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## Timing of Sexual Initiation and Relationship Satisfaction in Young Adult Marital and Cohabiting Unions

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### Abstract

Using the *National Longitudinal Study of Adolescent to Adult Health*, this research examines the association between timing of oral sex initiation and marital and cohabiting relationship satisfaction among young adults. Findings indicate that women who transition to oral sex “late” or who have no oral sex experience report higher levels of relationship satisfaction in their current coresidential unions than do women who transition at a “normative” age. Higher levels of relationship satisfaction among women who transition “late,” however, appear to be explained by their lower likelihood of experiencing forced sexual relations and sexually transmitted infections. We find no evidence of any association between timing of oral sex initiation and relationship satisfaction among men. To best promote healthy relationships, researchers, practitioners, and educators need to better understand the various types of sexual activities in which young people engage.

### Keywords

sexual initiation; young adulthood; romantic relationships; relationship satisfaction; oral sex

### Introduction

While extensive research has focused on predictors and correlates of teens’ sexual activity (Zimmer-Gembeck & Helfand, 2008), much remains to be learned about the timing of sexual initiation and its consequences for well-being. To date, empirical research has focused largely on initiation of vaginal sex, with studies generally indicating that engagement in this behavior, particularly at an “early” age (commonly defined as before age 16), can be detrimental to well-being (Hallfors et al., 2004). Research, however, has been largely silent on how entry into noncoital sexual behaviors, such as oral sex, influences outcomes. Because studies suggest that oral sex may have become more common than

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vaginal sex in recent years (Brewster & Tillman, 2008), exploring the influence of different types of sexual behaviors on young people's well-being is of great importance to educators and those interested in supporting the development of healthy intimate relationships.

Working from a life course perspective that emphasizes the importance of early life experiences for later life outcomes (Elder, 1998), we view adolescent and young adult sexual initiation as a part of an individual's developmental process. More specifically, the timing at which individuals engage in sexual behaviors, being at either a normative (and on-time) or a nonnormative (and off-time) age, may play an important role in their subsequent interpersonal relationships. While the life course perspective is commonly applied to research surrounding the sexual activity of youth (Halpern, 2010), an overwhelming majority of studies focus on "off-time early" behaviors (Madkour, Farhat, Halpern, Godeau, & Gabhainn, 2010; O'Donnell, O'Donnell, & Stueve, 2001) because these transitions are generally anticipated to have greater negative implications than those that are late. For example, young women and men who initiate vaginal sex at earlier ages are more likely to report an unintended pregnancy and a sexually transmitted infection (STI) diagnosis than those who delay initiation to later ages (O'Donnell et al., 2001; Upchurch, Mason, Kusunoki, & Kriechbaum, 2004). Given the normativity of sexual initiation during adolescence, however, "off-time late" transitions, as well as reporting no sexual experience into young adulthood, may also be associated with adverse outcomes. Individuals with these experiences may be less able to find similar peers, leading to insufficient social support during this period of life (Hagestad & Smyer, 1982). As such, it may be that nonnormative transitions, both "early" and "late," or a lack of a transition that is normally made during adolescence, can have implications for individuals' trajectories, shaping relationship experiences in young adulthood.

The general aim of this study is to examine the association between timing of oral sex initiation and satisfaction in young adult marital and cohabiting relationships using the National Longitudinal Study of Adolescent to Adult Health (Add Health). Specifically, we (a) assess the association between timing of first oral sex and satisfaction in intact cohabiting and marital relationships, net of basic sociodemographic and background characteristics; (b) examine several factors that may help explain the link between timing of oral sex initiation and relationship satisfaction, including history of forced sexual relations and lifetime STI diagnosis; and (c) assess the effect of oral sex timing on relationship satisfaction, controlling for vaginal sex experiences.

### **Sexual Initiation and Life Course Theory**

Life course theory suggests that experiences occurring early in the life course help shape subsequent experiences and later life trajectories (Elder, 1998). In particular, important life transitions structure the opportunities and constraints that people will face in their future. Studying key transitions, therefore, may help us discern the type of trajectories that individuals will follow.

The transition to sexual activity is generally considered a normative step in the process of adolescent development (Tolman & McClelland, 2011) and may play an important role in the development of interpersonal relationship skills and expectations. Because life

transitions are often regulated by clear, cultural understandings about the timing at which events *should* occur, which often coincide with age (Neugarten, Moore, & Lowe, 1965), scholars drawing from a life course perspective argue that those who experience life transitions at nonnormative ages are at an increased risk for experiencing adverse outcomes (Hogan, 1978). Although the age at which individuals transition to sexual activity is shaped by a number of factors, clear patterns of timing among young people emerge. Estimates from the 2007 to 2010 National Survey of Family Growth show that among today's teens aged 15 to 19 years, 49% of boys and 48% of girls report heterosexual oral sex experience. These percentages are similar to those reported for engagement in vaginal sex among boys (44%) and girls (47%) in this age group (Copen, Chandra, & Martinez, 2012). Furthermore, a recent study using the Add Health data found that by age 18, three quarters of young people had engaged in vaginal intercourse, and 67% had engaged in oral sex (Halpern & Haydon, 2012). Given the normativity of sexual behavior, actions that are not in accord with age-based norms may be deemed as inappropriate and/or disruptive to an orderly transition to adulthood, and in turn are likely to hinder later life opportunities and negatively affect later life relationships.

