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The Role of Parent Religiosity in Teens' Transitions to Sex and Contraception

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Abstract

Purpose: To examine whether multiple dimensions of parent and family religiosity—including parental religious attendance, denomination, beliefs, and family religious activities—are associated with the timing of sexual initiation or contraceptive use at first sex.

Methods: We analyze a sample of sexually inexperienced adolescents aged 12–14 years in the 1997 National Longitudinal Survey of Youth (NLSY97) to test the association between multiple dimensions of parent and family religiosity and the transition to first sexual experience and contraceptive use at first sex during the teen years. We assess the association between parent and family religiosity and the timing of adolescent sexual experience using multivariate event history models, and examine contraceptive use outcomes using logistic regressions. All analyses are conducted separately by gender and race/ethnicity.

Results: More frequent parental religious attendance is associated with a delayed timing of first sex among all sub-populations except among black adolescents. Engaging in family religious activities on a daily basis is associated with delayed sexual initiation among male, female, and white teens. Results for contraceptive use differ, however. Only strong parental religious beliefs and more frequent participation in family religious activities are associated with contraceptive use at first sex, in a negative direction, among males.

Conclusion: More frequent parental religious attendance and family religious activities are related to later timing of sexual initiation, highlighting an important dimension of family environments that can help improve reproductive health outcomes for children. However, stronger family religiosity does not translate into improved contraceptive use.

Keywords

Sexual experience; Transition to sex; Contraception; Religion; Family

To reduce high rates of adolescent unintended pregnancy and childbearing and sexually transmitted diseases (STDs) in the United States, it is important to better understand key factors that are associated with early sexual experiences. An extensive research literature has shown that families can exert a critical influence on teen sexual and contraceptive use

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decisions by fostering strong parent-teen relationships, communication, and parental monitoring [1–3]. Adolescent religious beliefs and attachment to religious institutions are often developed within the family environment [4,5]. Thus, religiosity—a multidimensional construct that encompasses various aspects of organization, beliefs, behaviors, and attitudes—is one component of family environment that is associated with adolescent risk behaviors [6–8].

The goal of this article is to gain a better understanding of how parent and family religiosity are associated with adolescent sexual activity and contraceptive use. We posit that parental and family attachment to religious beliefs and institutions provides a form of social influence that fosters and reinforces adolescent motivations to avoid early sexual behaviors and risk of unintended pregnancy [9]. Both sexual activity and contraceptive use affect the risk of pregnancy; however, religiosity may not be related to each in the same way. Thus, we examine sex and contraception separately.

Using prospective analyses of recent longitudinal data, we address three research questions: 1) Are multiple components of parent and family religiosity (including parent religious attendance, beliefs, and denomination, as well as adolescent religious activities with their family) associated with delaying the timing of adolescent first sexual intercourse?; 2) Are parent and family religiosity associated with contraceptive use at first sex if teens do become sexually active?; and 3) Are parent and family religiosity associated with sexual experience and/or contraceptive use among critical gender and racial/ethnic sub-populations? Factors associated with the transition to a *first* sexual experience and contraceptive use at *first* sex are of particular interest because early sexual experiences and contraceptive nonuse are associated with subsequent risky sexual and contraceptive use behaviors [10,11].

Adolescent attachment to religion, especially during early adolescence, is often shaped by parental religiosity [4,12,13]; however, limited analyses assess *parental* religiosity influences on *adolescent* sexual behaviors, and the findings are mixed. One study found that higher levels of maternal religious beliefs and attendance are associated with reduced adolescent sexual behaviors, over and above adolescent religiosity [14]. Another study showed no association between a composite measure of maternal religiosity and the transition to sexual intercourse, after controlling for maternal disapproval of sex [15].

Despite limited longitudinal research specifically assessing associations between *parental* religiosity and adolescent sexual and contraceptive use behaviors, researchers have found that *adolescent* religious affiliation, attendance, beliefs, and prayer are associated with teen sexual behaviors [16]. Holding strong religious beliefs and engaging in prayer are linked to reduced sexual activity among adolescents [14,17–19]. Teens (especially females) with higher religious attendance and with more conservative religious denominations (including conservative Protestants and Fundamentalists) tend to initiate sexual intercourse at later ages than teens of other religious denominations [16,20–22]. However, some find that religious attendance is a more important antecedent of sexual behaviors than religious affiliation [13,20,23,24]. In addition, composite measures of adolescent religiosity (which incorporate religious attendance, beliefs and/or prayer) are also associated with delayed sexual initiation [14,17,24,25].

Few studies have assessed the link between adolescent religiosity and contraceptive use, and the results are mixed. Some researchers have found that teens with higher religiosity or more conservative religious affiliations are less likely than other teens to use contraception if they do engage in sexual intercourse [21,23,26,27], whereas others have found no association [22,24].

Adolescent sexual experiences and contraceptive use decisions differ across critical sub-populations, including by gender and race/ethnicity [28], but few studies examine subgroup differences in the association between religiosity and adolescent sexual and contraceptive use behaviors. Those studies that have explored gender or race/ethnicity differences suggest a greater association between religiosity and adolescent sexual behaviors among females than among males [16,29,30], and a greater association between religiosity and delayed sexual initiation among whites than among blacks [24,31,32]. Note that there has been very limited research on Hispanics in particular [8].

