Racial, Ethnic, and Gender Variation in Adolescent Sexual Decision-Making Frameworks

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Abstract

Differences in adolescent sexual debut and activity across race/ethnicity and gender are well documented. However, research lacks a comprehensive analysis of the sexual decision-making frameworks of adolescents that considers both race/ethnicity and gender. Using the first two waves of the National Longitudinal Study of Adolescent Health attitudes about sex, pregnancy, birth control, reproductive knowledge, and parental approval and communication about sex are examined. Adolescent females hold more restrictive attitudes about sex, evince greater knowledge of and motivations to use birth control, and have greater parental communication about sex. Blacks are more motivated for sex and pregnancy than Whites and less motivated to use birth control. Later generations of Mexican Americans report higher motivations for sex and use of birth control.

Introduction

Variation in the timing of sexual debut across racial and ethnic groups and gender is well documented. Data from the 2002 National Survey of Family Growth indicate that among females ages 15-17, 30.4% of Whites, 40.8% of Blacks, and 25.1% of Hispanics had previously had sexual intercourse. Among men, 25.0% of Whites, 51.6% of Blacks, and 42.6% of Hispanic Americans had experienced sexual intercourse. In addition, among individuals ages 15-44 in 2002 who had ever had sex, the mean age at first sex for women was 17.3 for Whites, 16.4 for Blacks, and 18.0 for Hispanics. For men, the average age was 17.1 for Whites, 15.4 for Blacks, and 16.5 for Hispanic Americans.

While these race/ethnic and gender differences are well established, most research in this area focuses on examining a limited set of explanatory variables such as parental communication or the perceived costs and benefits of sexual activity. For example, we know that adolescent males report more benefits of sexual activity while females report more costs (Deptula, Henry, Shoeny, & Slavick, 2006; Cuffee, Hallfors, & Waller, 2007) and that evaluations of costs and benefits are associated with the timing of sexual debut. Although these types of studies add to our understanding of the factors that shape sexual debut and adolescent sexual activity, this literature lacks a comprehensive picture of the conditions that come together to influence adolescent sexual decision making. Looking at these conditions simultaneously allows us to gain a better understanding of sexual activity among adolescents. For example, if two groups of teens both have high motivations to engage in sexual activity and one also has high motivations to use contraception then an analysis that focuses on only on motivations to engage in sex would miss this important difference that has implications for pregnancy (and other) outcomes among these two groups. The substantial differences by race/ethnicity and gender in sexual debut, sexual

activity, and pregnancy merit efforts to delineate the factors that coalesce to form the sexual decision-making framework of adolescents. This research fills this gap by examining race/ethnic and gender variation in attitudes concerning sexual activity, pregnancy, and birth control. We also evaluate group differences in levels and emphasis of parental communication about sex, pregnancy, and birth control as well as knowledge of birth control and reproduction. Our approach allows us to examine each outcome separately and then sketch a rough sexual decision-making framework for each group not possible with prior research designs that focus on a narrow set of outcome measures. The race/ethnic groups examined include non-Hispanic Whites, non-Hispanic Blacks, and Mexican Americans. For ease of presentation, we refer to non-Hispanic Whites and non-Hispanic Blacks, respectively, as Whites and Blacks throughout the remainder of this article. As highlighted later, we make several methodological advances to the research designs typically used in this area.

Background

Furstenberg, Morgan, Moore, and Peterson (1987) outline three explanations for racial differences in the timing of sex. They include socioeconomic differences, social conditions, and variation in sexual norms and attitudes. Explanations focusing on socioeconomic differences argue that individuals from disadvantaged backgrounds have more limited opportunities for advancement and therefore see lower opportunity costs for early sexual activity that may lead to premarital childbearing. The second explanation views social conditions, such as family structure, as an explanation for race differences in the timing of sex. One example of this explanation centers on parental monitoring in single-parent families. Adolescents from single-parent households may encounter less parental supervision, and that may translate into more opportunities for sexual activity.

Of the three explanations outlined by Furstenberg et al. (1987) the first two have received more empirical testing than the third. While we include variables that test the socioeconomic differences and social conditions explanations, our focus is on the third less often studied explanation that emphasizes sexual norms. This perspective argues that subcultural differences in sexual norms and attitudes about premarital childbearing influence racial/ethnic differences in sexual activity. As Furstenberg et al. (1987) note, differences in attitudes may be influenced by socioeconomic position and social conditions, but they may also exert an independent influence beyond the relationship with the earlier conditions. We extend this argument beyond racial differences in attitudes to also include differences across gender. We do not test the influence of these norms on sexual activity but rather present a comprehensive analysis of variation in attitudes about sex and childbearing across race/ethnicity and gender. Previous research using a subset of the measures employed here that gauge the costs and benefits of sex show causal relationships with sexual activity (see Deptula et al., 2006; Cuffee et al., 2007).

East (1998) shows that among women there is variation in ideas about the life course across racial and ethnic groups. Hispanic girls report the youngest desired age at first birth and marriage, while Black girls report the highest likelihood that they would have a birth before or without marriage. She describes this variation by saying "…girls of different races and ethnicities are likely exposed to and evidently react to different socialized expectations of the timing of events associated with the transition to adulthood. Moreover, these cultural norms apparently exist independent of the varying social and economic circumstances in which girls of different racial and ethnic backgrounds live (159)." This provides further evidence of the need for a comprehensive examination of attitudes about sexual activity and non-marital childbearing that considers racial/ethnic and gender variation.

To examine variation in sexual norms across these groups we take a social constructionist approach that views ideas about sex and early childbearing as influenced by social and environmental factors (Smith, Guthrie, & Oakley, 2005). These factors shape the costs and benefits that an individual associates with an action, in this case sexual activity. Using this perspective, we review the social and environmental influences of family and educational investments on adolescent attitudes about sex and childbearing; we argue that these influences contribute to differences in attitudes across race/ethnicity and gender. We acknowledge other influences on attitudes, such as peer groups and the media, but limit our investigation to family and education. We also acknowledge the theory of reasoned action which as described by Flores, Tschann, and Marin (2002) suggests that an individual's intentions for behavior are influenced not only by their own attitudes about the behavior, but also their perception of how their significant others would feel about them engaging in that behavior. This underscores the need to evaluate parental attitudes about their adolescent's sexual activity. The next section outlines how each of these factors potentially shapes attitudes about sex and childbearing.

Family

The family is one agent of sexual socialization for children and adolescents. According to Fingerson (2005) children are exposed to their parents' ideas about sexual behavior through "…sex-role learning, the direct transmission of sexual information, family interaction, family values, social control, and family structure…(948)." Luker (1996) argues that parents want to exercise power over their children's sexual behavior to help them avoid any potential negative outcomes of sexual activity. Messages that children receive about sexuality may vary with the child's gender and the racial/ethnic origin of the family and are a potential source of subgroup differences in attitudes about the costs and benefits of early sexual activity and childbearing.

Although studies of the influence of the family on sexual attitudes of young men are less frequent than those on young women, the overall pattern seems to be a greater concern for the sexual activity of daughters than sons (Luker, 1996; Gonzalez-Lopez, 2004). In addition, studies consistently show that adolescent males report more benefits of sexual activity while females report more costs (Deptula et al., 2006; Cuffee et al., 2007). For example, adolescent girls report higher levels of shame and guilt associated with sexual activity (Cuffee et al., 2007). This gender difference in costs and benefits could be related to the fact that the mother of a child born outside of marriage is likely to assume the primary caretaking role and to face a greater disruption of her life course than the child's father.