Previous empirical studies have largely focused on distinguishing between “normative” and “early” transitions to sexual intercourse (e.g., Madkour et al., 2010) and are generally supportive of the notion that initiation timing has enduring life course effects. In terms of future intimate relationships, studies have found that vaginal intercourse at an early age is associated with a greater likelihood of later marital dissolution (Paik, 2011; Teachman, 2003). These findings have led to concern for the social well-being of early initiators and public policy efforts aimed at delaying sexual initiation and promoting sexual abstinence among adolescents (Santelli et al., 2006). Although off-time transitions that are early generally are anticipated to have greater implications for subsequent outcomes than those that are late, as sexual activity becomes more normative with age, being sexually inexperienced into one's late teens and early 20s also may be linked with adverse outcomes. For example, higher levels of well-being were found among young women with early transitions to sexual activity, whereas later sexual initiation was associated with lower levels of well-being among both young women and men (Vrangalova & Savin-Williams, 2011). Only a few studies, however, have examined whether “late” transitions to sexual activity (often defined as after age 18) is also associated with subsequent intimate relationship outcomes. One study of young adults has found that individuals who do not transition to vaginal sex by the normative age, including those who have never engaged in vaginal sex, report having had fewer romantic partners, but higher levels of relationship satisfaction in later cohabiting and marital unions (Harden, 2012). Another study suggests that later onset of sexual experiences is associated with poorer social relations in general (Haase, Landberg, Schmidt, Lüdke, & Silbereisen, 2012).

In addition to its overwhelming focus on the effects of “early” transitions, this previous research on timing of sexual initiation focuses exclusively on vaginal intercourse, without the consideration of oral sex, a sexual activity that has become increasingly common among youth (Brewster & Tillman, 2008). As a result of these shortcomings in the literature, we do not yet have a comprehensive understanding of how the transition to sexual activity influences the relationship life course of individuals.

## Timing of Sexual Initiation and Later Relationship Satisfaction

Timing of sexual initiation may be related to the quality of an individual's intimate unions during young adulthood through a number of pathways. First, the timing at which individuals initiate sexual behaviors may be *directly associated* with relationship satisfaction. Within the context of first sexual experiences, people learn sexual and relationship scripts, which may influence their future interactions with others. A study in Scotland and England found that, compared with teens who transitioned to first vaginal sex at ages 15 to 16, those who transitioned at age 13 or younger were more likely to report having done so as a result of pressure from their partner (Wight et al., 2008). Early sexual experiences that result primarily from social pressure or manipulation may, in turn, negatively shape individuals' attitudes toward sex and intimacy in ways that carry through to their adult lives. Furthermore, social stigma associated with nonnormative "early" sexual activity may reinforce these attitudes and reduce early initiators' access to social support and positive peer relationships.

Involvement in sexual relations at an early age also may focus more of an individual's attention on the physical aspects of intimate relationships than on the social and emotional dimensions of relationships such as cooperative goal setting and communication. In turn, this may lead to more fragile or unstable relationships later in life. On the other hand, the earlier an individual begins intimate relationships, the more opportunities he or she has to practice communication and develop interpersonal skills related to relationships, which could have some positive implications for young adult unions.

Transitioning to sexual activity at a later than average age also may be related to subsequent relationship quality. Delaying sexual initiation until later ages may foster the development of maturity, both cognitively and emotionally, enhancing future relationship experiences. However, individuals who delay sexual activity to a nonnormative "late" age may be less able to find similar peers, leading to insufficient social support during adolescence and young adulthood (Hagestad & Smyer, 1982) and poorer social relations (Haase et al., 2012). Moreover, those who transition to sexual activity at a late age tend to accumulate fewer romantic partners over time (Harden, 2012), limiting opportunities to acquire interpersonal and relationship skills. A lack of social support and relationship skills may then translate into more difficult or unstable relationships as individuals move into coresidential unions. Research also shows that transitioning to first vaginal sex at a late age is associated with sexual problems among men (Sandfort, Orr, Hirsch, & Santelli, 2008) and more sexual aversion and lower sexual self-efficacy among women (Reissing, Andruff, & Wentland, 2012), which in turn may negatively influence relationship satisfaction.

Second, sexual initiation timing may be *indirectly related* to later relationship quality, working through other sexual/relationship-related events and trajectories. It may be, therefore, that part of the reason why timing of sexual initiation has consequences for relationship satisfaction in young adulthood is that sexual timing influences other life events and outcomes such as experiencing a nonmarital or unintended pregnancy or an STI diagnosis. If this is the case, sexual initiation during the adolescent years may have enduring effects for young adult relationship quality because of its earlier influence on reproductive health outcomes.

Finally, although we are unable to empirically test this mechanism, *selectivity* may play a role in the association between sexual initiation timing and relationship quality. It may be that individuals predisposed to poor-quality relationships in young adulthood are more likely to become sexually active during their early adolescent years. Similarly, poor social relationship skills may be responsible for later transitions to sexual activity and may also lead to relationship difficulties in young adulthood.

### Timing of Oral Sex Initiation and Its Distinction From Vaginal Sex Initiation

Despite the high prevalence of engagement in oral sex among youth, we are aware of only one study that has explored the implications of the timing of oral sex initiation on young adult outcomes, which focused only on reproductive health (Haydon, Herring, & Halpern, 2012).

