Fear of Acquaintance Versus Stranger Rape as a "Master Status": Towards Refinement of the "Shadow of Sexual Assault"

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Fear of Acquaintance Versus Stranger Rape as a “Master Status”: Towards Refinement of the “Shadow of Sexual Assault”

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Using a sample of 1,010 women from a southeastern state university, we explore whether associations between fear of sexual assault and other crime-specific fears vary based on presumed victim-offender relationship. More specifically, we assess the extent to which fear of stranger- and acquaintance-perpetrated sexual assaults differ in the extent to which they are correlated with fear of other crime victimizations. Multivariate logistic regression analysis revealed that both fear of stranger-perpetrated sexual assault and fear of acquaintance-perpetrated sexual assault were positively associated with nearly all other crime-specific fears under examination. However, associations were particularly strong between fear of sexual assault by a stranger and fear of other stranger-perpetrated crimes. Findings have significant implications for how academic institutions should comprehensively address direct and indirect negative influences of violence against college women.

Keywords: fear of crime, sexual assault, victimization, campus crime

Sex is one of the more robust predictors of fear of crime, with women typically indicating higher levels of fear, including overall fear of crime as well as fear of different, specific types of crime (see Ferraro, 1995, 1996 for reviews). Women’s heightened fear of crime has traditionally been described as a paradox given their lower levels of actual victimization risk for most crimes as compared to men. A great deal of attention has been paid by scholars to this apparent contradiction, with the so-called shadow of rape hypothesis emerging as a leading explanation for women’s heightened fear levels (Ferraro, 1995, 1996; May, 2001; Warr, 1984, 1985). This hypothesis attributes women’s higher levels of fear of crime, generally speaking, to their very intense fear of the specific crime of rape, which is the only index offense for which women stand a far greater likelihood of victimization in comparison to men. As Ferraro (1995) succinctly...
points out, “Rape is a particularly vexing experience and women are especially susceptible to it” (p. 86), a point leading to the idea that, for women, “fear of crime is fear of rape” (Warr, 1984, p. 700).

Recent scholarship, however, has called for refinement of this notion of the shadow of sexual assault. Specifically, scholars have suggested that increased attention be given, when examining the impact of fear of sexual assault on other crime fears, to disentangling (1) the effects of fear of the physical versus sexual aspects of rape (Lane & Meeker, 2003) and (2) the effects of fear of sexual assault by strangers versus acquaintances (Fisher & Sloan, 2003). Regarding this latter area, for refinement, previous research has shown that college women fear stranger rape more than acquaintance rape (Barbaret, Fisher, Farrell, & Taylor, 2003; Hickman & Muehlenhard, 1997) in spite of the fact that they are at increased risk for experiencing victimization by someone they know (Fisher, Sloan, Cullen & Lu, 1998). Given this trend, it would seem necessary to assess whether fear of rape relates to other fears differently depending upon whether it is fear of stranger rape or fear of acquaintance rape. In other words, is the shadow of rape effect conditional upon victim-offender relationship for a group that is particularly vulnerable to acquaintance rape yet more fearful of stranger rape?

We attempt to address this question using survey data from a sample of 1,010 college women. Through multivariate logistic regression modeling, we assess the extent to which fear of stranger- and acquaintance-perpetrated sexual assault relates to a variety of other crime-specific fears, including worry about stranger- and acquaintance-perpetrated physical assault and stalking.

RAPE VICTIMIZATION AND FEAR: COLLEGE SAMPLES

Understanding the epidemiology and etiology of violence against college women has received increased attention over the last two decades. Debate surrounds the actual percentage of college women victimized (compare U.S. studies Fisher, Cullen & Turner, 2000, and Koss, Gidyez, & Wisniewski, 1987; Canadian study DeKeseredy & Kelly, 1993; and UK study Barbaret et al., 2003). Comparison of rates yielded by different studies is complicated, as studies have used dissimilar methodologies in terms of conceptualization and operationalization of so-called sexual assault recall periods (e.g., victimization in last 7 months versus in the last year), sampling and recruitment strategies, and survey/interview techniques (see Belknap, Fisher & Cullen, 1999; Fisher & Cullen, 2000). Despite the debate over the actual or most valid rate of sexual assault among college women, there is consensus that, even if the lowest estimates are utilized, college women are at substantial risk of experiencing sexual assault—certainly at a rate much higher than comparably aged women who are not in college (e.g., Belknap & Erez, 1995; Fisher, Blevins, Santana & Cullen, 2004; Fisher et al., 1998, 2000; Koss et al., 1987). Self-report offending data have supported the notion of high levels of sexual violence among college populations. According to one recent study, for instance, 20% of college men admitted to having engaged in sexual dating violence (Schwartz, DeKeseredy, Tait, & Alvi, 2001).

