Published in final edited form as:

Int J Sex Health. 2015 July 1; 27(3): 351–367. doi:10.1080/19317611.2015.1014954.

Vaginal and Oral Sex Initiation Timing: A Focus on Gender and Race/Ethnicity

Giuseppina Valle Holway, Ph.D

Abstract

Objectives—Most previous studies on sexual initiation timing have examined its effects on a variety of subsequent outcomes without first examining the correlates and predictors of these timing categories. Studies that do exist often do not utilize samples through young adulthood, leading to a misclassified set of sexual timing categories. In addition, the literature does not adequately address the issues of oral sex timing. Therefore, the objectives of this study were 1) to explore age-cutoffs that mark the “normative” and “non-normative” entry into vaginal and oral sex among young women and men in the U.S., creating sexual four sexual initiation timing categories – “early,” “normative,” “late,” and “inexperienced,” and; 2) to examine the association between race/ethnicity and sexual initiation timing by gender.

Methods—The National Longitudinal Study of Adolescent to Adult Health (Add Health) was used in both descriptive and multivariate contexts to determine the net association of gender and race/ethnicity with vaginal and oral sex initiation timing.

Results—Age-cutoffs for vaginal sex timing were similar for women and men, yet differed by gender for oral sex timing. Women were more likely than men to initiate vaginal sex (20% vs. 18%) and oral sex (19% vs. 16%) at an early age and less likely than men to initiate these behaviors at a late age (18% vs. 19% for vaginal sex, and 15% vs. 16% for oral sex). Although most respondents initiated these two behaviors by young adulthood, a considerable proportion remained inexperienced, with men more likely than women to report inexperience with vaginal sex (7% vs. 5%), and women more likely than men to report abstaining from oral sex (8% vs. 6%). Race/ethnic differences in sexual initiation timing remained robust in the face of controls for both women and men.

Conclusions—Understanding the timing at which adolescents and young adults transition to first vaginal and first oral sex is critical for sex education curriculum and policy makers.

Keywords

adolescents; vaginal sex; oral sex; sexual initiation

Author Contact: Giuseppina Valle, Ph.D, Postdoctoral Fellow, Population Research Center, The University of Texas at Austin, 305 E. 23rd Street, Stop G1800, Austin, TX 78712-1699, Phone: 585-506-6557, gvalle@prc.utexas.edu.

Publisher's Disclaimer: This is a version of an unedited manuscript that has been accepted for publication. As a service to authors and researchers we are providing this version of the accepted manuscript (AM). Copyediting, typesetting, and review of the resulting proof will be undertaken on this manuscript before final publication of the Version of Record (VoR). During production and pre-press, errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal relate to this version also.

Introduction

The type and timing of sexual behaviors that young people engage can be meaningful indicators of young people's sexuality and sexual health. While studies indicate that a majority of teens and young adults have engaged in vaginal sex and heterosexual oral sex (Copen, Chandra, & Martinez, 2012; Halpern & Haydon, 2012), when young people initiate these behaviors is also meaningful. Traditionally, studies that have examined the sexual development of youth have focused on vaginal sex, with little attention given to non-coital activities that do not lead to pregnancy, such as oral sex. More research on oral sex is needed given that studies of sexuality and sexual health should not be limited to pregnancy but rather the broader experiences of intimacy and desire. Moreover, oral sex may have become more common among young people than vaginal sex in recent years (Brewster & Tillman, 2008). Again, a large literature has considered predictors of sexual initiation but the timing of sexual behaviors, particularly oral sex, is less understood. Therefore, the current study examines factors associated with vaginal and oral sex initiation timing, with particular attention given to gender and race/ethnicity.

This study contributes to research on the sexual behaviors of young individuals in the U.S. in four key ways. First, by utilizing nationally representative data that follows respondents into their mid-twenties and early thirties, I am able to capture individual's full transition to young adulthood. While concern regarding teenage sexual activity is warranted, in order to fully understand the sexual development trajectory of individuals, we need to examine sexual behaviors and transitions throughout the life course, extending beyond adolescence and into young adulthood. Second, with one exception (Haydon, Cheng, Herring, McRee, & Halpern, 2014), this is the first study to my knowledge to disaggregate "late" transitioners from those who remain sexually inexperienced into their mid-twenties and early thirties, helping to provide a more complete representation of the sexual experiences of individuals as they transition to adulthood. Third, with over two-thirds of young individuals engaging in oral sex by age 18 (Halpern & Haydon, 2012), examining factors associated with oral sex initiation timing will give practitioners and researchers a more comprehensive picture of youths' sexual behaviors. Finally, focusing on gender and race/ethnic differences in sexual initiation timing may help to explain subsequent disparities in reproductive health behaviors and outcomes across these groups.

Sexual script theory and the life course perspective offer a conceptual framework for understanding why timing matters for young people's sexual development (Elder, 1994; Simon & Gagnon, 1986). More specifically, sexual scripts not only prescribe what is normative, but also serve as guidelines for when sexual initiation should occur. When young people experience major life transitions, such as engaging in vaginal or oral sex, is often regulated by cultural norms, beliefs, and expectations, which are often based on age (Elder, 1994). Indeed research shows that violating age-graded norms, such as engaging in sexual activity at a non-normative age (both early and late) is related to young people's well-being as they grow and develop (Haase, Landberg, Schmidt, Lüdke, & Silbereisen, 2012; Harden, 2012; Spriggs & Halpern, 2008a; 2008b). Therefore, it is important to identify the risk and protective factors associated with non-normative sexual initiation, which in turn influences later development.

This paper used the National Longitudinal Study of Adolescent to Adult Health (Add Health) to accomplish three goals. The first was to explore age cut-offs that mark the entry into sexual behaviors (both vaginal and oral sex) for both young women and men, which were then used to create sexual initiation timing categories (i.e. “early,” “normative,” “late,” and “inexperienced”). The second was to use descriptive statistics and significance testing to assess the bivariate association between race/ethnicity and sexual initiation timing for both women and men. Third, I used multinomial logistic regression to examine the net association between race/ethnicity and timing of both vaginal and oral sex using gender-specific models. Results indicated that age-cutoffs for vaginal sex timing were similar for women and men, yet differed by gender for oral sex timing. Most respondents initiated first vaginal and oral sex by young adulthood, with the majority initiating these behaviors at a “normative” age period. A considerable proportion, however, remained inexperienced. Finally, multivariate findings reveal that race/ethnic differences in sexual initiation timing remained robust in the face of controls.