There are several reasons that the timing of oral sex initiation may have different effects on an individual's social outcomes than the timing of vaginal sex initiation. Young people's motivations to engage in oral sex and vaginal sex, as well as the consequences that young people report after engaging in these behaviors, may play a role in future relationship outcomes. In general, young people today view oral sex as less serious/intimate than vaginal sex (Malacad & Hess, 2010), reflecting individuals' perceptions that oral sex carries fewer social, emotional, and physical risks than vaginal sex (Cornell & Halpern-Felsher, 2006; Halpern-Felsher, Cornell, Kropp, & Tschann, 2005). Indeed, research shows that fewer negative consequences are reported after engaging in oral sex versus vaginal sex (Brady & Halpern-Felsher, 2007). For example, adolescents who engaged in oral sex only, compared with vaginal sex only, were less likely to report a pregnancy, get in trouble with their parents, and feel guilty about their behavior. Furthermore, given the normativity of engaging in oral sex during adolescence, in conjunction with the fact that this behavior is often considered a relatively casual sexual activity, youth who do not engage in the behavior during their teen years may feel left out socially, may be perceived as too "uptight" or "prude," and may fail to gain some of the interpersonal and intimate relationship experience that their peers are gaining. Therefore, early initiation of oral sex may not be associated with as negative emotional reactions or as strong social stigmas as early initiation of vaginal sex and, consequently, may not be as detrimental to subsequent social and relationship outcomes. Having only experienced oral sex, however, is not necessarily without consequences: Adolescents who had only oral sex were less likely than their peers who had only vaginal sex to experience pleasure from their sexual activity (Brady & Halpern-Felsher, 2007).

### Gender

The sexual double standard provides a useful framework for understanding gender differences in sexual behavior timing and its implications for relationship outcomes. The sexual double standard encompasses the idea of gender-specific sexual norms and behaviors. Furthermore, this code suggests that girls and women are perceived and judged differently than boys and men for sexual behaviors (Crawford & Popp, 2003; Milhausen & Herold, 1999). Indeed, research indicates a persistence of the sexual double standard among young people today (Bordini & Sperb, 2013; Kreager & Staff, 2009; Sakaluk & Milhausen, 2012).

As a result of this inequality, young girls may be at a particular risk for experiencing adverse outcomes after engaging in oral and vaginal sex. Female adolescents are more likely to report feeling guilty and used after their first sexual encounter, whereas male adolescents are more likely to report experiencing popularity and feeling good about oneself, regardless of engaging in oral or vaginal sex (Brady & Halpern-Felsher, 2007). Given the positive consequences reported by young men who engage in sexual activity, remaining sexually inexperienced into one's mid 20s and early 30s actually may be associated with greater stigma than transitioning "early" for men.

Despite the persistence of the sexual double standard, studies indicate an emergence of greater sexual egalitarianism (Bordini & Sperb, 2013; Crawford & Popp, 2003). Indeed, gender differences in sexual behaviors and attitudes have diminished in recent years (for a review, see Petersen & Hyde, 2011). In one study, for example, both women and men with high numbers of sex partners were evaluated negatively (Marks & Fraley, 2005). Moreover, recent studies document a reverse sexual double standard by which men are viewed more negatively than women for their sexual behavior (Papp et al., 2015). Given this shift, both young women and young men who initiate sexual behaviors at an early age may face a greater risk of experiencing worse relationship outcomes in young adulthood.

### **The Present Study**

To address the lack of attention to the issue of oral sex, our goal is to examine the association between timing of oral sex initiation and satisfaction in current marital and cohabiting relationships among adults aged 24 to 32 years. Given the close connection between oral and vaginal sex, our models control for the timing of both sexual behaviors. We also explore the interaction between oral and vaginal sex timing. Since no significant interaction effects emerge, however, these interaction models are not included in our Results section (results available on request). The persistence of an oral sex timing effect on relationship satisfaction, in the face of controls for vaginal sex timing, would strengthen the argument that oral sex has its own important implications for the well-being of young individuals and that sexual health educators and programs need to expand coverage of sexual health topics beyond vaginal sex (Vannier & Byers, 2013).

### **Method**

#### **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. Respondents who participated in the Wave I in-home interviews were followed up at three subsequent waves; Wave II in 1996, Wave III in 2001–2002, and Wave IV in 2008. Wave IV included 15,701 of the original respondents, who were then aged 24 to 32 years (80.3% response rate).

This study utilizes data collected from the in-home interviews during Waves I and IV. To ensure a nationally representative picture of the sexual initiation experiences of young Americans, the timing categories of oral and vaginal sex initiation (i.e., “early,” “normative,” “late,” and “no oral/vaginal sex experience”) were created using the full sample of respondents who completed Waves I and IV of the in-home interview. The analytic sample, however, was created using a number of additional exclusion criteria. First, it was limited to respondents who had a valid sampling weight and those without missing values on the relationship data ( $n = 14,433$ ). We limit our analyses to those who reported a current cohabiting or marital union, reducing our sample to 9,136 respondents. We then exclude those who report two current romantic partners ( $n = 132$ ). Next, we drop those who reported being younger than age 10 at sexual initiation ( $n = 112$ ) due to the possibility of nonconsensual sexual experiences. We also exclude those who had engaged in oral or vaginal sex, but who did not report age of sexual initiation ( $n = 171$ ). Finally, those without valid data on the remaining variables were dropped ( $n = 293$ ), yielding a final sample size of 8,428 respondents ( $n = 4,727$  women and  $n = 3,701$  men).

## Measures

**Relationship Satisfaction**—Our measure of relationship satisfaction, which represents the mean item score across seven items, assesses respondent satisfaction with their current cohabiting or marital partner (“We enjoy doing even ordinary, day-to-day things together”; “I am satisfied with the way we handle our problems and disagreements”; “I am satisfied with the way we handle our family finances”; “My partner expresses love and affection to me”; “My partner listens to me when I need someone to talk to”; “I am satisfied with our sex life”; and “I trust my partner to be faithful to me”; Cronbach’s  $\alpha = .90$ ). Original responses ranged from 1 (*strongly agree*) to 7 (*strongly disagree*). These were reverse coded, with higher values indicating higher levels of relationship satisfaction (range = 5–35).

