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Bringing Your Baggage to Bed: Associations of Previous Relationship Experiences with Sexual Risk

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Abstract

Delaying sexual intercourse after initiating a relationship (i.e., increasing the presexual period) and delaying unprotected sex can reduce HIV/STI risk. Past relationship and risk experiences may influence sexual decisions in a current relationship. We examined how past relationship and risk experiences of both members of 296 young pregnant couples influenced length of presexual period and time to unprotected sex. Forty-six percent of couples had sex within the first month of seeing each other and had unprotected sex within one month of having sex. Length of presexual period and time to unprotected sex were significantly shorter in their current relationship than their previous relationship for both men and women (all $p < .05$). Female past relationship and risk factors were more strongly associated with length of presexual relationship than male past relationship and risk factors. Both male and female past relationship and risk factors were associated with time to unprotected sex.

Keywords

Relationships; Sexual Risk; Presexual Period; Time to Unprotected Sex

Adolescents and young adults in the United States are at increased risk for HIV and other sexually transmitted infections (STIs). From 2004 through 2007, the estimated number of newly diagnosed HIV/AIDS cases increased each year among persons aged 15–19 and 20–24 (1). Current national estimates suggest that young people aged 15 to 24 acquire nearly half of all new STIs (2). Among young adults, almost one in five (17%) have had an STI in the last year (3).

Delaying sexual intercourse after initiating a new relationship (i.e., increasing the presexual period) and delaying unprotected sex can reduce HIV/STI risk (4–5). In a study of sexually active young adults in dating relationships, Manlove et al. (2011) found those who had waited longer before having sex were more likely to have used condoms at last intercourse

than those who engaged in sex sooner (4). Prolonging periods of abstinence can thus reduce both the overall number of lifetime partners and the number of unprotected sexual occasions. Mathematical modeling shows that reducing the numbers of sexual partners and unprotected sex occasions substantially reduces HIV and STI prevalence (6–7) and suggests the importance of understanding factors related to increasing the presexual period and the length of time to unprotected sex within a couple.

Once a relationship turns sexual, it is important to understand the factors that relate to condom use. Within relationships, research has shown that condoms are used frequently and then less so as relationships progress. A study of adolescent women found that within a new relationship, the level of condom use declined to that of an established relationship in merely 21 days (5). In order to better target HIV/STI prevention interventions, it is important to understand when and why this decrease occurs. One hypothesis, known as the “sawtooth hypothesis,” suggests that the pattern of condom use—high at the beginning of a relationship and then declining as the relationship progresses—comes to resemble the teeth of a saw when repeated across successive relationships (8). Individuals may begin using condoms with a new partner because they are unsure of their HIV, STI, and pregnancy risk, but stop once they deem their partner is “safe.” Also, condom use may be affected by social norms whereby it is considered proper to use condoms with a new partner but unnecessary once a relationship is established (8). The sawtooth hypothesis also suggests that the probability of initial condom use with a new partner declines from relationship to relationship.

The sawtooth hypothesis suggests that past sexual experiences can carry over to current relationships. This becomes complex and dynamic because both members of a sexual relationship bring a history of sexual and relationship experiences that could influence their expectations and sexual decision making. No studies that we are aware of have used data from both members of a couple to understand what past relationship and risk factors are associated with decisions to have sex and unprotected sex.

Recent research suggests that relationship factors are strong predictors of sexual risk (9–12). Emotional feelings of love, intimacy and trust are factors that may obscure risk perceptions and contribute to less condom use in relationships (12–17). These feelings may be influenced by individuals’ previous relationship experiences (18–19). Past relationship experiences and characteristics such as who broke up with whom, the length and seriousness of the relationship, and whether there was infidelity by a partner may influence how individuals handle a breakup and their subsequent behaviors in new relationships (19–20). One study found strong feelings of residual anger after a breakup that could affect trust towards future partners and sexual decision making (18). However, other studies found that being dumped can cause damage to self-esteem, which has been linked to increased sexual risk such as sex with risky partners and unprotected sex (21–23). Wade & Delamater (2002) found individuals with a recent breakup had more new sexual partners than those without a recent breakup, and this relationship was stronger for men. Another study found that use of a condom with a new partner after a breakup was less frequent for women than men (22). These studies suggest that characteristics related to a previous relationship and the ending of that relationship may lead to risk behavior to fulfill intimacy or esteem issues, and this risk may take different forms for men and women.