Background

Sexual Experience During Adolescence and Young Adulthood

In recent decades, the sexual behavior of adolescents has received a great deal of attention (Zimmer-Gembeck & Helfand, 2008). Many studies indicate that nearly half of U.S. teens engage in heterosexual intercourse by the end of high school (Eaton et al., 2012; Kann et al., 2014) and several new studies indicate that the majority of teens and young adults may also engage in heterosexual oral sex (Halpern & Haydon, 2012; Leichter, Chandra, Liddon, Fenton, & Aral, 2007), suggesting that engagement in an array of sexual behaviors during adolescence is quite normative (Tolman & McClelland, 2011). Despite the normative nature of sexual development during adolescence, scholars and public health officials remain concerned about the implications of teenage sexual behaviors and the well-being of young individuals. Indeed, a significant body of research that has focused on adolescent sexuality has viewed this topic as problematic (McClelland & Tolman, 2014), particularly vaginal sex, given its implications for a number of adverse reproductive health outcomes (Kaestle, Halpern, Miller, & Ford, 2005; Reese, Haydon, Herring, & Halpern, 2013). To better understand the sexual health of young individuals, however, requires researchers to move beyond discussions of intercourse and include other types of sexual activity, such as oral sex.

The increasing prevalence of oral sex in youths' sexual repertoires (Hensel, Fortenberry, O'Sullivan, & Orr, 2011; Tolman & McClelland, 2011) has enticed researchers to better understand young individuals' experiences with oral sex (Cornell & Halpern-Felsher, 2006; Vannier & O'Sullivan, 2012; Vannier & Byers, 2013), though few studies have focused specifically on factors associated with age at first oral sex experience (Bay-Cheng & Fava, 2011; Fava & Bay-Cheng, 2012). While understanding both the antecedents and consequences of when individuals first initiate vaginal sex is clearly important, timing of first oral sex may too have implications for the health and well-being of young individuals. Although participating in oral sex does not warrant concern regarding pregnancy, research shows that engaging in oral sex increases the potential of contracting sexually transmitted

infections (Edwards & Carne, 1998a; 1998b) and some types of cancer (D'Souza et al., 2007). Furthermore, given its role in intimacy, desire, and pleasure (Vannier & O'Sullivan, 2012; Vannier & Byers, 2013), as well as its influence on social and emotional outcomes (Brady & Halpern-Felsher, 2007), exploring factors associated with the timing of oral sex initiation is of great importance to educators and those interested in supporting the development of healthy sexual relationships among young people.

Theoretical Framework

Sexual scripts, which are embedded in cultural norms, serve as guidelines for acceptable and appropriate sexual behavior (Simon & Gagnon, 1986), often shaping individuals' expectations and opportunities to engage in sexual activities. In particular, adolescents' sexual scripts often contain views about the acceptable timing of initiating sexual behaviors, often corresponding with particular ages (Rosenthal & Smith, 1997; Madkour et al., 2014). Indeed, an important component of sexual norms is related to timing. Life course theory posits that life transitions, such as the initiation of sexual activity, are often regulated by cultural understandings about the timing at which events should occur, which often coincide with age (Elder, 1994; Neugarten, Moore, & Lowe, 1965). Actions that are not consistent with age-based norms may be deemed as inappropriate, negatively impacting the well-being of individuals. Although nearly all individuals in the United States have initiated sexual activity by their mid-twenties and early thirties (Eisenberg, Shindel, Smith, Lue, & Walsh, 2009; Haydon et al., 2014), sexual initiation that occurs earlier or later relative to one's peers has been shown to be associated with adverse health outcomes (Haase et al., 2012), as well as various sexual risk factors (Sandfort, Orr, Hirsch, & Santelli, 2008). For example, those who transition early, particularly young girls, experience a greater risk for depression during adolescence (Spriggs & Halpern, 2008a). Furthermore, women and men who reported first vaginal sex at an early age, compared to a normative age, were more likely to have a history of an STI and reported more sexual partners within the last year (Sandfort et al., 2008). Therefore, a deeper understanding of adolescent sexuality and sexual health requires that we move beyond sexual experience as a dichotomy and consider "when" rather than "whether or not."

Later Transitions to Sexual Behaviors

Although studying sexuality during adolescence is important, given that most young individuals have engaged in vaginal and oral sex by age 18 (75% and 67%, respectively) (Halpern & Haydon, 2012), early adulthood (during one's late teen and early twenties) is also a critical period for gaining sexual experience, as experimentation with sexual behaviors may not begin for young people until they have reached college-age. Indeed, individuals often enjoy more freedom and greater access to social events with opportunities to meet potential partners than they did during middle and high school (Pascarella & Terenzini, 2005). As such, the sexual climate on college campuses may support, and possibly even encourage, the initiation of sexual behaviors among inexperienced youth. Therefore, while concern regarding teenage sexual activity is warranted, in order to fully understand youths' sexual development trajectories, we need to examine sexual behaviors beyond adolescence and into early adulthood.

Only a handful of studies have investigated the influence of delayed sexual initiation on outcomes, finding that late initiation is associated with higher levels of depressive symptoms and lower levels of positive affect in young adulthood (Haase et al., 2012), and long-term sexual problems, especially among men (Sandfort et al., 2008). Even fewer studies have focused on sexual abstinence, specifically among those who remain abstinent into adulthood. It's estimated that roughly 1.1 million men and 800,000 women aged 25 to 44 in the United States have never engaged in opposite-sex intercourse (Eisenberg et al., 2009). Although one recent study examines predictors of sexual inexperience into adulthood (Haydon et al., 2014), the authors combine several types of sexual activity (vaginal, oral, and anal sex), hiding potential important distinctions among individuals who forgo engaging in some types of sexual activity as opposed to others. Moreover, Eisenberg and colleagues (2009) focused exclusively on factors influencing abstinence with sexual intercourse. Much of the research exploring abstinence and its link with adult outcome focuses on adolescent virginity, with studies finding that men and women who remain abstinent during late adolescence report higher levels of education and lower likelihood of divorce in middle adulthood (Finger, Thelen, Vessey, Mohn, & Mann, 2004). Other studies, however, report no association between sexual abstinence in adolescence and mental health in adulthood after controlling for educational prospects, family bonding, and measures of substance use and deviance (Bogart, Collins, Ellickson, & Klein, 2007). There are, to my knowledge, no studies that have examined the implications of adult sexual inexperience for later life well-being.

Differences by Gender and Race/Ethnicity

Research suggests that gender and race/ethnicity are important predictors of youths' sexual behaviors. In general, young men transition to first vaginal sex at slightly earlier ages than young women (Martinez, Copen, & Abma, 2011), though other studies report no difference in age at initiation (Halpern & Haydon, 2012). In fact, one recent study reveals young men were less likely than young women to report ever having had vaginal sex by ages 15 to 19 (44% vs. 47%, respectively) (Copen, et al., 2012), suggesting that the age at which young individuals initiate intercourse may be becoming more similar across gender. Oral sex engagement also differs by gender, with men being younger than women when their first oral sex experience occurs (Halpern & Haydon, 2012). Although unable to be distinguished in this study, gender differences in giving vs. receiving oral sex are more substantial. Among youth aged 15 to 19, 41% of young women and 35% of young men report ever giving oral sex, whereas 47% of young men and 43% of young women report ever receiving oral sex (Copen et al., 2012).