**Timing of Oral Sex Initiation**—Timing of oral sex initiation, taken from the Wave IV in-home interview, was determined by two questions. Respondents were asked, “Have you ever had oral sex? That is, has a partner ever put his or her mouth on your sex organs or you put your mouth on his or her sex organs?” Respondents who answered “yes” to this question were then asked, “How old were you the first time you had oral sex?” It is important to note that, given this question’s phrasing, we cannot determine whether a respondent’s oral sex engagement was heterosexual or homosexual (or both) in nature. We are also unable to distinguish whether their first oral sex experience constituted “giving” or “receiving.”

Using the entire sample of respondents, we examined the distribution of reported ages at first oral sex. Using an interquartile range and boxplot, we 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 who had reported “no experience”) constituting “late” initiation. Ages falling between the 25th and 75th percentiles constitute the “normative” age range in the distribution. For oral sex, the specific break points in the age 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” as initiation that occurred between ages 16 and 20 years, and

“late” as initiation at greater than 20 years. Among men, “early” initiation is specified as oral sex occurring between ages 10 and 14 years, “normative” as initiation that occurred between ages 15 and 19 years, and “late” as initiation at greater than 19 years. For both women and men, “no oral sex experience” refers to respondents who had not yet reported initiating first oral sex by Wave IV.

**Timing of Vaginal Sex Initiation**—Timing of vaginal sex initiation, taken from the in-home interview at Wave IV, 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 categories for vaginal sex initiation were created using the same method described above for oral sex initiation. The final categorization for *vaginal sex* specified “early” initiation (between ages 10 and 14), “normative” initiation (between ages 15 and 18), “late” initiation (after age 18), and “no vaginal sex experience” by Wave IV. This categorization held for both young men and women.

**Sociodemographic Variables**—Most respondent sociodemographic variables are taken from the Wave I in-home interview. *Gender* is based on a self-reported designation as male or female. *Race/ethnicity* is also self-reported and is measured with five dummy indicators, including non-Hispanic White, non-Hispanic Black, Hispanic of any race, non-Hispanic Asian, and non-Hispanic other. *Childhood family structure* is constructed from Add Health’s household roster at Wave I and is measured with two dummy variables—two-parent family (i.e., two-biological parent, stepparent, and adoptive-parent families) and other family type.

Three additional measures are taken from the Wave IV in-home interview. *Age at Wave IV* is measured in years. *Respondent income* is measured with five dummy variables capturing total household income—less than \$20,000, \$20,000 to \$49,999, \$50,000 to \$74,999, \$75,000 or more, and missing income data. *Respondent education* is measured with six dummy indicators that capture educational attainment to date—less than high school, high school diploma/GED, vocational schooling, some college, college degree, and postbaccalaureate.

**Individual Factors**—We include a dichotomous measure of whether the respondent had been in a *recent romantic relationship* during adolescence at the time of Wave I. Following the convention set by others utilizing Add Health, this measure was constructed from a question that asked respondents about their involvement in romantic relationships within the past 18 months, and from responses to a set of additional questions regarding behaviors that are indicative of a romantic relationship, including hand holding, kissing, and telling another person that they like or love them. Respondents were coded as having been in a recent relationship if he or she responded yes to any of these questions, even if they did not consider their relationship to be “romantic” (Carver, Joyner, & Udry, 2003).

A dichotomous measure also was created to determine whether the respondent had *ever experienced forced sexual relations* using three questions from the Wave IV in-home interview. The first two questions are binary indicators (1 = yes, 0 = no) and asked



respondents: (a) “Have you ever been physically forced to have any type of sexual activity against your will? Do not include any experiences with a parent or adult caregiver” and (b) “Have you ever been forced, in a nonphysical way, to have any type of sexual activity against your will? For example, through verbal pressure, threats of harm or by being given alcohol or drugs? Do not include any experiences with a parent or adult caregiver.” To account for forced sexual relations with a parent/caregiver, we use a third question that asked respondents “How often did a parent or other adult caregiver touch you in a sexual way, force you to touch him or her in a sexual way, or force you to have sexual relationships?” Responses to this question ranged from 0 (*this has never happened*) to 5 (*more than ten times*). If respondents answered either “yes” to the first two questions or “one time or more” on the third question, they were coded as having experienced forced sexual relations. This measure is included to control for the possibility that some of the effects of oral and/or vaginal sex engagement, particularly at an early age, might be due to nonconsensual activity.

Finally, information from Wave IV was used to create several other measures of reproductive health and family formation experiences, which have been shown to be associated with both timing of sexual initiation and relationship outcomes. *Ever diagnosed with STI* is based on a series of questions in which respondents indicated whether or not they had ever been told by a doctor, nurse, or other health professional that they had any of the following sexually transmitted diseases: chlamydia, gonorrhea, trichomoniasis, syphilis, genital herpes, genital warts, hepatitis B, human papilloma virus, pelvic inflammatory disease, cervicitis or mucopurulent cervicitis, urethritis, vaginitis, HIV infection or AIDS, or any other sexually transmitted disease. Respondents who answered “yes” to one or more of these items were coded 1; those who answered “no” to all were coded 0. *Ever experienced a non-marital pregnancy* is coded as a binary variable such that 1 = “yes” and 0 = “no.” We also control for whether the respondent *has children* (1 = “yes” and 0 = “no”), current *union type* (1 = “marital union” and 0 = “cohabiting union”), and whether the respondent’s current relationship is a *same-sex relationship* (1 = “yes” and 0 = “no”).

## Analyses

Weighted percentages and means are used to descriptively examine sexual initiation timing differences in relationship satisfaction as well as the sample characteristics. Ordinary least squares regression is then used to assess the effects of sexual initiation timing on relationship satisfaction. Because the categories for timing of first oral sex differed for men and women, all analyses are gender-specific. Stata-SE, Version 13.0, and applied survey commands were used to adjust for design and sampling weights.

