

# History of Forced Sex and Recent Sexual Risk Indicators Among Young Adult Males

**CONTEXT:** It is unclear whether young adult men who have ever been forced to have sex are at increased risk for sexual risk-taking, and whether their risk differs according to the gender of the perpetrator.

**METHODS:** Data from 1,400 males aged 18–24 who participated in the 2002 National Survey of Family Growth were used to determine the prevalence of a history of forced sex and the context of each respondent's most recent experience with such assaults. Logistic regression analyses were conducted to examine the relationship between victimization and having a recent indicator of sexual risk (e.g., having had sex in the past year with five or more female partners, a female injection-drug user or an HIV-positive female). Separate analyses were performed for coercion by females and coercion by males.

**RESULTS:** Six percent of men reported having been forced by a female perpetrator to have vaginal intercourse, while 1% said they had been forced by a male perpetrator to have oral or anal sex. Men had an elevated likelihood of having had one or more recent sexual risk indicators if they had ever been forced to have sex by a male (odds ratio, 6.9) or female (3.3). Verbal and physical forms of coercion and provision of alcohol and drugs were commonly used by perpetrators of both genders.

**CONCLUSIONS:** A better understanding of the pathways linking sexual victimization to sexual risk-taking among men is needed. Clinicians working with young men should screen them for victimization and provide STD testing and referrals for counseling if abuse is suspected or disclosed.

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Sexual victimization, defined as verbal or physical sexual coercion, is associated with immediate and long-term sequelae and is a significant public health problem in the United States. Numerous studies have found that young women who have a history of sexual victimization are more likely than their peers to engage in high-risk sexual behaviors—including having sex with multiple partners,<sup>1–5</sup> using alcohol or drugs during intercourse<sup>1,2</sup> and engaging in unprotected sex<sup>2,6,7</sup>—and to report having received an STD diagnosis.<sup>3,4</sup> However, relatively little research has examined whether sexual victimization during childhood or adolescence is associated with sexual risk behaviors later in life among males.<sup>8</sup> This paucity of research is alarming, as an estimated 4–20% of men in the general population have a history of sexual victimization.<sup>9–11</sup>

Moreover, very few studies of the relationship between male sexual victimization and subsequent risky sexual behaviors have used national samples. Most have focused on specific high-risk populations, such as men who have sex with men,<sup>12–15</sup> homeless youth<sup>16,17</sup> and clinic clients.<sup>18,19</sup> Among studies that have used broader samples, most have been school-based,<sup>20–23</sup> community-based<sup>10</sup> or state-level surveys;<sup>9</sup> one used a nationally representative, school-based sample.<sup>6</sup> Furthermore, none of these studies has examined the relationship between the perpetrator's gender and the victim's subsequent engagement in sexual

risk behaviors, even though in noncoercive contexts, partner characteristics are related to sexual risk-taking.<sup>24,25</sup>

Therefore, the purpose of this study was to examine the relationship between having ever been forced by a male or female perpetrator to have sex and having indicators of sexual risk among a nationally representative sample of males aged 18–24. We focused on this population because rates of sexual risk-taking behaviors<sup>26</sup> and STDs<sup>27</sup> are higher among young adult males than among any other age-group. We had three primary research questions: What is the prevalence of a history of forced sex, by gender of the perpetrator, among 18–24-year-old males? To what extent is such a history related to recent engagement in sexual risk behaviors in this population? Finally, what was the context of victimization (e.g., the type of coercion)?

## METHODS

### Data and Sample

We used data from the 2002 National Survey of Family Growth (NSFG) public and restricted-use data files. The NSFG focuses on the sexual and reproductive health and health care of individuals aged 15–44, and employs a multistage, stratified and clustered sampling design to ensure a nationally representative sample.<sup>28</sup> Blacks, Hispanics and 15–19-year-olds are oversampled to ensure adequate sample sizes for these groups. Individuals who are living

away from home while attending college are eligible for the survey.