Until recently, most research examining race/ethnic differences in sexual behavior has focused on differences among White and Black youth, leaving Hispanic and Asian youth highly underrepresented in the area of sexuality. This is surprising given racial and ethnic differences in attitudes surrounding the engagement in sexual behaviors (Cuffee, Hallfors, & Waller, 2007; Fugère, Escoto, Cousins, Riggs, & Haerich, 2008), as well as the changing diversity of the United States (Jones & Bullock, 2013). Recent studies that utilize more diverse samples find that Black youth are significantly more likely to report experience with vaginal sex compared to their White counterparts (Burdette & Hill, 2009). Asian youth,

however, are significantly less likely than White youth to report experience with vaginal sex by age 18 (Halpern & Haydon, 2012). Moreover, White adolescents are significantly more likely to have ever engaged in oral sex than their Black, Hispanic, and Asian peers (Burdette & Hill, 2009; Halpern & Haydon, 2012; Lindberg, Jones, & Santelli, 2008). Rates of giving and receiving oral sex also differ by race/ethnicity, with White youth aged 15 to 19 being most likely to have ever given oral sex, followed by Hispanic youth, and then Black youth. With regard to having ever received oral sex from an opposite-sex partner, White youth are also most likely to report such an experience. However, a higher percentage of Black females than Hispanic females report having ever received oral sex. In contrary, Hispanic males are slightly more likely than Black males to report having ever received oral sex (Copen et al., 2012).

Sexual scripts may underlie differences in sexual behavior across race/ethnic groups. In general, Blacks report having more permissive sexual attitudes, followed by Whites, then Hispanics. Asians tend to hold the most conservative attitudes surrounding sexuality (Fugère et al., 2008; Okazaki, 2002). Sexual scripts are also highly gendered within racial and ethnic groups, which in turn are often reinforced and perpetuated by sexual stereotypes, particularly among minority groups. For example, Asian women are often viewed as exotic and submissive (Lee & Vaught, 2003), while Asian men are generally depicted as emasculated and asexual (Mok, 1998). Black men and women, on the other hand, are often portrayed as hypersexualized (Davis, 2001; Collins, 1999). Finally, Hispanic men are traditionally held to images of sexual permissiveness and dominance over women or *machismo* (Villarruel & Rodriguez, 2003), whereas *marianismo* emphasizes the importance of virginity and obedience to men for Hispanic women (Villarruel, 1998). It may be that when encountering sexual stereotypes, youth internalize these beliefs and images and exhibit behaviors based the stereotypes associated with their race/ethnicity (Stephens & Few, 2007).

Other Factors

Sexual experiences among young individuals also appear to be influenced by a number of other factors. Studies show that compared to their native-born peers, foreign-born youth face a lower likelihood of experiencing first intercourse and first oral sex during adolescence (Brewster & Tillman, 2008; Weiss & Tillman, 2009). In terms of family background, a review by Zimmer-Gembeck and Helfand (2008) found that early onset of sexual intercourse (defined as before age 16) was more likely among youth from step-parent and single-parent families, whereas later debut was more likely among teens who grew up in two-biological parent families. Additionally, compared to individuals from two-biological parent families, those who resided in a step-parent, single-parent, or non-parent family tend to experience first oral sex at younger ages. Young women and men whose parents have lower levels of education are more likely to initiate vaginal and oral sex during adolescence (Halpern & Haydon, 2012). Finally, those who mature earlier than their peers are more likely to report vaginal and oral sex experience (Halpern & Haydon, 2012), though these effects are shown to differ across race/ethnicity (Cavanagh, 2004).

The Current Study

Given prior research documenting the association between timing of sexual initiation and health and well-being (Haase et al., 2012; Sandfort et al., 2008; Spriggs & Halpern, 2008a; 2008b), and the possibility that sexual inexperience among young adults may be linked with emotional, social, and psychological outcomes, it is important to identify factors that influence engaging in a number of different sexual activities at non-normative ages, both early and late, as well as remaining inexperienced into one's mid-twenties and early thirties. Thus, the present study explores age cut-offs that mark the entry into sexual behaviors (both vaginal and oral sex) for both young women and men, which were then used to create sexual initiation timing categories (i.e. "early," "normative," "late," and "inexperienced"). Furthermore, I examine the association between race/ethnicity and sexual initiation timing by gender in both a descriptive and multivariate context.

Methods

Data

Data for this study come from the National Longitudinal Study of Adolescent to Adult Health (Add Health), a nationally representative sample of adolescents in grades 7 through 12 in the United States in 1995. Add Health used a multistage, stratified, school-based, cluster sampling design. This study includes multiple components and several waves of data collection, with the first wave conducted in 1994-1995 when respondents were aged 12 to 18 years. This wave of data collection included an in-school, self-administered questionnaire for students, a School Administrator Questionnaire, and a Parental Questionnaire. Additionally, an in-home interview was conducted from a random sample of students taken from the school rosters of the schools included in the in-school survey. In-home interviews were used to follow-up these respondents for Waves II (1996) and III (2001-2002). Wave IV was conducted in 2008 with 15,701 original respondents, when respondents were aged 24 to 32 (80.3% response rate).

This study was limited to respondents who completed Waves I and IV of the in-home interview and who had a valid sampling weight ($n = 14,800$). I then excluded respondents who reported being younger than age 10 at vaginal/oral sexual initiation ($n = 183$) due to the possibility of non-consensual sexual experiences. Those who reported having ever engaged in vaginal or oral sex, but who did not report their age at initiation were also excluded ($n = 299$). Next, I drop respondents of other races due to small sample sizes ($n = 373$). Finally, those without valid data on the remaining variables were dropped ($n = 356$), yielding an analytic sample of 13,589 respondents (7,254 women and 6,335 men).

Measures

Dependent variables—Timing of vaginal sex initiation. Timing of vaginal sex initiation was determined by two questions. Respondents were first asked, "Have you ever had vaginal intercourse? (Vaginal intercourse is when a man inserts his penis into a woman's vagina.)" Respondents who answered "yes" to this question were then followed up with "How old were you the first time you had vaginal intercourse?" *Timing of oral sex initiation* Timing of

oral sex initiation was also determined by two questions. Respondents were first asked, “Have you ever had oral sex? That is, has a partner ever put his/her mouth on your sex organs or you put your mouth on his/her sex organs?” Respondents who answered “yes” to this question were then asked, “How old were you the first time you had oral sex?” Both questions were taken from the Wave IV interview.

Using the full sample, I examined separately the distribution of reported ages at first vaginal sex and ages at first oral sex. Using an interquartile range and boxplot, I used the 25th and 75th percentiles to create the timing categories, with ages below the 25th percentile constituting “early” initiation and ages above the 75th percentile (excluding those with no vaginal and oral sex experience) constituting “late” initiation. The 50th percentile or the median is what constituted the “normative” age range in the distribution. The interquartile range was chosen to create the timing categories over other methods since the variables for both age at first vaginal sex and age at first oral sex were non-normally distributed. The final categorization for *vaginal sex* specified “early” initiation as initiation of vaginal sex between ages 10 and 14, “normative¹” between ages 15 and 18, “late²” as ages greater than 18, and “inexperienced” as those who had not initiated first vaginal sex by Wave IV. This categorization held for both young men and women. For oral sex, however, the categorization differed by gender. For women, the final categorization specified “early” initiation of oral sex as initiation that occurred between ages 10 and 15 years, “normative” between ages 16 and 20 years, and “late” as ages greater than 20 years. Among men, “early” initiation is specified as oral sex occurring between ages 10 and 14 years, “normative” as between ages 15 and 19 years, and “late” as ages greater than 19 years³. For both women and men, “inexperienced” reflects those who had not initiated first oral sex by Wave IV.