Previous sexual risk behaviors such as how soon an individual had sex and unprotected sex, and whether they cheated on their previous partner may influence their expectations and decisions in a subsequent relationship. Research suggests that past risk behavior is one of the best predictors of current risk behavior, suggesting that individuals may repeat risk behaviors with subsequent partners (20, 24–25). In addition, other risk histories such as

history of an STI, age at sexual debut, and number of lifetime partners may influence how quickly an individual engages in sexual risk. This also may be influenced by gender differences. Studies have shown that the sexual risk of a couple is often influenced more by the man's past and current risk than that of the woman (11), suggesting that male past risk experiences may influence the sexual decisions of the couple more. Violence victimization and perpetration may also influence decisions to have sex and unprotected sex, as they have been linked to subsequent sexual risk behavior in adolescents (26–27).

Our current study focuses on the length of presexual relationship and time to unprotected sex in a couples' relationship, and how risk factors from before the relationship were carried into current relationships. Specifically, we aimed to: 1) describe the length of the presexual relationship and time to unprotected sex among young pregnant couples, and 2) identify demographic, previous relationship history, and risk history factors of both members of the couple associated with length of the presexual relationship and time to unprotected sex for the couple. Despite the fact that sexual risk inevitably involves two people, the predominant theoretical models used to explain HIV/STI risk behavior (i.e. health belief model, theory of reasoned action) take an individual rather than a dyadic approach (28). Our study is interested in how both members of a couple's relationship and risk experiences influences the couple's shared risk behaviors of length of presexual relationship and time to unprotected sex. Therefore, the focus on this study uses the couple as the unit of analysis. Results from this study will help us understand how individuals carry past risk and experiences into their current relationship, and facilitate the development of programs that allow adolescents to learn from past experiences to make better sexual decisions.

METHODS

Study sample and procedures

Data for this study come from a longitudinal study of pregnant and postpartum adolescent females and their partners. Between July 2007 and February 2011, 296 pregnant adolescents and their male partners (592 total participants) were recruited from obstetrics and gynecology clinics and from an ultrasound clinic in four university-affiliated hospitals in Connecticut. Potential participants were screened and, if eligible, research staff explained the study in detail and answered questions. If the baby's father was not present at the time of screening research staff asked for permission to contact him to explain the study. Research staff provided informational materials for the absent partner and asked the present partner to discuss the study with them.

Inclusion criteria included: (a) the female partner is in the second or third trimester of pregnancy at time of baseline interview; (b) females: age 14–21 years; males: age at least 14 years, at time of the interview; (c) both members of the couple report being in a romantic relationship with each other; (d) both report being the biological parents of the unborn baby; (e) both agree to participate in the study and (f) both are able to speak English or Spanish. Because this was a longitudinal study, we used an initial run-in period as part of eligibility criteria where participants were deemed ineligible if they could not be re-contacted after screening and before their estimated due date. Although the larger study focused on expectant couples, we did not factor aspects of the pregnancy into these analyses because the primary outcomes of length of presexual period and time to unprotected sex occurred prior to the pregnancy.

Despite the focus on previous relationship predictors, we included couples with partners that did not have any previous relationships for both conceptual and empirical reasons. Given the young age of our participants (particularly at the time of their first sex with their partner), couples that had one or more partner who did not have a previous relationship are a

potentially important and meaningful subgroup. Empirically this is supported by the distribution of our sample; 38% (N=112) of the couples had at least one partner with no previous relationships (for 19% (N=57) of couples the male had a previous relationship but the female did not; 11% (N=31) the female had a previous relationship but the male did not; and 8% (N=24) neither had a previous relationship).

Written informed consent was obtained by a research staff member at the baseline appointment. The couples separately completed structured interviews via audio computer-assisted self-interviews (ACASI) at the same time. Participation was voluntary and confidential, and did not influence the provision of health care or social services. All procedures were approved by the Yale University Human Investigation Committee and by Institutional Review Boards at study clinics. Participants were reimbursed \$25 each for their effort.

Of 413 eligible couples, 296 (72.2%) couples enrolled in the study. Couples who agreed to participate were of greater gestational age ($p = .03$). Participation did not vary by any other pre-screened demographic characteristic (all $p > .05$). Data reported are from the baseline assessments of all participants. Baseline interviews took place in the 3rd trimester of pregnancy ($M = 29$ weeks gestation).

