# Sexual Assault as a Crime Against Young People 

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#### Abstract

Evidence based on almost 300,000 sexual assaults from the National Incident-Based Reporting System showed that the modal age of victims was 15 years, regardless of the age of the offender, the gender of the offender, or the gender of the victim. We suggest that adolescents have the highest risk of victimization because of their sexual attractiveness, vulnerability, and exposure to motivated offenders. As a result of these factors, sexual assault is as much an offense against young people as it is against women. The sexual attractiveness of young people also has implications for the age of offenders. Older men have much higher rates of offending than one would expect, given the age-desistance relationship. Thus, we found that older men have much higher rates of sexual assault than physical assault. Finally, evidence suggested that homosexual men were at least as likely as heterosexual men to commit sexual assault. The pattern suggests that the tendency for sexual assaults to involve male offenders and female victims reflects male sexuality rather than attitudes toward women.


Keywords Sexual assault - Adolescents •
Evolutionary theory • Routine activities • Age

## Introduction

Rape and other sexual assaults typically involve male offenders and young female victims (e.g., Amir, 1971; Felson \& Krohn, 1990; Lalumiere, Harris, Quinsey, \& Rice, 2005; Palmer, 1991; Spivack, 2011; Thornhill \& Thornhill, 1983). In this research, we examined age and gender patterns more extensively. We used an extremely large data set that allowed us to examine incidents involving offenders and victims of different ages, and incidents involving all four gender combinations. We also compared age patterns in sexual and physical assaults. We argue that these patterns have implications for understanding the basic nature of sexual assault.

## Age of Victims

The tendency for men to sexually assault young women has been attributed to male preference for sexually attractive women (e.g., Ageton, 1983; Felson, 2002; Palmer, 1988). ${ }^{1}$ Research has shown, not surprisingly, that young women are perceived as more physically attractive than older women (Harris, 1994; Henss, 2006; Mathes, Brennan, Haugen, \&

[^0]Rice, 1985; Mathews, Bancroft, \& Slater, 1972; Williams, 1975). ${ }^{2}$

It is also likely that opportunity factors help to explain why victims tend to be young (Felson, 1998; Kimmel, 2003; Travis, 2003). Young people engage in routine activities that increase their contact with potential offenders and thereby increase their risk of crime victimization generally. For example, going out with friends at night increases dramatically from age 11 until age 18 and then begins to decline (Felson, 1998; Warr, 1993). Night time activity continues to decline in middle age and old age (e.g., Bureau of Labor Statistics, 2011). This pattern would produce a curvilinear relationship between age and victimization.

Vulnerability is another opportunity factor that has a curvilinear relationship with age. Children have greater vulnerability than adults because of their smaller size, naiveté and perhaps their lower credibility, should they report the offense. Evidence suggests they are less likely to resist sexual assault than adults (Siegel, Sorenson, Golding, Burnam, \& Stein, 1987). Young adults may be the least vulnerable because of their physical strength and vigor (Palmer, 1988) and their greater tendency to respond to an attack with violence. Montoye and Lamphiear (1977) found that physical strength peaks in the early-20s for males and the mid-20s for females (see also Clement, 1974).

Studies of the risk of sexual assault during other crimes suggests that young women are much more likely to be victimized than older women even when they have similar levels of contact and vulnerability. For example, Felson and Cundiff (2012) used the National Incident-Based Reporting System(NIBRS) to examine the effects of age of the victim on whether male offenders committed sexual assaults during robberies of female victims. They found that male offenders were most likely to commit sexual assault while robbing women between the ages of 15 and 29 years (see also Felson \& Krohn, 1990). This pattern was observed regardless of the age of the offender. Other research has shown that female homicide victims who had been raped were younger than female homicide victims who had been the victim of theft (Shackelford, 2002; Wilson, Daly, \& Scheib, 1997). The age pattern observed in these studies supports the idea that opportunity factors cannot fully explain why the victims of sexual assault tend to be young women. The sexual attractiveness of young women seems to be the most convincing explanation of the strong age pattern that remains when opportunity factors are controlled.

Male preference for young women in sexual assault is also observed in consensual sexual activities not affected by the age preferences of the other party. Age-related sexual attractiveness explains why models, prostitutes, erotic dancers, and actresses in

[^1]the pornography business are overwhelmingly young (e.g., Bogaert, Turkovich, \& Hafer, 1993). Age-related sexual attractiveness also explains why compensation for sex work declines as women age (Edlund \& Korn, 2002).

## Age of Offenders

The sexual attractiveness of young people may also have implications for the age of offenders. Age has been found to have a strong negative relationship with violent criminal behavior (e.g., Hirschi \& Gottfredson, 1983). ${ }^{3}$ Felson, Cundiff, and PainterDavis (2012), however, suggested that sexual assault might be an exception to the age-desistance curve. They examined the issue in aNIBRS-based study of male on male sexual assaults occurring in prisons and jails. Felsonet al. suggested that older inmates commit more sexual assaults than expected given the age-desistance curve. They based their argument on Merton's (1938) blocked opportunity theory. This classic theory suggests that people are likely to turn to crime when their opportunities to achieve their goals using legitimate means are blocked. Felson et al. argued that older men were not able to obtain consensual sexual partners in prison because they were not sexually attractive or sexually tolerable to other inmates. Younger male inmates were more likely to be viewed as suitable alternatives to women, while older men were beyond the latitude of acceptance. This barrier to opportunity increased the tendency of older inmates to commit sexual assault and to target younger inmates. In support, they found that older inmates were much more likely than younger inmates to commit a sexual assault than a physical assault. The comparison between sexual and physical assault permitted them to control for the effects of age-desistance.

