Mass media as a sexual super peer for early maturing girls

Jane D. Brown, Ph.D.⁵ᵃ,*, Carolyn Tucker Halpern, Ph.D.⁵ᵇ, and Kelly Ladin L’Engle, M.P.H.⁵ᶜ

Abstract

Purpose: To investigate the possibility that the mass media (television, movies, music, and magazines) serve as a kind of super peer for girls who enter puberty sooner than their age-mates. Multiple studies have demonstrated significant associations between earlier pubertal timing and earlier transition to first sex. Does puberty also stimulate interest in sexual media content that is seen as giving permission to engage in sexual behavior?

Methods: White and African-American female adolescents (n = 471; average age 13.7 years) recruited from public middle schools in central North Carolina completed two self-administered surveys in their homes about their pubertal status, interest in and exposure to various media, and perceptions of sexual media content.

Results: Earlier maturing girls reported more interest than later maturing girls in seeing sexual content in movies, television, and magazines, and in listening to sexual content in music, regardless of age or race. Earlier maturing girls were also more likely to be listening to music and reading magazines with sexual content, more likely to see R-rated movies, and to interpret the messages they saw in the media as approving of teens having sexual intercourse.

Conclusions: The mass media may be serving as a kind of sexual super peer, especially for earlier maturing girls. Given the lack of sexual health messages in most media adolescents attend to, these findings give cause for concern. The media should be encouraged to provide more sexually healthy content, and youth service providers and physicians should be aware that earlier maturing girls may be interested in sexual information. © 2005 Society for Adolescent Medicine. All rights reserved.

Keywords: Puberty; Adolescent girls; Mass media; Sexual behavior
The association between early puberty and sexual interest/activity is a complex one, reflecting interactions between biological (e.g., hormonal) changes [19,20] and psychosocial factors. Girls who look more mature will be more likely to be perceived by others, and to see themselves, as attractive and appropriate romantic and sexual partners, opening doors to dating and sexual activity. Early maturing girls may be more likely to both seek out, and be sought by, adolescents with similar appearances and interests. Few studies have examined the processes that link pubertal timing and sexual outcomes. Stattin and Magnusson’s [1] findings that earlier maturing girls’ affiliation with older males contributed to earlier sexual transition pointed to the important role of peers. More recent analyses using a national sample of U.S. adolescents [21] found that peer group structure and interactions, specifically higher proportions of older boys in the early maturing girl’s friendship group and greater involvement with other girls, were predictive of earlier sexual behavior.

Media as super peer?

Another possible mechanism may be the mass media that serve, as some have suggested, as a kind of “super peer” [22]. It may be that girls who are maturing earlier than their age-mates turn to the media as a source of information and models about sexuality that is unavailable in their peer group. In this way the media may serve as a kind of substitute sexual peer. The media certainly are an accessible source for most American adolescents. Recent national surveys show that 8- to 18-year-olds spend from 6 to 9 hours a day with some form of mass media (recorded music, television, movies, magazines, newspapers, and Internet sites). A majority of young people have access to most of these kinds of media in the privacy of their own rooms and thus, personal control over what kinds of media content from this vast array they will attend to [23].

Although there are numerous studies of adolescents’ use of media and the media’s influence on fear and aggression, only a few studies have addressed the role of media in adolescent development and/or how various aspects of adolescent development influence use of and responses to media. These few studies [24–27] suggest that media use changes as children mature into adulthood. In general, studies have shown that television viewing decreases as music listening increases, and media preferences are motivated primarily by a desire for entertainment but also by informational needs related to development. Typically, in periods of change people seek information to help reduce their uncertainty about what is happening or may happen. Puberty is fundamentally about change and uncertainty as bodies develop physically and as the social world responds. Adolescents report intentionally seeking information about sex from television, magazines and the Internet, and media rank high among adolescents’ most important sources (along with school health classes, peers and parents) for sexual information [28].