Covariates—All respondent socio-demographic characteristics are taken from the Wave I in-home interview. *Gender* is based on a self-reported designation as female or male. *Race/ethnicity* is self-identified and is measured with four dummy indicators – non-Hispanic white, non-Hispanic black, Hispanic of any race, and Asian. *Nativity status* is binary and coded such that 1 = “Foreign born” and 0 = “Native born.” Highest *educational attainment achieved by a parent* (by either the mother or father) is measured with four dummy variables – less than high school, high school diploma, some college or more, and missing education data. *Childhood family structure* was constructed from Add Health’s household roster at Wave I and is measured with four dummy variables – two-parent biological/adoptive family, step-parent family, single-parent family, and other family type. Finally, *self-perceived pubertal timing* is coded as early, typical, or late, and reflects whether adolescents consider themselves to look older, about average, or younger than their same-age, same-peers.

¹By “normative,” I mean that the majority of respondents initiated the corresponding sexual behavior between the specified ages.

²Because most adolescents initiate sexual intercourse by age 18 (Halpern & Haydon, 2012), “late” refers to those who reported transitioning to this behavior at age 19 or older.

³By ages 18 to 19 years, 7 in 10 men (70%) and over 6 in 10 women (63%) report oral sex experience (Chandra, Mosher, Copen, & Sionean, 2011). Therefore, “late” refers to those who reported initiating oral sex at age 19 or older for men, and at age 20 or older for women.

Analytic Strategy

Descriptive statistics are used to examine race/ethnic differences in vaginal/oral sex initiation timing, as well as the sample characteristics by gender. Using multinomial logistic regression, I examine the association of race/ethnicity on risk of initiating first vaginal/oral sex at an early age, at a late age, or not at all, versus initiating vaginal/oral sex at a normative age, accounting for all controls and using gender-specific models. Stata-SE, version 13.0, and applied survey commands were used to adjust for design and sampling weights.

Results

Table 1 presents descriptive information for all variables by gender. Design-based F tests indicate statistically significant differences in sexual initiation timing between women and men ($p = 0.001$). While women are more likely than men to report engaging in vaginal sex (20% vs. 18%, respectively) and oral sex (19% vs. 16%, respectively) at an early age, they are less likely than men to report initiating vaginal sex (18% vs. 19%, respectively) and oral sex (15% vs. 16%, respectively) at a late age. Women are slightly more likely than men to report having never engaged in oral sex (8% vs. 6%, respectively). Men are more likely than women (7% vs. 5%, respectively) to report no experience with vaginal sex into their mid-twenties and early thirties.

The majority of both women and men in the sample are White, with roughly equal representations of Blacks, Hispanics, and Asians in the female and male subsamples. Furthermore, most respondents report being native-born. While most respondents grew up in a two-parent family during childhood (either biological or adoptive), sizeable percentages resided in step-parent and single-parent families. Over half of women and men report having a parent with an education of at least some college or more. Finally, 43% of women and 39% of men reported early pubertal timing, whereas late pubertal timing was more commonly reported among men than women (22% vs. 19%, respectively).

Figure 1 displays weighted percentages of vaginal sex initiation timing (Panel A) and oral sex initiation timing (Panel B) by race/ethnicity for both women and men. Design-based F tests indicate all bivariate associations presented are statistically significant ($p = 0.001$). Beginning with Panel A, I find that Black women and Black men are most likely to transition to first vaginal sex at an early age (25% and 31%, respectively), whereas Asian women and Asian men are least likely to initiate vaginal sex at an early age (13% and 8%, respectively). Interestingly, Black men are also more likely than White men to have never engaged in vaginal sex by Wave IV (10% vs. 6%, respectively). Asian men, however, are the most likely to make the latest transitions, with almost a third transitioning after age 18 and an additional 15% abstaining from vaginal sex. Among women, Blacks and Hispanics are the most likely to have not initiated vaginal sex by young adulthood (6% and 7%, respectively); Asian women are least likely (2%) to do so. Turning to Panel B, I find that White women (23%) and Hispanic men (18%) are most likely to initiate oral sex at an early age, whereas Black women (9%) and Asian men (6%) are least likely to do so. Moreover, Black women, Asian men, and Black men are most likely to report inexperience with oral

sex into young adulthood (19%, 14% and 13%, respectively). White women and White men are least likely to report no experience with oral sex (5% and 4%).

Table 2 presents estimates from multinomial logistic regression analyses (displayed as relative risk ratios) that examine the association between race/ethnicity and timing of vaginal sex initiation, net of all covariates, by gender. For the sake of brevity, I focus the discussion on race/ethnicity. Findings show that compared to White women, Black women are significantly less likely to delay the transition to vaginal sex until after 18 years of age and to abstain from vaginal sex, rather than initiate vaginal sex between ages 15 and 18 (0.69 and 0.55). Furthermore, Black women are significantly more likely than White women to transition to vaginal sex at an early age, relative to a normative age (1.28). Compared to White women, Hispanic women and Asian women are more likely to initiate vaginal sex at a late age, as opposed to a normative age (1.52 and 1.46). Finally, Asian women are less likely than their White peers to have never engaged in vaginal sex (0.29). Results for men reveal that Blacks are significantly more likely than Whites to initiate vaginal sex at an early age, as opposed to between ages 15 and 18 (2.01). In addition, compared to White men, Black men and Hispanic men are less likely to transition to vaginal sex after age 18, rather than between ages 15 and 18 (0.64 and 0.57).

Turning to timing of oral sex initiation (Table 3), results indicate that compared to White women, Black women and Hispanic women are less likely to initiate first oral sex at an early age, as opposed to a normative age (0.47 and 0.71). Furthermore, Black women and Hispanic women are significantly more likely than their White counterparts to abstain from oral sex into their mid-twenties and early thirties, rather than initiate oral sex between ages 16 and 20 (6.37 and 1.96). Racial and ethnic minority women are more likely than their White peers to transition to first oral sex after 20 years of age, as opposed to transitioning between ages 16 and 20. Similar to women, Black men, compared to White men, are more likely to initiate oral sex at a late age and to abstain from oral sex into young adulthood (1.70 and 3.55). Hispanic men and Asian men also are more likely than their White peers to report no experience with oral sex (1.65 and 3.03). Finally, Asian men are less likely than their White peers to transition to oral sex before age 15, rather than transition between ages 15 and 19 (0.51).