Felson et al. (2012) suggested that the blocked opportunity approach to sexual assault might apply outside of correctional settings. Older men have almost as strong a sexual attraction to younger women as do younger men, according to the literature on sexual attractiveness cited earlier. However, since young women tend not to be sexually attracted to older men, older men do not have sexual access to young women. ${ }^{4}$ While prostitutes provide older men opportunities for consensual sex with young women, their services are expensive. As a result, some men use illegitimate means, i.e., sexual assault, to satisfy their conventional aspirations.

## Gender of Offenders and Victims

The gender profile of sexual assaults is very different from other violent crime. Sexual assaults are much more likely to involve

[^2]male offenders and female victims. We can imagine two explanations for why this gender pattern is distinctive. First, men may target women because of their attitudes toward women. It is variously argued that rapists are men with sexist attitudes who want to dominate women, feel hatred toward women, feel a sense of entitlement, or think that they can evade punishment because society tolerates the offense (e.g., Brownmiller, 1975; Burt, 1980; Koss et al., 1994). Evidence is mixed, but some studies have found correlations between negative attitudes toward women and measures of sexual coercion (e.g., Malamuth, 1986). On the other hand, it may be that men who commit sexual assaults have anti-social attitudes generally (Lalumiere \& Quinsey, 1996; Spivack, 2011). In addition, evidence suggests that the predictors of rape and other crimes are similar and that rapists tend to commit other crimes as well. To the extent that rapists are versatile offenders, the role of special attitudes toward women is less significant (Felson, 2002).

Gender patterns in sexual assault could also be due to the nature of male sexuality and its relationship to female sexuality. The high rate of female victimization could be due to the fact that most males are heterosexual. Perhaps if rates of heterosexuality and homosexuality were equal, men would have just as high a victimization rate as women. The higher rate of male sexual offending relative to other types of offending could be due to the tendency for males to have a stronger sex drive than females and to their tendency to be much more indiscriminate and casual in their attitudes toward sexual relations (e.g., Baumeister, 2000; Buss, 2000; Schmitt, 2005; Schmitt et al., 2012).The literature showing strong sex differences in sexuality is extensive and consistent. Males think about and desire sex more often, report spontaneous sexual desire more often, initiate sex more often, refuse it less often, rate their sexual urges as stronger, and are less likely to cite lack of interest and enjoyment as a reason for not having sex. Large gender differences in the tendency to engage in masturbation and casual intercourse have been shown in a meta-analysis of a large number of studies (Oliver \& Hyde, 1993; Petersen \& Hyde, 2010). ${ }^{5}$ In contrast, females are more likely to insist on some commitment or closeness before engaging in sexual relations (Clark \& Hatfield, 1989; Eysenck, 1976; Simpson \& Gangestad, 1991). These differences have also been revealed in studies of gender differences in sexual fantasies (Ellis \& Symons, 1990). Finally, research has showed that gay men engage in sexual behavior much more frequently than lesbians (Schäfer, 1977). Same-sex liaisons provide a window for viewing male and female sexuality, because they do not reflect a compromise (Symons, 1979).

If sexual assault reflects male sexuality rather than male attitudes toward women, homosexual men should be just as

[^3]likely to commit sexual assault as heterosexual men. Heterosexual assault is more frequent because most men are heterosexuals, not because of negative attitudes toward women. On the other hand, if sexual assault reflects male attitudes toward women, we would expect that heterosexual men are more likely to sexually assault women than homosexual men are to assault men. Rates of heterosexual assault should, therefore, be much higher than rates of homosexual assault, once one controls for the fact that most men are heterosexual.

## Gender and Age

Men's sexual attraction toward young women has sometimes been characterized as a reflection of men's tendency to treat women as sex objects. Sex objectification supposedly occurs when a woman is viewed primarily as a physical object of male sexual desire (e.g., Bartky, 1990; Fredrickson \& Roberts, 1997). It may be, however, that male attraction to young people is a characteristic of male sexuality that is observed regardless of whether the object of desire is a male or female. Studies of personal ads have found that gay men have at least as strong a preference for young partners as heterosexual men and perhaps stronger (Burrows, 2013; Hayes, 1995; Kaufman \& Phua, 2003; Kenrick, Keefe, Bryan, Barr, \& Brown, 1995).

We are aware of only two studies that have examined age patterns in male on male sexual assault. Felson and Krohn's (1990) analysis of 89 incidents from the National Crime Survey Data found that the victims of male on male rape tended to be young. Felson et al.'s (2012) study of sexual assaults in correctional facilities found that male inmates of all ages tended to victimize young men ages $18-19$, the youngest age group in the sample. In addition, the victims of sexual assault were much younger than the victims of physical assault, suggesting that the sexual attractiveness of young men played an important role in their victimization.

Women also tend to be sexually attracted to young people, but they are less oriented to age and sexual attractiveness than men (Hayes, 1995; Silverthorne \& Quinsey, 2000; Townsend \& Wasserman, 1997, 1998). If the preference for young people reflects male sexuality rather than attitudes toward women, then men who commit heterosexual or homosexual assaults should prefer young people. Women may also have this preference when they commit sexual assault, but their preference should be weaker than men's preference. To our knowledge, no one has examined age patterns in offenses committed by women.