Figures like these leave no doubt that direct or actual victimization experiences among college women are common and require significant attention from academic institutions. However, more indirect or subjective experiences with rape on the part of college women are also important. As Warr (2000) suggests, “Important as these individuals [victims] surely are, researchers must also concentrate on those who suffer forms of indirect victim-
Several decades worth of criminological research has found that, in spite of overall lower rates of victimization among women in comparison to men, women have higher levels of fear (see, Braungart, Braungart, & Hoyer, 1980; Clemente & Kleiman, 1977; Stafford & Galle, 1984; Warr, 1984, 1985, 2000). Further, this gendered pattern of fear holds for nearly every type of crime, though the difference is most substantial when considering fear regarding crimes for which women have relatively higher victimization rates, such as rape (Ferraro, 1995, 1996; LaGrange & Ferraro, 1989; May, 2001; Warr, 1984). For instance, data from the Fear of Crime in America Survey (Ferraro, 1995) showed that fear of nonsexual crime was significantly higher among women—about 23% higher than that reported by men. Fear of rape, on the other hand, was nearly three times higher among women than men according to the same study (Ferraro, 1995). May (2001) found similar gender differentials in fear across nonsexual and sexual crimes when examining a sample of Mississippi adolescents, as did Lane and Meeker (2003) in their study of residents of Orange County, California. Another particularly interesting aspect regarding women’s fear of rape is that women assess their risk of experiencing rape to be relatively low in comparison to many other crimes, but they fear rape far more (Ferraro, 1995, 1996; Warr, 1984, 1985; Warr & Stafford, 1983). While perceived risk of rape among women certainly exceeds that of men, it is typically still relatively low, and it is typically substantially lower than their emotionally-based fears. Thus, many women appear to experience emotional turmoil surrounding rape, regardless of whether or not they have experienced the crime directly and regardless of their own perceived chances of experiencing such victimization.

The scant research on fear of crime among college samples specifically has revealed somewhat similar findings. Fisher and colleagues have been responsible for most of the work on risk perception and fear of crime among college students, and they have found that female students perceive greater risk and experience greater fear than male students when considering overall crime (e.g., Fisher & Nasar, 1995) as well as specific categories of crime (Fisher & Sloan, 2003). Their recent crime-specific analysis using a national sample of college students showed that larceny-theft was the crime with the highest risk perception levels and daytime fear levels for both men and women. Further, it was the only crime among the five examined for which male college students’ perceived risk and daytime fear levels exceeded those of female college students (Fisher & Sloan, 2003). In contrast, college women and men tended to perceive less risk and experience less daytime fear of the violent crimes of robbery, simple assault, aggravated assault, and rape in comparison to larceny. However, women’s risk perceptions and daytime fear levels for these violent crimes were significantly higher in comparison to perceived risk and daytime fear levels for these same violent crimes among their male counterparts (Fisher & Sloan, 2003). Regarding nighttime fear, larceny-theft remained the biggest crime concern among men, but rape was the greatest fear among women. The differences between men and women in nighttime fear levels were significant for all five offenses examined (Fisher & Sloan, 2003), with women’s nighttime fear exceeding that of men for each of the five crimes under consideration. However, the gender differential (mean fear among women minus mean fear among men) was especially great for fear of nighttime rape. For instance, differentials in nighttime fear levels between women and men ranged from 1.0–1.14 (on a 10-point scale) for robbery, simple assault, and aggravated assault, but the differential was 2.28 for nighttime fear of rape (Fisher & Sloan, 2003). This large sex-based fear differential for fear of nighttime rape existed despite rape ranking third (out of five total crimes) in terms of crime risk perception among women. Based upon limited research, therefore,
college women’s subjective crime experiences appear similar to women’s experiences in the general population: (1) they fear crime more than men, (2) they fear rape, in particular, more than men, and (3) their greater fear levels, especially regarding rape, cannot be explained solely on the basis of levels of perceived risk.

The Shadow of Sexual Assault

Exemplified by the work of Fisher and Sloan (2003), scholarship in the fear-of-crime tradition has unearthed the importance of studying fear in a crime-specific way (see also Ferraro & LaGrange, 1987; Warr & Stafford, 1983). To this end, some previous studies highlight important etiological differences between various crime-specific fears (Bennett & Flavin, 1994; Ferarro, 1995; Fishman & Mesch, 1996; Mesch, 2000; Skogan, 1987; Warr & Stafford, 1983; Wilcox Rountree, 1998). Despite apparent important differences across types of fear, other studies have emphasized a very important common covariate: fear of rape (Ferraro, 1995, 1996; Fisher & Sloan, 2003; May, 2001). In what has become known as the shadow of rape or shadow of sexual assault hypothesis, scholars posit that, for women, sexual assault is associated with many other crimes, making them “perceptually contemporaneous” offenses in the language of Warr’s influential work (Warr, 1984, 1985). Simply put, women perceive that many types of victimization may involve sexual assault. As a result, women’s fears of different crimes are thought to be inextricably linked to women’s fear of rape (Warr, 1984, 1985). As Ferraro (1995) explains:

