Gender and Casual Sex from Adolescence to Young Adulthood: Social and Life Course

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Course Correlates

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Abstract

The prevalence of casual sexual activity among teens and emerging adults has led to much public attention. Yet limited research has investigated whether the number of casual sexual partners per year changes as heterosexual men and women transition from adolescence into emerging adulthood. We considered the influence of social context and life course factors on the number of casual sex partners. We examined four waves of interviews from the Toledo Adolescent Relationships Study and used negative binomial growth curve models to investigate patterns of change in the number of casual sex partners (N = 1,196) ages 15 to 22. Men and women both reported increases in the number of casual sex partners over time, and did not differ from each other in the rate of change over time. Forty percent of respondents reported a recent casual sex partner at age 22. Number of prior dating relationships, education status, substance use, and perceptions of peer sexual behavior significantly influenced the number of casual sex partners. Emerging adults who did not complete high school, compared to those enrolled in four-year degree programs, reported significantly more partners. The findings contribute to research on intimate relationships and provide insights for programs targeting emerging adults.

Keywords: casual sex; emerging adults; adolescents; gender differences; quantitative

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Correlates

Researchers and popular media alike have expressed concerns about teens' and emerging

adults' involvement in casual sexual activity (Blow, 2008). Similar to other studies (e.g.,

Eisenberg, Resnick, & Neumark-Sztainer, 2009; Regnerus & Uecker, 2011), we conceptualized

heterosexual casual sex as vaginal sexual intercourse occurring outside of a committed

relationship. Thus, we considered casual sex as a subset of the broader behavior known as

"hooking up" in that hooking up may or may not include intercourse (Fortunato, Young, Boyd,

& Fons, 2010; Garcia, Reiber, Massey, & Merriwether, 2012; Olmstead, Pasley, & Fincham,

2013). Findings from the National Longitudinal Study of Adolescent Health (Add Health) (N =

12,925) demonstrated that a substantial minority of sexually active teenagers (38%) reported at

least one casual sexual experience (Manning, Longmore, & Giordano 2005). An even larger

share of sexually active emerging adults who were college seniors (64%) reported at least one

casual sexual experience (Armstrong, England, and Fogarty, 2010). The current study

investigated yearly changes in the number of casual sex partners over time as individuals

transitioned from adolescence to emerging adulthood and focused on whether life course and

social correlates of casual sexual activity were conditional on gender.

We drew on life course theory to analyze men and women's trajectories of casual sexual

activity. We based the analyses on four waves of panel data from the Toledo Adolescents

Relationships Study (TARS), a longitudinal study based on interviews with adolescents in 2000

who were followed into emerging adulthood (fourth interview was collected in 2006-2007). The

study included a diverse sample of adolescents with varying casual sexual trajectories. This

diversity is important because knowledge of casual sexual behavior among individuals who have

various educational backgrounds is limited. The longitudinal data allowed consideration of gender differences in the influence of social context (e.g., peers behaviors), and life event (e.g., parenthood) indicators as individuals transitioned from adolescence to early adulthood.

Understanding casual sexual activity among a diverse group of adolescents and emerging adults is important for several reasons. Scholars have called for additional research on casual sexual behavior that moves analyses beyond static cross-sectional assessments (e.g., Claxton & van Dulmen, 2013). Cross-sectional approaches are problematic because the emerging adult years can be a tumultuous time in the life course (Arnett, 2000; Rindfuss, 1991) characterized by change and transitions not well represented with cross-sectional data. Longitudinal analyses better reflect changes in behavior and permit consideration of ways in which social (e.g., dating/committed relationships, substance use, peers, and parents) and life course (e.g., educational status, residing with parents, parenthood, employment, and marriage) factors influence changes in casual sexual behavior. Finally, much prior research on casual sex relied on college samples (for exceptions see Bailey et al. 2008; Eisenberg, et al. 2009; Lyons et al. 2013; Manning et al. 2005; Manning, Giordano, & Longmore 2006); yet college students have tended to report the fewest casual sex partners (Bailey et al., 2008; Lyons et al. 2013). The current study moved beyond much of the prior research on casual sex by including an educationally diverse sample, as opposed to only college students, which may lead to different conclusions about the correlates and patterns of casual sexual behavior.

Background

Life Course Theory

The life course perspective guided this research. Two specific principles of life course theory include (1) the importance of the timing of life events and transitions, and (2) the

significance of age graded behavior (Elder 1985, 1995). An individual's actions during earlier life stages both directly and indirectly influence behavior in later life stages (MacMillian & Copher, 2005). For example, Bailey et al. (2008) examined a longitudinal sample of adolescents (N = 834) and found that those who experienced risky sexual behavior during high school were more likely to report casual sexual activity six months after high school graduation. Further, casual sex may have occurred with ex-boyfriends or ex-girlfriends (Fielder & Carey, 2010a; Halpern-Meekin et al. 2013; Manning et al. 2006); thus, the experience of having a past committed relationship may lead to a greater number of casual sexual relationships later in the life course. The use of longitudinal data permitted assessments of whether the number of adolescent dating relationships influenced changes in casual sexual behavior from adolescence into emerging adulthood.

A second principle of life course theory is the importance of age graded behavior, meaning that adolescence and emerging adulthood are unique and different developmental stages. As such, individuals at different life stages are characterized by distinct attitudes and behaviors. For example, first sexual intercourse is associated with the adolescent life course stage. A recent estimate indicated that among 18-19 year olds, 63% of women and 64% of men had ever had sexual intercourse (Martinez, Copen, & Abma, 2011). Sexual experience is often associated with the emerging adult years (Arnett, 2004). For example, 85% of women ages 20-24 reported having had vaginal sex (Chandra et al., 2011). Moreover, in their sample of college students, and noted above, Armstrong et al. (2010) reported that 67% of sexually active college seniors reported casual sexual activity. Yet to date little research has considered how earlier sexual experiences influenced subsequent casual sex experience.

The life course stage of emerging adulthood ranges from ages 18-25 (Arnett, 2000). Consistent with other scholars (e.g., Arnett, 2004; Mouw, 2005; Osgood et al., 2005; Rindfuss, 1991) we conceptualized the transition to emerging adulthood as involving multiple paths, with an array of transitions, such as college enrollment, residential movement, the start of full-time employment, marriage, and parenthood. As individuals fulfill roles associated with adulthood, along with cognitive shifts in terms of "feeling like an adult," we expected that adult roles (e.g., full-time employment and having a child) would result in decreases in the number of casual sex partners over time.