Measures

Primary Outcomes of Current Relationship—*Length of presexual relationship* was assessed by asking participants how many months they dated/saw their partner before having sexual intercourse with them. *Time to unprotected sex* was assessed by asking participants how many months from when they started having sex did they have sex without using a condom. For both questions, if participants answered less than one month they were then asked if it was 1, 2, or 3 weeks (which was coded as .25, .50, and .75 months, respectively). If they stated they had sex before they started dating/seeing them, length of presexual relationship was coded as 0 months, and similarly, if participants said that they did not use a condom the first time they had sex with their partner, time to unprotected sex was coded as 0 months. Because both of these variables refer to couple level behavior (i.e., the value is shared by both members of the couple) and the responses within members of the couple were highly correlated ($r = .69$ for length of presexual relationship and $r = .55$ for time to unprotected sex), a couple level variable was computed by averaging responses within couples.

Previous Relationship Factors—First, we assessed *whether participants had a relationship prior to their current relationship* and the *number of previous relationships*. Among those who had a previous relationship, participants were asked a series of questions regarding the relationship directly prior to their current relationship. Because all of the previous relationship variables were conditional on having a previous relationship, for the multivariate analyses we coded these variables so that we could include all participants in analyses regardless of whether they had a previous relationship. This was done by categorizing all of the previous relationship variables into two groups (based either conceptually or based on the variables distribution) and creating a third group for each variable that represented not having a previous relationship. Dummy variables were created including a dummy for each variable that represented not being in a relationship. By including the ever in a previous relationship variable with this coding scheme, all participants are included in the analyses and the redundant dummy codes are not estimated saving degrees of freedom.

Relationship commitment was assessed by asking participants the level of commitment at the height of their previous relationship ranging from 1=not at all committed to 4=very

committed, and grouped into not committed (1,2) and committed (3,4). *Feelings of love* of the previous partner was assessed by a single item ranging from 0=no feelings to 10=very strong feelings, and grouped into those with weak feelings (0–6) and strong feelings (7–10). *Perceived partner concurrency* was assessed by asking participants if they believed their previous partner had other sexual partners during their relationship ranging from 1=definitely no to 5=definitely yes, and grouped into perceiving their partner as having other partners (4 or 5). *How much the participant wanted the relationship to end* was a single item ranging from 1=definitely wanted it to end to 10=definitely wanted it to continue, and grouped into did not want the relationship to end (6–10) and wanted the relationship to end (1–5). *Difficulty in getting over the relationship* asked participants how hard the relationship was to get over ranging from 1=not at all difficult to 10=very difficult, and grouped into not difficult getting over the relationship (1–5) and difficult getting over the relationship (6–10). *Disruptiveness of the end of the relationship* asked participants to what extent the breakup interrupted their life ranging from 1=not at all disruptive to 10=very disruptive, and grouped into not disruptive (1–5) and disruptive (6–10). *Previous partner attractiveness* was measured by asking participants to rate how attractive their previous partner was from 1=not at all attractive to 10=very attractive, and grouped into not very attractive (1–7) and very attractive (8–10).

Risk History Factors

Risk History in the Previous Relationship—*Length of presexual relationship and time to unprotected sex* in the previous relationship was assessed as described above. Participants were grouped into those who had sex or unprotected sex within 3 months and those who had sex or unprotected sex 3 months or later. This was chosen because it provides a window of incubation period for most STIs and relates to previous research showing the risk reduction of delayed sex (4). *Concurrency* was assessed by asking participants if they had other sexual partners while they were in a relationship with their previous partner.

General Risk History—*History of abuse and perpetration* was asked by a series of questions modified from the Conflict Tactics Scale (29). We asked history of physical abuse and perpetration with two questions, including whether the participant was shoved, punched, kicked, slapped, hit or physically hurt by anyone prior to their relationship with their current partner (*physical abuse history*) and whether they had shoved, punched, kicked, slapped, hit or physically hurt someone prior to their relationship with their current partner (*physical abuse perpetration history*). History of sexual abuse and perpetration was assessed similarly, by asking whether anyone prior to their current partner used force to have sex with them (*sexual abuse history*) and whether they had ever used force to have sex with anyone prior to their current partner (*sexual abuse perpetration history*). *Age at sexual debut* was assessed by asking participants what age they first had sexual intercourse. *Number of lifetime partners* was asked by asking participants how many past sexual partners they had other than their current partner. *A history of an STI prior to their current relationship* was assessed by asking if the participant had ever been diagnosed with an STI and the date of their STI diagnosis. If the date of the STI diagnosis occurred prior to the beginning of their current relationship, they were coded as having a history of an STI prior to their relationship.