## Results

### Descriptive Findings

Table 1 presents descriptive information for all variables by gender. Only a small proportion of respondents in the sample report completely abstaining from oral sex (4% of women and 3% of men) and vaginal sex (1% of women and 3% of men) into their mid 20s or early 30s. This is not surprising given both the respondents’ age and the fact that all respondents in the sample were living in a coresidential romantic union. As a result of the exclusion criteria

used to build our analytic sample, respondents are somewhat overrepresented in the “normative” timing categories for both first oral sex and first vaginal sex. We do see, however, a distribution of respondents across all timing categories.

The analytic sample consists of predominantly White women and men, and the average respondent was 29 years of age at Wave IV. Most respondents resided in a two-parent family during childhood. By Wave IV, a majority of respondents report attaining at least some college education and earning mid-to-high levels of income. Roughly 71% of women and 69% of men reported adolescent romantic relationship experience at Wave I, and at Wave IV, over two thirds of both women and men report being in a current marital union (as opposed to a cohabiting union). Very few women and men report that their current relationship is same sex (1.7% and 1.6%, respectively). Women (65%) are more likely than men (57%) to report having children. Experiences of forced sexual relations, while rare among men (5%), were reported by a substantial percentage of women (28%). Lifetime diagnosis of STI and nonmarital pregnancies were also reported by relatively large percentages of both women and men, but were more common among women. Finally, men and women report similar, relatively high levels of current relationship satisfaction (means of approximately 29 points on a scale ranging from 5–35).

Table 2 displays the bivariate association between timing of sexual initiation and current relationship satisfaction for women in Panel 1 and for men in Panel 2. Wald tests were used to statistically test for differences in mean relationship satisfaction between normative timing categories and the other categories of timing ( $p < .05$ ). Timing of first oral sex is significantly related to relationship satisfaction, but only for the female subsample. Women who initiated oral sex at an early age report lower levels of relationship satisfaction than those who initiated oral sex at a normative age (28.7 vs. 29.5, respectively).

Turning to the association between timing of first vaginal sex and relationship satisfaction, we see significance for both women and men. Among women, we find evidence of a linear relationship, such that the lowest levels of satisfaction are reported among women who transitioned to vaginal sex between ages 10 and 14 (28.3) and the highest levels are reported among women who transitioned to vaginal sex after age 18 (30.6). Men who transitioned to vaginal sex at a late age report significantly higher levels of relationship satisfaction than those who initiated vaginal sex at a normative age (30.2 vs. 29.5, respectively).

### Multivariate Findings

Tables 3 and 4 present results from ordinary least squares regression. Similar to the descriptive results, Model 1 in Table 3 shows that for women, timing of first oral sex significantly predicts relationship satisfaction in young adulthood net of race/ethnicity and age. Women who transition to oral sex at an early age, compared with a normative age, report lower levels of relationship satisfaction. In addition, a late transition to oral sex is associated with higher levels of satisfaction among women. These effects remain statistically significant with the inclusion of childhood family structure, romantic relationship experience in adolescence (Model 2), and respondent socioeconomic status and family characteristics (Model 3). Interestingly, while abstaining from oral sex was not significantly associated with relationship satisfaction in the first two models, adjusting for current sociodemographic and

family characteristics in young adulthood revealed a suppression effect in Model 3: Compared with peers of similar levels of socioeconomic status and family characteristics, women with no oral sex experience, on average, report more relationship satisfaction than those who initiated oral sex at a normative age (between ages 16 and 20). Additional analyses (available on request) indicate that the lower levels of education and income among women who abstained from oral sex are particularly important in explaining this suppression effect.

Model 4 includes measures of the respondents' experiences with forced sexual relations, STI diagnosis, and nonmarital pregnancy, and Model 5 includes measures for timing of vaginal sex initiation. The associations between early oral sex timing and no oral sex experience and relationship satisfaction remain robust, but the addition of reproductive health measures in Model 4 completely attenuates the association between late oral sex timing and relationship satisfaction. This finding suggests that women who transition to oral sex at a late age may report higher levels of relationship satisfaction in young adulthood, in part because of their lower likelihood of experiencing forced sexual relations or an STI diagnosis (additional results available on request), which in turn affect the quality of their intimate relationships later in life. Although vaginal sex timing does not exert a significant independent effect on relationship satisfaction, the inclusion of timing of first vaginal sex in Model 5 reduces the association between early oral sex timing and relationship satisfaction to nonsignificance. The association between no oral sex experience and relationship satisfaction remains statistically significantly in the final model.

Considering the effect of the covariates in Model 5, Black women and Hispanic women report lower levels of relationship satisfaction than their White peers. In addition, older women, women with children, women with an experience of forced sexual relations, women who report ever having an STI diagnosis, and women who experienced a nonmarital pregnancy report significantly lower levels of satisfaction. In contrast, higher levels of respondent income are associated with significantly higher levels of satisfaction.

Among men (Table 4), timing of first oral sex initiation does not significantly predict relationship satisfaction in young adult coresidential unions. Considering the direct effects of the remaining covariates, Model 5 indicates that men with higher levels of education and income report more satisfaction in their current relationship. Men in same-sex relationships, men with children, and men who report ever having an STI diagnosis report lower levels of satisfaction. Similar to women, timing of first vaginal sex is not significantly associated with relationship satisfaction for men.

## Discussion

Drawing on a life course framework, we explore the effect of oral sex initiation timing, net of vaginal sex timing, on the marital and cohabiting relationship satisfaction of young adults from their mid 20s to early 30s. In general, the results of this study provide only weak support for a life course perspective. Findings suggest that timing of sexual initiation is not as strongly associated with relationship outcomes as expected, at least not in terms of young adult coresidential union satisfaction. Among men, oral sex timing is a not a significant

independent predictor of relationship satisfaction in young adulthood. Although we find evidence that initiation of oral sex at a nonnormative “early” age is associated with significantly lower levels of later relationship satisfaction for women, this association is reduced to nonsignificance after including vaginal sex initiation timing.