Discussion

This study examined predictors of the timing of vaginal and oral sex initiation utilizing longitudinal data collected from respondents as they aged from middle/high school into their mid-twenties and early thirties. This study used two waves of data from the National Longitudinal Study of Adolescent to Adult Health to establish age cut-offs that marked normative and non-normative transitions (“early”, “late”, and inexperienced”) to vaginal and oral sex initiation, and to examine the association between race/ethnicity and timing of sexual initiation both descriptively and in a multivariate context among both women and men. To my knowledge, this is the first study to (1) consider categories of timing of first oral sex, and (2) separate individuals who transition to first vaginal/oral sex in late adolescence and those who remain inexperienced with vaginal/oral sex into their mid-twenties and early thirties (for one exception, see Haydon et al., 2014).

Results showed that for both women and men, “early” entry into vaginal sex was categorized as between ages 10 and 14, “normative” entry was categorized as between ages 15 and 18, and “late” entry was categorized as those with vaginal sex experience and transitioned at 19 years or older. These cut-offs, particularly the cut-off differentiating “early” and “normative” entry, are slightly different from those established by previous studies utilizing up through Wave III of the Add Health data. For example, Spriggs and Halpern (2008a; 2008b) specified “early” debut as debut occurring between ages 10 and 15 and “typical” debut as debut occurring between ages 16 and 18. Using Wave IV of the Add Health data leads to the identification of a “normative” age range that starts one to two years earlier than other studies have identified. Because Wave III of the Add Health data is comprised of respondents aged 18 to 24, utilizing information from this wave of data may not capture the sexual initiation of some individuals who were 18 year old virgins when interviewed, but would go on to transition while still 18 years of age. Descriptive statistics (not shown) indicate that among respondents who initiated vaginal sex by Wave IV (when respondents were aged 24 to 32), roughly 17% reported this behavior at age 18. Given that the “normative” time period includes those who transition at 18 years of age, not using Wave IV data may lead to a misclassification of some “normative” respondents as being “late” transitioners. Furthermore, by disaggregating “late” transitioners from those who remain inexperienced into young adulthood, I found that roughly 5% of women and 7% of men had not engaged in vaginal sex by Wave IV. Since previous studies have combined those who transitioned “late” and abstainers into the same category (Harden, 2012; Spriggs & Halpern, 2008a; 2008b), we have, until this point, had an incomplete picture of the sexual development of young individuals.

To the best of my knowledge, this project is the first to establish timing categories of oral sex initiation for young women and men, as well as its association with gender and race/ethnicity. The role of oral sex in youths' sexual trajectories requires researchers to move past the traditional focus on vaginal sex and incorporate other types of sexual behaviors. Unlike vaginal sex, timing cut-offs for oral sex initiation differed for women and men. For women, the final categorization specified “early” initiation as initiation between ages 10 and 15, “normative” between ages 16 and 20 at initiation, and “late” as those who initiated oral sex after age 20. For men, “early” initiation constituted those who transitioned to first oral sex between ages 10 and 14, “normative” between ages 15 and 19, and “late” initiation as those who transitioned after age 19. As with vaginal sex initiation, I also differentiated respondents who initiated oral sex at a late age and those who had not initiated oral sex by Wave IV, when respondents were aged 24 to 32.

While previous research documents race/ethnic differences in whether or not individuals have ever engaged in sexual activity (Brewster & Tillman, 2008; Burdette & Hill, 2009; Halpern & Haydon, 2012; Lindberg et al., 2008), results from this study show that the timing at which individuals initiate vaginal and oral sex also differ by race and ethnicity. Descriptive and multivariate findings revealed that compared to their White peers, Black men and Black women were more likely to have initiated vaginal sex at an early age and were less likely to delay initiation to a late age. The differences seen here may reflect the diversity of attitudes about engagement in sex. In one study, higher perceived guilt and

shame was shown to delay the initiation of intercourse among White youth, but not Black youth (Cuffee et al., 2007).

Contrary to previous research, however, descriptive findings also showed that Black youth, particularly men, were more likely than their White counterparts to abstain from vaginal sex into young adulthood. As such, it would be inaccurate to consider all Black youth as “at-risk.” This inconsistent finding may result from previous researchers examining sexual activity only throughout the period of adolescence, rather than following individuals as they enter into young adulthood. In these previous studies, Black youth who report having never engaged in vaginal sex well into their adulthood are combined with those who transition “late” in their adolescence or very early in their adult years (Harden, 2012), not allowing researchers to pick up on the diversity that is occurring throughout individuals' sexual trajectories. Utilizing longitudinal data that follows individuals into their mid-twenties and early thirties, as I have done here, shows that there is much more diversity in the racial and ethnic differentials in sexual activity than previous studies have uncovered.

Similarities in oral initiation timing emerged among Black women and Black men, such that both subsamples were more likely to delay the initiation of oral sex, and were more likely to report inexperience with oral sex into their mid-twenties and early thirties, with more pronounced effects observed for Black women. This is consistent with past research that shows oral sex plays a smaller role in the sexual lives of Black youth compared to their White peers (Brewster & Tillman, 2008; Copen et al., 2012; Halpern & Haydon, 2012). Furthermore, the more pronounced effects observed for Black women may be a result of oral sex being seen as a “less appealing” sexual practice (Laumann, Gagnon, Michael, & Michaels, 1994). Future work should focus on exploring the roles of multiple sexual practices in the lives of young individuals across different race and ethnic groups.

Past research shows that Hispanic men and women aged 15 to 24 are more likely to report experience with vaginal sex than their White counterparts (Copen et al., 2012). Descriptive findings from this study show that when examining a longer period of adolescence and young adulthood, young Hispanics were, in fact, slightly less likely to have ever engaged in vaginal sex. Net of controls, I find also that Hispanic women were more likely than White women to initiate vaginal sex at a late age (at age 19 or later). Other the other hand, Hispanic men were less likely to delay this transition to a late age. Furthermore, Hispanic women and men were more likely than their White peers to forgo engaging in oral sex. Taken together, these findings suggest more conservative sexual attitudes among Hispanics compared to Whites (Fugère et al., 2008), and highlight the importance of utilizing longitudinal data, with a diverse sample, that follows individuals into their mid-twenties and early thirties.

Much less is known about the transition to sexual behaviors among Asian youth. Asian women were more likely to delay the initiation of both vaginal and oral sex. Although Asian men were more likely than White men to report inexperience with oral sex, these two groups were indistinguishable with respect to vaginal sex initiation timing. Because teens are often motivated to engage in oral sex in order to improve their intimate relationship (Cornell & Halpern-Felsher, 2006), low involvement in romantic relationships during adolescence

among Asian boys (Collins, 2003) may limit their opportunity to engage in oral sex. Future research should seek not only to further understand the sexual experiences among this understudied population, but also explore motivations for having and avoiding coital and non-coital sexual behaviors.