Demographics included age (years), race (African-American, Hispanic, White/Other), and household income. We also included several variables pertaining to the current relationship including the age difference between current partners, and the attractiveness of their current partner which ranged from 1=not at all attractive to 10=very attractive.

Data analysis

Frequencies and means were conducted to describe the sample. To assess differences between male and female partners on demographic variables, risk history, and previous relationship history, we conducted a series of paired t-tests for continuous variables and McNemar tests for categorical variables. We also compared differences on length of presexual relationship and time to unprotected sex from the previous relationship to the current relationship among participants who reported a previous relationship using paired t-tests. To assess the influence of demographic, previous relationship history, and risk history factors on the couple's length of presexual relationship and time to unprotected sex, unadjusted correlations were conducted using Pearson correlation and point biserial correlations. In order to account for potentially important variables that may be significant in multivariate models (after controlling for other variables), we included all variables that were $p < .10$ in the bivariate correlations in our base regression model, before eliminating variables based on a stepwise procedure with a final exclusion criteria of $p > .05$ (30). Stepwise procedures were used to choose the final model. All models controlled for demographic variables of age, race, and income as well as whether the individual had a previous relationship. Since the outcomes of length of presexual relationship and time to unprotected sex are couple-level variables, the final sample size used was 296. This was a secondary analysis of our study and therefore power analyses were not conducted a priori on this set of outcomes and predictors. However, we conducted general power analyses for general predictors and sexual risk, such that our sample of 296 couples gave us a power of .80 to detect the contribution of an individual predictor with an effect size of $r = .13$ (i.e., small effect), controlling for 10 covariates.

RESULTS

The majority of participants were African-American (44.1%) or Hispanic (38.0%), with 13.7% White and 4.2% some other race/ethnicity. Average age was 18.7 years ($SD = 1.7$) for women and 21.3 years ($SD = 4.1$) for men at the time of interview. Mean partnership duration was just over 2 years. Nine percent of couples were married. Differences between men and women on study variables are presented in Table 1. Men were more likely to have sex within the first 3 months of seeing/dating their previous partner and have unprotected sex within the first 3 months of having sex with their previous partner compared to women.

We compared the length of presexual relationship and time to unprotected sex between their current relationship and previous relationship among participants with a previous relationship. Results showed that the length of presexual relationship significantly decreased from their previous relationship to their current relationship for both men ($M = 3.69$, $SD = 4.69$ for previous relationship vs. $M = 2.54$, $SD = 3.25$ for current relationship, $t = -3.35$, $p < .05$) and women ($M = 5.48$, $SD = 5.15$ for previous relationship vs. $M = 2.52$, $SD = 3.35$ for current relationship, $t = -7.70$, $p < .001$). Similarly, the length of time to unprotected sex significantly decreased from their previous relationship to their current relationship for both men ($M = 5.45$, $SD = 6.25$ for previous relationship vs. $M = 2.30$, $SD = 3.44$ for current relationship, $t = -7.68$, $p < .001$) and women ($M = 7.02$, $SD = 6.61$ for previous relationship vs. $M = 2.52$, $SD = 3.32$ for current relationship, $t = -9.76$, $p < .001$).

On average, the length of the couples' presexual relationship was 2.71 months ($SD = 3.05$). Forty-six percent of couples had sex within the first month of seeing each other, 63% within two months, and 73% within three months. The average time to unprotected sex was 2.53 months ($SD = 3.01$) with 46% of couples having unprotected sex within one month of having sex, 58% within two months, and 71% within three months. Table 2 presents the unadjusted correlations of the demographic, previous relationship history, and risk history variables with length of presexual relationship and time to unprotected sex.

Multivariate analyses are presented in Table 3. Variables that were significantly related to longer presexual relationship of the current relationship include females with less lifetime partners ($\beta = -.139$, $t = -2.33$, $p = .021$), females with a longer presexual previous relationship ($\beta = .170$, $t = 2.65$, $p = .008$), females who had a previous partner who had concurrent partners ($\beta = -.156$, $t = -2.46$, $p = .015$), and males with longer time to unprotected sex in their previous relationship ($\beta = .143$, $t = 2.25$, $p = .025$). Overall, the final model accounted for 15% of the variance of length of presexual relationship.

