

“In their Prime:” Sexual Risk Behavior among Men in their 30s

Nan Marie Astone¹
Joseph H. Pleck²
Jacinda M. Dariotis¹
Arik V. Marcel^{1,3}
Mark Emerson¹
Samuel Shapiro⁴
Freya Sonenstein¹

¹Department of Population, Family and Reproductive Health, Johns Hopkins Bloomberg School of Public Health, ²Department of Human and Community Development, University of Illinois at Urbana-Champaign, ³Department of Pediatrics, The Johns Hopkins School of Medicine, ⁴ Department of Economics, The Johns Hopkins Kreiger School of Arts and Sciences.

Direct all correspondence to:

Professor Nan Marie Astone
Department of Population, Family and Reproductive Health
The Johns Hopkins Bloomberg School of Public Health
615 North Wolfe Street
Baltimore, Maryland 21205
P: 410-955-1821
F: 410-955-2303
Email: nastone@jhsph.edu

ABSTRACT

We examine three indicators of risky sexual behavior (multiple partners, risky partners, and concurrency) among 1083 men in their thirties who have been followed since adolescence. Levels of sexual risk behavior were low in this population, but not uniformly so. We found that men in a co-residential sexual union, particularly those who are married, exhibited lower levels of sexual risk behavior than those who were single. We take advantage of our longitudinal data to test three hypotheses about why being in a co-residential union is associated with low levels of sexual risk behavior. We find little evidence that positive selection into unions is an explanation for the association. There is some evidence for hypotheses that role socialization takes place within marriage to lower risk and also that part of the explanation is due to partner monitoring.

INTRODUCTION

A large body of research on sexual risk behavior in adolescence goes back to the 1970s^{1 2}. Recently, this literature has been extended by studies that focus on *young* adults³⁻⁸. There are some studies that examine sexual behavior generally among all adults⁹⁻¹¹ but few focus specifically on sexual behavior that puts people at risk of STIs. One reason for this is the widespread observation that risk behavior peaks and then declines as people become adults¹². The thinking is that people in their thirties are not an important group to study since they do not put themselves at risk. This, however, begs the question of why risk profiles change with social and chronological age. There are several potential explanations for this developmental progression. Studies of adolescent brain development suggest that the propensity for risky behavior may decline in adulthood for biological reasons¹³.

There are also non-biological explanations. A very prominent explanation is that marriage—which typically occurs early in adulthood—is a protective factor that discourages people from taking up risky behavior as well as encourages desistance from risky behavior¹⁴⁻¹⁶. There are several hypotheses about the reasons why marriage is associated with low levels of risky behavior and desistance from it. Proponents of the *selection hypothesis* argue that married adults are less likely to engage in risky behavior because people with a low propensity to engage in risky behavior to begin with are more likely to marry and conversely.

Others propose a *role socialization hypothesis*^{17 18}. According to this view, there are strong norms regarding appropriate behavior for people who are married. These norms proscribe any behavior that puts one at risk and prescribe behavior that is future oriented, cautious and responsible. The underlying idea is that marriage connotes both an end to parental backstopping and the beginning of a time when the welfare of others depends on one's own behavior. One piece of evidence for the role socialization hypothesis is that people who are currently single and who express a desire to marry lower their levels of risky behavior in young adulthood¹⁹.

The *rational choice hypothesis* is based on the very down-to-earth point that spouses monitor each other's behavior and therefore married people have less opportunity to perform illicit acts than single people²⁰.

Many of the studies that examine marriage and risky behavior examine substance use and criminal behavior²⁰⁻²² or general health²³. Far fewer, but some examine sexual behavior^{24 25}.

In this article, we expand the literature on risky behavior and marriage in four ways. First, we focus on risky *sexual* behavior whereas previous work has focused on substance use and criminal behavior for the most part. Second, we examine the association between current *union* status and risky sexual behavior, whereas previous work has usually only focused on marriage, not cohabitation. Third we use a nationally representative sample of adults *in their 30s*, whereas previous work has focused on younger adults. Finally, we use longitudinal data which contains indicators of past risky sexual behavior, so we can test the selection hypothesis more rigorously than has been done in the past. Although several other studies have done this very few of these longitudinal studies were on nationally representative samples.