The media may be especially important sources of sexual information for adolescents who are experiencing puberty earlier than their peers. The media present a great deal of sexual information in a compelling and easily accessible format, and media characters don’t laugh at “stupid” or awkward questions. Adolescents may turn to the media as a relatively safe and less embarrassing way to be associated with, and perhaps learn from, adolescents who look more like they do and are thinking more about sex and relationships than their real-life same-age peers.

Sexual content in the media

The media are full of sexual information, and in some of the different kinds of media the portrayals have grown increasingly frequent and explicit. The most recent study of sexual content on television, for example, found that two-thirds of all shows included sexual content (all shows except news, sports, and children’s programming shown between 7 a.m. and 11 p.m. on 10 networks in 2001–2002 were coded). In the top 20 shows among teen viewers, 8 in 10 episodes included some sexual content, including 1 in 10 that depicted or implied sexual intercourse; only 15% of the shows with sexual content included any reference to safer sex issues, such as waiting to have sex, contraceptives, or the consequences of having sex [29].

Even though teens younger than 16 years technically are not supposed to see R-rated movies in theatres without being accompanied by an adult, adolescents are frequent viewers of R-rated films in movie theatres as well as at home via cable channels and videotapes [30]. And, the popular music adolescents listen to most frequently is primarily about love, sex, and relationships [31]. One-half to three-fourths of girls aged 12 to 15 years read magazines such as “Seventeen,” “Teen,” and “YM.” The primary theme of these magazines is how girls can make themselves attractive enough to catch and keep a boy. Although teen girl magazines have steadily increased content about sexual health topics such as contraception, pregnancy, and STDs, a much higher proportion of content focuses on sexual attractiveness and strategy [32].

Very few studies have examined the relationship between exposure to sexual content in the media and adolescents’ attitudes and beliefs about sex, but the few that have suggest that teens do learn about sex from the media they attend to [33]. One experimental study, for example, found that adolescents who were exposed to music videos containing more sexual references were more likely to approve of premarital sex than adolescents exposed to randomly selected music videos [34]. In other experimental studies,
college students exposed to sexual scenes from prime-time television shows were more likely than those who had not to endorse the typical television view of sexuality: that men are sex driven and have trouble being faithful, that dating is a game or recreational sport, and that women are sexual objects whose value is based on their physical appearance [35,36].

Even fewer studies have investigated the relationship between developmental level and reaction to sexual media content. Two studies, using chronological age as a measure of developmental status, found differences in interpretation of sexual messages, with younger adolescents being more embarrassed and confused by what they were exposed to than older adolescents [37,38]. In one of the only studies to assess pubertal status and use of sexual media, Brown et al. [25] found in their ethnographic study of 20 white middle-class girls that the girls who had not yet menstruated were less likely than those who had begun menstruating to choose sexual media content. The girls who were more biologically developed were more likely to seek out sexual images and information in the media, and were more likely to interpret media content as sexual and appropriate. The more sexually mature girls, for example, when asked to keep track of what they’d seen in the media about love, sex, and relationships, chose images of partially nude models and discussed television shows in which love and sex were depicted. In contrast, the less physically developed girls were most likely to say sexual images in the media were not appropriate for girls their age, referred to it as “gross” and “disgusting,” and said they tried not to see it.

Hypotheses

In this study we investigated, with a sample of both white and African-American female adolescents, the extent to which pubertal timing is related to interest in, choice, and interpretation of sexual media content. Given the implications of pubertal change for sexual interest and activity, it was expected that adolescents’ use of media that contain sexual content would vary according to their pubertal timing.

We hypothesized that earlier maturing girls will be more likely than their later maturing age-mates to report an interest in sexual media content, that they will have higher levels of exposure to sexual media content, and will interpret the media as sexually permissive. Specifically, the following hypotheses were tested:

H1: Earlier maturing girls will be more interested than later maturing girls in sexual media content.

H2: Earlier maturing girls will report more exposure to sexual media messages and R-rated movies than later maturing girls.