This study expands on previous research by incorporating longitudinal data on a sample of early adolescents who were followed prospectively from 1997 to 2002, comparing multiple dimensions of parent and family religiosity, examining contraceptive use outcomes in addition to the timing of sexual activity, and assessing sub-population differences by gender and race/ethnicity. Our review of research suggests the following hypotheses:

Parents with stronger religious beliefs, greater religious attendance and more frequent family religious activities, as well as those in more fundamentalist or evangelical denominations, will have children who delay first sex. However, we hypothesize that religious attendance will show a greater association with outcomes than denomination.

Higher parental and family religiosity will be associated with a lower probability of contraceptive use once teens become sexually experienced.

The association between parent and family religiosity and adolescent outcomes will be greater for females than males and for whites than for blacks.

Methods

We used longitudinal data from the National Longitudinal Survey of Youth, 1997 Cohort (NLSY97), a nationally representative sample of 8984 adolescents born in the United States between 1980 and 1984 (ages 12–16 years in 1997) [33]. The survey provides information on family background measures and adolescents' transition to first sexual intercourse and contraceptive use at first sex. Several measures of parent-reported religiosity were measured in the first round of the survey during the parent (usually the biological mother) interview in 1997. Youth were initially surveyed in 1997, and we include annual follow-up data through 2002.

We examined two dependent variables measured in Rounds 2 through 6 (1998–2002): age at first sexual intercourse (in years) and contraceptive use at first sexual intercourse. Teens reported whether they engaged in sexual intercourse in each round and provided their age at first intercourse. Contraceptive use was a dichotomous variable in response to the question,

“Did you or your sexual partner use any birth control method, or do anything to avoid pregnancy such as natural family planning, the first time you had intercourse?”

Because we were interested in the effects of parent religiosity on young adolescents’ transition to first sexual experience, we used a sample of 3949 12- to 14-year-old respondents who were sexually inexperienced at the time of the Round 1 interview (1997) and had information on parent and family religiosity to test for associations between parent and family religiosity and the timing of first sexual intercourse. To test for associations between parent and family religiosity and contraceptive use at first sex, we conducted analyses on 2800 respondents who reported sexual initiation between Rounds 1 and 6. Respondents were removed from the original sample of all 12- to 14-year-olds in the NLSY97 survey ($n = 5419$) if they had sexual intercourse before their Round 1 interview ($n = 771$), had incomplete data on sexual activity ($n = 123$), or were missing information on the key independent parent and family religiosity measures ($n = 576$). Compared with teens who were excluded because they had sex before the baseline survey, the sample of teens for analyses of the transition to first sex were more likely, on average, to be: younger, white, male, to have higher maternal education, and to live with two biological parents. In contrast, compared with teens who were excluded from our sample because they had not yet had sexual intercourse, the sample of sexually experienced teens for analyses of contraceptive use at first sex were, on average, more likely to be: older, black, female, to have lower maternal education and were less likely to live with both biological parents.

In the first round of the survey, parents reported information on religious attendance, denomination, and beliefs. Attendance measured the parent’s frequency of worship service in the past 12 months, ranging from never to more than once a week. The NLSY97 classified religious affiliation into 33 groups. We created seven categories of religious denomination following Steensland et al’s [34] classification: Catholic, Mainline Protestant, Evangelical Protestant, Black Protestant, Jewish, Other, and None. Religious beliefs were captured through two true/false questionnaire items: 1) “I don’t need religion to have good values” and 2) “God has nothing to do with what happens to me personally,” both of which were reverse-coded. Because 68% of the sample had the same response to both questions, for multivariate items we created a measure of “strong beliefs,” capturing those who responded “false” to both items.

We included a measure of family religious activity from Round 1 of the youth questionnaire that asks, “In a typical week, how many days from 0 to 7 do you do something religious as a family such as go to church, pray, or read the scriptures together?” Because the distribution of this variable was skewed with most respondents reporting 0 or 1 day of religious activities in a typical week, we collapse the responses into four categories: none, once a week, 2–5 days per week, and 6–7 days a week.

Family controls, all measured at the Round 1 interview, included: family structure (comparing two biological/adoptive parents with a single parent, stepparents, or other family structure), whether the respondent’s mother was a teenager at her first birth, highest residential parent education level (ranging from 0 to 20 years), household income (in ten-thousand-dollar increments), whether a respondent’s parent(s) received any public assistance

in the last five years, and urban (vs. rural) residence. We included two indices that measure the quality of the respondent's home environment: 1) physical environment risk in the youth's home and neighborhood (ranging from 0 to 7), with a higher score representing a greater risk [35]; and 2) youth's exposure to an enriching environment through access to resources in and around their home (ranging from 0 to 3), where a higher score indicates a more enriching environment [35].

Individual controls included respondent's race/ethnicity, gender and age (in years) at baseline. In models predicting sexual initiation, we also included age (in years) that the adolescent went out on his or her first date, measured between Round 1 and the round they first report having sex. For models predicting contraceptive use at first sex, age at first sex was included.