## Current Study

We addressed these basic issues by examining age and gender patterns in a sample of sexual assaults and by comparisons of sexual assault with physical assault. We first examined whether heterosexual males were more likely to commit sexual assault than homosexual males. While we did not have a measure of
sexual orientation, evidence suggests that most men who sexually assault other men are homosexuals (Hickson, Davies, Hunt, Weatherburn, \& McManus, 1994; Mezey \& King, 1989). In addition, NIBRS identifies hate crimes and only one incident of same-sex sexual assault in this data set was identified as a hate crime. Therefore, it was reasonable to assume that men who sexually assaulted men were mostly homosexuals and the men who sexually assaulted women were mostly heterosexuals. We could then compare the percentage of males who sexually assaulted other males to estimates of the percentage of homosexuals in the general population.

Estimates of the frequency of homosexuality vary depending on the measure used but, according to one authoritative source, $2.6 \%$ of men reported that they had exclusively same sex partners over the past five years (Black, Gates, Sanders, \& Taylor, 2000; Laumann, Gagnon, Michael, \& Michaels, 1994). Therefore, if 2-3 \% of victims of sexual assault are male, it will suggest that homosexual men are just as likely as heterosexual men to engage in sexual assault. That pattern will imply that sexual assaults reflect male sexuality rather than special attitudes toward women.

Second, we examined female risk of victimization at different ages by males at different ages. We expected that men of all ages will tend to sexually assault young women. The literature suggests that young women are victimized because of their sexual attractiveness, but opportunity factors likely also play a role.

Third, we examined whether the tendency to sexually assault young people was observed for all four gender combinations. If male attraction to young people reflects male sexuality, we should find that the males target young men and women, and that they show a stronger preference for young people than do female offenders. On the other hand, a finding that male offenders are more likely to target young women than young men, and that female offenders show a weaker preference, implies that the age preference reflects male attitudes toward women.

Finally, we examined the effects of age of victims and offenders on whether an assault involved sexual violence. Following Felson et al.'s (2012) analysis of assaults in correctional facilities, we estimated a logistic regression where the outcome was sexual assault versus physical assault. We predicted that sexual assaults were more likely to involve younger victims. The sexual victimization of young people reflects the effects of sexual attractiveness controlling for the effects of vulnerability and contact. Note, however, that this is a conservative test since one can assume that young people are more likely to provoke physical assaults. We also hypothesized that older offenders have a relatively high rate of sexual assault because they lack sexual access to young women. Their deficit in sexual attractiveness blocks their opportunity for consensual relationships with the men and women they find to be the most sexually attractive. As a result, they should be more likely to commit sexual assault than one would expect, given that the tendency to
commit violence declines with age. A comparison of sexual and physical assault essentially controls for this tendency.

In sum, we made six hypotheses about gender and age patterns:

H1 Rates of homosexual assault by male offenders are at least as high as rates of heterosexual assault.

H2 Male offenders of all ages tend to target young women.
H3 The tendency for men to target young people is observed regardless of the victim's gender.
H4 Male offenders are more likely than female offenders to target young people.

H5 The victims of sexual assaults tend to be younger than the victims of physical assault.
H6 Men who commit sexual assaults tend to be older than men who commit physical assaults.

## Method

## Sample

The current study was based on eight years (2000-2007) of data from the NIBRS. NIBRS is administered by the Federal Bureau of Investigation. To insure the quality of the data, the FBI conducts a series of data quality checks after receiving submissions from reporting agencies. If errors in reporting are found, the incident report is rejected (see Justice Research and Statistical Association, 2012). As of 2007, 6,444 law enforcement agencies contributed to NIBRS, representing $25 \%$ of the U.S. population. Our sample contained 294,484 incidents of sexual assault involving a single victim and single offender. We limited our analyses to offenders over the age of 12 years.

Incidents were included if they were categorized as forcible sex offenses: forcible rape, forcible sodomy, sexual assault with an object, and forcible fondling. Rapes of female victims involved attempted or actual penile-vaginal penetration, whereas rapes of male victims involved forcible sodomy. Other sexual assaults included assaults with an object and forcible fondling. We excluded cases charged as incest or statutory rape, since these were separately identified as nonforcible offenses. Note, however, that some of the sexual assaults involving children could involve manipulation or limited force; they may be charged as assaults since the legal system treats children as incapable of consent.

NIBRS is well-suited for the current study because it produces a sample large enough to examine sexual assaults involving all four gender combinations. The main limitation of NIBRS for our purposes is that it only included incidents reported to the police. We consider the implications of underreporting in supplementary analyses.

## Procedure

We first computed the percentage of males who sexually assaulted male victims (vs. female victims) and compared it to estimates of the percentage of men who are gay in the population. We then examined the age distribution of victims for sexual assaults committed by men against women, male offenders of different ages, and sexual assault involving all four gender combinations. Finally, we merged a file of incidents of physical assault to our file on incidents of sexual assault. We then used logistic regression to examine the impact of age of offender and victim on whether the incident involved a sexual assault or a physical assault. Our equations included controls for victim and offender race, victim and offender gender, and victim-offender relationship.

