

Timing of Parent and Child Communication About Sexuality Relative to Children's Sexual Behaviors



WHAT'S KNOWN ON THIS SUBJECT: Studies that rely on retrospective reports have found that parent–adolescent discussions about sex-related topics generally precede sexual debut and that parent–adolescent communication about sex before first intercourse is associated with greater condom use.



WHAT THIS STUDY ADDS: This study, using longitudinal data, provides the first detailed description of the timing and content of parent–adolescent discussions of sexual topics and whether discussions of these topics precede or follow each of several key sexual milestones.

abstract

FREE

OBJECTIVE: To examine timing of parent–child discussions about sexual topics relative to child-reported sexual behavior.

METHODS: Longitudinal study of employed parents and their children, with an initial survey followed by subsequent surveys 3, 6, and 12 months later. Participants were 141 parents, along with their children (13–17 years), who were control participants in a randomized, controlled trial to evaluate a worksite-based intervention to improve parent–adolescent communication. Main outcomes were parent and child reports of discussion of up to 24 sexual topics and presexual and sexual acts (ranging from handholding to vaginal intercourse) that occurred before the first survey and in the intervals between subsequent pairs of surveys.

RESULTS: Sexual topics tend to group into 3 sets. The first set includes topics such as girls' bodies and menstruation and typically coincides with children's presexual stage (handholding, kissing). The second set includes topics such as birth control efficacy and refusing sex and typically coincides with the precoital stage (genital touching and oral sex). The third set typically occurs when children have initiated intercourse. Over half of children engage in genital touching before discussing birth control efficacy, resisting partner pressure for sex, sexually transmitted disease symptoms, condom use, choosing birth control, or partner condom refusal; >40% of children have intercourse before any discussion about sexually transmitted disease symptoms, condom use, choosing birth control, or partner condom refusal.

CONCLUSIONS: Many parents and adolescents do not talk about important sexual topics before adolescents' sexual debut. Clinicians can facilitate this communication by providing parents with information about sexual behavior of adolescents. *Pediatrics* 2010;125:34–42

AUTHORS: Megan K. Beckett, PhD,^a Marc N. Elliott, PhD,^a Steven Martino, PhD,^b David E. Kanouse, PhD,^a Rosalie Corona, PhD,^c David J. Klein, MS,^d and Mark A. Schuster, MD, PhD^{a,d,e}

^aRand, Santa Monica, California; ^bRand, Pittsburgh, Pennsylvania; ^cDepartment of Psychology, Virginia Commonwealth University, Virginia; ^dDivision of General Pediatrics, Department of Medicine, Children's Hospital Boston, Boston, Massachusetts; and ^eDepartment of Pediatrics, Harvard Medical School, Boston, Massachusetts

KEY WORDS

parents, adolescents, sexual communication

ABBREVIATION

STD—sexually transmitted disease

www.pediatrics.org/cgi/doi/10.1542/peds.2009-0806

doi:10.1542/peds.2009-0806

Accepted for publication Jul 18, 2008

Address correspondence to Mark A. Schuster, MD, PhD, Children's Hospital Boston, 300 Longwood Avenue, Boston, MA 02115. E-mail: mark.schuster@childrens.harvard.edu

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

Copyright © 2009 by the American Academy of Pediatrics

FINANCIAL DISCLOSURE: *The authors have indicated they have no financial relationships relevant to this article to disclose.*

Parents can play an important role in the sexual socialization of their children by educating and talking to youth about sexuality and by reinforcing safer HIV-related and pregnancy prevention behaviors.¹ The timing, as well as the content, of this communication in relation to an adolescent's sexual behavior may be critical in determining whether an adolescent experiences unintended pregnancy or contracts a sexually transmitted disease (STD).^{2–4} Information regarding the timing of parent–child discussions about sexuality and youth sexual behavior can inform pediatricians and others as they counsel parents to talk with their children about sexuality.