It is important to note, though, that among young women and men who report oral sex experience, transitioning to this behavior at a “late” age is not associated with more positive relationships than is transitioning at a “normative” age. Higher levels of relationship satisfaction among women who transition to oral sex at a late age appear to be explained by their lower likelihood of experiencing forced sexual relations and STI diagnoses. The women in their mid 20s and early 30s who have completely abstained from oral sex, however, do report higher levels of relationship satisfaction than their female peers of similar sociodemographic backgrounds and vaginal sex histories. Since these women are all living within coresidential intimate unions, their lack of oral sex experience may reflect a conscious choice *not* to engage in this activity, rather than a choice to *delay* the activity. Although these data do not allow us to distinguish between experiences of “giving” and “receiving” oral sex, women who do not feel pressure from their partner to engage in oral sex, particularly in the form of “giving,” may be more satisfied in their relationship. More work is needed to better understand the motivations and meanings associated with oral sex for this relatively small group of women.

Despite social norms and scripts embedded in the sexual double standard that value delayed sexual initiation and sex within a committed context for girls and women, but tend to encourage the initiation of sexual activity, regardless of age or relationship status, for boys and men (Milhausen & Herold, 1999; Sprecher, McKinney, & Orbuch, 1987), in general, our study does not point to any major gender differences in the influence of sexual initiation timing on young adult relationship satisfaction. We find that initiating oral or vaginal sex at an early age does not particularly disadvantage women, and initiating these behaviors at a late age does not adversely affect men. Thus, our study is supportive of the notion that the sexual double standard may be diminishing, at least with regard to future relationship satisfaction.

Our finding that late transitioners do not report greater relationship satisfaction than their peers with a more normative timing of sexual initiation appears to contradict the findings of a previous study that focused on the timing of vaginal sex (Harden, 2012). The divergent findings may result from the fact that the previous study did not control for engagement in oral sex and from differences in the timing measures used in the studies. Unlike our approach, Harden’s study combined into one category two groups of young adults: those who had transitioned to vaginal sex at a late age and those who had never engaged in vaginal sex. As a result, her finding that “late” transitioners experience higher levels of relationship satisfaction actually could reflect a positive effect of complete abstention from vaginal sex. It also could be that her finding reflects the unmeasured effects of complete abstention from oral sex, which we show is associated with relationship satisfaction among women and which is highly correlated with both late entry and abstention from vaginal sex (additional results available on request).

The results of this study also confirm the importance of considering multiple types of sexual behaviors. While the vast majority of studies on sexual initiation focus exclusively on vaginal sex, we find no evidence that timing of vaginal sex initiation has enduring independent effects on the key social outcome under consideration here. Furthermore, results indicate that the effect of oral sex timing on relationship satisfaction is not dependent on an individual's timing of entry into vaginal sex (interaction model results not shown, available on request). As such, future research should address the implications of multiple dimensions of sexual activity, including both the type and timing, on additional outcomes.

Finally, our findings have some potentially important policy implications. Although recent public policy efforts, generally based on the assumption that later sexual initiation will always lead to more positive outcomes, have been aimed at delaying sexual activity and promoting sexual abstinence among young people until they reach adulthood (Santelli et al., 2006), we find no difference in the later coresidential relationship satisfaction of individuals who transitioned at a "normative" and a "late" age. For women, complete abstinence from oral sex (but not vaginal sex) appears to be associated with some benefits to relationship quality, but very few women who live with a romantic partner remain completely abstinent. Future research should determine whether these findings extend to other important social, emotional, and physical health outcomes. In addition, programs and policies that cite potentially negative social and relationship outcomes as part of their justification for promoting complete abstinence among youth should be critically reexamined.

Although this study furthers our understanding of the link between sexual behavior and young adult relationship outcomes, a number of limitations should be noted. First, the analytic sample used in this study is limited to young adults who report being in a current coresidential union. Excluding individuals who are not currently in a marital or cohabiting union may select out respondents who ended an unsatisfying relationship. Additionally, restricting our analytic sample to individuals in current coresidential relationships may bias the findings in that they are more likely to be non-Hispanic White, come from two-parent families, and report higher levels of education and income. These sociodemographic characteristics are each associated with higher levels of relationship satisfaction. Second, we are unable to identify whether oral sex occurred between same- or different-gender partners with our data. Because a nontrivial proportion of youth have engaged in same-gender sexual activity (McCabe, Brewster, & Tillman, 2011), future studies should explore whether the link between timing of initiation and later relationship outcomes differs between individuals who engaged in same- and different-gender sexual activity. Third, Add Health does not allow us to distinguish between experiences of "giving" and "receiving" oral sex. This is important, as the distinction between giving and receiving is likely to be salient for an individual's well-being and may be particularly so when investigating differences by gender. Finally, we are unable to examine whether the experiences of oral and vaginal sex initiation occurred in the context of a romantic relationship. Research shows that sexual activity that occurs within a steady relationship is associated with fewer detrimental outcomes than sexual activity that occurs outside a committed relationship (Harden & Mendle, 2011).

To conclude, the results suggest that while sexual experience during the transition to adulthood is a normative step within the life course trajectory of development, and may have

temporary detriments to their well-being in adolescence (Spriggs & Halpern, 2008), the timing at which individuals initiate oral and vaginal sex does not seem to have long-lasting impacts on their satisfaction in future relationships. Although numerous studies have focused on the adverse consequences for individuals who engage in sexual activity at a young age, we find that overall, those who initiate oral and vaginal sex during an early time period are indistinguishable from those who transition to these sexual activities at a normative time period. Furthermore, postponing engagement into these types of sexual activity to later ages does not necessarily place these individuals at an advantage, at least in terms of their future relationships. There is some evidence to suggest, however, that forgoing oral sex into one's adulthood is positively associated with relationship satisfaction for women in marital and cohabiting unions. More research needs to examine off-time sexual transitions, particularly noncoital sexual activities, that occur substantially later in the life course than is the norm. Additionally, sexual health educators also should directly address in their educational materials the implications of oral sex activity and its consequences for outcomes in other life domains.