## Measures

For our regression analyses, victim ages were grouped into the following categories: $0-9 ; 10-14 ; 15-19 ; 20-24 ; 25-29 ; 30-34$; $35-39 ; 40-44$; and 45-98 years old. Offender ages were categorized as follows: 12-17; 18-29; 30-39; 40-49; 50-59; and $60-98$ years old. Race of offender and victim were coded as white, black, or other. Gender of offender and victim was coded in terms of gender combinations: male-on-male; male-onfemale; female-on-male; and female-on-female. The victimoffender relationship was grouped into four categories: partner or ex-partner; family member; other known; and stranger.

Table 1 Statistical characteristics of rapes and other sexual assaults

| Variable | Rape percent | Other sexual <br> assaults percent |
| :--- | :--- | :--- |
| Male offender | 98.29 | 95.46 |
| Male victim | 7.72 | 13.63 |
| Female victim | 92.28 | 86.37 |
| Female offender | 1.71 | 4.54 |
| $\quad$ Male victim | 80.40 | 44.59 |
| Female victim | 19.60 | 55.41 |
| $\quad$ Victim-offender relationship |  |  |
| Stranger | 9.95 | 8.07 |
| Non-stranger | 90.05 | 91.93 |
| Weapon-use |  |  |
| Gun | 1.31 | 0.15 |
| Other weapon | 5.73 | 3.75 |
| No weapon | 92.96 | 96.10 |
| Modal age of victim | 15.00 | 14.00 |
| Modal age of offender | 18.00 | 14.00 |
| $N$ | 151,372 | 143,112 |

## Results

In Table 1, we present a frequency distribution for rapes and other sexual assaults. The results suggest that $7.72 \%$ of males target other males. Note that that estimate is very close to Felson and Krohn's (1990) estimate of the percent male victims based on victimization data $(7.3 \%)$. The percentage of males who targeted other males was even higher for other types of sexual assault ( $13.63 \%$ ). Since the estimate of the percentage of males who are exclusively homosexual is lower ( $2.6 \%$ ), the pattern supports Hypothesis 1. Rates of homosexual assault were at least as high as rates of heterosexual assault.

Table 1 also shows that most offenders were males and that most attacked someone they knew. It also shows that very few offenders used weapons: about $7 \%$ of rapists and $4 \%$ of offenders who commit other sexual assaults. This suggests that in most incidents offenders used strong-arm tactics and physical intimidation. As a result, vulnerability related to physical strength is likely to be an important risk factor for sexual assault.

## Age and Female Risk of Sexual Assault by Males

In Fig. 1, we examined the effect of a female's age on her risk of rape and other sexual assaults by a male. To adjust for the age distribution in the population, we divided the number of sexual assaults by the number of females in that age group according to the 2000 Census. This age-adjustment allowed us to calculate relative risk ratios for each age group. We then calculated the percentage of victims in each of those age groups.

Figure 1 suggests dramatic age differences in risk of victimization. Females at ages 15-19 were at the greatest risk of rape by males. For example, a female was 8.93 times more likely to be raped by a male if she was 15 than if she was 35 . Victimization rates dropped after ages 15-19 until about age 55, when rape victimization became extremely rare. The results were generally similar for rape and sexual assault. However, they demonstrated that rape peaks at a later age than other sexual assault. Assaults on children were less likely to involve rape while assaults on young women were slightly more likely to involve rape.

Surprisingly, females at age 10-14 were at greater risk of both types of sexual assault than females in their early 20s. Thus, a 12 year old girl, who usually is not sexually mature, was at a greater risk of rape and other sexual assault than a 22 year old woman. In addition, the dramatic decline in risk of victimization observed after age 20 was too large and occurred too early to be explained by a decline in sexual attractiveness. For example, a 15 year old girl was 4.76 times more likely to be raped by a male than a 25 year old woman.

## Age of Victim and Age of Offender

Figure 2, depicts female risk of sexual assault at different ages by males of different ages. We combined rape and other

Fig. 1 Female's age and risk of rape and other sexual assault by males ( $N=252,674$ ) (ageadjusted)

Fig. 2 Female's risk of sexual assault at varying ages by males of varying ages ( $N=232,254$ ) (age-adjusted)

sexual assault since the patterns were so similar. The results supported Hypothesis 2, which stated that males of all ages are likely to target young women. For example, the modal victim age category for offenders age 50 and older was 15. Only $6.3 \%$ of these offenders assaulted women their own age or older. Over half ( $53.9 \%$ ) of the assaulted victims were under 20 and $72.5 \%$ of them were under 30.

Figure 2 also provided some evidence of age homophily: older offenders were more likely than younger offenders to assault older females. The correlation between age of offender and victim (treating both as continuous variables) was $r=31$. It may be that older men have more contact with women their own
age or that they have a greater latitude of acceptance. Evidence suggests that older men judge the physical attractiveness of older women more positively than do younger men (Harris, 1994; Mathes et al., 1985).

## Gender Effects

Figure 3 depicts the ages of sexual assault victims for different gender combinations. We combined rape and other sexual assault, since the patterns were similar, and we adjusted for age distributions of males and females. The results suggested that same-sex assaults peaked at an earlier age than opposite sex

Fig. 3 Percentage of victims sexually assaulted at different ages by gender combination ( $N=291,201$ ) (age-adjusted). In this figure the gender combinations are abbreviated as follows: $M F$ male assaults female, $M M$ male assaults male, $F M$ female assaults male, $F F$ female assaults female

assaults. However, in general, the age patterns were similar for all four gender combinations: offenders targeted young victims. These results supported Hypothesis 3: the tendency for men to target young people was observed regardless of the victim's gender. This pattern is not consistent with the idea that male preference for young people reflected attitudes toward women. The results did not support Hypothesis 4: male offenders were no more likely than female offenders to target young people. The fact that females also targeted young people does not support the idea that age preferences reflected male sexuality.