Talking about sex is not an all-or-nothing event. A recent study found that repetition of sexual discussions—talking about topics more than once—was associated with adolescents' feeling closer to the parent and having a sense of open communication.⁵ The content of parent–adolescent sexual discussions can cover a range of topics, including biological and developmental issues (eg, puberty), values, healthy relationships, and pregnancy and STD prevention. Few studies have examined the timing of parent–child discussions about various sex-related topics and youth sexual behavior. Miller et al² compared adolescents' age when they first discussed condom use with their mother and age at first intercourse. Only discussions with mothers that occurred before first intercourse were associated with more condom use (ie, with more protected intercourse), when compared with no discussion. Clawson and Reese-Weber⁴ found that mother–adolescent communications before an adolescent's first intercourse (ie, on-time communication) predicted older age of first intercourse and fewer lifetime partners, but also predicted greater likelihood of a pregnancy; on-time father–

adolescent communication predicted older age of first intercourse. Discussions about sex-related topics generally precede sexual debut in these and other studies.²

Although informative, previous research examined the timing of discussions about a limited number of sex-related topics by using retrospective reports (eg, youth were asked to remember how old they were when a topic was first discussed)^{4,5} on parent or adolescent reports about whether talks have occurred.² A stronger method would follow a cohort of adolescents who have not yet had intercourse to determine the association between timing of discussion of topics and sexual behavior⁵ and would examine the timing of talks from the perspective of the adolescent and the parent. This study provides the first detailed description of what parents and adolescents say they are talking about and whether discussions of these topics precede or follow each of several key sexual milestones.

METHODS

Study Design

The sample is a subset of parents (and their children) who participated in a randomized, controlled trial of a worksite-based parenting intervention,⁶ Talking Parents, Healthy Teens, designed to help parents become more comfortable and skilled at communicating with adolescents about sexual health. Parents were recruited from 13 large public and private (for-profit and nonprofit) southern California worksites. Parents who were living with at least 1 sixth- through 10th-grader were eligible to participate. Parents completed self-administered surveys at work and provided permission for all of their sixth- through 10th-graders in the household to receive mailed surveys (including postage-paid envelopes). Parents completed

both general surveys with questions about themselves or their children as a group; they also completed child-specific surveys for each eligible child. Youths' surveys were specific to their gender and that of their participating parent. After the baseline survey administration, parents were randomly assigned to the intervention group (ie, parents who received the parenting program) or the control group (ie, parents only completed surveys). The data used in this study come from parents and adolescents in the control group who were interviewed at baseline and 1 week, 3 months, and 9 months after intervention (follow-up was ~3, 6, and 12 months after baseline). More detailed information regarding the intervention and study design appears elsewhere.⁷

Parent response rate for the full sample was $\geq 95\%$ for each wave. We obtained a baseline survey from 96% of eligible adolescents. Among adolescents who completed a baseline survey, the follow-up response rate was $\geq 94\%$ for each wave. Our sample includes the 141 parents in the control group and their 155 adolescents (aged 13–17) who returned surveys for all 4 waves and who completed items about sexual experience at baseline (only asked of youth ≥ 13 years of age).

Measures of Discussions and Sexual Activity

Talk Topics

For each adolescent at each wave, parents reported whether they had ever discussed each of 24 specific sex-related topics. Because of parent concerns voiced in pilot testing and formative work, children were not asked about masturbation and girls were not asked about wet dreams. The remaining 22 topics were asked of girls (23 topics for boys) at each wave. The topics and exact wording of the items on the parent questionnaire appear in Table 1. Wording on the child question-

TABLE 1 Child-Reported Sexual Activity Stage Typically Concurrent With Parent-Reported and Child-Reported First Discussion of Topics, According to Child Gender