Bivariate chi-square and life table analyses tested whether parent and family religiosity measures differ by sexual experience, contraceptive use and sub-population. In addition, two sets of multivariate analyses assessed the association of parent and family religiosity with sexual initiation and contraceptive use at first sexual intercourse. To test the association between parent and family religiosity and the timing of sexual initiation, we conducted event history analyses, which are appropriate for analyses where some teens do not have sex within the study period (censored cases) [36]. Logistic analyses assessed factors associated with any contraceptive use at first sexual intercourse. All analyses were weighted and conducted separately by gender and race/ethnicity.

Results

Bivariate analyses

Parent and family religiosity among subgroups.—There are significant differences in parent and family religiosity by sub-population (Table 1). For example, although the majority of parents reported attending worship service in the past month (56–73%), black parents were about twice as likely to attend religious services more than once a week (20%) than Hispanic (11%) and white parents (10%). The largest denomination categories among whites were mainline and Evangelical Protestant and Catholic, whereas the majority of parents of black youth were black Protestant and about two-thirds of Hispanic teens' parents were Catholic. Parents of black adolescents were most likely to believe that one needs religion to have good values, whereas parents of Hispanic youth were least likely to report believing that God has something to do with what happens to them. Black youth were more likely to participate in religious activities with their family on a frequent basis than white or Hispanic youth.

Parent and family religiosity and sexual initiation.—Life table analyses provide the probability of engaging in sexual intercourse by individual year of age. Significant associations indicate whether the transition to first sex differs by measures of parent and family religiosity at each year of age. We assessed the probability of sex by age 18 in life tables because the majority of teens in our sample (86%) had data available through their seventeenth year and we were especially interested in sexual experiences that occurred during the middle school and high school years. Note also that the percentages in our

analyses were lower than national estimates because we excluded teens who were sexually experienced before the baseline.

All measures of parent and family religiosity were associated with sexual experience before age 18 (Table 2) for at least some sub-populations. For example, as parental religious attendance increased, teens' probability of sex before age 18 decreased. This pattern held for all sub-populations. In general, adolescent children of black Protestant parents and/or parents reporting no religion were the most likely to have sex before age 18, compared with all other denominations. In contrast, stronger parental religious beliefs and more frequent participation in religious activities with one's family were associated with reduced sexual initiation before age 18 for most sub-populations.

Parent and family religiosity and contraceptive use at first sex.—Only two measures of religiosity were associated with using contraception at first sex. Having parents who believe that one needs religion to have good values was associated with *lower* contraceptive use at first sex among males. Also, two or more days a week of family religious activity (relative to less religious activity) was associated with lower levels of contraceptive use at first sex for the total sample, males, and Hispanics (Table 3).

Multivariate analyses

First sexual intercourse.—We conducted event history analyses to test for the association between parent and family religiosity and the odds of first sexual intercourse before age 20, controlling for other family background and individual characteristics. Higher parental religious attendance was associated with lower odds of sexual intercourse in the full sample, and among males, females, whites, and Hispanics (Table 4). Each one-step increase in the parent religious attendance scale was associated with 4% to 7% reduced odds of sexual initiation. Parental religious beliefs and denomination were not significantly associated with the odds of sexual initiation among any population, net of controls. Only the highest level of family religious activities was associated with reduced odds of sex. Compared with youth who did not participate in any religious activities with their families, the odds of sexual initiation were lower among youth who participated in family religious activities six to seven times a week for the full sample, males, females, and white youth.

Several family background measures were also significantly associated with sexual initiation among youth. Living in family structures outside of two biological/adoptive parents, having a mother who was a teenager at first birth, or living in a household that had higher physical environmental risks were all associated with increased odds of sexual initiation for some populations. In contrast, higher parental education and higher scores on an index of enriching household environments were associated with *reduced* odds of sexual initiation for at least some sub-populations.

Among the full sample and among males, black adolescents had higher odds of sexual initiation than whites. In contrast, males in the full sample and the white sub-population had reduced odds of sexual initiation compared with females. Older teens (aged 13 to 14 years) had reduced odds of sexual initiation compared with 12-year-olds, which reflects lower exposure time to the risk of sexual initiation. Finally, adolescents who were older at their

first date or who had never gone on a date had lower odds of sexual initiation than adolescents who had first dated by age 12.

Contraceptive use at first sexual intercourse.—We estimated logistic regressions to test whether stronger parental religious beliefs or having more frequent family religious activities—the only religiosity measures significant in bivariate analyses—were associated with the use of any contraceptive method at first sex, net of controls. Among males, strong parental religious beliefs were associated with 30% lower odds of using contraception at first sex. Among the full sample and among males, participating in family religious activities two to five times a week was associated with lower odds of using any contraceptive method at first sex compared with no regular family religious activities (Table 5). Note that separate analyses showed that Hispanics who participated in family religious activities two or more times a week also had reduced odds of contraceptive use at first sex.