We also compared the strength of age and gender effects, in an attempt to determine whether young people were as likely as females to be victims of sexual assault. The comparison was difficult, however, since age is a continuous variable and gender is dichotomous; a comparison depends on the ages chosen. ${ }^{6}$ If we had considered anyone under 30 as young, then $86 \%$ of sexual assault victims were young, while $88 \%$ of victims were female. If we had considered anyone under 25 as young, then $80 \%$ of victims were young. If we had treated under 21 as the cutting point, then $72 \%$ of victims were young. Another approach is to compare males and females at different ages. For example, a 15-year-old male was 1.15 times more likely to be a victim of sexual assault than a 40-year-old female and 3.77 times more likely to be a victim than a 50 -year-old female. The results suggest that gender effects were a bit stronger than age effects but that age sometimes trumped the effects of gender.

## Sexual versus Physical Assault

In Table 2, we estimated age effects on the risk of sexual versus physical assault using logistic regression, where sexual assault was coded as 1 and physical assault was coded as 0 . Our equations included controls for the race of the offender

[^4]and victim and the relationship between the offender and victim. The results for male offenders are shown in the panel on the left and the results for female offenders are shown in the panel on the right. Missing coefficients indicate that the variable served as the reference category.

The results for male offenders showed strong curvilinear effects of the age of victim for both male and female victims. The risk of sexual assault (vs. physical assault) increased until ages 15-19 and then decreased. For example, the odds that an assault by a male was sexual was $1,011 \%$ lower (odds ratio $=.09$ ) for women 45 and older than for girls 15-19 (the reference group). These results supported Hypothesis 5: victims of sexual assaults tended to be younger than the victims of physical assault. However, they suggest that victims' attractiveness has a strong effect on age preference regardless of the gender of the offender and victim.

The results supported Hypothesis 6: older male offenders were more likely to commit sexual assault than physical assault. The effects of the male offender's age were quite strong, whether the victim was a male or female. For example, the odds that an assault on a female was sexual was more than $256 \%$ higher (odds ratio $=3.56$ ) for offenders 60 and over than for offenders 18-29. The contrast between these positive effects of offender's age and the negative effects of victim's age is striking. The effects of offender age appear to be linear, with one exception. Offenders under 18 were slightly more likely to commit sexual assaults against males than offenders 18-29.

The age patterns for female offenders were different. We observed a dichotomous pattern rather than linear effects of age of victim. Women were much more likely to sexually assault females under age 20 than those ages 20 and older and they were more likely to sexually assault males under age 15 than those ages 15 and older. The age of female offenders did not have much effect on whether the assault involved a sexual element. The only effect worth noting was that girls under age 18 were less likely to sexually assault males than women ages 18 and older.

Table 2 Logistic regression predicting sexual assault versus physical assault for different gender combinations