Topic	Category	Sexual Activity With Which Talk Topic Typically Coincides			
		Boys		Girls	
		Parent Reported Talks	Children Reported Talks	Parent Reported Talks	Children Reported Talks
During presexual stage					
What qualities are important in choosing close friends	Sex in relationships	Pre-kiss	Pre-kiss	Pre-kiss	Pre-kiss
Homosexuality/people being gay	Sex in relationships	Pre-kiss	Breast	Pre-kiss	Kiss
How boys' bodies change physically as they grow up	Male physical development	Pre-kiss	Kiss	Breast	Touch
How women get pregnant and have babies	Female physical development	Pre-kiss	Kiss	Pre-kiss	Kiss
Consequences of getting pregnant/getting someone pregnant	Making healthy decisions	Kiss	Kiss	Pre-kiss	Kiss
Reasons why your child should not have sex	Sex in relationships	Kiss	Kiss	Kiss	Kiss
How girls' bodies change physically as they grow up	Female physical development	Kiss	Breast	Pre-kiss	Kiss
How your child will make decisions about whether to have sex	Sex in relationships	Kiss	Kiss	Kiss	Breast
Menstruation (having menstrual periods)	Female physical development	Kiss	Breast	Pre-kiss	Pre-kiss
During precoital stage					
How people can prevent getting STDs	STDs and pregnancy prevention	Breast	Breast	Breast	Touch
How well condoms can prevent STDs	STDs and pregnancy prevention	Breast	Touch	Touch	Touch
How to ask someone out on a date	Sex in relationships	Breast	Touch	Oral	Sex
How well birth control can prevent pregnancy	STDs and pregnancy prevention	Breast	Touch	Breast	Touch
How your child will know whether he or she is in love	Sex in relationships	Touch	Breast	Breast	Touch
Masturbation	Male physical development	Oral	NA	Oral	NA
The importance of not pressuring other people to have sex	Making healthy decisions	Oral	Breast	Touch	Touch
Wet dreams	Male physical development	Oral	Oral	Post-sex	NA
Reasons why people like to have sex	Making healthy decisions	Oral	Touch	Oral	Touch
How to say no if someone wants to have sex and your child doesn't want to	Making healthy decisions	Oral	Touch	Breast	Touch
During coital stage					
What it feels like to have sex	Sex in relationships	Sex	Post-sex	Oral	Sex
Symptoms of STDs	STDs and pregnancy prevention	Sex	Touch	Oral	Touch
How to use a condom	STDs and pregnancy prevention	Sex	Post-sex	Sex	Post-sex
How to choose a method of birth control	STDs and pregnancy prevention	Sex	Post-sex	Oral	Oral
What to do if a partner doesn't want to use a condom	Making healthy decisions	Post-sex	Sex	Oral	Oral

Table entries are the stage of sexual activity for which the absolute difference between talk before and talk after is smallest. "Pre-kiss" indicates that talk before exceeds talk after by at least 25% even for the kiss stage. "Post-sex" indicates that talk after exceeds talk before by at least 25% even for the coital stage. Pre-kiss indicates talk typically occurred before having kissed on mouth; kiss, talk typically occurred around first kiss on mouth; breast, talk typically occurred around first touching a breast/having breast touched; touch, talk typically occurred around first touching genitals/having genitals touched; oral, talk typically occurred around first giving or receiving oral sex; sex, talk typically occurred around first vaginal intercourse; post-sex, talk typically occurred after first vaginal intercourse or had not occurred.

naire was parallel. The topics included items that relate to female physical development, male physical development, sex in relationships, making healthy decisions ("pregnancy consequences," "what to do if partner doesn't want to use a condom"), and STD-related topics ("STD symptoms," "how condoms prevent STDs").

Sexual Experience

Youth answered questions about their sexual behaviors with partners of each

gender. In this article, we analyze behaviors with the opposite gender because 97% of our child sample reported being "100%" (91%) or "mostly" (6%) heterosexual/straight. Vaginal intercourse experience at each wave was measured with the item, "Have you ever had sex with a boy/girl? By "sex," we mean when a boy puts his penis in a girl's vagina (yes/no)." We measured lifetime levels of sexual experience at each wave with a scale developed for this study. Adolescents

indicated whether they had ever (1) kissed on mouth, (2) touched a breast/had their breast touched, (3) touched genitals/had their genitals touched, (4) given or received oral sex, or (5) had vaginal intercourse. At each wave, an ordinal stage of sexual activity variable was created as the highest coded act (according to the order already listed) reported in the current or previous waves. Participants received scores of 1 to 5, reflecting the highest level of behavior experienced

through a given wave; adolescents who reported none of the behaviors were coded as 0. There will be some variation in sequencing across individuals, and the ordering is not meant to correspond to a progression of intimacy or maturity.

Measure of Timing of Talks Relative to Sexual Acts

Our primary measure of interest is a derived variable that, for a given discussion topic and sexual act for a particular child, classifies each discussion into 1 of 3 mutually exclusive categories: (1) talk before the act: the topic was first discussed in a previous wave than the wave in which the sexual act first occurred (including cases in which the topic had been discussed but the act had not yet occurred); (2) talk after the act: the act first occurred in a previous wave than the wave in which the topic was first discussed (including cases in which the act had occurred but topic had not been discussed); or (3) ambiguous: the topic was first discussed in the same wave that the act first occurred (so that we cannot tell which came first), or neither the discussion nor the act had occurred after 4 waves. We derive 2 versions of these measures. The first version compares child reports of discussion with child reports of sexual behavior across the 4 waves of data. The second uses parent reports of discussions in place of child reports.

