recruited participants who did not see the films were also studied as an “untreated” control group.

Several days after the films were viewed, a "Sexual Attitude Survey" was administered to the entire class. (Participants were not aware of the relationship between this survey—purportedly administered by a polling agency—and the earlier movies some students had seen as part of an ostensibly unrelated study.) Responses were assessed by scales embedded within many irrelevant items intended to disguise the purpose of the survey. Exposure to the films portraying "positive" effects significantly increased the scores of male but not female participants on measures assessing acceptance of the use of aggression against women in sexual and nonsexual interactions.

More recently, Weisz and Earls (1995) successfully implemented a replication of the study by Malamuth and Check (1981). Although they used different participants, films, settings, and some measures, they also found that "viewing sexually aggressive films significantly increased men's but not women's acceptance of cultural stereotypes indicating that women deserve or secretly desire rape" (p. 81).

Another potentially important moderator of media effects is a child’s family environment. For example, Singer and Singer (1986) suggested that when parents take an active mediating approach toward television, including regularly critically commenting about program content, children may develop a more discriminating stance toward media content. These children may not be as vulnerable to the more negative media effects and some may even learn constructive approaches by virtue of such parental mediation. A study of thousands of high school students (Peterson, Moore, & Furstenberg, 1991) found support for the role of family environment as a moderator of media effects on adolescents’ sexual behavior. The researchers found that, for girls, those who less frequently discussed television with their parents had nearly twice the sexual experience rate of those whose discussions were more frequent, and those who watched television apart from their parents had more than three times the rate of those who watched with their parents. For boys, they found a strong positive correlation between viewing time and sexual experience among those who viewed television apart from their parents (but no
such correlation for those boys who watched with their parents). For the boys who watched television without their parents, the sexual experience rate for the heavy viewers was nearly six times that of the lightest viewers. Again, we must point out that this study is purely correlational. Boys and girls were not randomly assigned to groups in which they viewed television shows alone or with their parents. Instead, the children and their parents chose to watch television either separately or together; therefore, we cannot be confident that watching television with parents causes children to have lower sexual experience rates.

In an experimental study of 13- to 14-year-old boys and girls, Bryant and Rockwell (1994) found further evidence for the moderating effects of family environment variables in relation to media impact. We will describe these studies in considerable detail because they are particularly germane to the focus of this chapter since they studied youths and their methodology enables “cause and effect” conclusions. In three separate studies, the researchers reported that exposure to television portrayals of sexual relations between unmarried partners affected teenagers’ subsequent moral judgmental values relating to premarital and extramarital sex. The first study in this series differed in two ways from the other two studies. In the first study only, there was a condition in which participants were exposed to media portrayals of sex between married individuals. Here no effects were found on any of the dependent measures. We will return to discuss this aspect of the data later. Also, this first study did not include any moderator variables.

In the second and third of this series of studies, however, the investigators did examine moderating effects. They randomly assigned participants to either (a) watch 15 hours (3 hours a night for 5 consecutive evenings) of television programming containing sexual relations between unmarried partners, (b) watch 15 hours of television programming containing nonsexual relations between adults, or (c) a no treatment control condition in which participants read books or magazines. The researchers sought to determine whether prior exposure to television affects teenagers’ subsequent moral judgmental values concerning television segments depicting sexual violations ranging from mild indiscretions (e.g., one actor accusing another of wanting to go to bed with an acquaintance for material gain) to more severe sexual transgressions (e.g., sexual infidelity). They also included dependent measures assessing moral judgments of nonsexual, criminal, and antisocial behaviors. Each participant provided ratings on 10-point scales assessing three dimensions of moral judgment: (a) How bad, morally speaking, is the indiscretion, impropriety, transgression, or crime that was perpetrated? (b) How much has the victim—or victims—been wronged? and (c) How much has the victim—or victims—suffered?

Results of these latter two Bryant and Rockwell (1994) studies indicated that participants who watched television programs depicting sex between unmarried partners indicated that the victim was less wronged and did not judge the sexual impropriety as severely as did the other two groups (there was no effect for victim suffering). Again, because participants were randomly assigned to conditions in this study, we can be relatively certain that the type of television programs viewed actually influenced the participants’ subsequent judgments. However, two other variables moderated this effect. The first was “how cognitively active the audience member is in seeking, selecting, receiving, perceiving, processing, and interpreting television’s messages” (p. 189). The second variable was the openness of each teen’s family communication style. When participants engaged in active viewing and came from families with an open communication style, the effects of exposure to sexual television programming were completely mitigated.

The presentation of this research, however, lacked some information typically provided in
research reports (e.g., the details of statistical analyses such as $F$ and $p$ values). Without these details, it is difficult to draw some inferences that may be helpful in assessing the magnitude of the effects reported (although the investigators did indicate that the effects were statistically significant). Furthermore, it is important to note that the effects found were for "sexual acts" only (i.e., extra- or nonmarital sex) and did not occur on any of the measures depicting nonsexual, criminal, or antisocial behavior.