The final model suggested that several variables were associated with longer time to unprotected sex, including females who had a previous partner who had concurrent partners ($\beta = -.128$, $t = -2.12$, $p = .035$), females who had difficulty getting over their previous relationship ($\beta = .160$, $t = 2.66$, $p = .008$), females without a history of physical abuse ($\beta = -.140$, $t = -2.51$, $p = .013$), females ($\beta = .159$, $t = 2.47$, $p = .014$) and males ($\beta = .271$, $t = 4.22$, $p = .001$) with longer time to unprotected sex in their previous relationship, males who did not have a concurrent partner during their previous relationship ($\beta = -.155$, $t = -2.37$, $p = .019$), and males not in a previous relationship ($\beta = -.306$, $t = -4.67$, $p = .001$). Overall, the final model accounted for 21% of the variance of time to unprotected sex.

DISCUSSION

Our results show that young couples stop using condoms early in their relationships, yet not as quickly as previously suggested (5). Couples waited approximately two and a half months before they stopped using condoms, and almost half of couples stopped using condoms within one month of having sex. Additionally, our results build on previous research by showing that couples dated for approximately two and a half months before initiating sex, and almost half of couples had sex within one month of starting their relationship. Given the severe consequences of HIV and STIs, there remains a critical need for increasing the length of both the time of the presexual period and the time to unprotected sex within a relationship. Extending the length of the presexual period is important because it may allow for more time for communication patterns to be established in a relationship, facilitating discussions of important issues around sex and contraceptive planning (4). Prevention programs need to include strategies that help individuals lengthen these periods and communicate with their partners, family, and health care providers about what is contributing to their sexual decisions around sex and contraception.

This analysis contributes to the understanding of condom use patterns across relationships (i.e. the sawtooth hypothesis). There were several aspects of our data that support the sawtooth hypothesis (8). First, there was a large and significant reduction in both time-to-risk outcomes between individuals' previous and current relationships for both males and females. This indicates that the teeth of the saw change shape over time as the probability of condom use declines more rapidly. Both men and women had sex and unprotected sex quicker in their current relationship than in their previous relationships. Another support of the sawtooth hypothesis was that for women, more sexual partners and more relationships related to shorter length of presexual relationship and time to unprotected sex, indicating that as women went from partner to partner the teeth on the saw became shorter and shorter. For men, the overall number of partners did not relate to risk, however, men who had not been in a relationship prior to the current relationship had longer time to unprotected sex, indicating that the teeth for men may level off rather quickly compared to women. These results indicate the importance of prevention programs aimed at lengthening both the presexual period in relationships and the time to unprotected sex, and the importance of this intervention early on in adolescence, before these behaviors are carried over to subsequent relationships.

Our findings show that decisions to have sex and decisions to stop using condoms within a relationship are complex and associated with past relationship and risk experiences from both partners for these pregnant couples. Female past relationship and risk factors were more strongly associated with length of presexual relationship than male past relationship and risk factors, whereas both male and female past relationship and risk factors were equivalently associated with time to unprotected sex. This suggests that past experiences of female partners may have more of an influence on when a couple has sex, whereas both male and female partners may influence the decision to stop using condoms.

Our results help further our understanding of this potential influence in several ways. First, by examining the associations for both partners we begin to understand how characteristics from both partners' histories may shape sexual decision making. Factors from male partners that were most strongly associated with sexual risk among couples were past risk factors. Males who had concurrent partners during their previous relationship and had unprotected sex early in their previous relationship were more likely to carry over their risk behavior to their current relationship. This supports previous research that shows that individuals often carry over risk factors from previous relationships, and do not engage in much behavioral change (20, 25). It also supports research that shows that much of sexual risk can be attributed to the male partner's past and current sexual risk behavior (11, 31). To our knowledge, this is the first study to show that, controlling for demographic and sexual history characteristics of the individuals, male behavior in a previous relationship predicts how long a couple used condoms.

However, female past risk behaviors also influenced sexual risk. Women who had more sexual partners and shorter length of presexual period in their previous relationship had a shorter length of presexual period in their current relationship. Further, women who had a shorter time to unprotected sex in their previous relationship had a shorter time to unprotected sex in their current relationship. This suggests that prevention programs may want to target adolescent males and females who have a history of sexual risk including short time from meeting a partner to sex and unprotected sex. Tailored interventions are needed that seek to help adolescents understand how they are making sexual decisions and how their behaviors from past relationships may influence their behaviors in current relationships. Activities could include developing logs and diaries of risk behaviors across past partnerships that allow participants to reflect on how and why behaviors do or not carry over across partnerships, and potential reasons why their behavior did or did not change.