... sexual assault may “shadow” other types of victimization among women.
Rape may operate like a “master offense” among women, especially younger women who have the highest rates of rape, heightening fear reactions for other forms of crime. If this is the case, one would expect fear of rape to correlate with other forms of fear and to add uniquely to explaining fear of other types of crime. (p. 87)

Indeed, Ferraro (1995) found that adding fear of rape as a covariate to a model estimating fear of nonsexual crimes substantially increased the explanatory power of the model. Fear of rape was a highly significant predictor, and along with perceived risk, it seemed to account for the effect of gender: “Women were more afraid of non-sexual crime but it was principally due to their perceived risk of such crime and their fear of rape” (Ferraro, 1995, p. 91). May (2001) also found evidence in support of the notion of a shadow of sexual assault on his study of youth in Mississippi. Upon adding a measure of fear of sexual assault to a model predicting adolescent fear of nonsexual victimization, May reported a doubling of the variance explained and a change (to nonsignificance) in the effect of gender as a covariate. Lane and Meeker (2003) also found evidence of fear of sexual assault affecting fear of other gang-specific crimes in their study of residents in gang-troubled Orange County. However, Lane and Meeker’s (2003) analysis also revealed that fear of physical assault had stronger effects than fear of sexual assault in explaining fear of other gang crimes: “... once physical harm is accounted for by controlling for fear of nonsexual assault, fear of rape explains much less variance than it does when it was included alone” (p. 337). Their findings, therefore, suggested qualification of the shadow of sexual assault hypothesis, implying that some of the previously found so-called shadow effects of fear of rape may be due to the specific fear of physical harm (even death) associated with sexual assaults in women’s minds.
Fisher and Sloan (2003) corroborate many of the above findings regarding the strong effects of fear of sexual assault on other crime fears in their study of college students. More specifically, they found that fear of rape was positively associated with fear of larceny/theft, fear of robbery, fear of simple assault, and fear of physical assault (Fisher & Sloan, 2003). The effects of fear of rape were strongest when predicting violent-crime fears (e.g., all fear examined except fear of larceny/theft). The variance explained increased substantially for the violent-crime fears upon adding fear of rape as a covariate, while it increased only slightly upon including fear of rape within the model estimating fear of larceny-theft (Fisher & Sloan, 2003). Fisher and Sloan (2003) conclude, ‘‘College women’s fear of rape is an inseparable companion to fear of other offenses while on campus during the day and at night’’ (p. 651).

THE PRESENT STUDY

While the findings regarding the shadow of rape hypothesis that have emerged thus far are convincing, Fisher and Sloan (2003) point out that refinements are needed in future studies of women’s fear of crime. In particular, they note the importance of distinguishing crime-specific fears on the basis of victim-offender relationship in future research efforts. They call for such inquiry, noting that since college women seem to fear victimization from a stranger more than an acquaintance (Barbaret et al., 2003; Hickman & Muehlenhard, 1997), there might be important differences in terms of the way stranger rape versus acquaintance rape serves to shadow other crimes (Fisher & Sloan, 2003, pp. 652, 654). We answer Fisher and Sloan’s (2003) call and provide a first step in addressing this issue defined by them as an important direction for future research. More specifically, we examine the extent to which fear of stranger sexual assault versus fear of acquaintance sexual assault relates to other crime-specific fears among college women, namely fear of stranger- and acquaintance-perpetrated stalking and physical assault.

In examining the possible perpetrator-specificity of the shadow of sexual assault, we do not extend our focus beyond the crimes of stalking and physical assault due to data limitations. Previous work on associations among crime fears (especially those using non-college samples) have been able to explore many more varied fears, with Warr’s examination of 16 different crime fears setting the standard in that regard (see, Warr 1984, 1985, and Warr & Stafford, 1983). However, we think the limited crime-fear analyses presented here provide significant strides towards important refinement of the shadow of sexual assault hypothesis for several reasons. Foremost, they respond to the suggestions of previous research (Fisher & Sloan, 2003) and provide the first analysis that can disentangle the extent to which the shadow effects of sexual assault may be different for stranger sexual assault versus acquaintance sexual assault. Secondly, while our examined crime fears do not include an optimally wide variety of crimes, and instead include what some might think of as similar offenses, we think the offenses examined are different in theoretically meaningful ways.