Regardless of this and other limitations, findings from numerous studies illustrate the importance of thinking critically about how other variables may moderate the effects of sexual media on young people's attitudes and behaviors. Taken together, the Peterson et al. study (1991) and the Bryant and Rockwell study (1994) demonstrate that family communication styles may interact with media influences in important ways to shape teens' sexual attitudes and behavior. In keeping with the predictions of social learning theory (see above) and the findings of Malamuth and Check (1981) and Weisz and Earls (1995), the first experiment reported by Bryant and Rockwell (1994) also suggests that it may not be the sexual content per se that has the effect but the particular messages embedded in the content (i.e., because sexual acts between married individuals were not found to have any significant effects but those between unmarried individuals did have effects).

### Research on Sexually Explicit Media With Young Adults

A substantial number of studies have examined the effects of various types of sexually explicit media on adults, particularly focusing on young adults between the ages of 18 and 22. The findings of such studies have been summarized in various reviews (e.g., Linz & Malamuth, 1993; Malamuth, 1993, 1998, 1999) and recent meta-analyses (Allen, D'Alessio, & Brezgel, 1995; Allen, D'Alessio, & Emmers-Sommer, 1999; Allen, Emmers, Gebhardt, & Giery, 1995). Although there are some differences in the findings across studies, taken as a whole, the research provides evidence that, under some conditions, exposure to sexually explicit material can affect fantasies, attitudes, perceptions of norms, and behavior. In particular, however, this literature is important to consider in the context of evaluating the impact of sexual media because it highlights the importance of individual difference variables such as personality characteristics. Although the important role of such individual difference variables has been emphasized in other areas of media research and related investigations (e.g., Aluja-Fabregat & Torrubia-Beltri, 1998; Finn, 1997; Singer & Salovey, 1991), it has not often been examined in the research on embedded sexual media summarized above. From the findings on sexually explicit media, it is clear that the effects are not necessarily the same for all individuals and for all environments, so differing conclusions may be justified when moderating factors are taken into consideration (e.g., Barak, Fisher, Belfry, & Lashambe, 1999; Bogaert, 1993; Ceniti & Malamuth, 1984; Donnerstein, 1984; Donnerstein & Berkowitz, 1981; Frable, Johnson, & Kellman, 1997; Jansma, Linz, Mulac, & Imrich, 1997; Malamuth, 1978, 1981, 1998; Malamuth & Check, 1983; Malamuth, Check, & Briere, 1986; Malamuth & McIlwraith, 1989; McKenzie-Moro & Zanna, 1990; Pryor, LaVite, & Stoller, 1993). These include the cultural milieu, the individual's background, gender, personality characteristics, the particular content of the stimuli (messages conveyed, the consequences of the acts depicted, the degree of sexual explicitness of the material, the degree of arousal generated, etc.), and the current circumstances of the environment in which the person is exposed to the stimuli. This has been demon-
strated in both correlational and experimental studies and in studies using various dependent measures, including sexual arousal, fantasies, attitudes, and behavior. Moreover, this line of research suggests that the type of media people select and find gratifying is predictably related to their personalities and other individual difference characteristics and thereby provides support for the social learning concept of reciprocal determinism.

Conclusions

At the beginning of this chapter, we described a recent newspaper ad asserting that there was "massive evidence" of negative effects of sexual and other media on children. Although this ad lumped together research on sex and research on violence, its primary political focus was on sexual content, vulgarity, and other "filth." Clearly, our comprehensive search of the literature on this topic has not yielded such overwhelming evidence with regard to sexual media. It has, however, yielded sufficient data, we believe, to justify certain conclusions.

1. There is a great deal of sex in the media showing or implying acts such as premarital and extramarital sex. The amount of such content has been steadily increasing in many areas of the media. Children and adolescents are exposed to these media regularly. Although sex is sometimes portrayed in the context of loving relationships, this is often not the case. Varied consequences of such acts are shown, but they are often not negative. There are considerable differences in the way males and females are portrayed, and the themes often correspond to "stereotypical" roles. Sexual overtures that might legally be defined as sexual harassment are often treated in a humorous way without serious consequences.

2. Both young people and adults believe that they are affected by such sexual content. When people are asked about the effects of pornography, they often tend to believe that others are adversely affected but that they personally are far less vulnerable (Gunther, 1995). When asked about what we have labeled "embedded sexual media," however, many young people do rank the media as powerful personal influences.

3. Under some conditions, exposure to sexual content in the media is likely to affect some young people's judgments and attitudes regarding sexual behaviors (e.g., premarital and extramarital sex) and possibly influence their sexual behaviors. We feel justified in reaching this conclusion even though there are only a few studies in this area specifically studying children and adolescents. Some of these present correlational data and some experimental research. There are also data with young adults in this area and a great deal of research in other content areas demonstrating effects that we believe provide a theoretically sound justification for also supporting the conclusion that sexual media are probably both reflecting and contributing to more permissive sexual attitudes and behaviors. With few exceptions in research on sexually explicit media (e.g., Zillmann & Bryant, 1988), there are no data supporting claims of sexual media's impact on a general "moral degeneracy" or a fundamental shift in values such as increasing the desire for instant gratification at the expense of long-term happiness (e.g., see Odone, 1998). Indeed, the research by Bryant and Rockwell (1994) that provided the most convincing evidence to date for actual cause-and-effect relationships of "embedded sexuality" on teenagers' judgments of sexual behavior actually assessed moral judgments in various other areas.
(e.g., nonsexual, criminal, or antisocial behavior). It found no such effects. It is important in future research to assess whether repeated exposure over time might have such "spillover" effects or whether the effects are limited only to judgments of sexual behavior.