METHODS

Data

We use data from four waves of the National Survey of Adolescent Males (NSAM) in our analyses. The survey began in 1988 with in-person interviews with a nationally representative sample of 1,880 never-married young men ages 15 to 19 that were living in households in the conterminous United States. The NSAM used a multistage, stratified sample that over-sampled African Americans and Latinos. Non-response was somewhat less common in African American households than European American households. We developed weights to compensate for non-response and were post-stratified to correspond with the March 1987 Current Population Survey. The second wave of the survey occurred in late 1990 and early 1991 when the respondents were ages 17 to 22. We completed 1,676 interviews for an 89 percent follow-up rate (not including 11 men who died between 1988 and 1990). Respondents were interviewed again in 1995 at ages 21 to 26. The third wave included 1,377 interviews, of which 1,290 were interviewed in all three waves.

In 2008 the fourth round of interviews began with living respondents. Interviews were completed by telephone with 634 men and in person with 449 men by the end of the field period in August 2010. In total 1,083 interviews were conducted, representing 61.8% of the original respondents who were not incarcerated, incapacitated or deceased. Seventy six of the original respondents were verified as deceased in the National Death Index; 43 were identified as incarcerated and therefore ineligible for interviews by the Johns Hopkins Bloomberg School of Public Health Institutional Review Board; and 8 were unable to complete an interview because of incapacitation. We developed longitudinal weights to adjust for non-response. Attrition analysis indicated that the 2008-2010 respondents are somewhat more economically advantaged than the original sample. The response rates were significantly lower among men who were African American and whose mothers were less educated; the response rate was also lower in the Northeast and Western regions of the country compared to the South and the Midwest.

We used data from the 1,083 men who responded to the fourth round data collection.

Measures

We have three outcome measures. The first is *number of partners in the last year* which is a dummy variable scored 1 if the man reported that he had vaginal intercourse with three or more female partners in the last 12 months and zero otherwise. The second is *risky partners in the last year* which is a dummy variable scored 1 if the man reported that he had sex with someone only one time, with a sex worker, with an injection drug user, with a man, with a person with HIV or AIDS or if the man himself did sex work all in the past 12 months. The third is *concurrency in the last year* which is a dummy variable scored 1 if the man reported that a man had 2 or more partners in at least 2 months of the past year.

We have two predictor variables. One is the man's *current union status* which distinguishes among three arrangements: married and living with spouse, cohabiting with a partner, and not in a sexual union.

The other predictor variable is an indicator of *risk behavior earlier in life*. Previously²⁶ we showed that: 1) men in the NSAM sample may be usefully divided into five groups reflecting distinct patterns of sexual behavior; 2) that two of these patterns are associated with STIs and thus may be classified

as high risk patterns; and that 3) men in the NSAM sample moved in and out of these groups as they made the transition to adulthood. To measure previous risk behavior, we use a variable that distinguishes among three groups: 1) men who *never* exhibited risk behavior in the past; 2) those who exhibited it only once or *experimenters*; and 3) those who *repeatedly* exhibited high risk sexual behavior that is associated with STD acquisition.

Control variables that we use at different points in the analysis are the man's ethnicity, mother's education, his own current education, his current employment status, his current or most recent wage. These were operationalized to reflect their (often non-linear) associations with the outcomes in exploratory bi-variate tabulations.

Analytic Strategy

In the introduction we proposed three hypotheses to explain the negative association between marriage and risky behavior. The first is the selection hypothesis. We test the selection hypothesis in three ways. First we examined whether or not the association between being in a co-residential union and low levels of risk behavior is different depending on past risky sexual behavior. If selection fully accounts for the low levels of sexual risk taken by people living with a partner, we expect that the association between union status and risky behavior would be attenuated when the sample is stratified by past risky behavior. Second, we directly examined the association between past risk behavior and current union status. If past risky sexual behavior does not predict union status, it is unlikely that selection is playing a big role. Third, we evaluate the association between union status and risky sexual behavior in models that control for past risk behavior.

To test the role socialization hypothesis, we compared risky behavior across those in the cohabiting and married states. There is a great deal of literature on how cohabitation differs from marriage along many dimensions²⁷ and there is evidence that cohabitation is not a fully institutionalized family form which means that the norms that guide people as partners (as opposed to spouses) are different and that they imply a lower level of commitment^{28 29}. If the role socialization hypothesis is correct, we expect to see that risk behavior is lowest among the married, second lowest among the cohabiting and highest among those who are unmarried.