H3: Earlier maturing girls will perceive more sexual permission in media content than later maturing girls.

Methods

Sample

Students from three public school districts in the southeastern United States that included urban, suburban, and rural populations and approximately equal proportions of black and white male and female students were recruited to participate in a study of teens’ media use and health behavior. Fourteen of the 16 eligible public middle schools agreed to be involved.

Students were recruited into the initial study of mass media use during brief informational sessions at school. Interested students provided contact information and were mailed a media use questionnaire that focused on access and exposure to a variety of media, and a parent/guardian consent form. A $1 bill and a pen with the study logo on it were attached to each media survey, and participants had the opportunity to win mall gift certificates and tickets to area university basketball games if they returned the surveys. Approximately 5000 students were sent media survey packets, representing 81% of all students enrolled in 7th and 8th grades in the 14 schools. A total of 3261 students (65%) returned the media survey with signed parent/guardian consent. Participant demographics were generally representative of the entire student body, although white females were overrepresented in the sample compared with the school population (26% vs. 22%), and black males were underrepresented (18% vs. 22%)

Participants for the subsequent health survey were selected at random from within black and white, male and female strata of media questionnaire respondents so that relatively equal numbers in each strata would complete the survey. Students were interviewed in their homes using an Audio-CASI (Audio-Computer Assisted Self Interview) system. Each parent/guardian was mailed a recruitment letter detailing the interview protocol, and then the interview was scheduled over the telephone. The parent/guardian and the adolescent signed consent forms guaranteeing confidentiality before the 45-minute long survey was administered. The health survey covered a variety of health topics including sexual beliefs and behaviors, and general background characteristics.

The Audio-CASI allowed participants to answer survey questions on a laptop computer while hearing questions through private earphones and then touching the computer screen to respond. Audio-CASI was chosen for the interview protocol because it has been shown to elicit more candid responses when interviewing subjects about sensitive topics such as sexuality and drug use [39,40]. Participants were given $20 on completing the interview.

Of the 1200 students selected, 1074 (90%) completed the second questionnaire. The mean age of the combined sample (i.e., completed the linked media-use questionnaire and health survey) was 13.7 years (range 12–15 years old). The
household income of this combined sample was slightly higher than the total enrolled student body: 31% reported receiving free or reduced price breakfast or lunch compared with 34% of all students enrolled in school. Analyses for this study are based on data from the 227 black and 244 white female adolescents who completed both the media-use questionnaire and the health survey, and who had complete data on analysis variables. Too few students from racial/ethnic backgrounds other than white and black were enrolled in the schools included in the study, so analyses focused on these two demographic groups. The protocols and measures used in this study were reviewed and approved by the university’s institutional review board.

**Measures: independent variables**

**Age.** Respondents were asked to report the month, day, and year of their birth. Age was assessed by subtracting each respondent’s birth date from the date of the survey administration.

**Race.** Race was self-reported as white, African-American, Hispanic, Asian, or Other. Only those who circled white or African-American were included in these analyses. During the in-home health survey, interviewers confirmed self-reported racial status. Race was included as a covariate because black girls typically mature earlier than white girls and spend more time watching television.

**Pubertal timing.** Pubertal timing was operationalized as time since menarche (gynecological age), controlling for chronological age, and computed as the length of time between survey administration and first menarche. Female respondents were asked whether they had begun to menstruate, and their age in years and months when they had their first menstrual period. The majority of girls (80%) had begun to menstruate. Eighty-eight girls (17%) were premenarcheal; pubertal timing for these respondents was coded as “0.” The 20 respondents who did not report whether they had begun to menstruate were excluded from these analyses, as were the 40 girls who did not fully report their age when they began menstruation and two girls who did not report their age at time of survey administration, thus reducing the sample size for analysis to 471.