4. The effects of exposure to sexual media may be moderated by many other factors, including family communication styles, cognitive style, and personality characteristics. When effects occur, their degree and sometimes even their direction are likely to vary as a function of such moderators. To the extent that predictions have been tested, the findings are generally consistent with predictions derived from social learning theory, including support for reciprocally deterministic effects, by which individual difference variables affect the kind of media people seek, and their media exposure in turn affects some of their characteristics.

Although we believe that these conclusions are justified, we might add that evaluating them negatively or positively will probably depend on certain personal values, in contrast to findings in areas such as media violence (in which effects on aggressive behavior will generally be judged similarly by most people). Those individuals who clearly hold what are frequently referred to as "conservative sexual attitudes" (e.g., premarital and extramarital sex are wrong) will probably view these types of effects of sexual mass media very negatively. Those who hold views that are more mixed (e.g., "protected" premarital sex among teenagers is OK but extramarital sex is wrong) may have ambivalent reactions to these conclusions. In contrast, others may see the increase of sexual content in the media, as well as the effects found to date, as a positive step to a generally relaxed approach to sexuality (e.g., Abramson & Pinkerton, 1995) and to stimulating more open discussion with children about sex (e.g., Johnson, 1999).

Directions for Future Research

An emphasis for additional research is undoubtedly justified in this area, but we hope that future work will be more theory driven and proceed beyond addressing questions that have been focused on to date. The following are some general comments and suggestions to help guide such research.

Although communication researchers often seek to disentangle the influence of the mass media from other factors, implicitly they understand that no influence on human thinking or behavior works in a vacuum. Media influences interact with a variety of other factors, sometimes countering them, sometimes reinforcing them, and at other times having little effect. The degree of influence that media have on a person may largely depend on how that exposure interacts with other factors. For example, people raised with little education about sexuality or in families in which discussion of sex was treated as "taboo" may be more susceptible to the influences of media than those reared with considerable education about sex (Malamuth & Billings, 1986). We believe that the study of the effects of mass media in any area, including this one, would ideally be conducted within the larger context of a theoretical model incorporating the complex interactions among several levels of analysis. These would include factors encompassed within the biological, psychological, and sociological levels (Mayer, 1999). This would include the evolved psychological mechanisms of the mind, individual and family developmental histories, cultural environments, personality characteristics, and situational dynamics (see Malamuth & Addison, in press, for an example of such an analysis of media effects on aggression).

In this chapter, we have emphasized the importance of analyzing the messages conveyed in the media. But even any single program may convey a plethora of messages, some of them clearly contradictory. It is therefore necessary to pay considerable attention to the subtleties, the multiple levels, and the
complexities of the messages. For example, we recently chose to informally examine the messages conveyed in an episode of one of the leading syndicated morning television shows, the Maury Povich Show.

It aired (on October 20, 1999) a half-hour program titled “Shocking Teen Sex Secrets Revealed.” The first half of the show consisted of scantily clad teenage girls boasting of their highly promiscuous sexual exploits in ways that we believe would be quite tantalizing to many viewers, particularly young males. Interspersed throughout, but particularly in the last third of the show, were adults’ (e.g., a mother, a psychologist, and a motivational speaker) critical comments and warnings about venereal diseases. The show ended with a brief portrayal of the young girls’ visit to a “sex addicts boot camp,” which was portrayed to have successfully changed the attitudes of some of the teenagers. Others continued to be defiant and boastful. We believe that it would be useful in future research to conduct a multifaceted analysis of the diverse and often conflicting messages in such shows and how they are perceived, understood, and assimilated by viewers of various ages.

It is also important to examine how mass media influences may occur through indirect mediating processes (e.g., Kelley, Buckingham, & Davies, 1999). For example, Rimal, Flora, and Schooler (1999) have provided considerable supportive evidence that media campaigns designed to change behaviors affecting cardiovascular health (i.e., diet, exercise, and smoking) primarily induce change not by influencing behaviors directly but by changing processes such as information seeking and interpersonal communication that ultimately change behaviors. Similarly, sexual content viewed on television may stimulate discussion among teenagers and their peers. Such discussion can often reinforce media models and messages, but it can support rejection of media messages as well (Durham, 1999).

Finally, an important distinction in social learning theory is between the acquisition of behavioral potential and overt behavioral expression. For example, a child may learn about and develop greater interest in certain sexual behaviors by watching media or may change his or her perceptions of social norms. Although such norms may be strongly related to behaviors (e.g., Fishbein et al., 1995), their influence may not be observed until a later time when placed in a similar situation. Therefore, the learning that has occurred may not necessarily be apparent in any direct modeling behavior until the “right” environmental circumstances are present. Such delayed effects would be best addressed in longitudinal studies.

References