Casual Sex and Gender

The current study, while relying on the life course literature, also included a focus on gender. Past research on casual sex found that men compared with women reported more casual sex partners and experiences (Petersen & Hyde, 2010). Similarly, adolescent girls compared with boys were less likely to report casual sexual behavior (Manning et al. 2005; Manning et al. 2006). Studies based solely on samples of college students as well as diverse samples of emerging adults found that men reported more casual sexual experiences (Grello et al. 2006; Lyons et al. 2013; Paul, McManus, & Hayes 2000; Poppen 1995). Yet researchers have not investigated whether the reported frequency of casual sex partners might have changed as individuals transitioned from adolescence to emerging adulthood and whether gender may have influenced such changes.

The gender gap may be a function of differences in the accuracy of responses regarding number of casual sex partners. Prior research (e.g., Armstrong et al., 2010; Crawford & Popp, 2003) suggested that men's involvement in casual sexual activity was celebrated and encouraged by society; yet women were judged critically if they were sexually active outside the context of a

committed relationship. Men were more likely to hold this casual sex double standard compared

to women (Allison & Risman, 2013). Thus, men may overestimate and women underestimate

the frequency of casual sexual encounters. Limited research has examined the gendered

response bias in the reporting of casual sex partners, although research has examined the

gendered response bias with regard to self-reports of total number of sex partners (e.g., Brown &

Sinclair, 1999; Wiederman, 1997). Analyzing the nationally representative General Social

Survey (GSS) (N = 2,524), Wiederman (1997) noted that the gender difference in reported

number of lifetime sex partners may be due to men's propensity to estimate number of partners

as a large round number (ending in a 0 or 5). The current study built on prior research and

examined gender differences in the reported number of casual sex partners as well as whether

there were gender differences in factors that influenced yearly changes in number of casual sex

partners as respondents transitioned from adolescence to emerging adulthood.

Social Context

Social contexts, which may differ for men and women, influence sexual behavior.

Researchers found that peer influences, substance use, parental relationship quality, and intimate

relationship involvement influenced self-reports of casual sexual activity and the more broadly

defined behavior of hooking up during the life course stages of adolescence and emerging

adulthood (Bogle 2008; Grazian 2008; Manning et al. 2005; Manning et al. 2006; Paul 2006).

Using social norms theory to understand adolescent and emerging adult behavior, one must take

into consideration peer influence. If adolescents and emerging adults believed that their friends

were sexually liberal, they themselves would be more likely to participate in sexual behavior

regardless of friends' actual behavior and attitudes (Perkins, 2003). Manning et al. (2005),

analyzing the Add Health data (N = 7,470), found a positive association between perceptions of

peers' approval of sexual behavior and teens' own involvement in casual sexual activity. Grazian (2008), relying on participant observation in an urban college setting, found that peer groups were an important influence on urban nightlife, particularly for men. The peer group provided a network that supported and encouraged men to actively pursue women in hopes that a social interaction would result in casual sex behavior.

Qualitative and quantitative analysis of college students revealed that alcohol use was often associated with casual sex (e.g., Bogle, 2008; Fielder & Carey, 2010b; LaBrie et al., 2014; Paul, 2006). In a sample of college students (N = 427), consuming heavier amounts of alcohol during the week was associated with casual sex (Lewis, et al., 2012). Thus, it appeared that substance use and casual sexual behavior were associated.

The quality of relationships with parents was associated with adolescents' sexual activity (Price & Hyde, 2011). Based on the National Longitudinal Survey of Youth (NLSY) (N = 4,588), Manlove et al. (2012) reported that parent-child relationship quality was negatively related to adolescents' having first sex in a casual compared to a dating relationship. Yet the influence of parents on children's sexual behavior may change as individuals age into emerging adulthood. In a sample of college students (N = 140), perceived parental attitudes toward hooking up and parental discouragement of casual relationships were not significant in predicting casual sexual behavior (Fielder and Carey, 2010b). Similarly, Fielder, Walsh, Carey, and Carey (2013) reported that among their sample of college students (N = 483), parental connectedness was not associated with casual sexual behavior. Owen, Rhoades, Stanley, and Fincham (2010) examining a sample of college students (N = 832) did not find a significant association between family environment and the more general behavior of hooking up. Yet Johnson (2013) using the nationally representative sample ADD Health (wave IV) (N = 4,594) found that parent-child

relationship quality was associated with one-night stands, a type of casual sexual activity. Thus, prior research findings are mixed regarding how parents influence their children's involvement in casual sexual activity.

Little research examined the importance of dating or committed relationships on self-reports of casual sexual activity. Much prior research assumed that these were mutually exclusive types of relationships, but much relationship churning, involving breaking up and getting back together occurs during emerging adulthood (Halpern-Meekin et al. 2013), which may lead to "on again – off again" sexual relationships. Individuals who participated in casual sex were often also involved in committed or dating relationships (Armstrong, Hamilton, & England, 2010; Siebenbruner, 2013). Almost by definition, respondents who "cheated" were involved in both committed and casual sexual relationships. Moreover, casual sex may have occurred with an ex-boyfriend or ex-girlfriend. Fielder and Carey (2010b) reported that among college women (N = 118) 12% of hookup partners were ex-boyfriends. Committed or dating relationships may have provided casual sex prospects by creating an opportunity to have had sex with ex-partners. Prior research (e.g., Maccoby 1998) suggested that women were more relationship-focused because of gender socialization. As a result of such socialization, women may be more likely to engage in casual sexual behavior with an ex-partner compared to men who might have casual sex with either an ex-committed partner or a new partner with whom they have no prior dating experience.

Life Course Transitions

Many life course transitions occur during emerging adulthood, such as changes in educational enrollment, moving out of the parental home, increases in full-time employment, marriage, and parenthood. Regarding educational experiences, some earlier studies assumed that

college life was more conducive to casual sex due to opportunities for socializing along with residing in close quarters with potential sex partners without parental supervision (e.g., Bogle, 2008). Yet, about 59% of emerging adults are not enrolled full-time in college (U.S. Census Bureau, 2007) so it is important to move beyond a college student focus and to consider how a broad range of educational experiences influenced casual sexual behavior. Based on cross-sectional analyses of the fourth interview of the TARS data (N = 1,023), Lyons et al. (2013) found that respondents enrolled in four-year higher educational institutions reported significantly fewer casual sex partners compared to emerging adults who had some college experience, but were not currently enrolled in school. Moreover, emerging adults who did not have a high school diploma reported the highest number of casual sex partners.

Most adolescents resided in their parents' home (97% of 17-year-olds), but most emerging adults did not (23% of 25-year-olds) live with parents (Cohen et al., 2003). Living with parents may have reduced opportunities for casual sexual encounters. Full-time employment may be a marker of the transition to emerging adulthood. According to the Bureau of Labor Statistics (2011), only 6% of individuals, ages 16-19, worked full-time, but 37% of individuals, ages 20-24, worked full-time. Further, only .3% of men and .7% of women, ages 15-19, were married compared to 6% of men and 11% of women, ages 20-24 (U.S. Census, 2012). In the TARS data (N = 1,023) respondents who were in a co-residential union had fewer recent casual sex partners compared to emerging adults who were not in a committed relationship (Lyons et al., 2013). As noted above and based on life course theory, as young men and women moved into full-time employment or got married and started to feel like adults, we expected declines in reported casual sexual activity.