Black respondents reported earlier first menarche than white respondents (11.6 years compared with 12.2 years; t [364] = 5.7, p < .000); as a result, the length of time since first menarche was significantly greater for Blacks than Whites (t [397] = 6.3, p < .000). The mean gynecological age for black girls was 1.9 years (SD = 1.5 years); for white girls it was 1.2 years (SD = 1.0 years). As further validation of the pubertal timing measure, the length of time since first menarche increased significantly with adolescents’ increasing age (F[2,450] = 49.4, p < .000).

**Measures: dependent variables**

All the dependent variables were created specifically for this study.

**Interest in sexual media content.** Respondents were asked: “When you see something about dating, sex, and relationships on television, how interested are you in watching it?” This question was repeated for music, magazines, and movies. Responses were scored on a 5-point Likert scale from (1) “I’m not at all interested” to (5) “I’m extremely interested.” The item for each of the four media were averaged to create a scale (α = .93) measuring interest in attending to sexual media content.

**Exposure to sexual media content.** Exposure was assessed by asking adolescents if they had heard or seen information about dating, birth control, and STDs from television, music artists, magazines, and movies. Respondents were asked: “Have you ever seen or heard about how you should act on a date from any of the following sources?” “Have you ever seen or heard about the consequences of not using birth control, like condoms, from any of the following sources?” and “Have you ever seen or heard about AIDS or another STD from any of the following sources?” After each question was a list of media sources, including “television shows,” “music artists,” “magazines,” and “movies.” Respondents marked each medium “yes” (1) or “no” (0) for each of the three questions. Responses to the content area in each of the four media were summed, yielding a range from zero (have never heard about the topic from any of the four media) to four (have heard about the topic from all four media). Each of the three content measures had adequate internal reliability: dating (α = .73); birth control (α = .76); and STDs (α = .74).

**Frequency of watching R-rated movies.** Respondents were asked: “In the past 12 months, how often did you see R-rated movies?” Responses were: “more than once a week,” “about once a week,” “about once a month,” “just a few times,” and “never.” Responses were scored so that increased viewing is represented by higher values.

**Perceived sexual permission from the media.** Adolescents were asked how much they agreed with the following question: “The messages that I get from TV are that it’s OK for people my age to have sex.” This question was repeated for music artists, magazines, and movies. Responses were scored on a 5-point Likert scale from (1) strongly disagree to (5) strongly agree. These four items were summed and averaged to create a scale (α = .91) measuring perceived sexual permission from the media.

**Data analyses**

Hypotheses were tested using Ordinary Least Squares regression. The pubertal timing measure was entered first, followed by age and race as control variables. Interactions between pubertal timing and covariates were examined, and if
Mean levels of interest in and exposure to sexual media content, frequency of watching R-rated movies, and perceived sexual permission from the media are presented in Table 1 by race and age. As expected, the 12-year-old girls were less interested in attending to sexual media content than the older girls ($F[2,425] = 8.8, p < .000$), watched fewer R-rated movies ($F[2,462] = 4.1, p < .05$), and reported less perceived sexual permission in the media ($F[2,453] = 3.7, p < .05$). The 14- and 15-year-old girls reported more exposure to information about birth control ($F[2,465] = 4.8, p < .01$) and STDs in the media ($F[2,465] = 4.8, p < .01$) than the younger girls. Blacks were more likely than Whites to report exposure to STD content in the media ($t [469] = 5.9, p < .000$) and to watch R-rated movies ($t [421] = −3.4, p < .000$).

The analysis supported Hypothesis 1, that earlier pubertal timing would be associated with increased interest in viewing sexual media content (Table 2), even after controlling for age and race. Earlier maturing girls reported more interest in viewing, reading or listening to information about dating, sex, and relationships on television, in music, in magazines, and in movies ($t [429] = 4.0, p < .000$). The overall model, including covariates, accounted for a statistically significant ($F[3,426] = 13.5, p < .000$) amount of variance ($R^2 = .086$) in interest in sexual content in the media. No interaction terms were significant in this set of analyses.