The qualitative work of Gonzalez-Lopez (2003; 2004) provides insight into sexual socialization processes in Mexican American families, with a focus on daughters. Her work suggests that both mothers and fathers seek to exert control over their daughters' sexual activity as a means to protect them from unwanted outcomes such as a pregnancy outside of marriage, sexually transmitted diseases, and gender and sexual oppression. Her research also highlights concerns about sexual activity impeding the socioeconomic advancement of daughters as well as respect and gender equality within marriage. In this sense, a daughter's virginity is viewed as a form of capital for advancement that parents want to safeguard. Upchurch, Aneshensel, Mudgal, and McNeely (2001) argue that Hispanic females are held to more restrictive values about sex compared to males. Oropesa (1996) adds that traditional Mexican culture places great importance on marriage for women and it is seen as an essential part of womanhood. In addition, Upchurch et al. (2001) suggest that the familistic orientation among Hispanic families underscores the major role that an adolescent's family plays in their value socialization.

Familism is defined as a focus on the collective over the individual and a high value placed on family roles (Landale & Oropesa 2007).

Highlighting the importance of identifying generational status among Mexican Americans, Gonzalez-Lopez (2003) discusses how immigrant women's attitudes about sexuality are impacted by socioeconomic factors and social networks experienced in the United States. As time spent in the United States increases these women's goals for their daughters are increasingly focused on socioeconomic advancement more than family, and the importance of virginity as a form of capital loses ground against other forms of capital such as education. This suggests that later generations of Mexican American women receive fewer traditional messages about the importance of virginity and more emphasis on educational and career goals. This leads to the expectation that ideas about adolescent sexual activity will become less traditional among later generations. We examine Mexican American adolescents by generational status.

As noted, one aspect of family life that may influence attitudes about sexual activity and early childbearing is family structure. Family structure and stability are known to vary across race and ethnicity and this may be a source of variation in attitudes. At least three components related to family structure that may impact attitudes about sexual activity have been highlighted by past research: parental divorce, sibling sexual behavior, and religious upbringing.

Adolescents who have experienced a parental divorce have earlier ages at sexual debut as well as a higher number of partners compared to adolescents whose parents' marriages are intact (Booth, Brinkerhoff, & White, 1984; Furstenberg & Teitler, 1994; Newcomer & Udry, 1987). One factor underlying this relationship is adolescents' exposure to the dating and sexual relationships of their divorced parents. Additionally, Amato and Booth (1997) suggest that exposure to a non-traditional household results in a lessened adherence to belief in life-long

commitments in intimate relationships. Forste and Haas (2002) find that among males, living with both parents at age 14 delayed first intercourse, while having a mother with a teenage birth hastened sexual activity. East (1998) found that among Hispanic girls, having a mother who experienced a first birth and marriage at a young age increased adolescent intentions to engage in sexual activity.

Another family influence on attitudes about sexual activity and early childbearing is sibling sexual activity. Hogan and Kitagawa (1985) suggest that Black girls are substantially more likely to be sexually active and to have a pregnancy during their teenage years if they have an older sister who experienced teen motherhood. East (1996) offers possible explanations for this pattern by showing that girls who have at least one sister who had a birth during adolescence endorse more accepting attitudes about non-marital fertility, earlier family transitions (e.g. first sex and first birth), and lower goals for education and work. These attitudes were not related to within-family characteristics included in the study such as mother's discipline style, but other within-family influences cannot be ruled out.

The family environment may also influence adolescents' attitudes about early sexual activity and childbearing through religious upbringing. Religiosity delays first sex by shaping attitudes about sexual activity (Meier 2003). Werner-Wilson (1998) finds that adolescents with higher levels of religious participation have less permissive attitudes about adolescent sex. In addition, Deptula et al. (2006) find that the importance placed on religion is positively associated with perceived costs of sex and negatively associated with perceived benefits of sex. Regnerus (2005) shows that parental religiosity influences the frequency, content, and ease of parent-child communication about sex and birth control. Gonzalez-Lopez (2003) highlights how affiliation may impact adolescent attitudes about sexual activity by drawing attention to the high value

placed on premarital virginity for women in the Catholic Church which is the dominant religious affiliation among Mexican Americans.

Educational Investments

Educational investments are another potential influence on attitudes about sexual activity during young adulthood. Better school performance and positive school attitudes reduce the likelihood that a teen will have sex (Forste & Haas, 2002; Furstenberg et al., 1987). On a related note, Hogan and Kitagawa (1985) find that higher career aspirations among Black adolescents are associated with lower rates of sexual activity. For Black and White girls, lower school and work aspirations are predictive of greater intentions for sexual activity and non-marital childbearing (East, 1998). For White, Black, and Hispanic girls, more positive school and work aspirations are associated with a higher desired age for their first birth. Overall, low aspirations for future educational and career goals are associated with earlier sexual activity, marriage, and first birth and higher expectations of having a non-marital birth, independent of socioeconomic factors (East, 1998). This suggests that adolescents who are more engaged in and oriented toward achievement in school have less favorable attitudes toward teenage sexual activity. This could be related to the potential opportunity costs of sexual activity and teenage childbearing for later academic achievement. Given these social and environmental factors, there is potential for subcultural differences in attitudes about sexual and reproductive activity.

Hypotheses

This research addresses the question of whether attitudes about sex, pregnancy, birth control, reproductive knowledge, and parental communication and approval of sex vary across race/ethnicity and gender. Based on the research reviewed above, the following hypotheses are tested:

1. Adolescent females will perceive more costs and fewer benefits of sex compared to males.

2. Mexican American and Black adolescents will be more accepting of sexual activity and non-marital pregnancies than Whites.

3. Earlier generations of Mexican American adolescents will report less favorable attitudes toward sexual activity than later generations.

Data and Methods

The data are from the first two waves of the National Longitudinal Study of Adolescent Health (Add Health). The Add Health study is based on a nationally representative sample of U.S. students in grades 7 through 12 in 1994. The data include three waves of in-home interviews, which were conducted in 1995 (Wave I), 1996 (Wave II), and 2001-02 (Wave III). The initial data collection also included an in-school questionnaire and a parent questionnaire. The data for the present study are taken from Waves I and II. We restrict our sample to adolescents who are White, Black, or Mexican American, have a valid sample weight, and are at least age 15 by Wave II. The age restriction is due to our use of sexual attitude measures, which were only asked to respondents who were ages 15 and older. This series of questions was asked at both Waves I and II, so to be included in our sample, respondents had to be at least 15 years of age by Wave II. Of the 20,745 persons interviewed in 1995, 14,032 are included in our sample.

We employ Bayesian procedures for the multiple imputation of missing data to avoid erroneous inferences that might result from the rejection of cases that are not missing completely-at-random (Schafer, 1997). Five imputations were made to generate values for missing data. Each of the five datasets was then analyzed using the survey commands available in SAS to generate the correct parameter estimates and standard errors, given the complex sampling design. The results were then combined to yield estimates, standard errors, and p-

values that reflect uncertainty about missing data (Schafer, 1997). In all analyses, the data are weighted by the longitudinal weight appropriate for analyses based on Waves I and II.