The 2002 NSFG included 4,928 males aged 15–44. Female interviewers collected the public-use data via individual interviews and entered participants' responses into laptop computers.<sup>28</sup> Sensitive data related to sexual behaviors and experiences, including incidents of forced sex, were collected via audio computer-assisted self-interviews (audio-CASI). Data were weighted to adjust for oversampling and participant nonresponse and to ensure an unbiased, nationally representative sample. The weighted response rate for males was 78%.<sup>28</sup> This study was granted institutional review board exemption by Ohio State University.

The sampling frame for our analysis was the 1,426 male respondents aged 18–24. To ensure that any experiences of forced sex in the sample preceded other outcomes of interest, we excluded the six respondents who reported having had forced sex in the year before the interview. We also excluded the 20 respondents who did not provide complete data on all items of interest (loss of participants due to missing responses was minimal because the NSFG researchers used multiple imputation for missing data and recoded inconsistent responses before releasing the data). Thus, our analytic sample consisted of 1,400 men aged 18–24.

### Measures

• **Outcome.** The outcome of interest, recent sexual risk indicators, is a discrete variable consisting primarily of sexual risk behaviors. It is adapted from the Centers for Disease Control and Prevention's (CDC's) HIV/AIDS Reporting System, which defines sexual HIV risk behaviors (using broad categories rather than specific acts) as those that put persons at risk for acquiring or transmitting HIV.<sup>26</sup> This approach has been used in previous analyses of self-reported survey data.<sup>29,30</sup> Respondents were classified as having had a sexual risk indicator in the year preceding the interview if they reported that during that period, they had had oral, anal or vaginal sex with five or more female partners, with a female injection-drug user or with an HIV-positive female; had oral or anal sex with one or more male partners; exchanged money or drugs for sex; or received an STD diagnosis.

• **Covariates.** The primary covariates of interest were having a history of forced sexual intercourse by a male perpetrator and having a history of forced sexual intercourse by a female perpetrator. These measures were derived from NSFG items asking whether the respondent had ever been forced by a male to have oral or anal sex and whether he had ever been forced by a female to have vaginal intercourse. We decided to create two variables because one of our primary interests was to examine the associations between having been forced to have sex by a perpetrator of a particular gender and subsequently engaging in sexual risk-taking.

Previous research and theory suggest that certain social and demographic characteristics and nonsexual risk

**TABLE 1. Percentage distribution of men aged 18–24, by selected characteristics, 2002 National Survey of Family Growth**

Characteristic	% (N=1,400)
<b>Race and ethnicity</b>	
Hispanic	19.0 (1.9)
Black	12.8 (1.4)
White	62.6 (2.6)
Other	5.6 (0.9)
<b>Marital status</b>	
Unmarried/not cohabiting	79.0 (1.7)
Unmarried/cohabiting	10.4 (1.0)
Married	10.6 (1.5)
<b>Lives in metropolitan area</b>	
Yes	81.9 (3.6)
No	18.1 (3.6)
<b>Income as % of poverty level</b>	
≤100	19.5 (1.4)
101–200	24.0 (1.6)
201–300	13.4 (1.3)
301–400	19.7 (1.6)
≥401	23.4 (1.7)
<b>Binge drinking in past year</b>	
Never	34.4 (2.0)
1–2 times	14.3 (1.4)
Several times	12.8 (1.1)
Monthly	14.9 (1.2)
Weekly	20.9 (1.5)
Daily	2.7 (0.6)
<b>Marijuana use in past year</b>	
Never	61.0 (1.7)
1–2 times	11.4 (1.0)
Several times	5.4 (0.7)
Monthly	5.0 (0.9)
Weekly	6.3 (0.8)
Daily	11.0 (1.1)
<b>Had forced sex with female</b>	
Yes	6.1 (0.9)
No	93.9 (0.9)
<b>Had forced sex with male</b>	
Yes	1.4 (0.4)
No	98.6 (0.4)
<b>Sexual risk indicators in past year</b>	
None	85.0 (1.3)
Any	15.0 (1.3)
Had sex with ≥5 female partner†	7.2 (0.8)
Had sex with female injection-drug user†	1.7 (0.4)
Had sex with HIV-positive female†	0.5 (0.2)
Had ≥1 male partner	0.5 (0.5)
Exchanged sex for money or drugs	2.3 (0.5)
Received STD diagnosis	4.8 (0.7)
Total	100.0