The second hypothesis, that earlier maturing girls will report more exposure to sexual media content and view more R-rated movies, was also supported. Earlier pubertal timing was positively associated with increased exposure to information about dating, birth control, and STDs from the media, even after controlling for age and race (see Table 2). Only main effects for pubertal timing were evident in the model of exposure to dating content in the media. However, age interacted with pubertal timing to affect exposure to birth control content ($t [470] = −2.5, p < .05$) and STD content ($t [470] = −2.1, p < .05$); the association between earlier timing and increased exposure was stronger for younger girls. The earliest maturing girls reported the greatest exposure to birth control and STD content across the four media. The overall model, including age, race, and the pubertal timing interaction term, was significant for exposure to birth control content ($F[4, 466] = 8.1, R^2 = .065, p < .000$) and STD content ($F[4, 466] = 13.8, R^2 = .106, p < .000$).

Earlier pubertal timing was also positively associated with more frequent viewing of R-rated movies (see Table 2). Earlier maturing girls were more frequent viewers of R movies, even after controlling for age and race ($t [467] = 2.8, p < .01$).

The data also supported Hypothesis 3, which predicted that earlier pubertal timing would be positively associated with perceived sexual permission from television, music artists, magazines, and movies (Table 3). The overall model, including demographic controls and two significant interaction terms, accounted for a statistically significant ($F[4, 454] = 6.4, p < .000$) amount of variance ($R^2 = .053$) in perceived sexual permission from the media. As illustrated in Figure 1, the association between timing and perception of sexual permission was stronger among younger adolescents, and especially strong for young white girls. For example, a 12-year-old girl who is premenarchal is less likely to perceive sexual permission from the media than a 12-year-old girl who is almost 3 years past menarche.

Table 1

Dependent variable means by demographic groups

<table>
<thead>
<tr>
<th>Race</th>
<th>Age</th>
<th>12</th>
<th>13</th>
<th>14-15</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Black</td>
<td>White</td>
<td></td>
</tr>
<tr>
<td>(N)</td>
<td>(227)</td>
<td>(244)</td>
<td>(101)</td>
<td>(229)</td>
</tr>
<tr>
<td>Interest in sexual media content (range 1–5)</td>
<td>2.6</td>
<td>2.5</td>
<td>2.6</td>
<td>2.2*</td>
</tr>
<tr>
<td>Exposure to sexual media content (range 1–4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dating content</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>Birth control content</td>
<td>2.3</td>
<td>2.4</td>
<td>2.2</td>
<td>2.1*</td>
</tr>
<tr>
<td>STD content</td>
<td>2.3</td>
<td>2.7**</td>
<td>2.0</td>
<td>2.0*</td>
</tr>
<tr>
<td>Frequency of watching R-rated movies (range 1–5)</td>
<td>2.6</td>
<td>2.8*</td>
<td>2.4</td>
<td>2.3*</td>
</tr>
<tr>
<td>Perceived sexual permission from the media (range 1–5)</td>
<td>2.2</td>
<td>2.3</td>
<td>2.3</td>
<td>2.0*</td>
</tr>
</tbody>
</table>

Note: All variables are scored so that higher values indicate higher levels of the variable. Mean black and white differences were tested with $t$-tests. Mean age differences were tested with ANOVA and Tukey’s post hoc tests.

* Mean black and white scores are different at $p < .01$; ** Mean black and white scores are different at $p < .001$.

* Significantly different from 12 years old.

* Significantly different from 13 years old.

* Significantly different from 14–15 years old.
Discussion

These analyses show a consistent relationship between earlier pubertal timing and greater interest in sexual media content. Earlier maturing girls reported more interest than later maturing girls in seeing sexual content in movies, television, and magazines, and in listening to sexual content in music, regardless of age or race. This interest apparently translates into greater exposure to sexual content, especially in music and magazines, and in exposure to R-rated movies for the earlier maturing girls. The earlier maturing girls were also more likely than girls maturing later to interpret the messages they see in the media as approving of teens having sexual intercourse. Although explaining a relatively small proportion of variance in media use, the consistency across the measures of interest, exposure and interpretation suggest that the media are factors in adolescent girls’ sexual socialization.