Dependent Variables

The dependent variables are a series of attitudinal items measured at Wave I. As described above, some of the sexual attitude questions were only asked of respondents who were at least age 15. To maximize cases and since the same set of questions was asked at both Waves I and II, we use the sexual attitude measures at Wave I for all respondents old enough to complete that series of items. For those respondents who were not old enough at Wave I, but who were at Wave II, we use responses from Wave II. Indices were created from the items measuring attitudes about sex, pregnancy, birth control, reproductive knowledge, and parental communication about sex with the respondent. The resulting latent variables represent parental communication about sex, feelings of efficacy concerning birth control, motivations to use birth control, the respondent's perception of their mother's approval of their sexual activity, parental approval of sexual activity, motivations for sex, motivations for pregnancy, and knowledge of birth control and reproduction. In an effort to save space, the list of the individual items used to make up these latent variables is shown in the appendix table. The alpha coefficients are also reported in the appendix table.

In addition, a number of individual items were included as outcome variables based on suggestions from past research about race/ethnic differences in attitudes about sex and pregnancy. They include responses to the question, "Regardless of whether you have ever had a child, would you consider having a child in the future as an unmarried person?" Other items asked whether or not the respondent's ideal romantic relationship in the next year would include having sex or a pregnancy. Finally, one of the items included in the latent variable of

motivations for pregnancy was also examined individually. This was the measure of whether a pregnancy would be embarrassing to the respondent.

Predictor Variables

Race/Ethnicity. We use the Wave I reported race and Hispanic origin to assign respondents to racial/ethnic groups. Respondents were allowed to select more than one race at Wave I, but using rules developed by the Add Health team, we assign women to a single race.

Generational status. The first generation is defined as the foreign born, the second generation as the native born of foreign parentage (one or both parents foreign born), and the third generation as the native born of native parentage. Generational differences are generally interpreted in terms of exposure to life in both the origin and destination countries, with exposure determined by one's own experience and the experience of one's parents. Greater exposure to the United States usually results in weaker cultural and social differences from the U.S. mainstream (Alba & Nee, 2003). Our measure of third generation captures respondents who are third and higher generations.

Gender. Gender is taken from the self-report at Wave 1.

Control Variables

Age. Age is measured in years calculated by subtracting the respondent's reported date of birth from the date of the Wave 1 interview.

Mother's education. Maternal education is coded into four categories: less than a high school degree, high school degree, some college, and a four-year college degree or higher. In most cases, we used the resident mother's report in the Wave I parent questionnaire. If this was unavailable, we used the adolescent's report of the resident mother's education. In a small

number of cases in which there was no resident mother, we used the adolescent's report of the nonresident biological mother's education.

Household Income. Our measure of income reflects the total income of the adolescent's household at Wave I, as reported by the resident parent.

Family Structure. We categorize four family types: families with two resident biological parents; other families with two resident parents; mother-only families; and all other families.

Family protective factors. We measure family protective factors with a scale based on three questions. Adolescents were asked: "How much do you feel that: people in your family understand you?, you and your family have fun together?, your family pays attention to you?" Responses ranged from 1 to 4 on each item with higher scores representing greater family protective factors (alpha=.79).

Mother closeness. We measure the respondent's report of their closeness to their mother with three items. Respondents were asked: "Most of the time, your mother is warm and loving to you," You are satisfied with the way your mother and you communicate with each other," and "Overall, you are satisfied with your relationship with your mother." Responses include strongly agree, agree, neither agree or disagree, disagree, and strongly disagree. Higher scores were coded to represent greater closeness (alpha=.85).

Religiosity. We measure adolescent religiosity with an index based on Meier (2003). Four measures of religiosity are summed to create the index. They include religious salience, frequency of attendance at worship services, participation in youth groups, and frequency of prayer. The index ranges from 4 to 17 (with higher scores indicating greater religiosity) and is highly reliable (alpha=.86). Adolescents who report no religious affiliation were not asked the subsequent questions about religious involvement and importance. We assign the lowest values

on these measures for youths reporting no religious affiliation. For example, they are coded as never attending religious services and as rating the salience of religion in their lives as very unimportant.

Educational Investments. Three measures of educational investments at Wave I are employed: grades, school engagement, and school adjustment. The measure of grades ranges from 0 to 4 and is an average of students' reports of their most recent grades in math, English, science, and history. School engagement is an additive scale based on responses to two items (scored 0 to 4) that measured how often the adolescent had trouble concentrating in school or completing homework (alpha=.69). Our school adjustment scale is based on levels of agreement with five statements: "You feel close to people at your school," "You feel like you are a part of your school," "You are happy to be at your school," "The teachers at your school treat you fairly," and "You feel safe in your school." Responses to these items, which ranged from 1 to 5, were summed (alpha=.76).

Sexual activity before Wave 1. A variable was also added indicating whether or not the respondent had sex prior to Wave 1.

Analytic Strategy

Linear regression models are used to predict continuous outcome variables and logistic regression models are used for dichotomous outcomes. Although our main interest is in describing race/ethnic and gender differences in the outcome variables we employ an additive modeling technique. This strategy illustrates the baseline effect of race/ethnicity and gender, shows how socioeconomic, family, and educational characteristics potentially mediate these differences, and then looks for interactions between race/ethnicity and gender. The models are run in six steps. The first model includes only race/ethnicity, gender, and age. The second

model adds socioeconomic characteristics. The third model adds family background characteristics. Educational investments and whether the respondent has had sex by Wave 1 are added in models four and five, respectively. The final model includes interactions that are the product of race/ethnicity and gender to test whether the influence of gender differs across race/ethnicity. In analyses where the interaction terms did not contribute to the explanatory power of the model, the coefficients are not shown in an effort to save space.

Results

Table 1 presents the descriptive statistics for the sample broken down by race/ethnicity and generational status for Mexican Americans. Looking first at socioeconomic characteristics, the results indicate that Mexican American respondents are the most likely of the race/ethnic groups to have mothers with less than a high school education and Whites are the most likely to have college educated mothers. The highest levels of family income are in White households with no statistically significant income differences among Blacks and Mexican Americans. Black adolescents are the least likely to live in households with two biological parents. Regarding educational investments, Blacks have lower self-reported grades, school adjustment, and perceptions of their likelihood of attending college compared to Whites, but report higher levels of school engagement. All three generations of Mexican Americans report lower grades and perceptions of college attendance than Whites. Black adolescents are more likely than adolescents from other race/ethnic groups to have had sexual intercourse by the time of the Wave I survey.

The last block of variables in Table 1 presents the means for the attitude variables. Overall, the results suggest higher motivations for sex among Black adolescents and greater consideration of a non-marital birth among Blacks and later-generation Mexican Americans. Blacks and

third-generation Mexican American adolescents also report higher motivations for pregnancy compared to Whites. All race/ethnic groups report lower feelings of embarrassment concerning a pregnancy than Whites, and Blacks and first- and second-generation Mexican Americans are more likely to indicate that their ideal relationship includes a pregnancy. Compared to Whites and Blacks, first- and second-generation Mexican Americans report lower motivations to use birth control and lower feelings of efficacy concerning birth control. First-generation Mexican Americans also have significantly lower scores than both Black and White adolescents on the items tapping reproductive knowledge. Black adolescents have lower scores on this outcome compared to Whites.