†Refers to vaginal, oral or anal sex. Notes: All data are weighted. Percentages may not total 100.0 because of rounding. Numbers in parentheses are standard errors.

behaviors are associated with young men's engagement in sexual risk behaviors;<sup>26</sup> thus, these characteristics served as control variables. The social and demographic factors included in this study are race and ethnicity (Hispanic, non-Hispanic black, non-Hispanic white and other), family income as a percentage of the federal poverty level (0–100%, 101–200%, 201–300%, 301–400% and greater

than 400%), current marital status (married, unmarried and cohabiting, or unmarried and not cohabiting) and residence in a metropolitan area (yes or no). In addition, we created two continuous variables to measure the frequency with which respondents had engaged in binge drinking (five or more drinks on one occasion) and marijuana use during the year before the survey. Response options for both variables were “never,” “once or twice during the year,” “several times during the year,” “about once a month,” “about once a week” and “about once a day.”

• **Context of forced sex.** Respondents who reported a history of forced sex were asked how old they had been when the last episode of forced sex had occurred and the manner in which they had been coerced. Response options for the latter item were that the respondent had been physically hurt, physically held down, physically threatened, pressured verbally but not physically threatened, told the relationship would end if he did not have sex or given alcohol or drugs by the perpetrator, or that the perpetrator was older or bigger than the respondent. The respondent could select multiple options.

### Analyses

Statistical analyses were conducted using SAS version 9.1 survey procedures to adjust for the complex sampling design. All analyses used sampling weights. We tested for multicollinearity prior to analysis and found no influential correlations between the variables.

We began by conducting descriptive analyses to explore study participants’ characteristics, including their experiences of forced sex and their sexual risk indicators. We conducted multivariate logistic regression analyses to examine the associations between young men’s history of forced sex (by gender of the perpetrator) and their indicators of sexual risk in the past year. Lastly, we performed descriptive analyses of the context of the most recent episode of victimization among respondents who reported a history of forced sex.

## RESULTS

The majority of the young men in the sample were white (63%), single (79%) and living in a metropolitan area (82%—Table 1). Nearly half (44%) reported a family income that was twice the federal poverty level or less. Thirty-four percent said they had not engaged in binge drinking during the past year, and 61% had not smoked marijuana during that time. Six percent of respondents reported having ever been forced to have vaginal intercourse by a female, and 1% having been forced to have oral or anal sex by a male. Lastly, 15% of young men had had one or more indicators of sexual risk during the year preceding the interview; the most commonly reported such behavior was having had sex with five or more female partners.

Multivariate logistic regression analyses (Table 2) revealed that young men had elevated odds of having had a sexual risk indicator in the past year if they reported a his-

**TABLE 2. Adjusted odds ratios (and 95% confidence intervals) from logistic regression analysis examining associations between young men’s characteristics and their having had at least one sexual risk indicator in the past year**

Characteristic	Odds ratio
<b>Had forced sex with female</b>	
Yes	3.30 (1.69–6.47)***
No (ref)	1.00
<b>Had forced sex with male</b>	
Yes	6.93 (2.51–19.1)***
No (ref)	1.00
<b>Race and ethnicity</b>	
Hispanic	2.16 (1.44–3.24)***
Black	2.75 (1.62–4.67)***
White (ref)	1.00
Other	0.34 (0.11–1.12)
<b>Marital status</b>	
Unmarried/not cohabiting	1.77 (0.83–3.77)
Unmarried/cohabiting	1.94 (0.76–4.99)
Married (ref)	1.00
<b>Lives in metropolitan area</b>	
Yes	1.08 (0.69–1.67)
No (ref)	1.00
<b>Income as % of poverty level</b>	
≤100	1.57 (0.90–2.72)
101–200	0.94 (0.51–1.75)
201–300	1.21 (0.55–2.67)
301–400	0.68 (0.36–1.28)
≥401 (ref)	1.00
<b>Binge drinking in past year</b>	1.33 (1.17–1.50)***
<b>Marijuana use in past year</b>	1.15 (1.02–1.28)*
<i>Wald F</i>	151.07***

\*p<.05. \*\*\*p<.001. Note: ref=reference group.

tory of forced vaginal intercourse by a female perpetrator (odds ratio, 3.3) or a history of forced oral or anal sex by a male perpetrator (6.9). In addition, the odds of having had a sexual risk indicator in the past year were greater among Hispanic (2.2) and black (2.8) respondents than among whites, and they rose with increasing frequency of binge drinking or marijuana use (1.3 and 1.2). Sexual risk indicators were not associated with income, marital status or residence in a metropolitan area.