The pattern of results also supports the idea that the

Table 2
Regression analyses predicting interest in (n = 430) and exposure to sexual media content (n = 471)

<table>
<thead>
<tr>
<th></th>
<th>Model 1/pubertal timing</th>
<th>Model 2/covariates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>SE</td>
</tr>
<tr>
<td>Interest in sexual media content</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pubertal timing</td>
<td>.254***</td>
<td>.038</td>
</tr>
<tr>
<td>Age</td>
<td>.122*</td>
<td>.080</td>
</tr>
<tr>
<td>Race (white = 1, black = 2)</td>
<td>-.101*</td>
<td>.102</td>
</tr>
<tr>
<td>Increment to R²</td>
<td>.064***</td>
<td>.022*</td>
</tr>
<tr>
<td>Exposure to dating content</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pubertal timing</td>
<td>.091*</td>
<td>.049</td>
</tr>
<tr>
<td>Age</td>
<td>-.047</td>
<td>.104</td>
</tr>
<tr>
<td>Race (white = 1, black = 2)</td>
<td>-.044</td>
<td>.133</td>
</tr>
<tr>
<td>Increment to R²</td>
<td>.008*</td>
<td>.003</td>
</tr>
<tr>
<td>Exposure to birth control content</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pubertal timing</td>
<td>.225***</td>
<td>.050</td>
</tr>
<tr>
<td>Age</td>
<td>-.011</td>
<td>.136</td>
</tr>
<tr>
<td>Race (white = 1, black = 2)</td>
<td>-.2077*</td>
<td>.063</td>
</tr>
<tr>
<td>Age * pubertal timing interaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increment to R²</td>
<td>.051***</td>
<td>.014</td>
</tr>
<tr>
<td>Exposure to STD content</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pubertal timing</td>
<td>.234***</td>
<td>.048</td>
</tr>
<tr>
<td>Age</td>
<td>.128</td>
<td>.140</td>
</tr>
<tr>
<td>Race (white = 1, black = 2)</td>
<td>.216***</td>
<td>.129</td>
</tr>
<tr>
<td>Age * pubertal timing interaction</td>
<td>-.1.676*</td>
<td>.060</td>
</tr>
<tr>
<td>Increment to R²</td>
<td>.055***</td>
<td>.051***</td>
</tr>
<tr>
<td>Frequency of watching R-rated movies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pubertal timing</td>
<td>.224***</td>
<td>.042</td>
</tr>
<tr>
<td>Age</td>
<td>.094</td>
<td>.090</td>
</tr>
<tr>
<td>Race (white = 1, black = 2)</td>
<td>.109*</td>
<td>.115</td>
</tr>
<tr>
<td>Increment to R²</td>
<td>.050***</td>
<td>.017*</td>
</tr>
</tbody>
</table>

*p < .05; ** p < .01; *** p < .001.

Table 3
Regression analyses predicting perceived sexual permission from the media (n = 459)

<table>
<thead>
<tr>
<th></th>
<th>Model 1/pubertal timing</th>
<th>Model 2/covariates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>SE</td>
</tr>
<tr>
<td>Pubertal timing</td>
<td>.159*</td>
<td>.037</td>
</tr>
<tr>
<td>Age</td>
<td>.059</td>
<td>.078</td>
</tr>
<tr>
<td>Race (white = 1, black = 2)</td>
<td>.128</td>
<td>.143</td>
</tr>
<tr>
<td>Age * pubertal timing * race interaction</td>
<td>-.633*</td>
<td>.005</td>
</tr>
<tr>
<td>Increment to R²</td>
<td>.025*</td>
<td>.028*</td>
</tr>
</tbody>
</table>

*p < .01; ** p < .001.
media may serve as a kind of super peer, especially for earlier maturing girls who may be unable or unwilling to turn to their actual peers for information and norm setting. It may be that the earlier maturing girls are looking for information and norms in the media because their real-life peers are not as interested as they are in sex and sexuality. However, because we have not assessed in this study the availability of other sources of sexual information in these girls’ lives, we can only speculate that such a lack of alternative sources motivates earlier maturing girls to turn to the media as a kind of informant.