Limitations

Several potential limitations must be acknowledged. First, Add Health does not distinguish whether oral sex occurred between opposite-sex or same-sex partners. Although less common than heterosexual activity, many young adults have engaged in same-sex activity (McCabe, Brewster, & Tillman, 2011). More research is needed to identify whether the timing of initiation and its correlates differ for opposite-sex and same-sex sexual activity. Second, because I am unable to discern experiences of “giving” and “receiving” oral sex with Add Health, future studies should consider these differences in oral sex experiences in order to obtain a fuller picture of young individuals' non-coital sexual experiences. Third, retrospective reports of age at first vaginal and oral sex were used. This may be subject to recall biases, though most young adults are consistent in their reports of age at sexual initiation, at least when examining first vaginal sex (Goldberg, Haydon, Herring, & Halpern, 2014). Finally, although the findings from this study help to further our understanding of youths' sexual behaviors as they transition from adolescence to young adulthood, the results may not be directly generalizable to young individuals today given that the data used for this study was collected in the mid-1990s and early 2000s. The percentage of teens that are engaging in vaginal intercourse and oral sex has declined (Chandra et al., 2011; Martinez et al., 2011; Mosher, Chandra, & Jones, 2005). Given that fewer individuals are initiating vaginal and oral sex at earlier ages, the “normative” and “non-normative” timing at which individuals first transition to these behaviors may differ from those presented in this study and should be replicated with more recent data.

Conclusions

Understanding the timing at which individuals transition to first vaginal and first oral sex is critical for sex education curriculum and policy makers. Because differences in sexual behavior exist across race/ethnicity and gender, sexual education programs and policy measures may benefit from utilizing more culturally-specific programming that addresses group-based norms and values that may contribute to sexual risk. Furthermore, limiting samples to adolescence, as prior studies have done, can be especially problematic when trying to provide a comprehensive and accurate description of when adolescents and young adults initiate their first sexual experiences, as respondents have yet to make the full transition to adulthood. While the findings of this study do not invalidate those of previous studies, practitioners and policy makers should use caution when interpreting information regarding the timing at which young people transition to sexual activity. In addition, these findings improve our understanding of youths' oral sex experiences, suggesting that oral sex is common in the lives of young individuals. Finally, this study underscores the importance of using sexual script theory, as well as a life course perspective and age-graded norms approach in helping to explain how the progression of one's sexual development relative to their peers might shape subsequent life experiences and outcomes.

Acknowledgments

This research uses data from Add Health, a program project directed by Kathleen Mullan Harris and designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris at the University of North Carolina at Chapel Hill, and funded by grant P01-HD31921 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, with cooperative funding from 23 other federal agencies and foundations. Special acknowledgment is due Ronald R. Rindfuss and Barbara Entwisle for assistance in the original design. Information on how to obtain the Add Health data files is available on the Add Health website (<http://www.cpc.unc.edu/addhealth>). No direct support was received from grant P01-HD31921 for this analysis. The author has received support from the grant, 5 T32 HD007081, Training Program in Population Studies, awarded to the Population Research Center at The University of Texas at Austin by the Eunice Kennedy Shriver National Institute of Child Health and Human Development. This article benefited from the helpful comments of Kathryn Harker Tillman, Karin L. Brewster, Koji Ueno, Kay Pasley, and Shannon Cavanagh. Comments provided by the editor and three anonymous reviewers were also greatly appreciated.

References

- Bay-Cheng LY, Fava NM. Young women's experiences and perceptions of cunnilingus during adolescence. *Journal of Sex Research*. 2011; 48:531–542. [PubMed: 21128154]
- Bogart LM, Collins RL, Ellickson PL, Klein DJ. Association of sexual abstinence in adolescence with mental health in adulthood. *Journal of Sex Research*. 2007; 44:290–298. [PubMed: 17879172]
- Brady SS, Halpern-Felsher BL. Adolescents' reported consequences of having oral sex versus vaginal sex. *Pediatrics*. 2007; 119:229–236. [PubMed: 17272611]
- Brewster KL, Tillman KH. Who's doing it? Patterns and predictors of youths' oral sexual experiences. *Journal of Adolescent Health*. 2008; 42:73–80. [PubMed: 18155033]
- Burdette AM, Hill TD. Religious involvement and transitions into adolescent sexual activities. *Sociology of Religion*. 2009; 70:28–48.
- Cavanagh SE. The sexual debut of girls in early adolescence: The intersection of race, pubertal timing, and friendship group characteristics. *Journal of Research on Adolescence*. 2004; 14:285–312.
- Chandra A, Mosher WD, Copen C, Sionea C. Sexual behavior, sexual attraction, and sexual identity in the United States: Data from the 2006–2008 National Survey of Family Growth. *National Health Statistics Report*. 2011; 36:1–36.
- Collins, PH. *Black feminist thought: Knowledge, consciousness, and the politics of empowerment*. New York: Routledge; 1999.
- Collins WA. More than a myth: The developmental significance of romantic relationships during adolescence. *Journal of Research on Adolescence*. 2003; 13:1–24.
- Copen CE, Chandra A, Martinez G. Prevalence and timing of oral sex with opposite-sex partners among females and males aged 15–24 years: United States, 2007–2010. *National Health Statistics Reports*. 2012; 56:1–14. [PubMed: 24979976]
- Cornell JL, Halpern-Felsher BL. Adolescents tell us why teens have oral sex. *Journal of Adolescent Health*. 2006; 38:299–301. [PubMed: 16488832]
- Cuffee JJ, Hallfors DD, Waller MW. Racial and gender differences in adolescent sexual attitudes and longitudinal associations with coital debut. *Journal of Adolescent Health*. 2007; 41:19–26. [PubMed: 17577530]
- Davis, JE. Transgressing the masculine: African American boys and the failure of schools. In: Martino, W.; Meyenn, B., editors. *What about the boys?: Issues of masculinity in schools*. Philadelphia, PA: Open University Press; 2001. p. 140–153.
- D'Souza G, Kreimer AR, Viscidi R, Pawlita M, Fakhry C, Koch WM, et al. Gillison ML. Case-control study of human papillomavirus and oropharyngeal cancer. *New England Journal of Medicine*. 2007; 356:1944–1956. [PubMed: 17494927]
- Eaton DK, Kann L, Kinchen S, Shanklin S, Flint KH, Hawkins J, et al. Wechsler H. Youth risk behavior surveillance—United States, 2011. *Morbidity and Mortality Weekly*. 2012; 61(4):1–162.
- Edwards S, Carne C. Oral sex and the transmission of viral STIs. *Sexually Transmitted Infections*. 1998a; 74:6–10. [PubMed: 9634307]