Analytical Methods

We report the percentage who talked before and who talked after according to child gender. We additionally summarize these data by calculating the “typical” stage of sexual activity (among the 5 ordered activities) during which each talk occurred across respondents. We defined the “typical” sexual activity stage corresponding to a given topic as the sexual activity

stage for which the (absolute) difference between talk before and talk after was smallest. Thus, if breast touching is the typical stage for the topic of “how people can prevent STDs,” approximately as many children discuss the topic before they have participated in breast touching as discuss the topic after have participated in breast touching. For some topics, first discussions usually occurred before first kisses (the first sexual stage used); for other topics, first discussions usually occurred after intercourse had occurred. We distinguish these situations by using the label “pre-kiss” when talk before was at least 25% greater than talk after even with respect to kissing and the label “post-sex” when talk before was at least 25% less than talk after even with respect to intercourse. These “typical” stages were also reported according to child gender.

RESULTS

Sample Characteristics

A majority (73%) of parents in our analytic sample were mothers, with a median age of 44 years. Almost all (93%) of the parents started college; approximately one third (34%) held a supervisory position at work. Median household income was approximately \$90 000, with 1 sixth below \$50 000 and 1 fourth above \$125 000. Children were a median age of 14 and were evenly split according to gender (51% female).

Correspondence Between Topics and Sexual Activity Stage

Table 1 summarizes the sexual activity stage that typically corresponds to discussing a given topic for each combination of parent or child discussion reporter and child gender. Earlier rows correspond to topics that were discussed earlier, as reported by parents about sons (because this ordering was

closest to the average ordering across the 4 combinations of reporter and child gender). We classify the talk topics into 3 broad categories according to the typical corresponding sexual activity stage: presexual stage (prekissing, kissing), precoital stage (touching breasts, genitals, oral sex), and coital stage (intercourse, postintercourse).

There is remarkable consistency across parent and child reporters and for sons and daughters as to which topics generally co-occur with these stages. During the presexual stage, topics that are typically addressed deal primarily with sex in relationships (eg, how to choose friends, homosexuality, why not to have sex, how to decide on sex) and female physical development (eg, pregnancy, girls’ bodies, menstruation). Other topics include how boys’ bodies change (male physical development), and pregnancy consequences (how to make healthy decisions). During the precoital phase, parents and adolescents begin to communicate about STD prevention and birth control (eg, prevent STDs, condoms and STDs, birth control efficacy) and continue talking about sex in relationships (eg, how to ask for a date, recognizing love) and address more topics related to male physical development (eg, masturbation, wet dreams) and making healthy decisions (eg, not pressuring for sex, why people like sex, refusing sex) than were discussed in the presexual stage. Around the time that adolescents are initiating intercourse, they and their parents typically communicate about additional topics related to STDs and pregnancy prevention (eg, recognizing STD symptoms, how to use condoms, choosing birth control), as well as how sex feels (eg, sex in relationships) and what to do if a partner refuses a condom (eg, making healthy decisions).

Sequencing of Talks and Genital Touching

Table 2 summarizes for each discussion topic and sexual stage the proportion of talks that occurred before genital touching (talk before) and the proportion of time that genital touching occurred before the discussion topic in question (talk after). Genital touching is an important sexual milestone in that it is the act that precedes sexual debut, and, we believe, it may present a critical period during which youth may especially benefit from communication about sexuality, including conversations about how to practice abstinence or safe sex.

More than one third of parents reported that they had not yet discussed 14 (of 24) topics, and more than half of boys reported they had not yet discussed 16 (of 23) topics by the time genital touching had occurred. Boys often said that they engaged in genital touching before they had discussed with a parent how to ask for a date (62%), homosexuality (36%), the importance of not pressuring others for sex (41%), or how to use a condom (81%). Parents and adolescent girls typically reported somewhat lower rates of acts before talks for most discussion topics. More than one third of parents reported that they had not yet discussed 12 (of 24) and more than one third of girls reported that they had not yet discussed 14 (of 22) topics. Among the topics that daughters said they often had not talked about before reporting genital touching are boys' bodies (47%), preventing STDs (38%), birth control efficacy (42%), how to refuse sex (40%), and choosing a method of birth control (61%).