The last three attitude measures concern parental communication and approval of sexual activity. Blacks perceive greater parental approval of sexual activity than all other race/ethnic groups and consistent with their perception, parents of Black adolescents report the highest levels of approval of sexual activity (although approval is low overall). Finally, parents of first- and second-generation Mexican Americans report lower levels of communication about sexual activity with their children than parents of Black and White adolescents. Parents of third-generation Mexican Americans also report lower levels of parental communication compared to Blacks.

The findings for the multivariate analyses are grouped into four areas: attitudes about sex, pregnancy, birth control and reproductive knowledge, and parental communication and approval concerning sex. Due to space constraints only the coefficients for race/ethnicity, gender, and the interaction terms are presented in the tables. However, the coefficients for all predictor variables are shown for the first outcome, motivations for sex, for illustrative purposes. The method of summarizing the results for each race/ethnic group in reference to White adolescents is not

intended to suggest a deficit model and alternate methods of summarizing the sexual decision-making frameworks are being considered.

The results of the regression models for attitudes about sex are presented in Table 2. For the first outcome, the index of items representing motivations to have sex, the results in Model 1 show that compared to White adolescents, Blacks report higher motivations for sex than Whites. Compared to adolescent males, females report lower motivations for sex. The size of the coefficient for gender is approximately four times that for Black racial identification. The addition of control variables in Models two through five does little to change the size of the coefficients, especially for gender. The socioeconomic variables added in Model 2 show that higher maternal education is associated with lower motivations for sex, but this difference disappears once family characteristics are added in Model 3. Family structures other than those with two biological parents are associated with higher motivations for sex while greater family protective factors and reports of mother closeness decrease motivations for sexual activity. Greater adolescent religiosity is associated with lower motivations for sexual activity. Higher grades, school engagement, and school adjustment decrease motivations for sexual activity. As expected, those adolescents reporting that they are sexually experienced at Wave 1 have greater motivations for sex. The interaction terms for the model suggest that the effect of gender varies across race/ethnicity. The difference between males and females in motivations to have sex is larger for Blacks than for Whites.

The second panel in Table 2 shows the results from a logistic regression model predicting whether the respondent's ideal relationship includes sex. In Model 1, the odds ratios for Blacks and third-generation Mexican Americans are over one and a half times those for Whites, and females have lower odds than males. This pattern changes little across Models 1 through 4. As

in the model of motivations for sex, the interaction terms suggest that the effect of gender varies across race/ethnicity. The gender difference among Blacks is greater than that for Whites. Overall, the results of these two models suggest that compared to Whites, Black adolescents have higher motivations for sex and are more likely to report that their ideal relationship includes sex. Compared to adolescent males, females have substantially lower motivations to engage in sexual activity and are less likely to report that their ideal relationship includes sex. The results for both outcomes suggest that the effect of gender on attitudes about sex varies across race/ethnicity with greater differences between Black males and females compared to Whites.

The results of linear and logistic regression models regarding pregnancy outcomes are presented in Table 3. The first model is a logistic regression predicting whether the respondent would consider having a non-marital birth. Compared to Whites, all other race/ethnic groups, except first-generation Mexican Americans, are substantially more likely to consider having a non-marital birth. After the addition of the control variables, Blacks have over twice the odds and second and third-generation Mexican Americans nearly twice the odds of reporting that they would consider a non-marital birth. In addition, compared to adolescent males, females report greater consideration of a non-marital birth. The race/ethnicity and gender interaction terms are added in the final model, but the Wald test indicates that they are not significant.

The second panel of Table 3 illustrates the results of a linear regression for motivations for pregnancy. Blacks and third-generation Mexican Americans have higher motivations for pregnancy compared to Whites. There is no significant gender difference in motivations for pregnancy. The interaction terms between gender and race/ethnicity are not significant.

The third panel in Table 3 shows the results of a linear regression of the respondent's report of how embarrassing a pregnancy would be for them. In the first model, compared to Whites, all

race/ethnic groups report lower levels of embarrassment in response to a pregnancy. The addition of the control variables accounts for the difference between first-generation Mexican Americans and Whites. Compared to adolescent males, females report higher levels of embarrassment in response to a pregnancy. The addition of the race/ethnic and gender interaction terms shows that the gender difference is greater for Black and second-generation Mexican adolescents than for Whites.

The last panel in Table 3 presents results from a logistic regression model predicting whether the respondent's ideal relationship includes a pregnancy. In the first model, the odds ratios for Blacks and both first and second-generation Mexican Americans are over twice as high as for Whites. The addition of socioeconomic characteristics in Model 2 accounts for the higher odds for second-generation Mexican Americans, suggesting that economic factors explain differences in ideas about pregnancy between Whites and this group. Compared to adolescent males, females are less likely to report that their ideal relationship includes a pregnancy, and the interaction terms suggest that the role of gender does not vary by race/ethnicity.

Table 4 shows the results for motivations for birth control and reproductive knowledge. The first panel shows the model predicting knowledge of birth control and reproduction. Compared to Whites, Blacks and first-generation Mexican Americans have significantly lower scores on this outcome. Compared to adolescent males, females report higher knowledge of birth control and reproduction. The differences for Blacks and females are robust to the addition of the control variables. The effect for first-generation Mexican Americans in mediated by the addition of the family characteristics in Model 3. The interaction terms do not suggest that the effect of gender varies across race/ethnicity.

The second panel in Table 4 presents the results of a linear regression of feelings of efficacy regarding birth control. In the first model the results indicate that first and second-generation Mexican Americans have lower feelings of efficacy, while adolescent females report greater feelings of efficacy than males. After the addition of the control variables, differences remain for adolescent females. Again, the interaction between gender and race/ethnicity is not significant.

The last panel in Table 4 shows differences in motivations to use birth control. Compared to Whites, all other race/ethnic groups have significantly lower motivations to use birth control, and females report higher motivations compared to males. While the addition of the control variables reduces the coefficients for race/ethnicity, the differences remain substantial. The interaction terms do not indicate that the influence of gender varies across race/ethnicity for motivations to use birth control.

Table 5 illustrates the linear and logistic regression models tapping parental communication and approval concerning sex. The first panel of Model 5 shows that compared to Whites, Blacks perceive higher and first- and second-generation Mexican Americans perceive lower levels of parental approval of their sexual activity. Compared to adolescent males, females perceive lower levels of parental approval of their sexual activity. The interaction terms suggest that the influence of gender does vary across race/ethnicity, with the difference between males and females greater for all other race/ethnic groups except third-generation Mexican Americans compared to Whites.

Results for actual reports of parental approval are presented in the second panel of Table 5. Compared to White parents, Black parents report higher approval of their adolescents engaging in sexual activity. Parents of female adolescents report lower levels of approval of sexual

activity than parents of males. This is consistent with the perceptions of parental approval for Blacks and adolescent females. However, no differences were found in mother's reports of approval for first and second-generation Mexican Americans even though the respondent's perceptions of parental approval varied for these groups. The interaction terms do not suggest that the influence of gender varies across race/ethnicity.

The final panel of Table 5 shows differences in levels of parent-child communication about sex and birth control. Compared to parents of White adolescents, parents of Blacks report greater levels of communication with their children. Parents of first- and second-generation Mexican American adolescents report lower levels of parental communication. Finally, parents of daughters report greater levels of communication than parents of sons. The addition of the control variables in Models 2 through 5 slightly weakens the differences by race/ethnicity. The interaction terms suggest that the influence of gender is similar for the race/ethnic groups.