To test the rational choice hypothesis, which is based on the idea that the higher level of behavioral monitoring among co-resident couples, compared to other couples, we compare risky behavior between married and cohabiting couples. If partner monitoring is the main reason why married people have lower levels of risk, then there is no reason to suppose that cohabiters would be different from those who are married and we therefore expect to see no differences in the association between married men and cohabiting men. If partner monitoring is not an important part of the reason why married people have lower levels of risk behavior then we would not expect to see any difference in risk behavior between those who are cohabiting and those outside a co-residential union. If both role socialization and partner monitoring is going on, then we would expect to find differences between all pairs of the three groups.

Our analytic methods are straightforward. We present univariate and bivariate statistics with weighted percents and unweighted Ns. We present multivariate multinomial models of union status to evaluate the association between past risky behavior and current union status and multivariate

logistic regression of the outcomes on union status. Our multivariate models are unweighted¹, but they include controls for ethnicity, which are the variables that were used to oversample.

RESULTS

Table 1, which contains univariate statistics for all variables in the analysis, shows that less than 10% of the men overall reported each of the risky sexual behaviors in the past year. By contrast, Table 1 also shows that almost half of men were ever in a high risk sexual behavior group in the past. This reflects the decline in risk behavior with age that we expected to see. Table 1 reveals that while current risky sexual behavior varies considerably by union status and by past risk behavior, there are very few differentials by background socioeconomic factors which surprised us.

The results of our first test of the selection hypothesis are in Table 2. Here we show that among men who exhibited different levels of past risk behavior (i.e. never exhibited, experimented, or repeated risk behavior) the association between being in a co-residential union and low levels of risky behavior is similar. Table 2 indicates that there is an association between past and current risk behavior, but it is smaller than the association with marital status as indicated by the fact that the levels of risk behavior among men outside unions with no history of past risk is higher than those for men who are repeat risk takers who are married.

Table 3 contains estimates of the association between past risky behavior and current union status in the form of odds ratios from a multinomial logistic regression in which the dependent outcome is current union status and past risky behavior is a predictor. The table shows that, net of a set of control variables (ethnicity, mother's education, education, employment, and wages) past risky behavior does predict current union status. The pattern is not exactly what we expected, however. In these data, men who exhibited risky behavior during the transition to adulthood were particularly likely to be *cohabiting* in their thirties, compared to either being married or being outside a union. There were no differences between those who were married and those outside a union with respect to past risky sexual behavior. Table 3 suggests that selection may account for the differences in risk behavior between cohabiting and married men (since cohabiting men were more likely to have exhibited risky behavior in the past), but is unlikely to explain the very large differences in behavior between the married men and those not in a union.

In Table 4 we show our estimates of the association between union status and current risky behavior in the form of odds ratios from logistic regressions of our three outcomes on union status, past risky behavior and ethnicity. Table 4 shows that married men exhibit lower levels of risky sexual behavior than either men in cohabiting unions or men outside a co-residential union². Moreover, men in a cohabiting union exhibit lower levels of risky behavior than men outside a union.

DISCUSSION

In summary, we found that, as expected, the overall levels of behavior that places one at risk of STIs is much lower among men in their thirties than among adolescents and young adults. We observed few disparities in these health outcomes by socioeconomic factors. This suggests that the health

¹ We ran all the analyses weighted and got similar results, so we present unweighted analyses because the estimates are more efficient.

² The odds ratio comparing married men to those in a cohabiting union with respect to number of partners (=0.45) just fails a test of significance ($p=0.06$)

inequalities that characterize younger men's risky sexual behavior do not persist into adulthood. This is a finding that definitely begs further exploration, which we are poised to do with our unique longitudinal dataset.

Despite the low overall levels of risky sexual behavior, we also found that among the 25% of men in their thirties outside co-residential unions, the levels of risky sexual behavior are almost as high as the levels reported in adolescence and young adulthood. Risky behavior does not decline equally for all groups of men, but the dimensions of this health inequality appear to be different than for younger men, where the traditional fault lines of ethnicity and class are apparent. Co-residential union status appears to be a major factor distinguishing men whose behavior is health promoting and men whose behavior places them at risk. Hence, our effort to unpack this association.

We found little support for the selection hypothesis. The association between marital status and levels of risky behavior was evident among all men, regardless of whether they exhibited risky behavior in the past or not. If selection was the full explanation for the marriage association, we would have found that once we stratified by past risk behavior, the association between union status and risky behavior disappeared. In fact, married men who repeatedly exhibited risky behavior in the past had very low levels of risk, and men outside co-residential unions who had never exhibited risk behavior in the past had relatively high levels of risky behavior. Moreover, when we examined selection directly by looking at the association between past risk behavior and current union status, we found that men who exhibited past risk behavior were especially likely to be in cohabiting unions, as compared to both married and men outside a co-residential union. Since cohabiting men (the most selected group) did not exhibit the highest levels of current risk, this is evidence against the selection hypothesis. Finally, the association between being in a co-residential union and low levels of risky behavior persisted in models that controlled for past risk.