| Variable | Male offenders |  |  |  |  |  | Female offenders |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Female victims |  |  | Male victims |  |  | Male victims |  |  | Female victims |  |  |
|  | $b$ | SE | OR | $b$ | SE | OR | $b$ | SE | OR | $b$ | SE | OR |
| Victim's age |  |  |  |  |  |  |  |  |  |  |  |  |
| 0-9 | 1.98 | 0.03 | 7.23 | 3.78 | 0.05 | 43.67 | 2.76 | 0.07 | 15.76 | 1.57 | 0.07 | 4.80 |
| 10-14 | 0.76 | 0.02 | 2.13 | 1.58 | 0.04 | 4.85 | 0.97 | 0.05 | 2.64 | 0.49 | 0.07 | 1.64 |
| 15-19 | - | - | - | - | - | - | - | - | - | - | - | - |
| 20-24 | -0.94 | 0.02 | 0.39 | -1.11 | 0.04 | 0.33 | -2.41 | 0.11 | 0.09 | -1.63 | 0.11 | 0.20 |
| 25-29 | -1.35 | 0.02 | 0.26 | -1.58 | 0.05 | 0.21 | -2.25 | 0.12 | 0.11 | -2.04 | 0.13 | 0.13 |
| 30-34 | -1.60 | 0.02 | 0.20 | -1.77 | 0.06 | 0.17 | -2.20 | 0.13 | 0.11 | -2.00 | 0.13 | 0.14 |
| 35-39 | -1.81 | 0.02 | 0.16 | -1.99 | 0.06 | 0.14 | -2.27 | 0.14 | 0.10 | -2.09 | 0.14 | 0.12 |
| 40-44 | -2.02 | 0.02 | 0.13 | -2.08 | 0.06 | 0.12 | -2.38 | 0.16 | 0.09 | -2.22 | 0.16 | 0.11 |
| 45-98 | -2.37 | 0.02 | 0.09 | -2.14 | 0.05 | 0.12 | -2.31 | 0.12 | 0.10 | -2.06 | 0.11 | 0.13 |
| Offender's age |  |  |  |  |  |  |  |  |  |  |  |  |
| 12-17 | -1.07 | 0.02 | 0.34 | 0.33 | 0.04 | 1.39 | -0.93 | 0.06 | 0.39 | 0.22 | 0.07 | 1.25 |
| 18-29 | - | - | - | - | - | - | - | - | - | - | - | - |
| 30-39 | 0.40 | 0.02 | 1.50 | 0.55 | 0.04 | 1.74 | 0.16 | 0.06 | 1.17 | -0.13 | 0.07 | 0.88 |
| 40-49 | 0.47 | 0.02 | 1.60 | 0.79 | 0.04 | 2.21 | 0.02 | 0.07 | 1.02 | -0.13 | 0.08 | 0.88 |
| 50-59 | 0.71 | 0.02 | 2.04 | 1.13 | 0.05 | 3.08 | -0.11 | 0.12 | 0.89 | -0.01 | 0.12 | 0.99 |
| 60-98 | 1.27 | 0.03 | 3.56 | 1.71 | 0.06 | 5.54 | -0.17 | 0.19 | 0.84 | 0.32 | 0.17 | 1.38 |
| Victim race |  |  |  |  |  |  |  |  |  |  |  |  |
| White | - | - | - | - | - | - | - | - | - | - | - | - |
| Black | -0.56 | 0.02 | 0.57 | -0.66 | 0.04 | 0.52 | 0.20 | 0.08 | 1.22 | -0.71 | 0.08 | 0.49 |
| Other | 0.02 | 0.06 | 1.02 | -0.78 | 0.15 | 0.46 | -0.15 | 0.26 | 0.86 | -0.27 | 0.30 | 0.77 |
| Offender race |  |  |  |  |  |  |  |  |  |  |  |  |
| White | - | - | - | - | - | - | - | - | - | - | - | - |
| Black | 0.36 | 0.02 | 1.44 | -0.43 | 0.04 | 0.65 | -1.36 | 0.08 | 0.26 | -0.04 | 0.08 | 0.96 |
| Other | 0.17 | 0.05 | 1.18 | 0.03 | 0.13 | 1.03 | -0.54 | 0.24 | 0.58 | 0.26 | 0.24 | 1.30 |
| Victim-offender relationship |  |  |  |  |  |  |  |  |  |  |  |  |
| Partner or ex-partner | 3.65 | 0.05 | 38.37 | -4.46 | 0.08 | 0.01 | 3.04 | 0.16 | 20.99 | -2.21 | 0.15 | 0.11 |
| Family member | -0.26 | 0.02 | 0.77 | -1.24 | 0.05 | 0.29 | 0.32 | 0.14 | 1.37 | -0.14 | 0.12 | 0.87 |
| Other known | 0.32 | 0.02 | 1.38 | -0.18 | 0.05 | 0.83 | 1.07 | 0.14 | 2.91 | 0.62 | 0.12 | 1.85 |
| Stranger | - | - | - | - | - | - | - | - | - | - | - | - |
| Constant | 1.44 | 0.02 | 4.21 | -0.28 | 0.05 | 0.76 | -2.07 | 0.14 | 0.13 | -1.02 | 0.13 | 0.36 |
| $N$ | 258,512 |  |  | 149,93 |  |  | 32,001 |  |  | 31,702 |  |  |

* $p<.05, * * p<.01, * * * p<.001$


## Additional Analyses

In analyses not presented, we examined age patterns taking into account the likelihood that incidents were reported to the police. Underreporting of crime is a well-known problem when one uses official data, and sexual assaults are somewhat less likely to be reported than other violent offenses (Felson \& Paré, 2005). We adjusted for possible reporting bias using weights based on estimates of reporting from the NCVS (Hart \& Rennison, 2003). The results showed that adjusting for reporting bias yielded a slight increase in the proportion of victims age 15-17 and slightly
lowered proportions of 10-14 year olds and victims 21 years and older. Thus the age patterns for victims were even stronger when we adjusted for the fact that sexual assaults are underreported.

In other analyses, we compared age patterns for sexual assault and robbery using the NIBRS data. In general, the tendency for offenders to target young people was stronger for sexual assault than robbery. For example, a 15-year-old girl was 12.93 times more likely to be sexually assaulted than a 35 -year-old woman and 1.15 times less likely to be robbed. A 20-year-old woman was 9.67 times more likely to be sexually assaulted than a 50 year old, and 2.31 times more likely to be robbed.

Finally, we compared the age of offenders who committed sexual assault and robbery. The patterns supported the blocked opportunity hypothesis (H5): men who sexually assaulted women were much older than men who robbed women. For example, a man 60 years or older was 17.07 times more likely than a man 18-29 to sexually assault a woman than to rob her.

## Discussion

These analyses were based on the largest sample of sexual assaults ever analyzed. The strong age and gender patterns they revealed challenge conventional wisdom about this offense. In our discussion below we consider the comparison between heterosexual and homosexual assault, then the age of victims, and, finally, the age of offenders.

## Heterosexual versus Homosexual Assault

Our evidence supported the hypothesis (H1) that rates of homosexual assault by male offenders are at least as high as rates of heterosexual assault. In fact, they suggested that the frequency of homosexual assaults was higher than one would expect given estimates of the number of homosexual men. Evidence that homosexuals were just as likely as heterosexuals to engage in sexual assault contradicts the argument that male attitudes toward women play a strong role in sexual assault. Our results were consistent with prior research that has found that rapists tend to be versatile offenders but inconsistent with studies that have found correlations between men's attitudes toward women and their tendency to engage in sexual coercion. Of course, it is likely that some of the offenders in our sample were hostile to women. However, if these attitudes were an important causal factor, the rate of heterosexual assault would be higher than the rate of homosexual assault.