Having a mother who was a teenager at first birth, living in a household that received public assistance in the past year, or living in an urban environment were associated with lower odds of contraceptive use at first sex for some populations. In contrast, higher parent education and higher scores on the enriching household environment index in the household were associated with increased odds of using contraception at first sex for at least some sub-populations. Unexpectedly, black adolescents who lived with two biological parents had reduced odds of using a method at first sex compared with adolescents living without either biological or adoptive parents. Although this finding is similar in bivariate analyses, it does not conform to literature on family structure and contraceptive use [1].

Among the full sample and among males, black adolescents had higher odds of using contraception than white adolescents. White males had reduced odds of contraceptive use at first sex compared with white females. Finally, among black adolescents, adolescents who were older at first sexual intercourse had lower odds of using contraception. This finding is in opposition to prior research showing a delayed age at first sex being associated with *increased* contraceptive use at first sex [10] and may reflect exclusion from the sample of those who were youngest at first sex.

Discussion

Limitations

This study has some limitations. Specifically, although we expect that the association between parent religiosity and adolescent outcomes operates, in part, through adolescent religious beliefs and attendance, the NLSY97 did not provide independent measures of adolescent religiosity within the time frame of this study. Also, the NLSY97 includes measures of religiosity for the focal parent only (primarily the biological mother), so we cannot contribute to the research literature on the role of spousal similarities or differences in religiosity on family environments [37,38]. The adolescent-reported measure of contraceptive use does not differentiate by method, so we cannot replicate previous research showing a negative association between religiosity and access to hormonal and other medical methods in more religious families [23]. Selection bias is also a potential limitation. Although we restricted the sample to those aged 12–14 years at baseline, some teens had

already engaged in sexual intercourse before the first round of the study, so we excluded the most disadvantaged teens from our analyses who may be in the greatest need of protective religious environments.

Despite these limitations, this article extends previous research by prospectively assessing the association between multiple dimensions of parent and family religiosity and the transition to sexual experience and contraceptive use at first sex. As hypothesized (Hypothesis 1), we found that parental religious attendance and/or more frequent religious activities were associated with delayed sexual initiation among all sub-populations except black adolescents. However, neither religious beliefs nor denomination were associated with the transition to sex, supporting previous research indicating that denomination is not as important a predictor of adolescent sexual experience as religious attendance [13,23]. The key protective role of religious attendance suggests that regular church attendance may provide a mechanism of integrating adolescents into religious networks that reinforce moral directives against risky behaviors [39].

Previous research has not specifically addressed the influence of religious activities, such as prayer within a family context, on reproductive health behaviors. The association between religious activities and delayed sex may indicate that more closely knit families help reduce early sexual initiation—a finding supported by research showing that positive parent-teen relationships and family engagement in regular activities are associated with delayed sexual initiation [1,3]. To the extent that more religious families engage in more activities together, as suggested in some research literature [40], the influence of family religious environments on adolescent sexual behaviors may operate through more cohesive family environments that allow parents to better monitor and supervise adolescent behavior and activities [39].

These analyses found that parent religiosity is protective for multiple sub-populations. As hypothesized (Hypothesis 3), we found associations between family religiosity and adolescent sexual initiation among white and Hispanic teens, but not among black teens, confirming some studies showing more limited associations among black populations [24,31,32]. These findings may be due, in part, to the more normative nature of early sexual experiences in black communities [28]. We also hypothesized stronger effects of family religiosity for females than males [16,29,30]; however, we found that parental religious attendance and family religious activities were associated with a delayed transition to sexual intercourse for both genders.

The longitudinal analyses in this article extend limited previous research examining the association between religiosity and contraceptive use. As hypothesized (Hypothesis 2), once teens have sex, the only association between family religiosity and contraceptive use was negative. More frequent family religious activities and/or stronger religious beliefs were associated with reduced contraceptive use among the total sample and among males. The negative association between family religiosity and contraceptive use confirms some prior research showing reduced contraceptive use among religious teens [21,23,26,27]. These findings may reflect the unplanned nature of first sexual experiences, especially among more religious teens [41], as well as greater perceived barriers associated with obtaining

contraception among teens (especially males) in more religious families and communities [23].

The recent policy focus on faith-based programs has renewed interest in the links between religiosity and adolescent sexual behaviors. The analyses in this article show a prospective association between greater parental and family religiosity and delayed sexual initiation among adolescents from multiple backgrounds. As yet, we do not know whether delayed sexual initiation in more religious families is due to more conservative values about sex among adolescents, to more religious peer and community environments, or to other aspects of the family environment. Thus, the mechanism through which parent and family religiosity is associated with sexual behaviors is an important topic for future research.