- Edwards S, Carne C. Oral sex and transmission of non-viral STIs. *Sexually Transmitted Infections*. 1998b; 74:95–100. [PubMed: 9634339]
- Eisenberg ML, Shindel AW, Smith JF, Lue TF, Walsh TJ. Who is the 40 - year - old virgin and where did he/she come from? Data from the National Survey of Family Growth. *The Journal of Sexual Medicine*. 2009; 6:2154–2161. [PubMed: 19493289]
- Elder JH. Time, human agency, and social change: Perspectives on the life course. *Social Psychology Quarterly*. 1994; 57:4–15.
- Fava NM, Bay-Cheng LY. Young women's adolescent experiences of oral sex: Relation of age of initiation to sexual motivation, sexual coercion, and psychological functioning. *Journal of adolescence*. 2012; 35:1191–1201. [PubMed: 22546273]
- Finger R, Thelen T, Vessey JT, Mohn JK, Mann JR. Association of virginity at age 18 with educational, economic, social, and health outcomes in middle adulthood. *Adolescent and Family Health*. 2004; 3:164–170.
- Fugère MA, Escoto C, Cousins AJ, Riggs ML, Haerich P. Sexual attitudes and double standards: A literature review focusing on participant gender and ethnic background. *Sexuality & Culture*. 2008; 12:169–182.
- Goldberg SK, Haydon AA, Herring AH, Halpern CT. Longitudinal consistency in self-reported age of first vaginal intercourse among young adults. *Journal of Sex Research*. 2014:97–106. [PubMed: 23237101]
- Haase CM, Landberg M, Schmidt C, Lüdke K, Silbereisen RK. The later, the better? Early, average, and late timing of sexual experiences in adolescence and psychosocial adjustment in young adulthood. *European Psychologist*. 2012; 17:199–212.
- Halpern CT, Haydon AA. Sexual timetables for oral-genital, vaginal and anal intercourse: Sociodemographic comparisons in a nationally representative sample of adolescents. *American Journal of Public Health*. 2012; 102:1221–1228. [PubMed: 22571710]
- Harden KP. True love waits? A sibling-comparison study of age at first sexual intercourse and romantic relationships in young adulthood. *Psychological Science*. 2012; 23:1324–1336. [PubMed: 23012271]
- Haydon AA, Cheng MM, Herring AH, McRee AL, Halpern CT. Prevalence and predictors of sexual inexperience in adulthood. *Archives of Sexual Behavior*. 2014; 43:221–230. [PubMed: 23900992]
- Hensel DJ, Fortenberry JD, O'Sullivan LF, Orr DP. The developmental association of sexual self-concept with sexual behavior among adolescent women. *Journal of Adolescence*. 2011; 34:675–684. [PubMed: 20970178]
- Jones NA, Bullock JJ. Understanding who reported multiple races in the US decennial census: Results from Census 2000 and the 2010 Census. *Family Relations*. 2013; 62:5–16.
- Kaestle CE, Halpern CT, Miller WC, Ford CA. Young age at first sexual intercourse and sexually transmitted infections in adolescents and young adults. *American Journal of Epidemiology*. 2005; 161:774–780. [PubMed: 15800270]
- Kann L, Kinchen S, Shanklin SL, Flint KH, Kawkins J, Harris WA, et al. Zaza S. Youth risk behavior surveillance—United States, 2013. *Morbidity and Mortality Weekly*. 2014; 63(4):1–168.
- Laumann, EO.; Gagnon, JH.; Michael, RT.; Michaels, S. The social organization of sexuality: Sexual practices in the United States. Chicago: University of Chicago Press; 1994.
- Lee SJ, Vaught S. “You can never be too rich or too thin”: Popular and consumer culture and the Americanization of Asian American girls and young women. *Journal of Negro Education*. 2003; 72:457–466.
- Leichliter JS, Chandra A, Liddon N, Fenton KA, Aral SO. Prevalence and correlates of heterosexual anal and oral sex in adolescents and adults in the United States. *Journal of Infectious Diseases*. 2007; 196:1852–1859. [PubMed: 18190267]
- Lindberg LD, Jones R, Santelli JS. Noncoital sexual activities among adolescents. *Journal of Adolescent Health*. 2008; 43:231–238. [PubMed: 18710677]
- Madkour AS, de Looze M, Ma P, Halpern CT, Farhat T, Ter Bogt TF, et al. Godeau E. Macro-level age norms for the timing of sexual initiation and adolescents' early sexual initiation in 17 European countries. *Journal of Adolescent Health*. 2014; 55:114–121. [PubMed: 24508092]

- Martinez G, Copen CE, Abma JC. Teenagers in the United States: sexual activity, contraceptive use, and childbearing, 2006-2010 National Survey of Family Growth. Vital and health statistics Series 23, Data from the National Survey of Family Growth. 2011; 31:1–35.
- McCabe J, Brewster KL, Tillman KH. Patterns and correlates of same-sex sexual activity among U.S. teenagers and young adults. *Perspectives on Sexual and Reproductive Health*. 2011; 43:142–150. [PubMed: 21884381]
- McClelland SI, Tolman DL. Adolescent sexuality. *Encyclopedia of Critical Psychology*. 2014:40–47.
- Mok TA. Getting the message: Media images and stereotypes and their effect on Asian Americans. *Cultural Diversity and Mental Health*. 1998; 4:185–202. [PubMed: 9713159]
- Mosher, WD.; Chandra, A.; Jones, J. Advance data from vital health statistics No 362. Hyattsville, MD: National Center for Health Statistics; 2005. Sexual behavior and selected health measures: Men and women 15-44 years of age, United States, 2002.
- Neugarten BL, Moore JW, Lowe JC. Age norms, age constraints, and adult socialization. *American Journal of Sociology*. 1965; 70:710–717.
- Okazaki S. Influences of culture on Asian Americans' sexuality. *Journal of Sex Research*. 2002; 39:34–41. [PubMed: 12476254]
- Pascarella, ET.; Terenzini, PT. How college affects students vol 2: A third decade of research. San Francisco, CA: Jossey-Bass; 2005.
- Reese BM, Haydon AA, Herring AH, Halpern CT. The association between sequences of sexual initiation and the likelihood of teenage pregnancy. *Journal of Adolescent Health*. 2013; 52:228–233. [PubMed: 23332489]
- Rosenthal DA, Smith AM. Adolescent sexual timetables. *Journal of Youth and Adolescence*. 1997; 26:619–636.
- Sandfort TG, Orr M, Hirsch JS, Santelli J. Long-term health correlates of timing of sexual debut: Results from a national US study. *American Journal of Public Health*. 2008; 98:155–161. [PubMed: 18048793]
- Simon W, Gagnon JH. Sexual scripts: Permanence and change. *Archives of Sexual Behavior*. 1986; 15:97–120. [PubMed: 3718206]
- Spriggs AL, Halpern CT. Sexual debut timing and depressive symptoms in emerging adulthood. *Journal of Youth and Adolescence*. 2008a; 37:1085–1096. [PubMed: 19802319]
- Spriggs AL, Halpern CT. Timing of sexual debut and initiation of postsecondary education by early adulthood. *Perspectives on Sexual and Reproductive Health*. 2008b; 40:152–161. [PubMed: 18803797]
- Stephens DP, Few AL. Hip hop honey or video ho: African American preadolescents' understanding of female sexual scripts in hip hop culture. *Sexuality & Culture*. 2007; 11:48–69.
- Tolman DL, McClelland SI. Normative sexuality development in adolescence: A decade in review, 2000–2009. *Journal of Research on Adolescence*. 2011; 21:242–255.
- Vannier SA, Byers ES. A qualitative study of university students' perceptions of oral sex, intercourse, and intimacy. *Archives of Sexual Behavior*. 2013; 42:1573–1581. [PubMed: 23835846]
- Vannier SA, O'Sullivan LF. Who gives and who gets: Why, when, and with whom young people engage in oral sex. *Journal of Youth and Adolescence*. 2012; 41:572–582. [PubMed: 22327462]
- Villarruel AM. Cultural influences on the sexual attitudes, beliefs, and norms of young Latina adolescents. *Journal for Specialists in Pediatric Nursing*. 1998; 3:69–79.
- Villarruel AM, Rodriguez D. Beyond stereotypes: Promoting safer sex behaviors among Latino adolescents. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*. 2003; 32:258–263.
- Weiss UK, Tillman KH. Risky sexual behaviors among Hispanic young adults in South Florida: Nativity, age at immigration and gender differences. *Perspectives on Sexual and Reproductive Health*. 2009; 41:202–209. [PubMed: 20444173]
- Zimmer-Gembeck MJ, Helfand M. Ten years of longitudinal research on US adolescent sexual behavior: Developmental correlates of sexual intercourse, and the importance of age, gender and ethnic background. *Developmental Review*. 2008; 28:153–224.