We found some evidence for the role socialization hypothesis. Men who were married exhibited lower levels of risky behavior than other men. Most notably, their odds of having three or more partners, having risky partners or having a concurrent union were less than half of men in cohabiting unions. This suggests that there is a normative dimension to marriage, which inhibits risky sexual behavior, in ways similar to those that have been found for criminal behavior and substance use.

We also found support for the rational choice hypothesis that part of the association is due to partner monitoring. The evidence for this is that cohabiting men exhibit lower levels of risky sexual behavior than men outside co-residential unions, despite the fact that they are the group who are most likely to have exhibited such behavior in the past.

LIMITATIONS

In this paper we do not take advantage of the full union history data that will be available in the future for analyses of the NSAM. So for example, we do not control for marital and cohabiting history in this analysis. In future work we plan to examine the association between union history (as well as parenthood status) and levels of risk behavior.

CONCLUSIONS

First and foremost, our findings indicate that, at least for unmarried men, the idea that high risk sexual behavior is a characteristic of young men who desist over time in a developmental process that derives from brain maturation or other biological factors is false. In fact, our data suggest that some

men who exhibit high levels of risky sexual behavior during the transition to adulthood maintain those levels or even increase them as they age.

The nature of our data and analysis preclude firm causal statements about marriage and sexual risk behavior. We provide evidence that men who are in cohabiting unions in their thirties are disproportionately men who were sexual risk takers during the transition to adulthood, but are not the men who exhibit the highest levels of risk behavior currently. No matter what level of past risk men exhibited, the lowest levels of current risk behavior were found among married men, the second lowest among cohabiting men and the highest among men outside a residential union. These associations persist when past risk behavior is controlled. Our findings are consistent with the idea that institutional norms regarding marriage influence men to avoid risky sexual behavior, as evinced by the fact that married men have lower levels of risky behavior than cohabiting men. Cohabiting men do exhibit lower levels of risk than men outside a co-residential union, however, which suggests that part of the decline in risky behavior with age is due to the substitution of partners for parents as monitors of behavior.

Table 1. Univariate Statistics on Variables in the Analysis and Bivariate tabulations of Outcomes by Variables in the Analysis.

| | Distribution of Variables in the Analysis | | Weighted Percentages of Outcomes by Variables in the Analysis | | |
|---|---|--------------|---|----------------------------|---------------------|
| | Weighted Percent | Unweighted N | Three or More Partners in L12M | Any Risky Partners in L12M | Concurrency in L12M |
| | | | | | |
| Total | 100 | 1083 | 0.08 | 0.10 | 0.06 |
| Current Union Status | | | | | |
| married | 63.7 | 643 | 0.01 | 0.02 | 0.01 |
| cohabiting | 10.6 | 158 | 0.07 | 0.08 | 0.09 |
| not in co-residential union | 25.7 | 282 | 0.24 | 0.29 | 0.18 |
| Past Risk Behavior | | | | | |
| Never High Risk | 53.0 | 387 | 0.04 | 0.08 | 0.02 |
| Experimenters | 30.2 | 283 | 0.12 | 0.10 | 0.08 |
| Repeaters | 16.8 | 413 | 0.11 | 0.16 | 0.14 |
| Ethnicity | | | | | |
| European American | 76.1 | 499 | 0.07 | 0.10 | 0.06 |
| African American | 13.9 | 365 | 0.09 | 0.11 | 0.10 |
| Latino | 10.0 | 219 | 0.07 | 0.06 | 0.08 |
| Mother's Education | | | | | |
| High School Degree or More | 82.1 | 770 | 0.07 | 0.09 | 0.06 |
| Less than High School or Missing | 17.9 | 313 | 0.10 | 0.10 | 0.06 |
| Education | | | | | |
| Regular High School Degree or more | 89.5 | 923 | 0.08 | 0.09 | 0.07 |
| Less than High School or GED | 10.5 | 160 | 0.07 | 0.14 | 0.04 |
| Currently Employed | | | | | |
| Yes | 88.9 | 920 | 0.07 | 0.09 | 0.05 |
| No | 11.1 | 162 | 0.14 | 0.11 | 0.13 |
| Current or Most Recent Wage | | | | | |
| Lowest Quartile of U.S. Wage Distribution | 16.6 | 254 | 0.05 | 0.11 | 0.04 |
| Top Three Quartiles of U.S. Wage Distribution | 83.4 | 829 | 0.08 | 0.09 | 0.07 |