The findings that the earlier maturing girls also are more likely than their less physically mature age-mates to say they see birth control and STD content in the media and that they perceive the media as giving them sexual permission also suggest that these girls may be engaged in selective exposure and attention. The mainstream media so rarely portray or discuss birth control or STDs [29,33] that it is relatively difficult to be exposed to such content unless you go looking for it. It may be that these girls are so interested in such content that they have sought out what little there is, and/or because they find it relevant, have paid more attention to the scarce depictions and discussions than the less mature girls have.

Given that content analyses have found that the media do tend to portray sexual behavior as normative and risk free, we might expect that all girls would perceive the media as giving them sexual permission. However, in this study the younger earlier maturing girls were the most likely to interpret media content as sexually permissive. This may also be owing to selective exposure to more sexually oriented media content. The earlier maturing girls did report more frequent exposure to R-rated movies, which typically are given such a rating because of their more explicit sexual content. These patterns appear particularly strong for the black girls in this sample. Black girls reported more frequent viewing of R-rated movies than their white counterparts and the youngest earlier maturing black girls were the most likely to perceive the media as giving them sexual permission as well as to be exposed to information about STDs.

Future research should investigate the relative reliance that teens place on different sexual information sources. Earlier maturing girls who have early and comprehensive sex education in school may be less interested in and reliant on media’s sexual content. On a more individualized level, earlier maturing girls who can talk with their parents or other adults about their changing bodies and desires may find the media less compelling as a source of sexual information. Currently, however, relatively few adolescents are exposed to comprehensive sex education in elementary or middle school, which is when most are beginning sexual maturation. Few parents feel comfortable having more than the obligatory “it’s better if you wait” conversation with their children [28].

Other factors may also influence the relationship between girls’ pubertal development and interest in and exposure to sexual media content and should be considered in further research. Connection with school and parents and parental monitoring of media use may reduce the allure of sexual media content, whereas low self-esteem and inadequate social skills may enhance interest.

We also should investigate the extent to which such patterns hold for earlier maturing adolescent boys. Such analyses are more difficult in survey research because there is not a parallel, discrete measure of timing (i.e., like menarche) for boys. However, if, as some research suggests, boys are even less likely than girls to talk about their sexual questions and insecurities with adults [28], it is possible that the media “super peer” may be even more powerful for boys.

These results also indicate that chronological age is not sufficient for understanding developmental changes in media use and effects of exposure. The persistent relationships between pubertal timing and multiple facets of media use and message interpretation underscore the importance of routinely incorporating measures of pubertal timing and status in investigations of media effects. Individual girls vary in their rate of pubertal progress, and most of the girls in this sample were more than 1 year past menarche. Given that menarche is a relatively late event in female puberty, and one that is not apparent to peers, it would be valuable to study younger age cohorts over time, at more closely spaced time intervals, to more fully understand the role of media in early adolescent sexual development. Assessment of earlier and more visible signs of pubertal maturation than menstruation (e.g., breast development), might provide a better window for seeing how “off time” physical development is associated with seeking sexual information and norms in the media.

In conclusion, researchers and practitioners interested in adolescent sexuality could benefit from paying more attention to both pubertal development and the media. At the least, information and clear norms should be made readily accessible to youth as they begin to explore and grapple
with their developing sexual bodies and sexual feelings. Relying on the media to provide adequate information or norms may be akin to letting young adolescent girls hang out with sexually active girls and boys who do not have the best interests of their younger peers in mind.

Acknowledgements

This research was supported by a grant from the National Institute of Child Health and Human Development (# HD38508-01A). An earlier version of the paper was presented at the Society for Research in Child Development conference in Tampa, Florida, April 24, 2003.

References