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References

- [1]. Miller BC. Families Matter: A Research Synthesis of Family Influences on Adolescent Pregnancy. Washington, DC: The National Campaign to Prevent Teenage Pregnancy, 1998.
- [2]. Miller KS, Levin ML, Whitaker DJ, et al. Patterns of condom use among adolescents: the impact of mother-adolescent communication. *Am J Public Health* 1998;88:1542–4. [PubMed: 9772860]
- [3]. Miller B, Benson B, Galbraith K. Family relationships and adolescent pregnancy risk: a research synthesis. *Dev Rev* 2001;21:1–38.
- [4]. Whitehead BD, Wilcox B, Rostosky S. Keeping the Faith: The Role of Religious and Faith Communities in Preventing Teen Pregnancy. Washington, DC: National Campaign to Prevent Teen Pregnancy, 2001.
- [5]. Regnerus M, Smith C, Smith B. Social context in the development of adolescent religiosity. *Appl Dev Sci* 2004;8:27–38.
- [6]. Wallace JMJ, Williams DR. Religion and adolescent health-compromising behavior In: Schulenberg J, Maggs JL, Hurrelmann K. *Health Risks and Developmental Transitions during Adolescence*. Cambridge, UK: Cambridge University Press, 1997:444–68.
- [7]. Smith C, Denton ML. *Soul Searching*. New York, NY: Oxford University Press, 2005.
- [8]. Regnerus M, Smith C, Fritsch M. *Religion in the Lives of American Adolescents: A Review of the Literature*. Chapel Hill, NC: National Study of Youth and Religion, 2003.
- [9]. Sherkat D, Ellison CG. Recent developments and current controversies in the sociology of religion. *Annu Rev Sociol* 1999;25: 363–94.
- [10]. Kirby D *Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy*. Washington, DC: National Campaign to Prevent Teen Pregnancy, 2001.
- [11]. Manlove J, Ryan S, Franzetta K. (2005). Contraceptive use patterns across female teens' sexual relationships. Paper presented at the annual meeting of the Population Association of America Philadelphia, PA March 31–April 2, 2005.
- [12]. Smith C, Faris R, Lundquist M. Mapping American adolescent subjective religiosity and attitudes of alienation toward religion: a research report. *Sociol Relig* 2003;64:111–33.
- [13]. Thornton A, Camburn D. Religious participation and adolescent sexual behavior and attitudes. *J Marriage Fam* 1989;51:641–53.
- [14]. Whitbeck L, Yoder K, Hoyt D, et al. Early adolescent sexual activity: a developmental study. *J Marriage Fam* 1999;61:934–46.
- [15]. McNeely C, Shew ML, Beuhring T, et al. Mothers' influence on the timing of first sex among 14- and 15-year-olds. *J Adolesc Health* 2002;31:256–65. [PubMed: 12225738]

- [16]. Rostosky S, Wilcox B, Wright M, et al. The impact of religiosity on adolescent sexual behavior: a review of the evidence. *J Adolesc Res* 2004;19:677–97.
- [17]. Meier AM. Adolescents' transition to first intercourse, religiosity, and attitudes about sex. *Soc Forces* 2003;81:1031–52.
- [18]. Resnick MD, Bearman PS, Blum RW, et al. Protecting adolescents from harm: findings from the national longitudinal study on adolescent health. *JAMA* 1997;278:823–32. [PubMed: 9293990]
- [19]. Jessor R, Costa F, Jessor L, et al. Time of first intercourse: a prospective study. *J Pers Soc Psychol* 1983;44:608–26.
- [20]. Bearman P, Bruckner H. Peer effects on adolescent sexual debut and pregnancy: an analysis of a national survey of adolescent girls In: Bearman P, Bruckner H, Brown B, et al. *Peer Potential: Making the Most of How Teens Influence Each Other*. Washington, DC: National Campaign to Prevent Teen Pregnancy, 1999:7–26.
- [21]. Brewster KL, Cooksey EC, Guilkey DK, et al. The changing impact of religion on the sexual and contraceptive behavior of adolescent women in the United States. *J Marriage Fam* 1998;60: 493–504.
- [22]. Jones R, Darroch J, Singh S. Religious differentials in the sexual and reproductive behaviors of young women in the United States. *J Adolesc Health* 2005;36:279–88. [PubMed: 15780783]
- [23]. Studer M, Thornton A. Adolescent religiosity and contraceptive usage. *J Marriage Fam* 1987;49:117–28.
- [24]. Bearman PS, Bruckner H. Promising the future: virginity pledges and first intercourse. *Am J Sociol* 2001;106:859–912.
- [25]. Rostosky SS, Regnerus MD, Wright MLC. Coital debut: the role of religiosity and sex attitudes in the Add Health survey. *J Sex Res* 2003;40:358–67. [PubMed: 14735410]
- [26]. Cooksey EC, Rindfuss RR, Guilkey DK. The initiation of adolescent sexual and contraceptive behavior during changing times. *J Health Soc Behav* 1996;37:59–74. [PubMed: 8820311]
- [27]. Nonnemaker JM, McNeely C, Blum R. Public and private domains of religiosity and adolescent health risk behaviors: evidence from the National Longitudinal Study of Adolescent Health. *Soc Sci Med* 2003;57:2049–54. [PubMed: 14512236]
- [28]. Abma JC, Martinez GM, Mosher WD, et al. *Teenagers in the United States: Sexual Activity, Contraceptive Use, and Childbearing, 2002*. Hyattsville, MD: National Center for Health Statistics, 2004.
- [29]. Miller BC, Norton MC, Curtis T, et al. The timing of sexual intercourse among adolescents: family, peer, and other antecedents. *Youth Soc* 1997;29:54–83.
- [30]. Billy JOG, Brewster KL, Grady WR. Contextual effects on the sexual behavior of adolescent women. *J Marriage Fam* 1994;56:387–404.
- [31]. Day RD. The transition to first intercourse among racially and culturally diverse youth. *J Marriage Fam* 1992;54:749–62.
- [32]. Beck SH, Cole BS, Hammond JA. Religious heritage and premarital sex: evidence from a national sample of young adults. *J Sci Study Relig* 1991;30:173–80.
- [33]. Hering J, McClain A. *NLSY97 User's Guide: A Guide to the Rounds 1–5 Data*. Columbus, OH: Center for Human Resource Research, Ohio State University, 2003.
- [34]. Steensland B, Park JZ, Regnerus MD, et al. The measure of American religion: toward improving the state of the art. *Soc Forces* 2000;79:291–318.
- [35]. Moore KA, McGroder SM, Hair EC, et al. *NLSY97 Codebook Supplement Main File Round 1 Appendix 9: Family Process and Adolescent Outcomes Measures*. Washington, DC: Bureau of Labor Statistics, U.S. Department of Labor, 1999.
- [36]. Allison PD. *Event History Analysis*. Beverly Hills, CA: Sage, 1984.
- [37]. Curtis K, Ellison C. Religious heterogamy and marital conflict. *J Fam Issues* 2002;23:551–76.
- [38]. Heaton TB, Pratt EL. The effects of religious homogamy on marital satisfaction and stability. *J Fam Issues* 1990;11:191–207.
- [39]. Smith C. Religious participation and network closure among American Adolescents. *J Sci Study Relig* 2003;42:259–67.