Sequencing of Talks and Intercourse

Table 3 shows the proportion of cases in which a given talk occurred before or after first reported vaginal inter-

TABLE 2 Relative Timing of Talks (Parent-Reported and Child-Reported) and First Genital Touching (Child-Reported), According to Topic and Child Gender

Topic	Boys, %		Girls, %	
	Parent Reported Talks	Children Reported Talks	Parent Reported Talks	Children Reported Talks
What qualities are important in choosing close friend				
Talk before act	21.3	21.6	39.8	33.4
Talk after act	14.7	23.5	6.3	19.2
Homosexuality/people being gay				
Talk before act	21.6	10.8	36.9	24.0
Talk after act	9.5	56.7	13.4	28.2
How boys' bodies change physically as they grow up				
Talk before act	23.9	15.1	23.1	16.7
Talk after act	20.2	40.8	42.1	60.6
How women get pregnant and have babies				
Talk before act	17.6	16.4	33.5	26.8
Talk after act	22.4	29.6	13.3	26.9
Consequences of getting pregnant/getting someone pregnant				
Talk before act	12.0	16.4	34.8	27.9
Talk after act	33.2	31.9	15.8	32.0
Reasons why your child should not have sex				
Talk before act	13.5	12.4	33.3	27.7
Talk after act	40.4	45.6	23.9	39.0
How girls' bodies change physically as they grow up				
Talk before act	16.0	9.7	34.9	31.2
Talk after act	43.9	58.9	10.5	20.3
How your child will make decisions about whether to have sex				
Talk before act	8.2	16.7	30.2	24.6
Talk after act	47.8	43.7	34.0	42.1
Menstruation (having menstrual periods)				
Talk before act	11.0	8.3	34.9	33.5
Talk after act	45.1	65.8	13.1	13.1
How people can prevent getting STDs				
Talk before act	9.6	5.9	19.0	18.2
Talk after act	55.1	50.1	39.6	54.9
How well condoms can prevent STDs				
Talk before act	9.6	7.0	13.9	14.1
Talk after act	51.0	63.2	54.7	64.3
How to ask someone out on a date				
Talk before act	8.2	4.2	17.0	8.0
Talk after act	62.2	78.9	69.2	85.7
How well birth control can prevent pregnancy				
Talk before act	7.1	4.3	17.0	16.9
Talk after act	60.9	73.6	53.6	58.4
How your child will know whether he or she is in love				
Talk before act	5.6	8.2	21.1	15.3
Talk after act	71.8	62.4	51.4	69.7

TABLE 2 Continued

Topic	Boys, %		Girls, %	
	Parent Reported Talks	Children Reported Talks	Parent Reported Talks	Children Reported Talks
Masturbation				
Talk before act	5.6	NA	8.0	NA
Talk after act	66.2	NA	82.2	NA
The importance of not pressuring other people to have sex				
Talk before act	6.9	5.6	17.1	14.0
Talk after act	76.7	61.5	63.9	64.8
Wet dreams				
Talk before act	31.5	37.3	15.1	NA
Talk after act	49.5	49.4	82.3	NA
Reasons why people like to have sex				
Talk before act	5.5	7.0	13.8	18.2
Talk after act	75.3	63.9	72.4	62.3
How to say no if someone wants to have sex and your child doesn't want to				
Talk before act	4.4	5.6	20.7	16.8
Talk after act	76.6	68.2	47.0	57.7
What it feels like to have sex				
Talk before act	4.2	1.5	9.6	8.0
Talk after act	76.0	92.5	77.5	85.5
Symptoms of STDs				
Talk before act	7.0	7.4	12.7	14.1
Talk after act	77.3	72.2	76.2	67.3
How to use a condom				
Talk before act	5.7	1.5	4.9	6.6
Talk after act	85.7	91.1	90.0	86.9
How to choose a method of birth control				
Talk before act	2.9	0.0	6.5	6.6
Talk after act	82.6	91.1	75.6	78.8
What to do if a partner doesn't want to use a condom				
Talk before act	1.4	1.5	4.9	9.6
Talk after act	88.4	82.2	81.5	76.3

"Talk before act" and "talk after act" do not sum to 100% because of children for whom both occurred in the same reporting period and children for whom neither the talk nor the act had occurred ("ambiguous"). NA indicates not applicable.

course. Approximately half of parents said that they had not yet discussed how to use a condom (50%) or how to choose a birth control method (46%) with their sons. Nearly two thirds of sons said that they had not talked about how to use a condom by the time they had initiated intercourse. Approximately 1 in 4 parents and daughters said that they had not talked about how to resist pressure for sex, and approximately 2 in 5 said that they had not discussed how to choose a method of birth control or what to do if a part-

ner refuses to use a condom until after their sexual debut (if ever).