Our results suggest that the reason sexual assault typically involves a male offender and a female victim is that most offenders are men and most men are heterosexual. Sex differences in sexuality, physical strength, and the tendency to engage in violence all play a role. They are among the strongest sex differences and they are apparently observed in every society (e.g., Oliver \& Hyde, 1993). They lead some males to engage in sexual assault.

Of course, a same-sex sexual attack does not necessarily imply that the offender had a homosexual orientation. However, homosexuals may be just as likely to target someone of the opposite sex as heterosexuals are to target someone of the same sex. In addition, the evidence suggested that the homosexual assaults were not hate crimes committed by heterosexuals. While the police may have failed to properly identify some hate crimes, it seems unlikely that enough mistakes were made to reverse the pattern we observed.

It is also unlikely that under-reporting can account for the higher rates of homosexual assault. Our estimate of the percentage of rape victims who are male ( $7.7 \%$ ) was very close to Felson and Krohn's (1990) estimate based on victimization data $(7.3 \%)$. Victimization data include unreported incidents. In addition, studies have found that male victims are less likely to report sexual assaults than female victims (Pino \& Meier, 1999; Weiss, 2010). If that reporting bias affected our results, it would only make the patterns stronger.

It is also possible that estimates of the frequency of homosexuality in the population are low if some participants on anonymous surveys do not reveal their homosexuality. However, no scholarly estimates of rates of homosexuality in the general population were as high as our estimates of the frequency of homosexual assault ( $10.55 \%$ of all forms of sexual assault committed by males). We, therefore, have some confidence that rates of homosexual assault are at least as high as rates of heterosexual assault; that is the theoretically significant comparison.

If homosexual men have higher rates of sexual assault than heterosexual men, it may be because of chivalry, i.e., men's inhibitions about engaging in violence against women. An extensive literature shows that men's violence against women is evaluated more negatively and punished more severely (e.g., Felson, 2010). Another explanation is that sexual assaults stem from more limited consensual sexual activities and homosexuals have higher rates of consensual sex (Laumann et al., 1994). Heterosexual rape often occurs during consensual sexual activity, when the offender wants intercourse and the victim does not (Kanin, 1985). Perhaps many homosexual rapes and sexual assaults involve a similar situation.

## Young Victims

The results showed that the risk of sexual assault victimization for both males and females increased dramatically when they reached puberty and declined dramatically in adulthood. Once people reached middle age, their risk of sexual assault was miniscule. Age had almost as strong an effect on the risk of victimization as gender. The strong relationship between age and victimization was particularly impressive since age is only one factor that affects sexual attractiveness and since men have a tendency to be indiscriminant in their sexual behavior.

In support of Hypothesis 2, our results suggested that older offenders have almost as strong a preference for adolescents and young adults as do younger offenders. The pattern was consistent with the pattern observed in research on sexual assaults during robberies (Felson and Cundiff, 2012). It is remarkable that the modal age category for a 50-year-old offender was a 15 -year-old victim. Older offenders targeted young people in spite of the fact that they have more contact with people their own age, and despite the fact that older people have diminished physical strength (Montoye \& Lamphiear, 1977). On the other
hand, young people almost never sexually assaulted older people, in spite of their physical advantage. Older people may be frail and vulnerable in many ways but their risk of sexual victimization is trivial.

We did not find much evidence of age homophily, the usual pattern one observes in voluntary sexual and romantic relationships. Participants in consensual heterosexual encounters tend to be similar in age with males slightly older (e.g., Amato, Booth, Johnson, \& Rogers, 2007). Large age differences between husbands and wives are rare. For example, Amato et al. (2007) found that only about one-half of $1 \%$ of marriages involve husbands who are at least 20 years older than their wives. In coercive sexual relationships, on the other hand, where only the offenders' preferences matter, older men target the young.

The finding that girls age 10-14 years were at greater risk of sexual assault than women in their 20 s was unexpected. The dramatic decline in risk of victimization after age 20 was too large and occurred too early to be explained by declining attractiveness. We suspect that opportunity factors had significant effects on these age patterns. Age differences in vulnerability and contact with motivated offenders may explain why the risk of victimization declined so early and quickly in the late teenage years. Teenagers are more vulnerable than young adults because they are physically weaker, because they are more easily manipulated, and because their activities put them at greater risk. ${ }^{7}$ Vulnerability also helps explain children's high risk of victimization. ${ }^{8}$

In support of Hypothesis 3, we found that the tendency for men to target young people is observed regardless of the victim's gender. Homosexual men are apparently just as likely as heterosexual men to prefer young people. The pattern suggests that the tendency for men to treat young women as sex objects does not reflect attitudes toward women. It is more prominent in the treatment of young women because most men are heterosexuals. However, it not clear that the preference for young people reflects male sexuality, since female offenders also showed the preference. In contrast to Hypothesis 4, female offenders were just as likely as male offenders to target young people. Women rarely committed sexual assaults (about $3 \%$ of these assaults) but when they did the modal age of their victims was also 15 years.