- [40]. Gunnoe ML, Hetherington EM, Reiss D. Parental religiosity, parenting style, and adolescent social responsibility. *J Early Adolesc* 1999; 19:199–225.
- [41]. Furstenberg FF Jr. As the pendulum swings: teenage childbearing and social concern. *Fam Relat* 1991;40:127–38.

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Table 1
Percentage distribution of parent and family religiosity of teens aged 12–14 years, by gender and race/ethnicity

	Total	Gender		Race/ethnicity		
		Male	Female	White	Black	Hispanic
Parent religious attendance						
Never	16.0%	16.4%	15.6%	17.9%	9.1%	12.7% ***
Less than once a month	24.8%	24.5%	25.0%	26.1%	18.2%	23.1% ***
1–2 times a month	20.9%	21.1%	20.7%	19.4%	24.5%	26.2% ***
Once a week	27.3%	28.0%	26.7%	27.0%	28.0%	27.0% ***
More than once a week	11.0%	10.2%	11.9%	9.5%	20.2%	11.0% ***
Parent denomination						
Black Protestant	8.3%	7.4%	9.1% ***	—	63.0%	—
Evangelical Protestant	22.3%	20.2%	24.3% ***	24.6%	16.4%	12.8% ***
Mainline Protestant	27.1%	27.2%	26.9% ***	32.3%	9.1%	14.6% ***
Catholic	28.6%	32.1%	25.1% ***	27.0%	5.9%	65.3% ***
Jewish	1.3%	1.4%	1.2% ***	1.6%	0.0%	0.6% ***
Other	4.1%	3.8%	4.4% ***	4.6%	2.2%	1.9% ***
None	8.5%	7.9%	9.1% ***	9.9%	3.4%	4.9% ***
Parent religious beliefs						
“Need religion to have good values”	64.8%	65.2%	64.4%	63.0%	73.0%	67.7% ***
“God has [something] to do with what happens to me personally”	79.5%	79.1%	79.8%	81.6%	79.6%	65.2% ***
Frequency of family religious activity (youth report)						
None	34.3%	33.8%	34.9% *	36.9%	21.8%	32.4% ***
Once a week	33.7%	35.9%	31.5% *	34.0%	30.9%	34.6% ***
2–5 times a week	23.1%	21.3%	24.8% *	21.0%	33.4%	24.7% ***
6–7 times a week	8.9%	9.0%	8.8% *	8.2%	13.9%	8.4% ***
n	3949	1954	1995	2233	880	802

* $p < .05$;

.100 > *p*

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Table 2

Percentage of teens who had sexual intercourse before age 18 years, by religiosity, gender, and race/ethnicity