DISCUSSION

We believe that this study provides the first description of when parents and adolescents discuss a range of sexual topics in relation to adolescent sexual experiences. We found a strong grouping when topics were discussed according to the sexual experiences of the adolescents. Typically, children and adolescents who had not progressed beyond what we call the pre-

sexual stage (holding hands, kissing) had parents who reported discussing relationship topics (choosing friends, why not to have sex) and developmental issues (eg, how girls' and boys' bodies change). During the precoital phase (which we define as touching breasts, touching genitalia, and oral sex), parents and adolescents reported that the topics that they discussed evolved more around decision-making and STDs, with some discussion of relationships and male development also taking place around this time. Finally, when adolescents had initiated vaginal intercourse, they and their parents reported more discussions centering on topics related to STDs (recognizing symptoms of STDs, how to use a condom, and choosing birth control). This finding is consistent with a previous study⁸ that concluded that when parents believe that their children have not yet initiated intercourse, parent-child communication focuses on parent values regarding teen sex; once parents suspect that their adolescents have initiated intercourse, parents focus on more concrete matters, such as birth control and STDs.

This sequencing of topics may be appropriate, especially when there is evidence that adolescents are receiving information that they need right before or around the time that they are initiating intercourse; however, our study found that a large proportion of adolescents were not communicating with parents about key topics before sexual debut. Approximately half of parents had not talked with sons about how to use a condom or choosing birth control before the son had engaged in intercourse. Nearly two thirds of sons said that they had not discussed how to use a condom. Consistent with previous research, communication about various topics is almost always earlier with daughters than with sons, and we extend those findings to show that

communication with daughters occurs earlier relative to their sexual activity, leaving parents less time to communicate preemptively with sons. Nonetheless, according to parents and daughters, ~40% of girls had not spoken with parents before they initiated intercourse about choosing a method of birth control or what to do if a partner refuses to use a condom.

Our sample is not representative of the general population. Although racially and ethnically diverse, the parents in our sample work for large employers and volunteered for a study of a program to improve parent–child and parent–teen communication about sex. Because of the small sample size, this study is necessarily descriptive in nature. Future research should investigate predictors of timely communication in a larger longitudinal cohort, as well as to what extent such timing is associated with reduced adolescent sexual risk behavior. We did not examine differences in communication according to parent gender, but this would be an important issue to explore in future work. For example, at least 1 study suggested that fathers, more than mothers, increase frequency of discussions and the range of topics when they learn that their adolescent has initiated intercourse.⁴

Our study has several key strengths. First, we used longitudinal parent and adolescent data from 4 survey waves instead of relying on retrospective reports about sexual activity and when certain topics were discussed. Research on how respondents recall information suggests that respondents use information on current-status attitudes or behaviors to infer past attitudes or behaviors.⁹ Adolescents who have initiated intercourse (and their parents, to the extent that they suspect their adolescents have initiated intercourse) may recall that a talk occurred

TABLE 3 Relative Timing of Talks (Parent-Reported and Child-Reported) and First Vaginal Intercourse (Child-Reported), According to Topic and Child Gender

Topic	Boys, %		Girls, %	
	Parent Reported Talks	Children Reported Talks	Parent Reported Talks	Children Reported Talks
What qualities are important in choosing close friends				
Talk before act	86.7	84.8	97.4	94.4
Talk after act	0.0	6.1	1.3	4.2
Homosexuality/people being gay				
Talk before act	85.2	66.7	95.8	91.7
Talk after act	1.4	23.2	1.4	6.7
How boys' bodies change physically as they grow up				
Talk before act	82.4	78.8	85.9	71.3
Talk after act	7.4	14.8	12.1	26.1
How women get pregnant and have babies				
Talk before act	77.3	80.6	94.3	89.8
Talk after act	9.7	11.0	2.9	6.8
Consequences of getting pregnant/getting someone pregnant				
Talk before act	77.7	79.1	93.2	89.2
Talk after act	10.4	6.3	2.7	5.4
Reasons why your child should not have sex				
Talk before act	75.8	74.7	92.7	89.0
Talk after act	13.2	14.4	4.4	7.3
How girls' bodies change physically as they grow up				
Talk before act	73.2	69.9	91.7	92.4
Talk after act	17.9	24.2	5.5	6.1
How your child will make decisions about whether or not to have sex				
Talk before act	71.0	75.5	88.7	84.5
Talk after act	15.6	14.0	8.1	11.6
Menstruation (having menstrual periods)				
Talk before act	69.1	62.1	92.9	94.2
Talk after act	22.0	31.1	4.3	2.9
How people can prevent getting STDs				
Talk before act	66.7	74.5	85.1	78.2
Talk after act	21.6	17.5	11.2	19.4
How well condoms can prevent STDs				
Talk before act	68.0	63.8	79.3	73.9
Talk after act	20.1	27.6	20.8	20.9
How to ask someone out on a date				
Talk before act	63.4	60.3	65.2	50.6
Talk after act	26.4	39.7	29.5	45.6
How well birth control can prevent pregnancy				
Talk before act	62.4	59.8	80.7	71.7
Talk after act	26.5	30.1	16.9	21.2
How your child will know if he/she is in love				
Talk before act	61.0	66.6	78.8	72.2
Talk after act	31.9	22.6	11.8	22.8
Masturbation				
Talk before act	59.3	NA	58.4	NA
Talk after act	29.0	NA	41.6	NA