Finally, while childbearing is more common during emerging adulthood relative to adolescence (Sutton, Hamilton, & Mathews, 2011), we expected that parenthood would be associated with fewer casual sexual experiences because of the time constraints and responsibilities of parenthood. This may differ, however, by gender. In recent years, about 88 % of births to adolescents were nonmarital; yet only half of nonresident fathers with children born to teenage mothers saw their children once a month or more (National Campaign to Prevent Teen and Unplanned Pregnancy, 2012). This suggests that parenthood may have more of an influence on mothers' compared to fathers' time to pursue casual sexual relationships.

Sociodemographic Characteristics

We included the following sociodemographic characteristics in our analyses of correlates of casual sexual behavior: race/ethnicity, family structure, mother's education, and parental income. Prior research reported racial and ethnic differences in casual sexual behaviors with Black respondents reporting a greater number of casual sexual experiences compared to their White and Hispanic counterparts (Manning et al., 2005). Previous studies found that teenagers who lived in two parent biological households had lower odds of experiencing casual sexual activity (Manning et al., 2005); however, Garneau, Olmstead, Pasley, & Fincham (2013) reported no significant associations between family structure and casual sex experiences among college students (N = 562). Manning et al. (2005) found little association between parental education and adolescents' casual sexual experiences; however, we included parental education in the current study as a proxy for socioeconomic status. Finally, we included parental income as an indicator of socioeconomic background; however, some prior research (Bailey et al., 2008) (N = 834) did not find an association between casual sex and childhood poverty in a sample of late

adolescents. Thus, it is unclear whether parental incomes has effects on emerging adults' casual sexual experiences.

Current Investigation

We expected that social influences including prior dating, perceptions of peers' permissive sexual attitudes/behaviors, and substance use would positively influence the change in number of opposite sex casual sex partners. We also expected that parent-child relationship quality would negatively influence change in number of casual sex partners. We anticipated that life course events associated with adulthood, such as graduating from high school, becoming a parent, getting married or dating, and working full-time would be associated with a slower growth in number of casual sex partners. Finally, we expected that living in the parental home would be associated with fewer casual sex partners over time because of higher parental monitoring. We considered whether gender moderated the association between life course and social factors and casual sexual activity. We expected that peers would have a greater influence on men's casual sexual experiences. Additionally, we anticipated that number of dating partners would have a greater influence on the change in casual sexual behavior among women compared with men. Finally, we expected that having a child would be more strongly associated with fewer casual sex partners over time among women compared with men.

Data and Methods

We employed longitudinal data from the Toledo Adolescent Relationship Study (TARS), a four wave panel dataset. The first interview, collected in 2000, involved a random sample of youths in the 7th, 9th, and 11th grades in Lucas County, Ohio, as well as a parent/guardian interview. School records provided the sampling frame; however, school attendance was not a

requirement to be in the sample. Most interviews occurred in respondents' homes using laptops. The respondents filled out the survey on the computer and were encouraged to ask the interviewer for help if they had problems answering the survey questions. At the first interview, some parents were in the room as the adolescent filled out the survey, but this occurred less often at subsequent interviews. Respondents received monetary compensation of $25 dollars at the first and second interviews, and $50 for the third and fourth interviews. The University's Human Subjects Review Board approved data collection, which we renewed yearly. We required parental consent when the respondent was younger than age 18. After age 18, we received consent from the respondent. At interview I, the sample included 1,316 youths. For interviews II and III the sample sizes were N = 1,177 and N = 1,144 respondents, respectively, with response rates of 89% at interview II and 87% at interview III. At interview IV, the sample included 1,092 respondents reflecting a final retention rate of 83%.

The TARS data were appropriate to address our research aims. First, the data included detailed measures of casual sex behavior, such as number of partners at each of the four interviews, spaced one to two years apart. Second, much prior research on casual sex examined either college samples (e.g., Grello et al., 2006) or school-based samples (e.g., Bailey et al., 2008). Since school attendance was not a requirement, individuals with a wider range of educational experiences were included in the current study. Individuals who were not initially attending high school, or those who did not go to four-year colleges at the later interviews, may have different casual sexual trajectories and are included in the current study.

We transformed the data enabling the use of an accelerated longitudinal design, which tracked respondents as they aged rather than focusing on interview waves (Raudenbush & Chan, 1992; Singer & Willett, 2003). With an accelerated longitudinal design, we analyzed casual

sexual experiences over a seven-year period using four waves of data. For example, instead of time measured in terms of interview years, we measured time based on the respondent's age at each interview. Thus, respondents contributed to the data up to four times, but no individual contributed information at every age from 15 to 22. Based on Wiederman's (1997) suggestion regarding gender differences in reported number of sex partners, we top coded 21 cases (18 men and 3 women) whose responses on number of casual sex partners were statistical outliers. We classified respondents as outliers if, among the casually sexually experienced, they claimed to have a total number of casual sex partners three standard deviations above the mean, which was 16 casual sex partners or more. We recoded respondents who reported 16 or more casual sex partners as having 15 partners.

The final analytic sample included observations from 1,196 respondents. First, we restricted our analytic sample to White, Black, and Hispanic respondents. We excluded twenty-two respondents who classified their race as "other" because the sample size was too small for analyses. We excluded forty respondents who had missing data on the time-invariant measures of parental income. If respondents were missing on these two wave I time-invariant measures, then they were excluded from the entire person period file. Based on these sample parameters, there were 4,316 potential observations for the person period file. In the person period file, we generated a line of data for each age the respondent contributed to the data. In the current analysis, each respondent could have contributed up to four lines of data or four observations. We retained as many observations as possible. For example, if respondents were missing data at the fourth interview, their observations were only deleted for that interview and still contributed to the earlier three waves of data or had three lines of data. We eliminated 589 observations because of attrition. We maintained 86% of all observations after accounting for attrition. A

very small number of observations were not included because they were missing on the dependent variable (N = 9). An additional 31 observations were eliminated because of missing responses to the social context items. The final analysis was based on N = 1,196 respondents with 3,687 observations.

Analysis of attrition indicated that respondents who were missing at later interviews were more likely to be single and childless. Further, emerging adults who dropped out of the study had fewer casual sex partners, drank less, reported lower parental quality, thought their friends were having less sex, were less likely to live with their parents, and were less likely to work full-time. Finally, respondents who did not participate in later interviews were more likely to be male, be a Black respondent, currently in high school, from a family categorized as "other," and whose mother had less than a high school degree.