Additionally, whether a woman had a history of physical abuse influenced a couples' time to unprotected sex. Couples in which the female partner had a history of physical abuse had shorter time to unprotected sex than couples that had a female partner without a history of abuse. This supports previous research that shows that history of violence is associated with increased sexual risk in adolescents (26–27). Previous violence may lead to a disruption in sexual development, and this may be particularly true for women (32). This disruption may lead to feelings of powerlessness, inappropriate sexual norms and beliefs, and heightened emotional needs which influences sexual risk behavior (32).

In addition to past risk factors, past relationship factors of women are also associated with sexual risk among couples. Couples in which the female partner had a previous cheating partner had a longer presexual period and time to unprotected sex than couples in which the female partner did not have a previous cheating partner. Past research suggests that bad previous relationship experiences could either injure self-worth resulting in increased risk behavior or could lead to feelings of mistrust of sexual partners resulting in cautious and protective behavior (18, 21). Our results are more consistent with heightened mistrust resulting in a longer presexual period and time to unprotected sex. This is further supported

by the result showing that women who have more difficulty getting over a relationship have longer time to unprotected sex. It appears the negative emotional experiences from being cheated on or having a difficult breakup may carry over to their feelings and beliefs about their next partner, leading to more caution and less trust when making sexual decisions.

Limitations

This study had several limitations. First, although these data focus on outcomes that occurred prior to pregnancy, because our sample consisted of young couples expecting a baby, it may not be representative of typical young couples (33,34). Couples that eventually become pregnant and continue their pregnancy may have different risk and relationship profiles than other adolescents. Although we must be cautious in generalizing these results to other populations, our sample represents an important and high risk population with significant public health interest. Pregnant adolescents are a high sexual risk group because the behaviors that put them at risk for pregnancy also put them at risk for HIV/STIs (33, 34). This risk may be amplified among low-income minority populations where the burden of adolescent pregnancy contributes to disparities in sexual, reproductive, and maternal child health outcomes. Adolescent pregnancy is 2.5 to 3 times more likely among Hispanic and African-Americans than whites (35). This disparity in adolescent pregnancy corresponds with disparities in HIV and STIs (36). Among pregnant/parenting adolescents, 29% get an incident STI during pregnancy and the postpartum period, and adolescent mothers are twice as likely to get an incident STI compared to their non-pregnant and non-parenting sexually active peers (33,34). Second, we could not assess the reasons couples stopped using condoms, or why individuals did so in their previous relationship. Prior studies have shown that a primary reason for discontinuing condom use is when it is not needed for pregnancy prevention (37). We were not able to analyze the extent to which other forms of contraception influenced condom use in our sample. Third, information regarding participants' risk behavior in their previous relationship was reported retrospectively, therefore introducing the possibility of recall bias. It is possible given that participants had been with their current partner for an average of over two years that they inaccurately recalled when they stopped using condoms in their previous relationship. Fourth, although we identified several significant predictors of length of presexual relationship and time to unprotected sex, the overall percentage of variance explained (i.e., R-square) and the size of the bivariate correlations demonstrated relatively small effect sizes, indicating that other variables in addition to relationship and risk experiences are related to decisions to have sex and use condoms among these pregnant couples. More research is needed to identify these other potential predictors. Fifth, although we collected a lot of information about prior relationships, there was some data we were not able to assess if they occurred during the prior relationship, most notably their history of an STI and their history of abuse. Future studies might explore gathering this information for specific relationships. Finally, the method we used to account for participants without a previous relationship resulted in having to collapse continuous variables into groups that reduce the potential power and may cause misclassification bias. However, since to our knowledge no prior studies have dealt with this, we decided it was the most appropriate method given the available data. With a larger sample such a method may be unnecessary, and future studies can improve this analytic strategy.

Conclusions

These results have significant implications for HIV/STI prevention interventions. A couple's decision to have sex and to stop using condoms is highly complex and shared by both members of the couple. Interventions that target only one member do not fully account for the dyadic nature of this behavior. Because much of adolescents' and young adults' sexual risk occurs in the context of their relationships, relationships provide a unique opportunity to

promote safe sex practices. Helping adolescents understand how their past relationship and risk experiences influence their sexual decisions may enable adolescents to lengthen periods of abstinence and safe sex, and subsequently reduce HIV/STI risk over the course of a lifetime. More research is needed to understand how relationship factors mediate condom use and how both men and women's previous behavior and experiences contributes to risk. Future studies should use a prospective design to examine the influence of previous relationships on condom use from a dyadic perspective. In addition, future studies should examine this relationship among a sample of adolescents and young adults who are not pregnant to improve the generalizability of results. Finally, HIV/STI interventions should target adolescent men and women to prolong sex initiation and condom use within relationships, as our results show that they carry these behaviors into future relationships.