TABLE 3 Continued

Topic	Boys, %		Girls, %	
	Parent Reported Talks	Children Reported Talks	Parent Reported Talks	Children Reported Talks
The importance of not pressuring other people to have sex				
Talk before act	55.9	61.3	70.3	73.3
Talk after act	34.0	22.9	24.7	24.0
Wet dreams				
Talk before act	57.5	67.4	39.9	NA
Talk after act	35.2	32.6	60.1	NA
Reasons why people like to have sex				
Talk before act	53.6	62.2	64.1	73.9
Talk after act	39.3	31.0	30.4	23.5
How to say no if someone wants to have sex and your child doesn't want to				
Talk before act	50.4	60.7	79.4	75.9
Talk after act	34.8	30.3	16.5	19.3
What it feels like to have sex				
Talk before act	50.0	35.8	63.6	55.8
Talk after act	42.3	64.2	36.4	40.5
Symptoms of STDs				
Talk before act	45.6	60.3	67.8	69.5
Talk after act	40.0	29.2	32.2	30.5
How to use a condom				
Talk before act	43.4	37.1	46.8	41.1
Talk after act	50.5	63.0	49.4	58.9
How to choose a method of birth control				
Talk before act	41.3	33.2	55.2	57.5
Talk after act	45.5	56.5	38.4	39.0
What to do if a partner doesn't want to use a condom				
Talk before act	29.5	50.4	57.7	62.9
Talk after act	66.9	41.5	42.3	37.1

"Talk before act" and "talk after act" do not sum to 100% because of children for whom both occurred in the same reporting period and children for whom neither the talk nor the act has occurred ("ambiguous"). NA indicates not applicable.

before or around the time of sexual debut when in fact it may have happened

after the event. Second, we used both parent and adolescent reports; be-

cause the patterns and overall levels of discussion of specific topics are roughly comparable, we have a higher level of confidence in adolescent and parent perceptions about what was discussed than we would if we had relied on just parent or adolescent reports, as is usually done.

CONCLUSIONS

Our results reinforce the American Academy of Pediatrics recommendations that pediatricians and other clinicians encourage parents to educate their adolescents about sexuality beginning early in life.¹⁰ Many adolescents report little or no communication about sexuality with their parents. Our results provide pediatricians and other clinicians with information that can help them guide parents in how to address sexual health with their adolescents in a timely fashion. They might offer suggestions for specific topics that parents might cover and for what they might say about those topics. Clinicians can also discuss these issues 1-on-1 with adolescents.

ACKNOWLEDGMENTS

This project was supported by National Institute of Mental Health grant R01 MH61202 and Centers for Disease Control and Prevention cooperative agreement U48/DP000056.

We thank Jacquelyn Chou for assistance with manuscript preparation.