Discussion

Differences in adolescent sexual activity across race/ethnicity and gender are well established. In response, researchers have examined various factors argued to influence adolescent sexual activity. However, this line of research is characterized by studies with a narrow focus on explanatory variables and lacks a comprehensive analysis of the range of factors that come together to shape an adolescent's sexual decision-making framework with attention to variation across both race/ethnicity and gender.

This study fills this gap by examining attitudes about sex, pregnancy, birth control, reproductive knowledge, and parental communication about sex. The social constructionist approach views attitudes as influenced by social and environmental factors. These factors shape the costs and benefits an individual associates with an activity. We highlighted ways in which

the social and environmental factors of family and education investments vary across both race/ethnicity and gender in ways that would differentially shape adolescents' attitudes about sexual activity. Our goal in this work was to examine variation in a range of attitudes about sex and reproduction across race/ethnicity and gender.

The results indicate substantial differences across these groups that remain after the inclusion of numerous control variables and offer a more complete picture of attitudes about sexual activity for these groups. As a next step we summarize the findings for each race/ethnic group and highlight gender differences to provide a general sketch of the adolescent sexual decision-making framework for each of these groups. By looking at multiple aspects of attitudes about sex and pregnancy we provide a more complete picture of adolescents across these groups. We are able to go beyond past research that focuses on limited aspects of attitudes and characterize adolescents in multiple respects. For example, in addition to identifying which groups are more motivated to engage in sexual activity we can concurrently describe attitudes about birth control. Are adolescents who are motivated for sexual activity also knowledgeable about and motivated to use birth control?

For Blacks, the picture that emerges is of adolescents who on average operate under a substantially different sexual decision-making framework compared to Whites. Of the twelve outcome variables investigated, Black adolescents' responses were significantly different from Whites on eleven measures (no significant difference for feelings of efficacy regarding birth control). In addition, in none of those eleven measures did the control variables entirely mediate the difference.

On average, Blacks are more motivated to have sex and to become pregnant while also being less knowledgeable about and motivated to use birth control compared to Whites. Black

adolescents are more likely to report that their ideal romantic relationship includes sex (58%) and pregnancy (20%) compared to Whites. They rate experiencing a pregnancy as a less embarrassing event compared to White teens.

In addition, parents of Black adolescents report greater approval of their child engaging in sexual activity (although approval overall is low) and the adolescents are aware of this. There is also greater communication between Black adolescents and their parents concerning sex compared to Whites and Mexican Americans, but further investigation is needed to uncover the specific content of this communication. Black respondents are also more likely than all other race/ethnic groups to report being sexually experienced (58%) at the time of the Wave I survey.

For Mexican Americans, the results indicate that differences compared to Whites vary across the generations. There are fewer differences between Whites and Mexican Americans of any generation compared to between Whites and Blacks. In addition, on average about half of the differences in outcome measures that were significant in the baseline models for Mexican Americans were mediated by the addition of the control variables.

Looking at the baseline models for the outcomes, first-generation Mexican American adolescents report a lower knowledge of birth control, feelings of birth control efficacy, and motivations to use birth control. They also are more likely than White adolescents to report that their ideal relationship includes a pregnancy and lower feelings of embarrassment in response to a pregnancy. They report lower perceived parental approval of their sexual activity as well as less communication with parents about sex.

Second-generation Mexican Americans are more likely than Whites to say they would consider having a non-marital birth and that their ideal relationship includes a pregnancy. Along with this, they report that a pregnancy would be less embarrassing for them compared to Whites.

They report lower motivations to use and feelings of efficacy regarding birth control. Additionally, they indicated lower levels of parental communication about sex and perceived parental approval.

Third-generation Mexican American adolescents are more likely than Whites to say that their ideal romantic relationship includes sex and to indicate that they would consider a non-marital birth. They also report higher motivations for pregnancy and less embarrassment in response to a pregnancy than Whites. They also report lower motivations to use birth control and greater perceived parental approval of sexual activity.

To gain additional insight into patterns among Mexican Americans we tested for differences in attitudes between the three generations using models with just generational identifiers and no other variables. The results of these tests are shown in the second appendix table. Overall, these results reveal that third-generation Mexican Americans stand out from the first and second generations. The only differences between first- and second-generation adolescents were in knowledge of and motivations to use birth control, with second-generation teens more knowledgeable and motivated for use. The third generation stands out from earlier generations in many respects. Third-generation adolescents are significantly more likely to have had sex by the time of Wave 1. They have higher motivations for both sex and pregnancy along with greater motivations to use birth control. They perceive greater parental approval of sexual activity (although no differences were found in actual reports of parental approval across the generations) and report significantly higher levels of parental communication about sex and pregnancy. Additionally, compared to first-generation Mexican Americans, they are less likely to indicate that their ideal romantic relationship includes a pregnancy and show a greater knowledge of birth control and reproduction. These findings suggest that first and second-

generation Mexican American teens hold similar attitudes about sex and pregnancy and rates of early sexual activity, but that the third generation stands out. We note that our measure of third generation includes third and later generations.

In addition to examining race/ethnic variation we also considered gender differences in these outcomes. The overwhelming message is that the sexual decision-making framework of adolescent males is not the same as that for females. Of the twelve outcomes studied, there was only one variable, motivations for pregnancy, where a gender difference did not emerge.

Adolescent females are less motivated for sex and are less likely to say their ideal romantic relationship includes sex and a pregnancy. Adolescent females are more likely than males to say that a pregnancy would be embarrassing for them and they have greater knowledge of, feelings of efficacy regarding, and motivations to use birth control. Parents of adolescent females report lower levels of approval of their sexual activity and these teens are aware of this. Parents of teen girls also report greater communication about sex and pregnancy than those of boys. Overall, the picture suggests that adolescent females hold more conservative values about engaging in sexual activity and that they are more motivated and knowledgeable about birth control than males. Only one outcome suggested more liberal values held by adolescent females, consideration of a non-marital birth. Girls were more likely than boys to indicate that they would consider a non-marital birth at some time.

We also incorporated interaction terms for race/ethnicity and gender to examine whether the influence of gender varied for Whites, Blacks, and Mexican Americans. In the majority of the models, the interaction terms did not suggest any significant differences. The most substantial conclusion is that for outcomes such as motivations for sex, whether their ideal relationship

includes sex, if a pregnancy would be embarrassing, and perceptions of parental approval of sexual activity, the gender difference between Black adolescents is greater than that for Whites.

With well documented differences in adolescent sexual debut and activity across race/ethnic groups and gender it is important to gain a better delineation of the sexual decision-making framework to further our understanding of these patterns. While past studies have focused on specific aspects of attitudes about sexual activity among adolescents, we took a more comprehensive approach and described variation in attitudes about sex, pregnancy, birth control, reproductive knowledge, and parental attitudes and approval about sexual activity. Our results indicate substantial differences across race/ethnicity and gender and shed light on factors that potentially influence adolescent sexual activity and differential outcomes among those teens who engage in sex. Future research may benefit from taking a closer look at the potential sources of this variation.

References

Amato, P. R. & Booth, A. (1997). *A Generation at Risk: Growing Up in an Era of Family Upheaval*. Cambridge: Harvard University Press.