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Table 1

Sample Characteristics of Young Couples

Sample Characteristics	Males N=296	Females N=296	p
Demographics			
Age	M=21.3 (SD=4.1)	M=18.7 (SD=1.7)	<.001
Household income (\$)	M=17,271 (SD=21,518)	M=13,399 (SD=15,466)	0.013
Race			
Black	48.3%	39.5%	.054
Hispanic	36.7%	40.0%	
White/Other	15.0%	20.5%	
Age Difference of Current Relationship	M=-2.5 (SD=3.4)	M=2.5 (SD=3.4)	NA
Attractiveness of Current Partner	M=9.3 (SD=1.3)	M=9.4 (SD=1.2)	.190
Previous Relationship History Factors⁺			
In a Previous Relationship Prior to Partner	81.4%	72.6%	.007
Number of Previous Relationships	M=4.5 (SD=7.3)	M=2.1 (SD=2.4)	.001
Relationship Commitment			
Not committed	41.1%	42.8%	.567
Committed	58.9%	57.2%	
Feelings of Love			
Weak	55.6%	59.1%	.326
Strong	44.4%	40.9%	
Attractiveness of Partner			
Not attractive	55.6%	71.2%	.038
Very attractive	44.4%	28.8%	
Perceived Partner Concurrency			
Partner did not have other partners	58.9%	43.7%	.002
Partner had other partners	41.1%	56.3%	
Wanted Relationship to End			
Did not want relationship to end	59.0%	54.2%	.284
Wanted relationship to end	41.0%	45.8%	
Difficult Getting Over Relationship			
Not difficult getting over relationship	65.7%	57.5%	.248
Difficult getting over relationship	34.3%	42.5%	
Disruptiveness of the End of Relationship			

Sample Characteristics	Males N=296	Females N=296	p
Not disruptive	76.5%	75.9%	.597
Disruptive	23.5%	24.1%	
Risk History Factors			
Risk History in Previous Relationship			
Length of Presexual Relationship in Previous Relationship			.001
< 3 months	68.8%	48.8%	
3+ months	31.2%	51.2%	
Time to Unprotected Sex in Previous Relationship			.001
< 3 months	56.3%	40.4%	
3+ months	43.7%	59.6%	
Concurrency during Previous Relationship			.014
Did not have other partners	65.1%	79.5%	
Had other partners	34.9%	20.5%	
General Risk History Factors			
History of Physical Abuse	24.0%	27.0%	.426
History of Sexual Abuse	2.7%	14.5%	.001
History of Physical Abuse Perpetration	10.5%	16.2%	.050
History of Sexual Abuse Perpetration	0.3%	0.0%	NA
Age at Sexual Debut	M=14.3 (SD=3.2)	M=15.0 (SD=1.8)	.001
Number of Lifetime Sex Partners	M=11.6 (SD=17.3)	M=4.4 (SD=5.7)	.001
History of an STI prior to Partner	6.1%	8.8%	.342

Notes:

⁺ Only includes participants with a previous relationship (N=241 for men and N=215 for women)

Table 2

Correlations of Demographics, Previous Relationship History, and Risk History Factors with Length of Presexual Relationship and Time to Unprotected Sex

	Length of Presexual Relationship N=296		Time to Unprotected Sex N=296	
Demographics	r	p	r	p
Age				
Males	-.10	.089	-.04	.465
Females	.03	.465	.02	.758
Household Income				
Males	.05	.385	.09	.104
Females	-.02	.782	-.02	.725
Race				
Males				
White/Other	Referent		Referent	
Black	.05	.440	.12	.049
Hispanic/Other	.01	.813	-.07	.244
Females				
White/Other	Referent			
Black	.05	.353	.13	.031
Hispanic/Other	.07	.231	-.02	.680
Age Difference of Current Relationship	.09	.102	.01	.905
Attractiveness of Current Partner				
Males	.11	.050	.01	.968
Females	-.03	.664	-.05	.358
Previous Relationship Characteristics⁺				
In a Previous Relationship Prior to Partner				
Males	-.09	.121	-.14	.018
Females	-.15	.008	-.07	.246
Number of Previous Relationships				
Males	-.04	.477	.05	.384
Females	-.14	.018	-.10	.077
Committed Previous Relationship				
Males	-.09	.156	.06	.319
Females	-.03	.638	.10	.165
Strong Feelings of Love				
Males	-.11	.082	-.03	.696