Measures

This study investigated the *logged number of casual sex partners* using longitudinal data with the dependent variable measured at each interview. At interview I, to measure number of opposite sex causal sex, respondents were asked the following: "In the last 12 months, how many different girls/guys have you had vaginal sex with that you weren't really dating or going out with?" We asked men about female partners and women about male partners. At the three other interviews, we asked respondents the following: "In the last 12/24 months (depending on the time interval between interviews), how many different girls/guys have you had vaginal sex with that you weren't really dating or going out with?" At interview II, the time interval was 12 months and at interviews III and IV, the time interval was 24 months. Thus, we operationalized our dependent variable, number of casual sex partners, as number of partners since last interview. While there were several ways to operationalize casual sex (e.g., most recent partner,

number of times a person had casual sex with a partner), number of casual sex partners is important because it represents a measurement of exposure to other partners. For example, if a person had one casual sexual partner and had sex with that partner three times, the risk of a sexually transmitted infection may be lower than that of a person who had casual sex once with three different partners. Further, we used vaginal sex to measure casual sex because prior research suggested that many emerging adults do not consider "oral sex" as "having sex" (Hans, Gillen, & Akanda, 2010; Regnerus & Uecker, 2011). While we understand that oral sex is an important sexual behavior, it requires a separate investigation.

Gender measured at the time of the first interview was coded 1 = "men" and 0 = "women." In the current sample, 52% of the respondents were women and 48% were men.

We examined seven social context indicators, which were all time-varying. *Perceptions of peers' sex attitudes* was measured as the extent of agreement with the following two questions, asked at all four interviews: "My friends think it's okay to date more than one person at a time;" and "My friends think you should only have sex with someone you love." Responses ranged from "strongly disagree" to "strongly agree." We coded items so that high scores reflected more permissive sex attitudes. *Perceptions of peers' sexual behavior* was measured by asking respondents, at all four interviews, whether they believed that their friends were sexually active: "How many of your friends had sex?" Responses ranged from 1 = "none" to 6 = "all." *Alcohol use* was measured, at interviews I and II with the following questions: "In the past 12 months, how often have you drunk alcohol;" and at interviews III and IV, "In the past 24 months, how often have you drunk alcohol?" Responses ranged from 1 = "never" to 9 = "more than once a day." Similarly, we measured *Drug use* with the following question: "How often have you used drugs to get high (not because you were sick)?"

Parent-child relationship quality was measured, at interview I, using the following five item scale: (1) "My parents often ask about what I am doing in school;" (2) "My parents give me the right amount of affection;" (3) "My parents trust me;" (4) "I'm closer to my parents than a lot of kids my age;" and (5) "I feel close to my parents." We asked comparable questions at later interviews using age appropriate language. For example, "My parents often ask about what I am doing (e.g., in school, at work, with my friends, etc.)." Responses ranged from 1 = "strongly disagree" to 5 = "strongly agree," with higher scores reflecting higher relationship quality. The scale alphas are: .77, .79, .78, and .80 for interviews I-IV, respectively. Finally, *Number of dating relationships* was measured by asking the following question: "In the past year, how many girls/guys did you date?" Responses ranged from 0 to 45.

There were five time-varying life course items included in the analysis. *Education status* was a time-varying covariate; we classified respondents as "less than high school"(omitted category), "in high school," "not in school with a high school degree," "some college not currently enrolled," "enrolled in community college/trade," and "enrolled in a four-year degree program."

Live with parents was measured at interviews I and II with the following question: "During the past 12 months, who were you living with most of the time?" At interviews III and IV, we asked respondents: "Where do you live now? That is, where do you stay most often?" If respondents answered that they were living with at least one parent or grandparent they were coded as 1 = "live with parents," otherwise they were coded at 0 = "not living with parents" (omitted category). *Had a child* was measured at each interview with the question: "How many kids do you have?" Response categories were 1 = "has at least one child" and 0 = "has not had a child" (omitted category). *Full-time employment* was measured with the following questions:

"Do you currently have a job?" and "Is this job full-time or part-time?" Response categories included 1 = "full-time employed" and 0 = "not full-time employed" (omitted category). To measure respondent's *Relationship status* we utilized two questions, "Are you currently married?" and "Is there someone you are currently dating—that is, a girl/guy you like and who likes you back" to determine if respondents were currently in a dating relationship. Responses were 1 = "Yes" and 0 = "No." Respondents who were in a cohabiting relationship were also classified as being in a romantic relationship therefore not in a married or romantic relationship was the omitted group.

We measured sociodemographic background variables at the time of the first interview, which are time invariant indicators. We classified *Race/ethnicity* in the following manner: Non-Hispanic White (reference category), Non-Hispanic Black, and Hispanic. *Family structure* was measured using four categories: two biological (omitted category), single parent, stepfamily, and other family structure (such as living with relatives or foster care). *Mother's education* consisted of four categories: less than a high school degree; high school graduate; some college experience; and college degree or higher (omitted category). *Parental income* was from the parent questionnaire from the first interview: "Which of the following categories does your income from all wages and salaries last year fall into?" The responses were 1 = "less than $10,000" to 9 = "$75, 000 and over." All of the control variables were measured as time-invariant.

Analytic Strategy

This study employed multilevel negative binomial growth curve analysis, which provided descriptions of the shape of the individual's initial number of casual sex partners in the form of an intercept and the individual's casual sexual trajectory over time in the form of a slope (Singer

& Willett, 2003). We employed negative binomial growth curve models since our dependent variable of number of casual sex partners was a count measure. Our dependent variable was interpreted as the logged number of partners because we use negative binomial regression. For the current analysis, the intercept and slope were random meaning that the model allowed for individuals in the sample to have different intercepts and slopes. In other words, a single respondent was not forced or fixed at one value for the number of casual sex partners at age 15 or the rate at which he/she increased the number of casual sex partners over time. The growth curve models were clustered around the respondent's identification number.

Growth curve models can include two types of independent variables: time-varying and time-invariant (which we indicated in the Methods section). The time-varying variables, also known as within-subjects variables, measured at each time point, can vary at each interview. An example of a time-varying measure is alcohol use. Respondents likely have different alcohol use patterns as they age from adolescence to emerging adulthood. A time-invariant, or between-subjects, measured at the first interview, does not change over time. In the current study gender, race, family structure, mothers' education, and parental income were time-invariant measures and were constant at each time points.