Booth, A., Brinkerhoff, D. B., & White, L. K. (1984). The Impact of Parental Divorce on Courtship. *Journal of Marriage and the Family 46*, 85-94.

Chandra A., Martinez G. M., Mosher W. D., Abma J. C., & Jones J. (2005). Fertility, Family Planning, and Reproductive Health of U.S. Women: Data from the 2002 National Survey of Family Growth. National Center for Health Statistics. Vital Health Stat *23*(25).

Cuffee, J. J., Hallfors, D. D., & Waller, M. W. (2007). Racial and Gender Differences in Adolescent Sexual Attitudes and Longitudinal Associations with Coital Debut. *Journal of Adolescent Health 41,* 19-26.

Deptula, D. P., Henry, D. B., Shoeny, M. E. & Slavick, J. T. (2006). Adolescent Sexual Behavior and Attitudes: A Costs and Benefits Approach. *Journal of Adolescent Health 38*, 35-43.

East, P. L. (1996). Do Adolescent Pregnancy and Childbearing Affect Younger Siblings? *Family Planning Perspectives 28*, 148-153.

East, P. L. (1996). The Younger Sisters of Childbearing Adolescents: Their Attitudes, Expectations, and Behaviors. *Child Development 67*, 267-282.

East, P. L. (1998). Racial and Ethnic Differences in Girls' Sexual, Marital, and Birth Expectations. *Journal of Marriage and the Family 60*, 150-162.

Fingerson, L. (2005). Do Mothers' Opinions Matter in Teens' Sexual Activity? *Journal of Family Issues 26*, 944-974.

Flores, E., Tschann, J. & Marin, B. (2002). Latina Adolescents: Predicting Intentions to Have Sex. *Adolescence 37*, 659-679.

Forste, R. & Haas, D. W. (2002). The Transition of Adolescent Males to First Sexual Intercourse: Anticipated or Delayed? *Perspectives on Sexual and Reproductive Health 34*, 184-190.

Furstenberg, F. F., Morgan, S. P., Moore, K. A., & Peterson, J. L. (1987). Race Differences in the Timing of Adolescent Intercourse. *American Sociological Review 52,* 511-518.

Furstenberg, F. F. & Teitler, J. O. (1994). Reconsidering the Effects of Marital Disruption. *Journal of Family Issues 15*, 173-190.

Gonzalez-Lopez, G. (2003). De Madres a Hijas: Gendered Lessons on Virginity across Generations of Mexican Immigrant Women. In P. Hondagneu-Sotelo (ed.), *Gender and*

U.S. Immigration: Contemporary Trends (pp. 217-240). Los Angeles: University of California Press.

Gonzalez-Lopez, G. (2004). Fathering Latina Sexualities: Mexican Men and the Virginity of Their Daughters. *Journal of Marriage and Family 66*, 1118-1130.

Hogan, D. P. & Kitagawa, E. M. (1985). The Impact of Social Status, Family Structure, and Neighborhood on the Fertility of Black Adolescents. *American Journal of Sociology 90*, 825-855.

Landale, N. S. & Oropesa, R. S. (2007). Hispanic Families: Stability and Change. *Annual Review of Sociology 33*, 18.1-18.25.

Luker, K. (1996). *Dubious Conceptions: The Politics of Teenage Pregnancy*. Cambridge: Harvard University Press.

Martinez G. M, Chandra A, Abma J. C., Jones, J., & Mosher, W. D. (2006). Fertility, Contraception, and Fatherhood: Data on Men and Women from Cycle 6 (2002) of the National Survey of Family Growth. National Center for Health Statistics. Vital Health Stat *23*(26).

Meier, A. M. (2003). Adolescents' Transition to First Intercourse, Religiosity, and Attitudes about Sex. *Social Forces 81*, 1031-1052.

Newcomer, S. & Udry, J. R. (1987). Parental Marital Status Effects on Adolescent Sexual Behavior. *Journal of Marriage and the Family 49*, 235-240.

Oropesa, R. S. (1996). Normative Beliefs about Marriage and Cohabitation: A Comparison of Non-Latino Whites, Mexican Americans, and Puerto Ricans. *Journal of Marriage and the Family 58*, 49-62.

Regnerus, M. (2005). Talking about Sex: Religion and Patterns of Parent-Child Communication about Sex and Contraception. *The Sociological Quarterly 46*, 79-105.

Schafer J. L. (1997). *Analysis of incomplete multivariate data*. London: Chapman & Hall.

Smith, L., Guthrie, B. & Oakely, D. (2005). Studying Adolescent Male Sexuality: We are We? *Journal of Youth and Adolescence 34*, 361-377.

Upchurch, D. M., Levy-Storms, L., Sucoff, C. A. & Aneshensel, C. S. (1998). Gender and Ethnic Differences in the Timing of First Sexual Intercourse. *Family Planning Perspectives 30*, 121-127.

Upchurch, D. M., Aneshensel, C. S., Mudgal, J. & McNeely, C.S. (2001). Sociocultural Contexts of Time to First Sex among Hispanic Adolescents. *Journal of Marriage and Family 63*, 1158-1169.

Werner-Wilson, R. J. (1998). Gender Differences in Adolescent Sexual Attitudes: The Influence of Individual and Family Factors. *Adolescence 33*, 519-531.

Whitbeck, L. B, Conger, R. D., & Kao, M.Y. (1993). The Influence of Parental Support, Depressed Affect, and Peers on the Sexual Behaviors of Adolescent Girls. *Journal of Family Issues 14*, 261-278.

Table 1. Descriptive statistics by race/ethnicity, (multiply imputed data) n=14,032					
	Whites	Blacks	Mexicans- 1st gen	Mexicans- 2nd gen	Mexicans- 3rd gen
Female	.48	.49	.51	.46	.46
Age	15.88	15.96	16.20	15.81	15.59
SES					
Resident mother's education (%)					
Less than high school	12.35[b]	19.59[a]	82.02[ab]	71.31[ab]	28.63[ab]
high school	45.86	46.95	10.94[ab]	19.18[ab]	41.54
some college	18.70	16.15	3.41[ab]	6.42[ab]	16.71
college graduate	23.09	17.31	3.63[ab]	3.08[ab]	13.13[a]
Family Income (in thousands)	53,095[b]	36,244[a]	33,000[a]	34,903[a]	41,367[a]
Family characteristics					
Family structure (%)					
2 biological parents	57.56[b]	27.06[a]	54.25[b]	65.10[b]	45.32[ab]
2 parents other	18.97[b]	14.45[a]	14.66[a]	8.07[ab]	21.12[b]
mother only	15.54[b]	42.50[a]	17.77[b]	16.64[b]	21.74[ab]
other	7.93[b]	15.98[a]	13.32[a]	10.18[b]	11.81[ab]
Family protective factors	11.04[b]	11.31[a]	11.81[a]	11.06	11.39
Closeness to Mother	12.61	12.64	12.10[ab]	12.43	12.61
Religiosity	10.61[b]	12.07[a]	11.67[a]	11.78[a]	10.47[b]
Educational Investments					
Grades	2.81[b]	2.54[a]	2.64[a]	2.61[a]	2.59[a]
School Engagement	5.36[b]	3.79[a]	5.80[a]	5.52	5.25[b]
School Adjustment	18.40[b]	17.95[a]	19.08[ab]	18.02	18.07
Likelihood of College	4.12[b]	4.01[a]	3.27[ab]	3.76[ab]	3.81[ab]
Prior relationships					
Sex by Wave 1	42.1[b]	58.1[a]	30.7[ab]	33.2[ab]	45.4[b]
Sex, Pregnancy, and Birth Control Attitudes					
Motivations to have sex (5-25)	13.56[b]	14.27[a]	13.24[b]	13.24[b]	14.02
Ideal relationship includes sex (0-1)	.47[b]	.58[a]	.46[b]	.50	.54
Consider a Non-marital Birth (0-1)	.21[b]	.35[a]	.26[b]	.31[a]	.32[a]
Motivations for pregnancy (5-25)	13.01[b]	15.80[a]	13.76[b]	13.70[b]	14.92[ab]
Pregnancy embarassing for you (1-5)	3.84[b]	3.17[a]	3.39[a]	3.40[a]	3.18[a]
Ideal relationship includes pregnancy (0-1)	.11[b]	.20[a]	.25[a]	.21[a]	.14
Knowledge of birth control/reproduction (0-10)	6.33[b]	6.11[a]	5.60[ab]	6.13	6.27
Birth control efficacy (3-15)	12.64	12.57	11.98[ab]	11.97[ab]	12.36
Motivations to use birth control (7-35)	27.48[b]	26.17[a]	23.17[ab]	24.55[ab]	26.02[a]
R's perceptions of mother's approval of sex (3-15)	6.89[b]	7.66[a]	6.26[ab]	6.29[ab]	7.14[b]
Parental report of approval of sex (3-15)	4.48[b]	5.25[a]	4.60[b]	4.69[b]	4.67[b]
Parent communication to child about sex (6-24)	17.29[b]	19.08[a]	14.67[ab]	15.59[ab]	17.42[b]
N	8793	3728	283	709	518