Of the 94 young men who reported that they had been forced by a female perpetrator to have vaginal sex, 29% had been younger than 15 when they were last victimized, 31% had been aged 15–17 and 41% had been 18–22 years old (Table 3, page 90). When asked about the type of coercion, young men who had been victimized by a female most commonly reported that they had been verbally pressured (56%), given alcohol or drugs (47%) or physically held down (31%).

Only 23 young men said that they had ever been forced by a male perpetrator to have oral or anal sex. Of these, 71% had been younger than 15 at the time of the most recent incident, 15% had been aged 15–17 and 14% had been 18–22 years old. Respondents who had been victimized by a male most commonly reported that they had

**TABLE 3. Percentage distribution of sexually victimized males aged 18–24, by age at last incident, and percentage of these men reporting selected forms of coercion at last incident—all according to sex of perpetrator**

Measure	Female (N=94)	Male (N=23)
<b>Age at forced sex</b>		
≤14	28.7 (8.1)	70.6 (9.8)
15–17	30.8 (5.9)	15.5 (6.3)
18–22	40.5 (7.5)	13.8 (9.3)
Total	100.0	100.0
<b>Form of coercion†</b>		
Physically hurt	11.1 (4.5)	14.6 (6.4)
Physically held down	30.8 (6.9)	39.6 (17.4)
Physically threatened	13.3 (5.2)	41.5 (17.2)
Pressured verbally	56.1 (7.1)	57.1 (10.4)
Told relationship would end	17.5 (5.3)	15.6 (10.4)
Perpetrator was older/bigger	25.7 (5.7)	59.2 (14.5)
Given alcohol or drugs	46.6 (7.8)	46.2 (17.3)

†Respondents could report multiple types of coercion. Notes: All data are weighted. Percentages may not total 100.0 because of rounding. Numbers in parentheses are standard errors.

been forced to have oral or anal sex because the perpetrator had been older or bigger (59%), or because they had been pressured verbally (57%), had been given alcohol or drugs (46%), or had been physically threatened (42%) or held down (40%).

## DISCUSSION

In this nationally representative sample, young men who reported a history of forced sex, whether perpetrated by a male or by a female, were more likely than young men without such a history to have had a sexual risk indicator in the past year. This finding is consistent with findings of previous research that used school-based,<sup>20–23</sup> community-based<sup>10</sup> or state-level samples of men,<sup>9</sup> or nationally representative samples of adolescent males.<sup>2</sup> However, to our knowledge this study is the first to use a nationally representative sample of young adult males to examine the associations between having been forced to have sex and subsequently having a sexual risk indicator. Our findings do not suggest that the likelihood of sexual risk-taking varies according to the gender of the perpetrator. However, further research using larger samples of men with a history of sexual victimization is needed so that potential gender differences may be detected.

Overall, 6% of the young men in this study reported that they had been forced by a female perpetrator to have vaginal sex, and 1% reported that they had been forced by a male perpetrator to have oral or anal sex. Though these rates are similar to those from other studies on male sexual victimization,<sup>9,10</sup> they must be interpreted with caution. They are most likely conservative estimates, as sexual victimization is generally underreported, especially by men,<sup>11,30</sup> who may be concerned about stigma or feel shamed. In addition, men's willingness to discuss abuse may vary according to the perpetrator's gender. For example, Weiss found that only 15% of male victims in the National Crime Victimization Survey had reported the assault to police—

22% of those victimized by a male and just 7% of those victimized by a female.<sup>11</sup> This difference may reflect that male perpetrators were more likely than female perpetrators to have been strangers, to have used a weapon and to have physically injured the victim.<sup>11</sup> Although we could not examine disclosure of victimization in our sample because of data restrictions, we did find that a substantial proportion of victims of male perpetrators had been physically restrained or threatened. Cultural perceptions also may play a role in shaping a man's willingness to disclose his victimization; having been assaulted by another male may threaten a male victim's heterosexual identity, while victimization by a female may threaten his masculinity.<sup>11,31</sup> Consequently, providers should screen their male patients for a history of sexual violence, rather than relying on them to disclose such experiences on their own, and researchers should consider using data collection measures that enhance confidentiality, such as audio-CASI.