The current study estimated multilevel negative binomial growth curve models, which are composed of within-subjects and between-subjects submodels. The level 1, within-in subjects model is depicted as equation 1:

$$\log(Y)_{it} = \beta_{0i} + \beta_{1i} age + \varepsilon_{it} \text{ (1)}$$

Where logged $(Y)_{it}$ is the tth logged number of casual sex partners for the ith respondent. In this case, t = time (t = 0, 1, 2,…) and i = the individual respondent. β_{0i} is the individual i's initial number of logged casual sex partners when age = 0 or it can be thought of as an intercept. The

rate of change in number logged partners for respondent i is represented by the slope β_{1i}. Finally, what is left unpredicted for the individual i at time t is represented by ε_{it}. We can add other time-varying variables to this level 1 model. We can assess a main effect by adding the time-varying variable to the model. Singer and Willett (2003) state that the main effect of a time-varying variable is interpreted as the population average, over time, of the logged number of casual sex partners. We also interacted the time-varying variables with age. If significant, this interaction is interpreted as the rate of change in logged casual sex partners over time differs by the time-varying variable (Singer & Willett, 2003). We also created three-way interactions with all time-varying covariates, gender, and age to determine if the rate of change of the time-varying covariates varied by gender. We also tested an age-squared term to determine if there was a quadratic change over time.

The level 2, between-subjects, model is shown as equation 2 and 3:

$$\beta_{0i} = \gamma_{00} + \gamma_{01}(Female)_i + \alpha_{0i} \quad (2)$$

$$\beta_{1i} = \gamma_{10} + \gamma_{11}(Female)_i + \alpha_{1i} \quad (3)$$

Equation 2 showed that the initial number of logged casual sex partners for respondent i is represented by β_{0i}. In this equation, we used gender as the example but it can be any time-invariant measure. The coefficient of γ_{00} is the initial number of logged casual sex partners for men and γ_{00} is the intercept for women. For equation 3, β_{1i} is the rate of change of the number of logged casual sex partners for the i respondent. The slope for men is represented as γ_{10}, which is interpreted as the growth in the number of logged casual sex partners at each age. That leaves the effect of γ_{11}, which is the slope for women. The two α are the level two residuals or what is still unexplained by the model. Note that in equation 2 and 3 that women have an intercept and a

slope thus our tables will show the initial number of logged casual sex partners by gender (and all time-invariant measures) and also a slope effect.

To estimate the models, we used MPlus 7 with the analysis type as a two level random model. Maximum likelihood estimates were used. To determine model fit, the AIC (Akaike Information Criterion) and BIC (Bayesian Information Criterion) were examined, (displayed at the bottom of the growth curve tables). Smaller AIC and BIC suggested better model fit relative to the previous nested model. We estimated the models also using a Poisson distribution, but the negative binomial estimation resulted in smaller AIC and BIC values therefore the negative binomial had a better model fit.

Our analytic strategy was to estimate six models. First, we estimated the unconditional growth model (see Table 2, Model 1). The unconditional growth model provided a descriptive portrait of the sample's casual sex trajectories without including covariates. At this time, we also tested for a curvilinear slope including a squared slope term, which in this case was age. Next, we added gender to determine whether men and women differed in logged number of casual sex partners at age 15 and over time. In Table 3, Model 1, we estimated a model that included the social context measures. Similarly, Model 2 in Table 3 assessed the relationship between the life course context and changes in casual sex partners. Next, we included all of the social, life course, and sociodemographic variables in the full model (Model 3). Finally, we tested gender interactions to determine whether there were gender differences in the associations of the social context and life course variables on the change in the logged number of casual sex partners (Model 4). We tested gender interactions with all social context and life course context measures, but only included the significant interactions in Table 3, Model 4. When testing multiple groups we used the Bonferroni method to correct the alpha for multiple testing. The

adjusted alphas in this case was p < .003. In light of this, in the table we included all significant three-way interactions at the adjusted alpha level. All tables showed the unstandardized coefficients interpreted as logged odds.

Results

Table 1 displayed the descriptive statistics for all variables included in the analysis. In Table 1, the distribution of gender, race, family structure, and mother's education was the average of the sample, and the time-varying covariates were averaged across all survey years. As shown, the reported average number of casual sex partners for the sample across time was .80. The mean reported number of casual sex partners for men and women was 1.10 and .52, respectively. Among respondents who reported casual sexual activity, the average number of partners was 2.95 for the total sample, 3.40 for men and 2.33 for women (results available from authors). Number of casual sex partners reported varied by age. The mean and range of casual sex partners was .14 (range 0-5) at age 15 and 1.05 (range 0-15) at age 22. Among 15-year-olds who reported casual sexual activity, the mean number of partners was 2.11 and for 22-year-olds, the mean was 2.64 (see appendix). For the total sample, men reported .20 casual sex partners at age 15 and women reported .08 (Table 1). The reported number of casual sex partners increased for both men and women at age 22; men reported 1.52 partners and women reported 1.64. T-tests indicated that there were significant gender differences in the reported number of casual sex partners at every age (see Table 1).

Table 1 About Here

Table 2, Model 1 depicted the unconditional growth curve model. The intercept of -3.95 was significant and interpreted as the log of the expected count of casual sex partners at age 15. Next, there were significant slope and slope-squared coefficients, which suggested a curvilinear

change in casual sex partners over time. The 1.09 slope coefficient indicated that for each year, respondents reported 1.09 additional logged partners. The significant slope squared coefficient of -.09 suggested that the reported number of partners peaked and then started to decrease. In the current sample, this peak occurred around age 21. Next in Table 2, Model 2 we included the time-invariant measure of gender. As shown in Table 2, at age 15 women compared with men reported significantly fewer logged casual sex partners; however, men and women did not differ significantly in the logged number of partners that they acquired during each time interval as shown by the non-significant slope for women.[i]

Table 3 presented the multivariate analysis. Model 1 included the social context variables. First, men did not differ from women in the reported logged number of casual sex partners at age 15. These results are not the same as reported in Table 2, indicating that the social context indicators explain the difference in men and women's reported number of casual sex partners at age 15. Neither peer attitude measures were significantly associated with the logged number of partners averaged across the study or the rate of change. As expected, respondents who believed their friends were sexually active reported greater numbers of logged casual sex partners over time. Since the peer variable was time-varying, the more respondents thought their peers were having sex, averaged over time, was associated with higher logged casual sex partners. The slope for peers' sexual behavior was negative, which suggested that although overall perceptions that friends were sexually active positively influenced the logged number of partners as reflected in the main effect; yet over time peer influence became less important as respondents transitioned to emerging adulthood. Averaged over time, alcohol and drug use were positively associated with casual sex partners; however, the effect of substance use did not vary over time as reflected in the non-significant interactions with age. Finally, the

number of prior dating relationships was positively associated with both casual sex partners overall and over time.

Model 2 on Table 3 included the life course correlates. Regardless of the inclusion of the life course measures, women reported fewer expected logged casual sex partners at age 15 compared to men. Respondents who were enrolled in a four-year degree program reported, on average, fewer casual sex partners compared to individuals who did not complete high school; however, those enrolled in four-year degree programs had a positive rate of change in logged casual sex partners over time compared to those without a high school degree. As expected, living with parents was negatively related to the number of logged casual sex partners, but as respondents aged from adolescents to emerging adulthood the slope became positive as specified by the coefficient of .15. This indicated that employment, parenthood, and relationship status were not associated with changes in casual sexual behavior in the current sample and were not associated with a decrease in partners over time.