[a] Significantly different from Whites
[b] Significantly different from Blacks

Table 2. Attitudes about Sex n=14,032

Motivations to have sex

Race/ethnicity	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
White (reference)	.---	.---	.---	.---	.---	.---
Black	.72***	.69***	.80***	.76***	.57***	.88***
Mexican 1st generation	-.26	-.41	-.10	-.05	.15	-.11
Mexican 2nd generation	-.37	-.50	-.26	-.27	-.14	.22
Mexican 3rd generation	.43	.38	.39	.33	.29	.40
Female	-2.93***	-2.93***	-2.94***	-2.85***	-2.84***	-2.70***
Age at Wave 1	.12***	.12**	.05	.05	-.07	-.07*
SES						
Resident Mother's Education						
Less than High School		.---	.---	.---	.---	.---
High School		-.13	.03	.10	.07*	.07
Some College		-.26	-.09	-.02	-.01	-.02
College Graduate		-.31*	-.03	.11	.17	.16
Family Income		-.00	.00	.00	.00	.00
Family Characteristics						
Family Structure						
2 biological parents			.---	.---	.---	.---
2 parents other			.20*	.13	.00	-.00
Mother only			.31**	.25*	.13	.13
Other			.68***	.60***	.40**	.39**
Family Protective Factors			-.14***	-.10***	-.08***	-.08***
Closeness to Mother			-.09***	-.07***	-.06**	-.06**
Religiosity			-.11***	-.10***	-.08***	-.08***
Educational Investments						
Grades				-.22***	-.14**	-.14**
School Engagement				-.09***	-.07***	-.07***
School Adjustment				-.05***	-.03**	-.03**
Likelihood of College				-.01	-.00	-.00
Prior Relationships						
Sex by Wave 1					1.47***	1.45***
Interactions (.001)						
Black*Female						-.62***
Mexican 1st*Female						.49
Mexican 2nd*Female						-.81
Mexican 3rd*Female						-.22
Intercept	13.11	13.31	17.78	18.86	19.23	18.86

Ideal relationship includes sex (logisitic)

Race/ethnicity	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	.---	.---	.---	.---	.---	.---
Black	1.62***	1.57***	1.75***	1.71***	1.43***	1.76***
Mexican 1st generation	0.84	.71	.93	.96	1.26	1.41
Mexican 2nd generation	1.13	.98	1.21	1.21	1.49	1.49
Mexican 3rd generation	1.52**	1.44*	1.50**	1.43*	1.47*	1.82**
Female	.48***	.48***	.46***	.48***	.44***	.48***
Interactions (.0211)						
Black*Female						.67**
Mexican 1st*Female						.79
Mexican 2nd*Female						.99
Mexican 3rd*Female						.64

Table 3. Attitudes about Pregnancy n=14,032

Respondent would consider a non-marital birth

Race/ethnicity (logistic)	Model 1	Model 2	Model 3	Model 4	Model 5
White (reference)	.---	.---	.---	.---	.---
Black	2.11***	2.05***	2.21***	2.25***	2.13***
Mexican 1st generation	1.29	1.08	1.37	1.32	1.45
Mexican 2nd generation	1.75***	1.48*	1.83***	1.85***	1.97***
Mexican 3rd generation	1.91***	1.81***	1.86***	1.78***	1.77***
Female	1.53***	1.52***	1.59***	1.79***	1.82***

Motivations for pregnancy

Race/ethnicity	Model 1	Model 2	Model 3	Model 4	Model 5
White (reference)	.---	.---	.---	.---	.---
Black	2.77***	2.56***	2.52***	2.34***	2.17***
Mexican 1st generation	.67	-.26	-.00	-.11	.08
Mexican 2nd generation	.70	-.13	.23	.18	.30
Mexican 3rd generation	1.98***	1.68***	1.59***	1.48***	1.45***
Female	-.04	-.05	-.00	.10	.11

Pregnancy embarassing for you

Race/ethnicity	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
White (reference)	.---	.---	.---	.---	.---	.---
Black	-.64***	-.57***	-.57***	-.51***	-.46***	-.60***
Mexican 1st generation	-.42**	-.12	-.21*	-.16	-.21	-.20
Mexican 2nd generation	-.44***	-.18	-.27***	-.25*	-.28*	-.49***
Mexican 3rd generation	-.69***	-.59***	-.58***	-.53***	-.52***	-.51***
Female	.16***	.16***	.15***	.10**	.09**	.03
Interactions (p=.0006)						
Black*Female						.28***
Mexican 1st*Female						-.02
Mexican 2nd*Female						.46*
Mexican 3rd*Female						-.01

Ideal rltsp includes pregnancy (logistic)

Race/ethnicity	Model 1	Model 2	Model 3	Model 4	Model 5
White (reference)	.---	.---	.---	.---	.---
Black	2.03***	1.92***	1.79***	1.71***	1.64***
Mexican 1st generation	2.73***	1.94***	2.00***	1.92***	2.04***
Mexican 2nd generation	2.28*	1.69	1.77	1.75	1.82
Mexican 3rd generation	1.39	1.26	1.23	1.19	1.18
Female	.85*	.84*	.84*	.86	.87

Table 4. Motivations for Birth Control and Reproductive Knowledge n=14,032

Knowledge of Birth Control

Race/ethnicity	Model 1	Model 2	Model 3	Model 4	Model 5
White (reference)	.---	.---	.---	.---	.---
Black	-.24***	-.19**	-.18**	-.14*	-.19**
Mexican 1st generation	-.80**	-.53*	-.43	-.37	-.32
Mexican 2nd generation	-.19	.04	.11	.12	.15
Mexican 3rd generation	-.00	.08	.08	.10	.10
Female	.25***	.25***	.25***	.21***	.21***