| Table 2. Outcomes by Past Risk Status and Current Union Status. | | | | | | |
|---|--------------|---------------------------------------|-------------------------|-------------------------|--------------------------|--|
| Current Union Status and Past Risk Behavior | Unweighted N | Weighted Percentage within Risk Group | 3 or More Partners L12M | Any Risky Partners L12M | Concurrent Partners L12M | |
| | | | Weighted Percentage | Weighted Percentage | Weighted Percentage | |
| Never High Risk | 387 | 100 | | | | |
| Married | 241 | 65.8 | 0.2 | 1.4 | 0.2 | |
| Cohabiting | 36 | 5.7 | 1.3 | 12.7 | 5.6 | |
| Not in Coresidential Union | 110 | 28.5 | 12.9 | 20.9 | 7.0 | |
| Experimenters | 283 | 100 | | | | |
| Married | 166 | 60.8 | 1.4 | 0.9 | 1.7 | |
| Cohabiting | 49 | 16.5 | 0.9 | 3.4 | 2.4 | |
| Not in Coresidential Union | 68 | 22.7 | 48.7 | 37.6 | 30.4 | |
| Repeaters | 413 | 100 | | | | |
| Married | 236 | 62.0 | 3.6 | 6.5 | 3.7 | |
| Cohabiting | 73 | 15.7 | 24.7 | 11.1 | 25.8 | |
| Not in Coresidential Union | 104 | 22.3 | 22.6 | 47.1 | 33.7 | |

| Table 3. Associations Between Past Risk Behavior and Other Variables on Union Status. | | | | |
|---|---|---------------------------|-----------------------------|--------------------------------|
| | | Married vs. Cohabiting | Married vs. Not in Union | Cohabiting vs. Not in Union |
| Past Risk Behavior | | | | |
| | Never High Risk | 1 | 1 | 1 |
| | Experimenters | 0.59 * | 1.19 | 2.03 * |
| | Repeaters | 0.64 | 1.24 | 1.94 ** |
| Ethnicity | | | | |
| | European American | 2.49 *** | 1.60 ** | 0.64 |
| | African American | 1 | 1 | 1 |
| | Latino | 1.76 * | 1.17 | 0.67 |
| Mother's Education | | | | |
| | High School Degree or More | 1 | 1 | 1 |
| | Less than High School or Missing | 0.79 | 0.96 | 1.22 |
| Education | | | | |
| | Regular High School Degree or more | 2.69 *** | 1.61 * | 0.60 * |
| | Less than High School or GED | 1 | 1 | 1 |
| Currently Employed | | | | |
| | Yes | 1.28 | 2.12 *** | 1.65 |
| | No | 1 | 1 | 1 |
| Current or Most Recent Wage | | | | |
| | Lowest Quartile of U.S. Wage Distribution | 0.46 *** | 0.37 *** | 0.81 |
| | Top Three Quartiles of U.S. Wage Distribution | 1 | 1 | 1 |

* p < 0.05

** p < 0.01

*** p < 0.001

Table 4. Association Between Union Status, Past Risk Behavior and Ethnicity with Outcomes.

| | | Three or More Partners in L12M | Any Risky Partner in L12M | Concurrency in L12M |
|--------------------|-------------------|--------------------------------|---------------------------|---------------------|
| Union Status | married | <u>0.45</u> | <u>0.18</u> *** | <u>0.30</u> ** |
| | cohabiting | 1 | <u>1</u> | 1 |
| | not in union | <u>5.62</u> *** | <u>3.85</u> *** | <u>2.35</u> ** |
| Past Risk Behavior | never high risk | 1 | 1 | <u>1.00</u> |
| | experimenter | 5.24 ** | 1.29 | 1.64 |
| | repeater | 5.00 ** | 1.86 * | 2.30 * |
| Ethnicity | European American | 0.94 | 1.13 | 0.78 |
| | African American | 1 | 1 | 1 |
| | Latino | 0.82 | 0.48 * | 1.17 |
| * p < 0.05 | | | | |
| ** p < 0.01 | | | | |
| *** p < 0.001 | | | | |

Underline signifies that the estimates for married and not in union are significantly different from each other

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