Table 2 About Here

Model 4, the full model, included gender, social contexts, life course correlates, and sociodemographic measures. Consistent with Model 1, men and women were not different in the number of casual sex partners at age 15 or over time. Those respondents who reported that their friends were sexually active, reported more logged casual sex partners. Alcohol use, drugs use, and number of dating partners were also positively associated with the expected number of logged casual sex partners. Similar to Model 1, peers' sexual behavior was negatively associated with the rate of change over time. As with Model 1, number of dating partners was positively associated with the rate of change in logged casual sex partners over time. College enrollment was negatively related to the number of logged casual sex partners, but had a positive slope

compared to those without a high school diploma.   No other life course variables were significantly associated with casual sex partners in the full model.

To further explore how gender influenced the number of casual sex partners over time, we tested gender interactions with all the social context and life course measures. Two interactions were significant at the $p < .003$ level and displayed in Model 5. We found that perceptions of peers' attitudes, substance use, parent-child relationship quality, educational status, living with parents, having a child, relationship status, and employment status were similarly associated with the number of casual sex partners for women and men. The significant interaction of peers' sexual behavior with time and gender suggested that perceptions of peers' behavior had a weaker influence on casual sexual behavior over time for women compared to men as illustrated by the coefficient of -.07. As expected, number of prior dating partners had a stronger influence on casual sexual behavior for women than men. For every additional dating partner a woman acquired over time, she increased in number of casual sex partners as illustrated by the positive three-way interaction of .03. Finally, the three-way interaction of gender with time and having a child was marginally significant ($p = .01$), but because the significance level did not meet the adjusted alpha threshold it was not included in the table. The marginally significant coefficient of -.12 was in the expected direction. Having a child had a more negative effect on the number of partners over time for women compared to men.

Discussion

As expected, the number of casual sex partners increased as adolescents transitioned to emerging adulthood. Forty percent of emerging adults age 22 had a recent casual sex partner, which supported the notion that currently emerging adulthood is a time in the life course when individuals experiment with sexual behavior (Arnett, 2004). To some degree, casual sex appears

to be an age graded behavior of emerging adulthood. It seems that casual sexual behavior may peak during emerging adulthood, age 21, as suggested by the significant curvilinear relationship. More research is needed to determine if this pattern continues in a linear decline past age 21. Men claimed to have more partners at every age; however, men and women reported similar increases in casual sex partners as they aged from adolescence to emerging adulthood. It is possible that men overestimated and women underestimated their number of casual sex partners. We tried to reduce some of this differential in reporting by gender by top coding statistical outliers. This gender difference was similar to other research on the number of casual sex partners (Petersend & Hyde, 2010). Men and women may have different definitions of casual sex. In other words, a man may have interpreted a sexual relationship as casual and the woman may have thought of the relationship as committed. This might have influenced how men and women interpreted dating relationships as well. Men were more likely to report a higher number of dating relationships and women were more likely to state that they were currently dating. Future research should include couple-level analysis to determine if men and women interpreted or estimated casual and committed relationships differently.

Overall, we found that the social contexts of adolescents and emerging adults, particularly dating relationships and peers' behaviors were associated with casual sex partners. As we expected based on social norms theory, perceptions of peers' sexual behaviors was positively associated with reported number of casual sex partners, particularly for men. We did not find that gender moderated the relationship between peers' attitudes and casual sex. In prior work, Lyons et al. (2011) found that young women who reported a high number of sex partners most likely enmeshed themselves in supportive peer networks with similar attitudes, in part, to maintain a positive self-image. Thus, peers are an important social context for both men and

women. Although we recognize that individuals tend to have peers who are similar, future work should explore the specific ways in which the perception of peers influences casual sexual behavior.

Alcohol use was positively associated with number of casual sex partners; however, it appears that alcohol use did not significantly increase the trajectory of partners over time. This may be the case because alcohol use at age 15 means something different compared to age 21 when alcohol consumption becomes legal. Further, additional research is needed that includes more refined measures, such as substance use at the time of the casual sexual encounter or indicators of binge drinking. Parental relationship quality was not related to number of casual sex partners. This is similar to other studies (Fielder and Carey, 2010b; Fielder et al., 2013; Owen et al., 2010), which did not find that the parental relationship was a significant influence on sexual behavior among college students. We need research that measures whether parenting practices change regarding how parents approach the topics of sexual behavior, including casual sex, as children age from adolescence to emerging adulthood.

As predicted, greater numbers of prior dating partners were positively associated with changes in the number of casual sex partners, particularly for women. Prior research showed that sexually active adolescents often have both casual and dating sexual experiences (Manning et al., 2005). Popular culture outlets including newspaper and magazine articles often portray casual sexual behavior as replacing traditional dating, but findings from prior work (e.g., Armstrong et al., 2010; Fielder, Walsh, Carey, & Carey, 2013; Siebenbruner, 2013) and the current study do not support this claim. Our findings suggest that emerging adults commonly have both casual and committed romantic experiences and women may draw on prior dating partners for casual sexual encounters more often compared to men. This finding supports the life

course principle that earlier life events influence later behavior. Future research on casual sex should consider relationship churning (i.e., breaking up and getting back together) that occurs and recognize potential fluidity between committed and casual sexual relationships.

Education, one of the key life course indicators, is significantly related to changes in casual sex partners. As expected, respondents who did not complete high school acquired, on average, more casual sex partners compared to individuals who were enrolled in a four-year degree program. Yet, respondents enrolled in four-year degree programs had a positive rate of change in logged casual sex partners over time. Studies should investigate the diverse living arrangements of youth, such as living on campus to determine if a more detailed measure of where emerging adults live is associated with casual sexual behavior.

We expected that having a child would operate differently for men and women, in that parenthood would have a greater negative influence on the reported number of casual sex partners for women compared to men. We found a marginally significant interaction in the expected direction. These results are similar to previous findings that demonstrated that parenthood is more salient for women's compared to men's transitions to adulthood (Benson & Furstenberg, 2007). Future research should investigate if this gendered relationship of having a child and casual sex continues as individuals age past emerging adulthood.

Full-time employment, one marker of adulthood, was not associated with casual sexual behavior. Prior research (e.g., Benson & Furstenberg, 2007) suggested that employment status alone was not enough for emerging adults to feel like they were adults, but employment status coupled with financial and housing independence was related to an adult identity shift. Living with parents was associated with fewer casual sex partners, on average, but living with parents has a different influence on children as they age. Additional research is needed to determine if

the life course variables' associations with casual sex is due to time restrictions of entering adulthood (e.g., not having time because they are taking care of a child). Or perhaps a cognitive shift happens as emerging adults take on more adult responsibilities (e.g., emerging adults feel like an adult when they have financial independence and age out of casual sexual behavior). More research is needed to understand how identity and demographic transitions influence casual sexual behavior.