	Total	Gender		Race/ethnicity			
		Male	Female	White	Black	Hispanic	
Total	58.1%	56.5%	59.8%	55.8%	67.6%	62.4%	***
Parent religious attendance							
Never	69.6% ***	69.1% ***	70.0% ***	69.1% ***	69.4% *	75.0% ***	
Less than once a month	65.3% ***	63.2% ***	67.7% ***	62.8% ***	74.8% *	73.6% ***	
1–2 times a month	60.5% ***	58.5% ***	62.5% ***	56.1% ***	75.3% *	64.2% ***	
Once a week	48.3% ***	46.7% ***	49.9% ***	44.3% ***	63.0% *	56.8% ***	
More than once a week	45.5% ***	42.8% ***	47.8% ***	43.1% ***	57.7% *	35.5% ***	
Parent denomination							
Black Protestant	68.5% ***	72.8% ***	65.0% **	—	68.5% *	—	
Evangelical Protestant	60.2% ***	55.6% ***	63.9% **	60.1% **	61.6% *	59.8%	
Mainline Protestant	56.1% ***	55.0% ***	57.2% **	54.7% **	69.8% *	64.5%	
Catholic	56.3% ***	56.2% ***	56.4% **	54.1% **	64.6% *	61.2%	
Jewish ^a	41.6% ***	35.0% ***	49.4% **	36.2% **	—	—	
Other	44.4% ***	45.1% ***	43.7% **	43.4% **	50.8% *	71.5%	
None	64.7% ***	59.5% ***	69.2% **	62.7% **	88.9% *	74.4%	
Parent religious beliefs							
“Need religion to have good values”							
Yes	56.2% **	54.6% *	57.8%	53.7% *	65.7% *	56.7% *	
No	61.7% **	60.1% *	63.3%	59.4% *	72.7% *	68.2% *	
“God has [something] to do with what happens to me personally”							
Yes	56.8% ***	54.5% ***	59.0%	54.8% *	65.1% **	60.4%	
No	63.6% ***	64.1% ***	63.0%	60.3% *	77.4% **	66.3%	
Frequency of family religious activity (youth report)							
None	66.0% ***	63.9% ***	68.1% ***	64.7% ***	69.8%	72.2% *	

	Total	Gender		Race/ethnicity		
		Male	Female	White	Black	Hispanic
Once a week	55.1% ***	54.3% ***	56.0% ***	51.9% ***	70.9% ***	58.8% *
2–5 times a week	57.3% ***	55.5% ***	58.9% ***	54.7% ***	66.3% ***	59.3% *
6–7 times a week	41.6% ***	40.2% ***	42.9% ***	34.8% ***	59.8% ***	49.6% *
n	3949	1954	1995	2233	880	802

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

^aBecause of small sample size for „Jewish“, religious denomination among black and Hispanic teens, this category was grouped with „Other“, religious denomination.

Table 3

Contraceptive use at first sex among teens by religiosity, gender, and race/ethnicity

	Total	Gender		Race/Ethnicity			
		Male	Female	White	Black	Hispanic	
Total	78.3%	75.9%	80.6% **	78.7%	80.5%	74.0%	
Parent religious attendance							
Never	77.0%	78.1%	76.0%	76.8%	79.5%	76.0%	
Less than once a month	80.4%	78.2%	82.4%	80.3%	84.5%	79.6%	
1–2 times a month	79.3%	74.8%	83.7%	79.5%	81.9%	75.5%	
Once a week	76.8%	72.1%	81.6%	78.4%	77.3%	67.4%	
More than once a week	76.2%	77.9%	75.1%	76.4%	79.0%	68.5%	
Parent denomination							
Black Protestant	81.8%	79.0%	84.2%	—	81.8%	—	
Evangelical Protestant	75.1%	68.9%	79.5%	76.0%	74.4%	73.3%	
Mainline Protestant	79.1%	77.7%	80.4%	78.6%	80.4%	82.2%	
Catholic	77.8%	76.6%	79.5%	79.8%	84.0%	72.1%	
Jewish ^a	90.9%	91.5%	90.3%	89.4%	—	—	
Other	82.2%	74.2%	88.7%	81.2%	96.3%	79.0%	
None	79.1%	78.1%	79.9%	80.2%	72.0%	76.1%	
Parent religious beliefs							
“Need religion to have good values”							
Yes	77.3%	72.8% **	81.6%	77.7%	80.0%	72.0%	
No	80.0%	81.2% **	78.9%	80.2%	81.6%	78.0%	
“God has [something] to do with what happens to me personally”							
Yes	78.2%	75.6%	80.5%	78.4%	80.3%	73.7%	
No	78.8%	76.6%	81.0%	79.8%	80.9%	74.5%	
Frequency of family religious activity (youth report)							
None	79.3% *	78.3% **	80.3%	79.8%	77.7%	78.8% *	
Once a week	80.3% *	78.8% **	82.0%	79.9%	83.5%	78.2% *	
2–5 times a week	74.7% *	67.7% **	80.3%	75.4%	79.1%	64.2% *	

	Total	Gender		Race/Ethnicity		
		Male	Female	White	Black	Hispanic
6–7 times a week	74.5% [*]	71.7% ^{**}	77.3%	74.9%	81.6%	62.3% [*]
n	2800	1360	1440	1511	687	580

^{*} $p < .05$;

^{**} $p < .01$.

^a Because of small sample size for “Jewish” religious denomination among Black and Hispanic teens, this category was grouped with “Other” religious denomination.