Birth Control Efficacy

Race/ethnicity	Model 1	Model 2	Model 3	Model 4	Model 5
White (reference)	.---	.---	.---	.---	.---
Black	-.09	-.02	-.03	-.03	-.05
Mexican 1st generation	-.72***	-.39	-.41*	-.38*	-.36
Mexican 2nd generation	-.65**	-.36	-.33	-.33	-.31
Mexican 3rd generation	-.24	-.14	-.17	-.11	-.12
Female	.77***	.78***	.83***	.72***	.72***

Motivations to use birth control

Race/ethnicity	Model 1	Model 2	Model 3	Model 4	Model 5
White (reference)	.---	.---	.---	.---	.---
Black	-1.35***	-1.13***	-1.18***	-1.12***	-1.14***
Mexican 1st generation	-4.48***	-3.30***	-3.27***	-3.04***	-3.02***
Mexican 2nd generation	-2.86***	-1.83***	-1.75***	-1.73***	-1.72***
Mexican 3rd generation	-1.32***	-.98*	-1.02**	-.86*	-.87*
Female	2.04***	2.05***	2.19***	1.89***	1.89***

Table 5. Parental Communication and Approval Concerning Sex n=14,032

Respondent's Perception of Mother's Approval of Sex

Race/ethnicity	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
White (reference)	.---	.---	.---	.---	.---	.---
Black	.74***	.68***	.69***	.64***	.46***	.64***
Mexican 1st generation	-.79**	-1.08***	-.67*	-.64*	-.44	.25
Mexican 2nd generation	-.57**	-.83***	-.39*	-.40*	-.27	.19
Mexican 3rd generation	.41*	.32	.25	.20	.16	.45
Female	-.78***	-.79***	-.69***	-.63***	-.61***	-.47***
Interactions (.0047)						
Black*Female						-.37*
Mexican 1st*Female						-1.36**
Mexican 2nd*Female						-1.00**
Mexican 3rd*Female						-.61

Mother's Approval of Sex

Race/ethnicity	Model 1	Model 2	Model 3	Model 4	Model 5
White (reference)	.---	.---	.---	.---	.---
Black	.74***	.65***	.50***	.45***	.35***
Mexican 1st generation	.00	-.40	-.31	-.21	-.10
Mexican 2nd generation	.23	-.13	.09	.09	.17
Mexican 3rd generation	.29	.17	.07	.06	.03
Female	-.41***	-.41	-.40***	-.33***	-.32***

Overall parent-child communication

Race/ethnicity	Model 1	Model 2	Model 3	Model 4	Model 5
White (reference)	.---	.---	.---	.---	.---
Black	1.77***	1.70***	1.49***	1.34***	1.18***
Mexican 1st generation	-2.72***	-2.78***	-2.75***	-2.66***	-2.47***
Mexican 2nd generation	-1.66***	-1.73***	-1.71***	-1.74***	-1.62***
Mexican 3rd generation	.21	.14	.12	.05	.01
Female	1.45***	1.45***	1.46***	1.52***	1.53***

Table A1. List of items used for dependent variables

Parental Communication about Sex (not at all-a great deal) (alpha=.89)
How much have you talked to your child about…
Birth Control
Sex
The negative or bad things that would happen if he got someone/she got pregnant

Birth Control Efficacy (very sure-very unsure) (alpha=.62)
If you wanted to use birth control, how sure are you that…
you that you could stop yourself and use birth control once you were highly aroused or turned on?
you could plan ahead to have some form of birth control available?
you could resist sexual intercourse if your partner did not want to use birth control?

Motivations to Use Birth Control (strongly agree-strongly disagree) (alpha=.83)
In general, birth control is too much of a hassle to use
In general, birth control is too expensive to buy
It takes too much planning ahead of time to have birth control on hand when you are going to have sex
It (is/would be) too hard to get a (girl/boy) to use birth control with you
For you using birth control (interferes/would interfere) with sexual enjoyment
Using birth control is morally wrong
If you used birth control, your friends might think that you were looking for sex

Parental approval of adolescent's sexual activity (strongly agree-strongly disagree) (alpha=.32)
You disapprove of your child having sexual intercourse at this time in (his/her) life.
If it was with someone special to (him/her) and whom (he/she) knew well such as a steady (boyfriend/girlfriend) you would not mind if your child had sexual intercourse
You have recommended a specific form of birth control to your child

Respondent's perception of mother's approval of their sexual activity (strongly disapprove-strongly approve) (alpha=.81)
How would she feel about…
your having sex at this time in your life
your having sexual intercourse with someone who was special to you and that you knew well like a steady (boyfriend/girlfriend)?
your using birth control at this time in your life?

Motivations to Have Sex (strongly agree-strongly disagree)
If you had sexual intercourse,,,
your friends would respect you more
you would feel guilty
it would give you a great deal of physical pleasure
it would make you more attractive to (men/women)
you would feel less lonely

Motivations for Pregnancy (strongly agree-strongly disagree)
If you (got/got someone) pregnant…
It would be embarassing for you
It would be embarassing for your family
You would have to quit school
You might marry the wrong person just to get married
You would be forced to grow up too fast

Knowledge of birth control and reproduction (sum of correct answers)
When a woman has sexual intercourse, almost all sperm die inside her body after about six hours
When using a condom the man should pull out of the woman right after he has ejaculated
Most women's periods are regular, that is, they ovulate (are fertile) fourteen days after their period begins
Natural skin (lamb skin) condoms provide better protection against the AIDS virus than latex condoms
When putting on a condom it is important to have it fit tightly, leaving no space at the tip
Vaseline can be used with condoms, and they will work just as well
The most likely time for a woman to get pregnant is right before her period starts
Even if the man pulls out before he ejaculates, it is still possible for the woman to become pregnant
As long as the condom fits over the tip of the penis, it doesn't matter how far down it is unrolled.
In general, a woman is most likely to get pregnant if she had sex during her period, as compared with other times of the month.

Table A2. Tests for Differences between generations (n=1,510)

	Mexicans- 1st gen	Mexicans- 2nd gen	Mexicans- 3rd gen
Sex, Pregnancy, and Birth Control Attitudes			
Motivations to have sex (5-25)	13.24	13.24	14.02[a]
Ideal relationship includes sex (0-1)	.46	.50	.54
Consider a Non-marital Birth (0-1)	.26	.31	.32
Motivations for pregnancy (5-25)	13.76	13.70	14.92[ab]
Pregnancy embarassing for you (1-5)	3.39	3.40	3.18
Ideal relationship includes pregnancy (0-1)	.25	.21	.14[ab]
Knowledge of birth control/reproduction (0-10)	5.60[b]	6.13[a]	6.27[a]
Birth control efficacy (3-15)	11.98	11.97	12.36
Motivations to use birth control (7-35)	23.17[b]	24.55[a]	26.02[ab]
R's perceptions of mother's approval of sex (3-15)	6.26	6.29	7.14[ab]
Parental report of approval of sex (3-15)	4.60	4.69	4.67
Parent communication to child about sex (6-24)	14.67	15.59	17.42[ab]
Sex by Wave 1	30.7	33.2	45.4[ab]
N	283	709	518

[a] Significantly different from first generation
[b] Significantly different from second generation