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**Table 1**

Weighted Percentages (or Means) of Variables, by Gender.

Variables	Women ( <i>n</i> = 4,727)	Men ( <i>n</i> = 3,701)
Timing of first oral sex		
Early	20.8	16.9
Normative	60.9	65.6
Late	14.3	14.9
No oral sex experience	4.1	2.7
Timing of first vaginal sex		
Early	19.9	20.1
Normative	61.1	58.4
Late	17.7	18.5
No vaginal sex experience	1.3	3.0
Race		
White	71.5	71.1
Black	11.2	12.0
Hispanic	11.3	11.0
Asian	3.2	2.7
Other	2.8	3.2
Mean age, Wave IV (range, 25–34 years)	28.9	29.2
Family structure (1 = two-parent family), Wave I	72.6	75.3
Romantic relationship, Wave I	71.4	69.1
Respondent education, Wave IV		
Less than high school	6.7	10.0
High school diploma	14.6	19.9
Vocational school	9.4	10.3
Some college	35.5	33.7
College	20.5	17.3
Postbaccalaureate	13.4	8.9
Respondent income, Wave IV		
Less than \$20,000	9.0	6.6
\$20,000–\$49,999	28.1	29.9
\$50,000–\$74,999	26.9	26.0
\$75,000+	32.5	34.4
Missing income data	3.6	3.2
Union type (1 = marriage)	69.5	65.3
Current relationship, same sex	1.7	1.6
Has children	65.3	57.0
Ever experienced forced sexual relations	27.7	5.4
Ever diagnosed with STI	29.8	12.8
Ever had nonmarital pregnancy	20.2	17.6
Mean relationship satisfaction (range, 5–35),	29.3	29.6

<b>Variables</b>	<b>Women (n = 4,727)</b>	<b>Men (n = 3,701)</b>
Wave IV		

*Note.* STI = sexually transmitted infection. Total percentages may not equal 100 due to rounding.

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**Table 2**

Weighted Means for Relationship Satisfaction by Timing of Sexual Initiation.

<b>Panel 1.</b>	
<b>Women</b>	<b>Mean relationship satisfaction, Wave IV (5–35)</b>
Timing of first oral sex (years)	
Early, 10–15 <sup>a</sup>	28.7
Normative, 16–20	29.5
Late, >20	29.7
No oral sex experience	29.3
Timing of first vaginal sex (years)	
Early, 10–14 <sup>a</sup>	28.3
Normative, 15–18	29.4
Late, >18 <sup>a</sup>	30.6
No vaginal sex experience	27.5
<b>Panel 2.</b>	
<b>Men</b>	<b>Mean relationship satisfaction, Wave IV (5–35)</b>
Timing of first oral sex (years)	
Early, 10–14	29.7
Normative, 15–19	29.5
Late, >19	30.0
No oral sex experience	29.3
Timing of first vaginal sex (years)	
Early, 10–14	29.3
Normative, 15–18	29.5
Late, >18 <sup>a</sup>	30.2
No vaginal sex experience	29.9

<sup>a</sup>Denotes a significantly different mean from the mean for *Normative* timing via Wald tests at  $p < .05$ .

**Table 3**  
 OLS Regression Coefficients and Standard Errors Predicting Relationship Satisfaction, Women ( $n = 4,727$ ).

Variable	Model 1		Model 2		Model 3		Model 4		Model 5	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Timing of first oral sex (years)										
Early, 10–15	–0.911**	0.290	–0.861**	0.292	–0.890**	0.281	–0.645*	0.293	–0.562	0.320
Late, >20	0.658*	0.277	0.642*	0.277	0.631*	0.268	0.453	0.263	0.347	0.308
No oral sex experience	0.643	0.590	0.790	0.591	1.682**	0.583	1.317*	0.566	1.382**	0.550
Race/ethnicity										
Black	–2.189***	0.297	–1.819***	0.313	–1.309***	0.340	–1.062**	0.346	–0.998**	0.343
Hispanic	–1.471***	0.332	–1.465***	0.333	–1.239***	0.311	–1.152***	0.310	–1.145***	0.313
Asian	–0.574	0.750	–0.575	0.732	–0.852	0.743	–0.804	0.706	–0.837	0.705
Other	–1.125*	0.501	–1.007*	0.502	–0.576	0.550	–0.273	0.551	–0.272	0.536
Age, Wave IV	–0.125*	0.062	–0.108	0.064	–0.135*	0.067	–0.152*	0.066	–0.155*	0.066
Two-parent family, Wave I			1.067***	0.270	0.615*	0.267	0.481	0.264	0.477	0.261
Romantic relationship, Wave I			0.059	0.268	0.099	0.257	0.274	0.251	0.295	0.258
Respondent education, Wave IV										
High school diploma			0.007	0.570	0.007	0.570	–0.157	0.548	–0.178	0.540
Vocational school			0.314	0.664	0.314	0.664	0.105	0.637	0.059	0.634
Some college			0.227	0.509	0.227	0.509	0.103	0.492	0.042	0.483
College			0.850	0.540	0.850	0.540	0.525	0.525	0.437	0.520
Postbaccalaureate			1.210*	0.548	1.210*	0.548	0.908	0.538	0.793	0.538
Respondent income, Wave IV										
\$20,000–\$49,999			0.897	0.500	0.897	0.500	0.847	0.485	0.847	0.486
\$50,000–\$74,999			1.738***	0.477	1.738***	0.477	1.644***	0.463	1.651***	0.464
\$75,000+			2.359***	0.493	2.359***	0.493	2.256***	0.478	2.262***	0.479
Missing income data			0.296	0.726	0.296	0.726	0.254	0.702	0.244	0.705
Marital union			0.044	0.235	0.044	0.235	0.083	0.245	0.050	0.246
Current relationship, same sex			0.166	0.870	0.166	0.870	0.134	0.854	0.570	0.901