This study had some limitations, but provided an important starting point to understanding casual sexual behavior. The TARS was based on a regional sample and therefore national estimates of casual sexual behavior could not be determined. The TARS indicator of casual sex provided an opportunity to study a sexual experience that has not received broad research attention. However, the TARS measure of casual sex did not allow us to assess whether men and women were equally likely to claim similar numbers of different types of hookup behaviors, such as 'friends with benefits,' 'one-night stands,' and sex with ex-boyfriends or ex-girlfriends. Also, the TARS included only one measure of casual sexual behavior and future research should investigate if there are gender differences in the number of sexual encounters with a casual sexual partner not just the total number of casual sex partners. Further, the recall time was one to two years. Although this is a relatively short time period, some respondents may have a hard time recalling their number of casual partners over the course of this period. Finally, most of our measures were not specific to casual sexual behavior such as alcohol use, parent-child relationship quality, and perceptions of peers' attitudes and behaviors. Future research should include measures of alcohol use and binge drinking that occurs in tandem with the casual sexual experience, parents' attitudes about casual sexual behavior, and peers' attitudes about casual sexual behavior.

The results in this study may contribute to the broader literature on sexual behavior and calls for attention to relationship context of sexual behavior. Given the finding that there were educational differences in number of casual sex partners, additional work on casual sex requires diverse samples that investigate casual sexual trajectories among emerging adults with a variety of education experiences. Further, research should examine not only the patterns of casual sexual activity, but the age graded motivations and reasons for casual sex. This may help us better understand how the meaning of what casual sex means to teenagers differs compared with emerging adults. Researchers should also focus on the health (well-being and physical) and relational (stability and quality) implications of casual sexual activity. Indeed, there has been a call for more research on the positive implication of casual sexual behavior (Claxton & van Dulmen, 2013; Lyons et al., 2014; Owen, Quirk, & Fincham, 2013). Finally, although it was beyond the scope of the current study, casual sexual trajectories of youths with same-sex experiences should be investigated. The findings from the current study showed that the casual sexual experiences of adolescents and emerging adults were diverse and the social and life course contexts were key to understanding their behavior.

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[i] Time is centered so, 0=age 15 and 7=age 22.

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Table 1. Descriptive Statistics of Dependent and Independent Variables

	Total		Male		Females			
	Mean/Percent	SD	Mean/Percent	SD	Mean/Percent	SD	t/χ2	sig
Dependent Variable								
Number of Recent Casual Sex Parnters	0.80	2.04	1.10	2.53	0.52	1.39	8.59	***
Mean Number of Partners by Age								
15	0.14	0.61	0.20	0.72	0.08	0.48	1.99	***
16	0.49	1.72	0.66	2.10	0.32	1.23	2.34	*
17	0.55	1.47	0.73	1.70	0.39	1.21	2.74	**
18	0.75	1.70	0.98	2.12	0.54	1.19	3.49	***
19	1.16	2.50	1.51	3.03	0.76	1.65	2.97	**
20	1.33	2.87	1.95	3.53	0.79	1.98	4.23	***
21	1.51	2.84	2.18	3.65	0.88	1.57	3.35	***
22	1.05	2.16	1.52	2.60	0.69	1.64	2.86	**
Gender (Time-Invariant)								
Male	48%		N/A		N/A			
Female	52%		N/A		N/A			
Social Context (Time-Varying)								
Peer Attitudes								
Sex Only if Love (reverse coded)	2.84	1.20	3.20	1.14	2.50	1.16	18.35	***
Okay to Date More Than One Person	2.58	1.20	2.79	1.22	2.39	1.15	10.37	***
Peers' Sexual Behaviors	4.25	1.63	4.33	1.61	4.18	1.64	2.88	**
Alcohol Use	3.23	2.15	3.42	2.30	3.6	2.00	4.94	***
Drug Use	1.95	2.06	2.11	2.24	1.79	1.87	4.77	***
Parent-Child Relationship Quality	19.68	3.47	19.64	3.06	19.72	3.81	-.74	
Number of Dating Relationships	2.38	3.75	2.88	4.59	1.91	2.67	7.84	***
Life Course Context (Time-Varying)								
Education Status								
Less Than High School	7%		8%		6%		15.57	**
In High School	47%		48%		46%			
Not in School with a High School Degree	18%		19%		17%			
Some College	4%		4%		4%			
Enrolled in Community College/Trade	8%		7%		9%			
Enrolled in a Four-Year Degree Program	16%		14%		18%			
Live with Parents	82%		84%		79%		15.71	***
Had a Child	10%		7%		12%		23.88	***
Full-Time Employment	17%		19%		14%		18.39	***
Relationship Status								
Married	2%		1%		3%		28.34	***
Dating/Cohabiting	47%		44%		50%			
Not in a Romantic Relationship	51%		55%		47%			
Socioeconomic Background (Time-Invariant)								
Race/Ethnicity								
White	66%		65%		66%		.81	
Black	23%		24%		23%			
Hispanic	11%		11%		11%			
Family Structure								
Two Parent Biological	52%		55%		50%		11.37	**
Single Parent Family	23%		22%		25%			
Step Family	14%		14%		14%			
Other Family Form	11%		9%		11%			
Mother's Education								
Less Than High School	12%		12%		12%		1.66	
High School	31%		32%		31%			
Some College	33%		32%		34%			
BA or Higher	24%		24%		23%			
Parents Income	3.30	2.07	3.27	2.05	3.33	2.10	-.84	

N=3,687Person Records
Two tailed significance tests: *p<.05; **=p<.01; ***=p<.001
Source: Toledo Adolescent Relationship Study

Table 2. Growth Curve Models of Social and Life Course Variables on Number of Recent Casual Sexual Partner

	Model 1			Model 2		
	Coef		**SE**	**Coef**		**S**
Intercept	-3.95	***	0.28	-3.61	***	0.
Female				-0.60	***	0.
Rate of Change	1.09	***	0.13	1.10	***	0.
Female				-0.04		0.
Rate of Change^2	-0.09	***	0.01	-0.09	***	0.
Dispersion	0.63	***	0.10	0.64	***	0.
Variance Components						
Level-2						
Intercept	5.92	***	1.04	5.70	***	1.
Slope	0.37	*	0.16	0.36	*	0.
Slope^2	0.00		0.00	0.00		0.
Covariance						
Intercept and Slope	-0.90	**	0.34	-0.87	*	0.
Intercept and Slope^2	0.04		0.04	0.03		0.
Slope and Slope^2	-0.03		0.02	-0.03		0.
AIC	7359.22			7320.41		
BIC	7421.35			7394.96		