We did find support for the hypothesis (H5) that victims of sexual assaults tend to be younger than victims of physical assault. These results, along with prior research on sexual assault during robbery, suggest that age patterns reflect the effects of sexual attractiveness as well as the effects of

[^5]vulnerability and contact. The tendency for assaults with a sexual element to target younger victims was observed for all gender combinations suggesting, again, that female offenders were just as likely as male offenders to respond to age-related sexual attractiveness.

A limitation of our study was that it was based only on offenses reported to the police. However, such strong results are difficult to attribute to measurement error. In addition, our supplementary analysis adjusting for age-related reporting bias suggested the patterns may be even stronger than those we presented. Finally, the ages of victims we observed for male on female offenses were consistent with age patterns observed in earlier research based on victimization surveys (e.g., Felson \& Krohn, 1990).

## Old Offenders

In support of Hypothesis 6 we found that men who commit sexual assaults tend to be older than men who commit physical assaults. The pattern was strong and it was observed regardless of the victim's gender. One does not observe this pattern for female offenders, suggesting that the pattern was related to male sexuality. Apparently, when one controls for opportunity and the violent tendencies of young people, a strong positive ageoffending pattern emerged for sexual assault. The results support the argument that older men commit sexual assault more often than one would expect because they lack sexual access to young men and women. Older men are sexually attracted to young men and women, but that attraction is not reciprocated. Their legitimate opportunities are blocked. Unable to attain their aspirations, some of them turn to illegitimate means (Merton, 1938).

## Conclusion

Prior research has shown that males tend to be indiscriminate in their sexual behavior. In spite of this tendency, when men have a choice, as they do in sexual assault, they overwhelmingly prefer the young. The risk of sexual victimization increased dramatically with sexual maturation and declined dramatically after the teenage years. We suggested that the vulnerability and routine activities of teenagers, as well as their sexual attractiveness, put them at risk. Vulnerability related to disadvantage in physical strength may be particularly important, since sexual assaults take time and since most are committed without a weapon. It might, therefore, be said that the teenage years create a "perfect storm." Teenagers have the highest risk of sexual assault because of their contact with motivated offenders, their vulnerability, and their sexual maturity and attractiveness.

Our results suggest that the attraction to young people was almost as great among older offenders as among younger
offenders. While the attraction of older men to young women is widespread, we stigmatize it, calling those who express this desire "dirty old men" or "creepy." Even further, many young people find the idea of consensual sex with older people repulsive; these scenes are almost never displayed in films. Perhaps this attitude helps explain why young people are disgusted at the thought of their parents engaging in sexual behavior. It also helps explain why large age differences are so rare in consensual relationships. Most older men only have sexual access to young people if they pay for it or use force. Fortunately, older men commit less crime so their rates of sexual assault are still relatively low.

Most scholars would agree that a theory of sexual assault must take gender into account since the crime typically involves a male offender and a female victim. Our research suggests that age is also a key factor. Any theory of sexual assault must take into account that it is overwhelming a crime against young people.

## Appendix

## See Fig. 4.



Fig. 4 Female's age and risk of sexual assault by males ( $N=251,615$ )

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[^0]:    ${ }^{1}$ Our emphasis on sexual attractiveness in interpreting age preferences implies that sexual motivation plays a role in sexual assault. The idea is controversial, although considering sexual motivation along with other motives has become more acceptable in recent years (e.g., Bryden \& Grier, 2011; Felson, 2002; Kanin, 1985; Mann \& Hollin, 2007; Palmer, 1988). We do not deny that a power motive or some combination of motives could also be involved. We focus on sexual attractiveness (and motivation) because it makes sense of the age patterns that we observe. The feminist approach predicts gender not age discrimination in sexual assaults. Where age patterns have been discussed they have been attributed to opportunity factors (Kimmel, 2003; Travis, 2003).

[^1]:    ${ }^{2}$ From an evolutionary perspective the sexual attractiveness of young women and their high risk of rape reflects the association between age and fecundity in ancestral history (e.g., Ellis, 1989; Palmer, 1991; Shields \& Shields, 1983; Symons, 1979; Thornhill \& Palmer, 2000). We leave it to others to decide the relevance of our results to evolutionary psychology. From our perspective, it seems clear that evolution plays a role in sexuality and that sex differences in sexuality play a role in rape.

[^2]:    $\overline{3}$ In addition, male sex drive is related to testosterone levels and testosterone levels begin a slow decline in the early twenties (e.g., Booth, Johnson, \& Granger, 1999; Sternbach, 1998). Testosterone, however, is also related to non-sexual offenses.
    ${ }^{4}$ This pattern is likely to be weaker when older men have power and status, if these characteristics affect their sexual attractiveness.

[^3]:    ${ }^{5}$ Similar sex differences were observed across ages, years of data collection, educational levels, and nations. A study of a large sample of identical and fraternal twins in Australia suggests that individual differences in interest in casual sex are at least partly genetic (Bailey, Kirk, Zhu, Dunne, \& Martin, 2000).

[^4]:    ${ }^{6}$ We could more easily compare strength if we had data on non-victims and estimated an equation predicting victimization

[^5]:    7 The argument that husbands protect married women in their twenties from rape (e.g., Mesnick, 1997) cannot explain why the effects were similar for all gender combinations.
    ${ }^{8}$ Of course, some of the offenders who assault children are pedophiles. Their presence in the sample is not relevant to our conclusions. In addition, the patterns do not change much when we only included incidents involving victims 15 years and older.