REFERENCES

1. Miller BC, Norton MC, Fan X, Christopherson CR. Pubertal development, parental communication, and sexual values in relation to adolescent sexual behaviors. *J Early Adolesc.* 1998;18(1):27–52
2. Miller KS, Levin ML, Whitaker DJ, Xu X. Patterns of condom use among adolescents: the impact of mother-adolescent communication. *Am J Public Health.* 1998;88(10):1542–1544
3. Fox GL, Inazu JK. Patterns and outcomes of mother-daughter communication about sexuality. *J Soc Issues.* 1980;36(1):7–29
4. Clawson CL, Reese-Weber M. The amount and timing of parent-adolescent sexual communication as predictors of late adolescent sexual risk-taking. *J Sex Res.* 2003;40(3):256–265
5. Martino SC, Elliott MN, Corona R, Kanouse DE, Schuster MA. Beyond the "big talk": the roles of breadth and repetition in parent-adolescent communication about sexual topics. *Pediatrics.* 2008;121(3). Available at: www.pediatrics.org/cgi/content/full/121/3/e612
6. Eastman KL, Corona R, Schuster MA. Talking parents, healthy teens: a worksite-based program for parents to promote adolescent sexual health. *Prev Chronic Dis.* 2006;3(4):A126
7. Schuster MA, Corona R, Elliott MN, et al. Evaluation of talking parents, healthy teens, a new worksite based parenting programme to promote parent-adolescent communication about sexual health: a randomised controlled trial. *BMJ.* 2008;337:a308
8. Raffaelli MR, Bogenschneider K, Flood MF. Parent-teen communication about sexual topics. *J Fam Issues.* 1998;19(3):315–333
9. Beckett MK, Davanzo J, Panis C, Peterson C,

Sastry N. A review of retrospective data quality evaluations in the Malaysian family life survey. *J Hum Res.* 2001;36(3):593–625

10. American Academy of Pediatrics, Committee on Psychosocial Aspects of Child and Family Health and Committee on Adoles-

cence. Sexuality education for children and adolescents. *Pediatrics.* 2001;108(2):498–502

Chocolate Gets to the Heart of the Matter: *While some chocoholics might argue that chocolate is to die for, a recent study from Sweden showed just the opposite—people who love chocolate have increased survival rates after they experience a heart attack—at least for eight years after their event. According to an article in The New York Times (Bakalar N, The New York Times, September 15, 2009) summarizing the results of that study, antioxidants in chocolate may be providing beneficial effects when the heart is experiencing severe ischemia. In fact, the more chocolate survivors of heart attacks consumed when other variables (including other kinds of sweets) were controlled for, the better the survival. For example, there was a 27 percent improvement in survival out to eight years if chocolate was consumed even less than monthly compared with not at all. This improvement increased to 44 percent in those who ate chocolate weekly and 66 percent in those who partook twice or more each week. But before you open a candy bar in celebration of this finding, be aware that this study was observational and not a randomized controlled study, so cause and effect cannot be proven. In addition, the type of chocolate consumed was not elicited, and it is known that dark chocolate has more antioxidants than milk chocolate. Regardless, the results of this study are certainly heartening for chocolate lovers.*

Noted by JFL, MD

Timing of Parent and Child Communication About Sexuality Relative to Children's Sexual Behaviors

Megan K. Beckett, Marc N. Elliott, Steven Martino, David E. Kanouse, Rosalie Corona, David J. Klein and Mark A. Schuster

Pediatrics 2010;125;34

DOI: 10.1542/peds.2009-0806 originally published online December 7, 2009;

Updated Information & Services

including high resolution figures, can be found at:
<http://pediatrics.aappublications.org/content/125/1/34>

References

This article cites 9 articles, 2 of which you can access for free at:
<http://pediatrics.aappublications.org/content/125/1/34#BIBL>

Subspecialty Collections

This article, along with others on similar topics, appears in the following collection(s):
Adolescent Health/Medicine
http://www.aappublications.org/cgi/collection/adolescent_health:medicine_sub
Contraception
http://www.aappublications.org/cgi/collection/contraception_sub
Teen Pregnancy
http://www.aappublications.org/cgi/collection/teen_pregnancy_sub

Permissions & Licensing

Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
<http://www.aappublications.org/site/misc/Permissions.xhtml>

Reprints

Information about ordering reprints can be found online:
<http://www.aappublications.org/site/misc/reprints.xhtml>

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™



PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Timing of Parent and Child Communication About Sexuality Relative to Children's Sexual Behaviors

Megan K. Beckett, Marc N. Elliott, Steven Martino, David E. Kanouse, Rosalie Corona, David J. Klein and Mark A. Schuster

Pediatrics 2010;125:34

DOI: 10.1542/peds.2009-0806 originally published online December 7, 2009;

The online version of this article, along with updated information and services, is located on the World Wide Web at:

<http://pediatrics.aappublications.org/content/125/1/34>

Pediatrics is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. Pediatrics is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2010 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 1073-0397.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