Table 4

Odds ratios from event history models predicting the transition to first sexual intercourse, by gender and race/ethnicity

	Total	Gender		Race/Ethnicity		
		Male	Female	White	Black	Hispanic
Parent religious attendance	.95***	.93***	.96*	.94**	.98	.92**
Parent denomination						
Black Protestant	1.01	1.17	.90	—	.74	—
Evangelical Protestant	1.15	1.19	1.14	1.15	.81	1.63
Mainline Protestant	1.04	1.24	.97	1.04	.87	1.21
Catholic	1.08	1.18	.98	1.13	.74	1.23
Jewish ^a	.82	.91	.74	.84	—	—
Other	.88	.97	.79	.89	.68	1.36
None	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)
Parent religious beliefs						
Parent has strong beliefs ^b	.98	1.00	.97	1.02	.84	.96
Frequency of family religious activity (youth report)						
None	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)
Once a week	.96	1.02	.90	.94	1.05	.90
2–5 times a week	1.01	1.02	.99	1.02	1.05	.93
6–7 times a week	.73***	.73**	.72**	.64***	.97	.89
Family background						
Family structure						
Two biological/adoptive parents	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)
Single biological/adoptive parent	1.22***	1.08	1.33***	1.22**	1.25	1.12
Biological parent and other parent	1.26***	1.15	1.38***	1.24**	1.58**	.98
Other	1.33*	1.08	1.66*	1.33	1.57	1.46
R's mom was a teen mother	1.17**	1.18*	1.17*	1.21**	1.09	1.14
Parent education (0–20 years)	.98**	.97**	.99	.98*	.94*	1.00
Household Income (in \$10,000)	1.00	1.00	1.00	1.00	1.04	1.00
Received aid in the past year	1.08	1.10	1.06	1.14	1.01	1.14

	Total	Gender		Race/Ethnicity		
		Male	Female	White	Black	Hispanic
Physical environment risk index (0–7)	1.05**	1.07**	1.05	1.06*	1.02	1.06
Enriching environment index (0–3)	.94*	.92*	.95	.93*	.90	.97
Urban	.99	1.00	.99	.97	1.03	1.19
Individual characteristics						
Race/ethnicity						
Black	1.28**	1.53**	1.10	—	—	—
Hispanic	1.05	1.17	.96	—	—	—
White/other	(1.00)	(1.00)	(1.00)	—	—	—
Male	.85***	—	—	.78***	1.13	1.06
Age at baseline (years)						
12	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)
13	.87**	.89	.85*	.89*	.82	.83
14	.82***	.88	.75***	.85**	.78*	.71**
Age at first date (years)						
10–12	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)
13–14	.68***	.65***	.74**	.62***	.92	.71*
15+	.68***	.69***	.69***	.65***	.75*	.79*
Did not date	.30***	.28***	.32***	.30***	.30***	.33***
n	3949	1954	1995	2233	880	802
Wald chi-square (DF)	778.71 (32)***	450.00 (31)***	402.99 (31)***	517.74 (29)***	198.47 (29)***	151.82 (28)***

* $p < .05$;** $p < .01$;*** $p < .001$.^a Because of small sample size for “Jewish” religious denomination among Black and Hispanic teens, this category was grouped with “Other” religious denomination.^b Strong religious beliefs is defined as disagreeing with the following statements: “I don’t need religion to have good values” and “God has nothing to do with what happens to me personally.”

Table 5
Odds ratios from logistic regression models predicting contraceptive use at first sex, by gender and race/ethnicity

	Total	Gender		Race/ethnicity		
		Male	Female	White	Black	Hispanic
Parent religious beliefs						
Parent has strong beliefs ^a	.86	.70*	1.11	.90	.82	.76
Frequency of family religious activity (youth report)						
None	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)
Once a week	1.01	1.03	.98	.93	1.33	.92
2–5 times a week	.76*	.59**	.97	.74	1.01	.53
6–7 times a week	.74	.69	.77	.68	1.35	.54
Family background						
Two biological/adoptive parents	1.02	1.06	.97	1.14	.40**	1.20
R's mom was a teen mother	.81	.98	.67*	.70*	1.16	.90
Parent education	1.05*	1.07*	1.04	1.02	1.05	1.14**
Household income (in \$10,000)	1.00	1.00	1.00	1.01	1.03	.95
Received aid in the past year	.98	.97	1.02	1.12	.48**	1.22
Physical environment risk index	1.03	1.02	1.05	1.02	1.14	.94
Enriching environment index	1.19*	1.14	1.24	1.23*	1.16	1.00
Urban	.84	.81	.84	.86	.78	.26*
Individual characteristics						
Race/ethnicity						
Black	1.38*	1.54*	1.24	—	—	—
Hispanic	.97	1.13	.82	—	—	—
White/other	(1.00)	(1.00)	(1.00)	—	—	—
Male	.75**	—	—	.68**	.68	.98
Age at first sex	.99	.97	1.02	1.01	.84*	1.02
n	2800	1360	1440	1511	687	580
Wald chi-square (DF)	2.37 (19)***	1.76 (18)*	1.73 (18)*	2.02 (17)**	2.08 (17)**	1.53 (17)

Strong religious beliefs is defined as disagreeing with the following statements: "I don't need religion to have good values," and "God has nothing to do with what happens to me personally."

.100' > *d*

; 10' > *d*
**

; 50' > *d*
*

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