Figure 1. Weighted Percentages of Sexual Initiation Timing by Gender and Race/Ethnicity

Table 1
Weighted Percentages of Variables

	Women (<i>n</i> = 7,254)	Men (<i>n</i> = 6,335)
Vaginal Sex Initiation Timing ^a		
Early	19.7 (1,306)	18.4 (1,135)
Normative	57.4 (4,208)	54.9 (3,497)
Late	18.1 (1,421)	19.4 (1,256)
No Vaginal Sex Experience	4.8 (319)	7.3 (447)
Oral Sex Initiation Timing ^{b,c}		
Early	19.4 (1,249)	15.8 (933)
Normative	57.8 (4,151)	62.0 (3,916)
Late	15.1 (1,281)	16.0 (1,120)
No Oral Sex Experience	7.8 (573)	6.2 (366)
Race/Ethnicity		
White	68.5 (3,978)	68.8 (3,583)
Black	16.2 (1,678)	15.5 (1,248)
Hispanic	12.0 (1,164)	12.1 (1,044)
Asian	3.3 (434)	3.6 (460)
Nativity Status		
Native-born	94.8 (6,726)	94.7 (5,838)
Foreign-born	5.2 (528)	5.3 (497)
Family Structure at Wave I		
Two-parent biological/adoptive family	55.9 (3,951)	57.1 (3,615)
Step-parent family	15.0 (1,078)	15.6 (992)
Single-parent family	23.2 (1,773)	21.9 (1,429)
Other family type	5.9 (452)	5.4 (299)
Parent Education		
Less than high school	11.6 (898)	10.5 (668)
High school degree	30.0 (2,016)	30.3 (1,773)
Some college or more	52.8 (3,948)	53.5 (3,577)
Missing education data	5.6 (392)	5.7 (317)
Pubertal Timing		
Early	43.2 (2,983)	38.7 (2,396)
Typical	38.3 (2,819)	38.9 (2,521)
Late	18.5 (1,452)	22.4 (1,418)

^aTiming categories for women and men: Early (Ages 10-14), Normative (Ages 15-18), Late (Ages 19+)

^bTiming categories for women: Early (Ages 10-15), Normative (16-20), Late (Ages 21+)

^cTiming categories for men: Early (Ages 10-14), Normative (15-19), Late (Ages 20+)

Note: N's in parentheses. Percentages may not sum to 100.0 due to rounding.

Table 2
Relative Risk Ratios for the Effects of Race/Ethnicity on Vaginal Sex Initiation Timing, by Gender

	Women (N = 7,254)			Men (N = 6,335)		
	Early (10-14)	Late (19+)	No Experience	Early (10-14)	Late (19+)	No Experience
	(vs. Normative, 15-18)			(vs. Normative, 15-18)		
Race/Ethnicity (Ref = White)						
Black	1.28*	0.69**	0.55*	2.01***	0.64**	1.08
Hispanic	1.16	1.52**	1.47	1.24	0.57***	1.04
Asian	0.92	1.46*	0.29**	0.76	1.45	1.79
Foreign-Born	1.08	1.85***	0.86	0.69	1.71**	1.67
Family Structure (Ref = Two-parent biological/adoptive family)						
Step-parent family	1.70***	0.44***	0.49*	1.40**	0.54***	0.96
Single-parent family	1.80***	0.63***	0.38***	1.63***	0.77*	1.03
Other family type	2.27***	0.41**	1.24	1.84**	0.33***	0.50
Parents' Education (Ref = Less than high school)						
High school degree	0.87	0.88	2.33	0.73	0.80	1.32
Some college or more	0.65**	1.69***	3.92**	0.56**	1.22	1.06
Missing education data	0.99	0.94	2.07	0.84	1.41	1.02
Pubertal Timing Early (Ref = Typical)	1.71***	0.66***	0.67*	1.48***	0.91	1.32
Late	0.64***	0.92	0.76	1.12	1.08	1.35
Ever Had Oral Sex	2.31***	0.51***	0.02***	2.37*	0.53**	0.04***

*
p 0.05;

**
p 0.01;

p 0.001

Table 3
Relative Risk Ratios for the Effects of Race/Ethnicity on Oral Sex Initiation Timing, by Gender

	Women (N = 7,254)				Men (N = 6,335)		
	(vs. Normative, 16-20)		(vs. Normative, 15-19)				
	Early (10-15)	Late, 21+	No Experience	Early (10-14)	Late, 20+	No Experience	
Race/Ethnicity (Ref = White)							
Black	0.47***@	3.64***	6.37***	0.97	1.70***	3.55***	
Hispanic	0.71**	1.95***	1.96**	1.24	1.23	1.65**	
Asian	1.03	1.75***	2.23	0.51**	1.71	3.03***	
Foreign-Born	0.62	1.70***	1.53	0.75	1.64**	1.15	
Family Structure (Ref = Two-parent biological/adoptive family)							
Step-parent family	1.36*	0.68**	0.48**	1.47***	0.72*	0.76	
Single-parent family	1.46**	0.90	1.34	1.52***	0.86	0.98	
Other family type	1.18	0.70	0.52	1.96**	0.76	1.00	
Parents' Education (Ref = Less than high school)							
High school degree	1.01	0.78	0.52**	0.95	0.81	0.53*	
Some college or more	0.97	0.92	0.31***	0.72*	0.92	0.36***	
Missing education data	1.31	1.11	1.63	1.06	1.13	1.64	
Pubertal Timing Early (Ref = Typical)	1.81***	0.73***	0.88	1.56***	0.98	0.86	
Late	0.80	1.23	1.67***	1.01	1.49***	1.88*	
Ever Had Vaginal Sex	0.98	0.26***	0.01***	0.56***	0.50**	0.03***	

* p 0.05;

** p 0.01;

*** p 0.001