N=3,687

Two tailed significance tests: *p<.05; **=p<.01; ***=p<.001

Source: Toledo Adolescent Relationship Study

Table 3. Growth Curve Models of Social and Life Course Variables on Number of Recent Casual Sexual Partners

	Model 1			Model 2			Model 3			Model 4		
	Coef		SE	Coef		SE	Coef		SE	Coef		SE
Intercept	-0.03	*	0.01	-2.22	***	0.63	-5.92	***	0.87	-5.78	***	0.87
Female	-0.24		0.19	-0.60	**	0.22	-0.23		0.19	-0.70	**	0.25
Social Context												
Peer Attitudes												
Sex Only if Love (reverse coded)	0.10		0.08				0.10		0.08	0.08		0.08
Okay to Date More Than One Person	0.11		0.07				0.09		0.08	0.10		0.08
Peers' Sexual Behaviors	0.70	***	0.08				0.63	***	0.08	0.62	***	0.08
Alcohol Use	0.16	**	0.05				0.20	***	0.05	0.21	***	0.05
Drug Use	0.10	**	0.04				0.10	**	0.04	0.09	*	0.04
Parent-Child Relationship Quality	-0.03		0.02				-0.02		0.02	-0.01		0.02
Number of Dating Relationships	0.03	*	0.02				0.03	*	0.02	0.03		0.02
Life Course Context												
Education Status												
In High School				-0.66		0.42	-0.02		0.40	-0.03		0.39
Not in School with a High School Degree				-0.18		0.44	0.26		0.41	0.23		0.41
Some College				-1.53		0.92	-0.26		0.87	-0.47		0.86
Enrolled in Community College/Trade				-0.89		0.55	-0.47		0.53	-0.44		0.53
Enrolled in a Four-Year Degree Program				-1.24	*	0.51	-1.06	*	0.49	-1.06	*	0.49
Live with Parents				-0.80	*	0.36	-0.51		0.34	-0.48		0.34
Had a Child				0.54		0.34	0.18		0.33	0.34		0.33
Full-Time Employment				0.06		0.29	-0.06		0.27	-0.02		0.28
Relationship Status												
Married				-2.17		1.58	-2.50		1.49	-2.52		1.55
Dating/Cohabiting				0.14		0.17	-0.06		0.17	-0.01		0.17
Rate of Change	0.59	***	0.17	-2.22	***	0.63	0.54	*	0.23	0.24		0.24
Female	-0.01		0.04	-0.04		0.04	-0.01		0.04	0.58	**	0.17
Social Context												
Peer Attitudes												
Sex Only if Love (reverse coded)	0.03		0.02				0.03		0.02	0.03		0.02
Okay to Date More Than One Person	0.00		0.02				0.00		0.02	-0.01		0.02
Peers' Sexual Behaviors	-0.06	**	0.02				-0.05	*	0.02	-0.01		0.02
Alcohol Use	-0.02		0.01				-0.02	*	0.01	-0.03	**	0.01
Drug Use	0.00		0.01				0.00		0.01	-0.01		0.01
Parent-Child Relationship Quality	0.00		0.01				0.00		0.01	0.00		0.01
Number of Dating Relationships	0.02	***	0.01				0.02	**	0.01	0.01	*	0.01
Life Course Context												
Education Status												
In High School				0.20		0.11	0.05		0.10	0.02		0.10
Not in School with a High School Degree				0.05		0.09	-0.02		0.09	0.00		0.09
Enrolled in Community College/Trade				0.25		0.16	0.05		0.15	0.09		0.15
Some College				0.15		0.11	0.09		0.11	0.11		0.11
Enrolled in a Four-Year Degree Program				0.22	*	0.10	0.22	*	0.10	0.24	*	0.10
Live with Parents				0.15	*	0.07	0.12		0.06	0.11		0.07
Had a Child				-0.09		0.07	-0.05		0.06	-0.03		0.07
Full-Time Employment				0.00		0.06	0.02		0.05	0.04		0.06
Relationship Status												
Currently Married				0.16		0.24	0.24		0.22	0.25		0.23
Currently in a Romantic Relationship				-0.03		0.04	-0.01		0.04	-0.04		0.04
Rate of Change^2	-0.03	*	0.01	-0.07	***	0.02	-0.03		0.02	-0.02		0.02
Interactions												
FemaleXTimeXPeers' Sexual Behaviors										-0.07	***	0.02
FemaleXTimeXNumber of Dating Relationships										0.03	***	0.01
Dispersion	0.75	***	0.10	0.66	***	0.10	0.71	***	0.10	0.69	***	0.10
Variance Components												
Intercept	2.25	***	0.55	5.64	***	1.03	2.34	***	0.58	-5.78	***	0.87
Slope	0.25		0.14	0.38	*	0.16	0.28		0.14	0.27		0.41
Slope^2	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
Covariance												
Intercept and Slope	-0.43		0.24	-0.97	**	0.35	-0.50	*	0.25	-0.51	*	0.26
Intercept and Slope^2	0.02		0.03	0.05		0.04	0.03		0.03	0.03		0.03
Slope and Slope^2	-0.02		0.02	-0.03		0.02	-0.03		0.02	-0.03		0.02
Model includes controls							X			X		
AIC	6804.85			7319.73			6817.87			6795.49		
BIC	6966.38			7518.54			7215.48			7298.71		

N=3,687

Two tailed significance tests: *p<.05; **=p<.01; ***=p<.001

Note: Controls include Race/Ethnicity, Family Structure, and Mother's Education

Source: Toledo Adolescent Relationship Study

Appendix. Descriptive Statistics of Recent Casual Sexual Behavior Of Casual Sexually Experienced Respondents

	Total			Male			Female		
	Percent had Recent Casual Sex[a]	Median[b]	Mean[b]	Percent had Recent Casual Sex[a]	Median[b]	Mean[b]	Percent had Recent Casual Sex[a]	Median[b]	Mean[b]
Age									
15	7%	2.0	2.11	9%	2.00	2.21	4%	1.00	1.89
16	17%	2.0	2.90	19%	2.00	3.44	15%	2.00	2.23
17	23%	2.0	2.45	28%	2.00	2.64	18%	1.00	2.19
18	30%	2.0	2.52	34%	2.00	2.86	26%	2.00	2.11
19	34%	2.0	3.41	40%	2.00	3.78	27%	2.00	2.80
20	37%	2.0	3.59	45%	3.00	4.36	30%	2.00	2.60
21	43%	2.0	3.51	54%	2.00	4.05	33%	2.00	2.68
22	40%	2.0	2.64	50%	2.00	3.08	32%	1.00	2.13

[a]N=3,687; [b]N=995

Note: The median and mean number of partners is calculated for the respondents who had recent casual sex between waves

Source: Toledo Adolescent Relationship Study