Variable	Model 1		Model 2		Model 3		Model 4		Model 5	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Has children					-0.914***	0.219	-0.711**	0.224	-0.678**	0.228
Ever experienced forced sexual Relations							-1.091***	0.251	-1.055***	0.249
Ever diagnosed with STI							-0.838***	0.219	-0.827***	0.214
Ever had nonmarital pregnancy							-0.974**	0.353	-0.939**	0.352
Timing of first vaginal sex (years)										
Early, 10–14									-0.148	0.306
Late, >18									0.309	0.328
No vaginal sex experience									-1.785	1.068
<i>R</i> <sup>2</sup>	.023		.030		.072		.091		.092	

Note: OLS = ordinary least squares; STI = sexually transmitted infection; *SE* = standard error. The reference groups for categorical variables were as follows: normative oral sex timing (ages 16–20), White, other family type, no romantic relationship experience at Wave 1, less than high school education, less than \$20,000 income, cohabiting union, current relationship—opposite sex, respondent has no children, no diagnosis of STI in lifetime, respondent never pregnant or had pregnancy in marital union, normative vaginal sex timing (ages 15–18).

\* *p* .05.

\*\* *p* .01.

\*\*\* *p* .001.

**Table 4**  
 OLS Regression Coefficients and Standard Errors Predicting Relationship Satisfaction, Men ( $n = 3,701$ ).

Variable	Model 1		Model 2		Model 3		Model 4		Model 5	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Timing of first oral sex (years)										
Early, 10–14	0.160	0.346	0.193	0.350	0.378	0.352	0.531	0.354	0.424	0.399
Late, >19	0.643	0.354	0.583	0.358	0.453	0.347	0.400	0.344	0.435	0.425
No oral sex experience	0.072	0.736	0.076	0.729	0.410	0.681	0.316	0.693	0.029	0.654
Race/ethnicity										
Black	-1.330***	0.320	-1.208***	0.339	-0.772*	0.336	-0.447	0.357	-0.484	0.350
Hispanic	-0.688*	0.341	-0.650	0.349	-0.464	0.373	-0.358	0.391	-0.382	0.390
Asian	0.451	0.493	0.406	0.497	0.067	0.523	0.048	0.525	0.034	0.529
Other	-0.023	0.606	-0.020	0.605	0.244	0.580	0.335	0.566	0.360	0.563
Age, Wave IV	-0.129	0.079	-0.119	0.082	-0.141	0.080	-0.142	0.079	-0.142	0.078
Two-parent family, Wave I			0.339	0.292	0.002	0.294	-0.028	0.295	-0.043	0.293
Romantic relationship, Wave I			-0.125	0.265	-0.167	0.271	-0.139	0.270	-0.134	0.269
Respondent education, Wave IV										
High school diploma			-0.400	0.452	-0.458	0.453	-0.459	0.451	-0.459	0.451
Vocational school			0.043	0.562	-0.046	0.550	-0.051	0.553	-0.051	0.553
Some college			0.373	0.468	0.312	0.462	0.334	0.464	0.334	0.464
College			0.963*	0.462	0.909*	0.461	0.964*	0.472	0.964*	0.472
Postbaccalaureate			1.230*	0.534	1.096*	0.523	1.105*	0.527	1.105*	0.527
Respondent income, Wave IV										
\$20,000–\$49,999			0.618	0.531	0.575	0.521	0.599	0.524	0.599	0.524
\$50,000–\$74,999			0.904	0.528	0.847	0.524	0.882	0.527	0.882	0.527
\$75,000+			1.353**	0.520	1.285**	0.515	1.315**	0.517	1.315**	0.517
Missing income data										
Marital union			1.031	0.882	0.856	0.892	0.844	0.877	0.844	0.877
Current relationship, same sex			0.459	0.269	0.461	0.279	0.465	0.280	0.465	0.280
Has children			-1.881*	0.958	-1.570***	0.972	-2.173*	0.948	-2.173*	0.948
			-0.871***	0.251	-0.771	0.234	-0.783***	0.230	-0.783***	0.230

Variable	Model 1		Model 2		Model 3		Model 4		Model 5	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Ever experienced forced sexual relations							-0.756	0.475	-0.799	0.471
Ever diagnosed with STI							-1.263***	0.382	-1.267***	0.383
Ever had nonmarital pregnancy							-0.396	0.390	-0.418	0.390
Timing of first vaginal sex (years)										
Early, 10–14									0.125	0.361
Late, >18									-0.063	0.380
No vaginal sex experience									1.298	0.755
<i>R</i> <sup>2</sup>	.013		.014		.050		.058		.060	

Note. OLS = ordinary least squares; STI = sexually transmitted infection; *SE* = standard error. The reference groups for categorical variables were as follows: normative oral sex timing (ages 15–19), White, other family type, no romantic relationship experience at Wave 1, less than high school education, less than \$20,000 income, cohabiting union, current relationship—opposite sex, respondent has no children, no diagnosis of STI in lifetime, respondent never pregnant or had pregnancy in marital union, normative vaginal sex timing (ages 15–18).

\* *p* .05.

\*\* *p* .01.

\*\*\* *p* .001.