	Length of Presexual Relationship N=296		Time to Unprotected Sex N=296	
Demographics	r	p	r	p
Females	.10	.147	.12	.074
Attractiveness of Previous Partner				
Males	-.04	.553	.01	.944
Females	.10	.131	.06	.426
Perceived Partner Concurrency				
Males	-.06	.355	.02	.726
Females	.16	.022	.19	.005
Wanted Relationship to End				
Males	-.08	.257	-.06	.392
Females	.14	.036	.05	.440
Difficult Getting Over Relationship				
Males	-.05	.434	-.06	.344
Females	.12	.096	.18	.010
Disruptiveness of the End of Relationship				
Males	-.05	.445	.02	.815
Females	.16	.017	.07	.290
Risk History Factors				
Risk History in Previous Relationship				
Length of Presexual Relationship (3 or more months) in Previous Relationship				
Males	.14	.027	.24	.000
Females	.22	.001	.18	.009
Time to Unprotected Sex (3 or more months) in Previous Relationship				
Males	.22	.001	.34	.001
Females	.03	.656	.22	.002
Concurrency during Previous Relationship				
Males	-.08	.213	-.12	.071
Females	-.04	.598	-.01	.904
General Risk History				
History of Physical Abuse Prior to Partner				
Males	-.05	.358	-.12	.046
Females	-.12	.048	-.18	.002
History of Sexual Abuse Prior to Partner				

	Length of Presexual Relationship N=296		Time to Unprotected Sex N=296	
Demographics	r	p	r	p
Males	.00	.967	-.02	.799
Females	-.09	.139	-.12	.045
History of Physical Abuse Perpetration Prior to Partner				
Males	.01	.970	-.13	.029
Females	-.05	.387	-.02	.759
Age at Sexual Debut				
Males	.10	.097	.11	.055
Females	.12	.048	.06	.327
Number of Lifetime Sex Partners				
Males	-.06	.307	-.04	.471
Females	-.23	.000	-.17	.004
History of an STI Prior to Partner				
Males	-.11	.055	-.12	.039
Females	-.04	.552	.05	.428

Notes:

⁺ Only includes participants with a previous relationship (N=241 for men and N=215 for women); Correlations for continuous variables are Pearson correlations; correlations for categorical variables and continuous outcomes are point biserials.

Table 3

Standardized Beta Coefficients of Final Regression Models Predicting Length of Presexual Relationship and Time to Unprotected Sex

Factors	Length of Presexual Relationship		Time to Unprotected Sex	
	Standardized Beta	t	Standardized Beta	t
Age				
Males	-.030	-0.36	.072	1.05
Females	-.006	-0.09	.015	0.31
Household income				
Males	-.003	0.06	.053	1.05
Females	-.019	-.10	-.034	-0.39
Race				
Males				
White/Other				
Black	-.046	-0.37	-.044	-0.41
Hispanic/Other	-.112	-1.07	-.164	-1.65
Females				
White/Other				
Black	.114	1.30	.153	1.76
Hispanic/Other	.166	1.76	.122	1.36
Previous Relationship Factors				
In a Previous Relationship Prior to Partner				
Males	-.087	-1.69	-.306	-4.67**
Females	-.130	-1.62	.002	0.21
Perceived Partner Concurrence				
Females	-.156	-2.46*	-.128	-2.12*
Difficult Getting Over Relationship				
Females	--		.160	2.66**
Risk History Factors				
Risk History in Previous Relationship				
Length of Presexual Relationship (3 or more months) in Previous Relationship				
Females	.170	2.65*	--	
Time to Unprotected Sex (3 or more months) in Previous Relationship				
Males	.143	2.25*	.260	4.22**

Factors	Length of Presexual Relationship		Time to Unprotected Sex	
	Standardized Beta	t	Standardized Beta	t
Females	--		.159	2.47*
Concurrency during Previous Relationship				
Males	--		-.155	-2.37*
General Risk History Factors				
History of Physical Abuse Prior to Partner				
Females	--		-.140	-2.51*
Number of Lifetime Sex Partners				
Females	-.139	-2.33*	--	

Notes:

**
p<.01,

*
p<.05; Values represent standardized Beta coefficients.