We found that young adult males with a history of sexual victimization were more likely than their peers to have an indicator of recent sexual risk. Similarly, several studies have reported that male adolescents who have been sexually victimized are more likely than others to engage in sexual risk behaviors, including having sex with multiple partners.<sup>2,21,23</sup> These corresponding findings between different age-groups indicate that longitudinal studies are needed to examine the long-term implications of sexual victimization. In addition, the findings again underscore the need for health care providers to screen male patients for a history of sexual violence, particularly if these patients engage in high-risk sexual behaviors, and to refer them for mental health counseling if abuse is suspected or disclosed.<sup>8</sup> Screening for HIV and other STDs may also be needed, depending on the nature and timing of the victimization, the patient's current sexual risk-taking and his screening history.

Finally, the relationship between men's experiences of sexual violence and their subsequent sexual risk indicators is an understudied public health problem.<sup>8</sup> A better understanding of the pathways linking sexual victimization to sexual risk-taking is critically needed, and longitudinal studies should examine factors that might mediate this relationship, including posttraumatic stress reactions to the forced sex, counseling, disclosure (or nondisclosure) of victimization and social support. In addition, research is needed on the context of victimization, particularly regarding the relationship between the victim and the perpetrator. For example, the victim's immediate and long-term reactions to a sexual assault may depend in part on whether the perpetrator was a trusted partner, an acquaintance or a stranger. Moreover, the form of the assault—which may range from fondling and kissing to penetrative sex—may influence the victim's reaction. The type of coercion used (verbal or physical) is also an important factor for further study, as are the length of time over which the assaults (if more than one) occurred, age differentials between the victim and the perpetrator, and whether the victim was assaulted by multiple perpetrators.

## Limitations

Our study had several limitations. First, the data were retrospective and cross-sectional. Victims' recall may not have been accurate for events that had occurred several years prior to the interview, and we could not assess causality between victimization and sexual risk indicators. In future studies, researchers may consider using longitudinal designs or propensity score matching to better assess causal associations.<sup>32</sup> Second, although we used a nationally representative data set, the number of young men who reported a history of forced sex was small, particularly for assaults involving a male perpetrator. Larger samples are needed to provide the statistical power that will allow a fuller exploration of the relationship between the perpetrator's gender and the victim's sexual risk indicators.

Third, because of the nature of the NSFG data, our study was limited to examining forced vaginal sex with female perpetrators and forced oral or anal sex with male perpetrators. Associations between other forms of sexual victimization and coercion or subsequent sexual risk-taking should be explored in future studies. In addition, the ordering of the questions in the NSFG may have influenced responses. For example, participants were asked if they had ever been forced to have sex; if they said yes, they were given a list of forms of coercion and asked to specify the ones they had experienced. Given the social and cultural uncertainty regarding the definition of sexual assault, respondents who did not see the list may not have recognized that they had been victimized. Thus, incorporating contextual information in questions about abuse may lead to a more accurate representation of this underreported public health problem.

Finally, although our outcome of interest was adapted from the CDC's definition of sexual HIV risk behaviors, the measure excluded behaviors that are protective, such as condom use at last intercourse and consistent condom use. These protective behaviors are important to consider.

## Conclusion

A greater understanding of male sexual victimization is crucial. Though this study is an important first step, further research is needed, including work that focuses on the social and contextual factors related to male sexual victimization and on differential reactions to the victimization. By improving their understanding of male sexual victimization, researchers and practitioners can help men take steps to reduce their sexual risk-taking and their risk of HIV and other STDs.

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