For instance, sexual victimization is sometimes distinguished as crime committed on the basis of the victim’s gender (Fisher, Cullen, & Turner, 2002). In this definitional sense, physical assault is clearly distinct. Further, extant research supports an empirical distinction between fear of sexual assault and fear of physical assault. Previous research reveals that fear of rape exceeds fear of various types of physical assault, with the largest differentials existing between fear of rape and fear of physical assault by a known offender (Warr,
Our study can parcel the association even further—specifying the stranger-versus-acquaintance nature of the offender for both physical assault and sexual assault. As reviewed above, other previous work has suggested that physical assault may be the stronger shadow effect as opposed to sexual assault (Lane & Meeker, 2003) in estimating other crime fears, thus again highlighting important empirical distinctions between fear of sexual versus physical assault.

Regarding the crime of stalking, limited extant work is ambiguous about its categorization. Some work classifies it as a form of sexual victimization since “it involves the obsessive behavior of men towards women on the basis of their gender” (Fisher et al., 2002, p. 261). However, because stalking often involves threats of physical harm, it is classified in other work as violence against women as opposed to sexual victimization per se (Tjaden & Thoennes, 1998, 2000; see also Fisher et al., 2002, for review). In short, we know very little about stalking, including how to best characterize it vis-à-vis other crimes against women since it can involve threats of both sexual assault and physical assault, without involving actual incidents of either one. Rather than assuming a priori that it should be strongly correlated with sexual assault and/or physical assault, it seems prudent to examine fear of stalking in relation to other crime fears empirically. Our study provides such a novel empirical assessment.

**Data**

Data for the present study were collected from a sample of 1,010 women surveyed by telephone at a large state university in the southeastern United States (the pseudonym State U is used hereafter). Anonymous interviews were conducted by specially trained interviewers contracted through Schulman, Ronca & Bucuvalas, Inc. (SRBI) using computer-assisted telephone interviewing (CATI) procedures. These procedures allowed the survey instrument—designed using the National Violence Against Women Survey (Tjaden & Thoennes, 2000)—to incorporate a complex skip pattern, ensuring that subjects were asked only relevant questions regarding the specific details of experiences with campus victimization. A university-provided list of 7,875 phone numbers for current female students (18 years of age and older) was used to generate a random sample of 1,010 female students. Upon contact, informed consent was obtained (with documentation waived). Multiple institutional review board6-approved safeguards were established in order to minimize risks to subjects while responding, to guarantee that their anonymity would be maintained, and to provide immediate services in the event that trauma was evident at any point throughout the course of the interview. The overall cooperation rate for valid student contacts was 83.5%. The interviews were conducted between April 1, 2004, and May 4, 2004, with each completed interview lasting an average of 17.5 minutes.

Consenting telephone contacts were included as subjects if they reported that they were over 18 years old and students at the university. Following this initial screening, subjects were first asked questions regarding overall assessment of danger on campus, then questions regarding fear of specific types of victimization (stalking, sexual abuse or attack, physical abuse or attack) by either a known offender or a stranger following the recommendation of Fisher and Sloan (2003). Next, subjects were asked to provide basic background information; this section also included questions about current relationship status and alcohol or drug use. Finally, victims’ previous victimization experiences were screened using 34 yes-or-no questions about specific types of events, mirroring items used for screening in the National Violence Against Women Survey (Tjaden & Thoennes, 2000).
Subjects identified by these screening questions as victims of stalking, sexual, or physical assault were then asked general follow-up questions regarding the circumstances (victim-offender relationship, occurrence before or during college, concurrence with other forms of victimization, etc.), then detailed follow-up questions were asked for the most recent events occurring while enrolled at State U.

Overall, this study’s sample population was roughly representative of the total female population at the university according to the registrar’s data. The following information summarizes the demographic breakdown of the sample. Subjects ranged from 18 to 60 years of age with a median age of 21 years and a mean age of 23.5 years. Though the mean age of the total female population (25.1 years) was significantly higher ($t = 7.920, p = .000$), the median was comparable at 22 years. The difference in means likely reflects the greater age range in the university population, which included female students ranging from 17 to 79 years old, than in the sample. As expected, this age difference resulted in a significantly larger sample proportion of full-time students (89.5% in the sample versus 78.9% for all female students). In contrast, the sample proportions for class standing do not significantly differ from the female university population at large. In terms of ethnicity, the proportions of White and African American female students (comprising 84.2% and 7.1%, respectively, of all sampled subjects) do not differ between the sample and university population, nor did the proportion of Hispanic students. While students identifying themselves as Asian or Pacific Islander were significantly greater in the sample (6.4% of the sample versus 2.8% of the population), this difference may be accounted for by the fact that 5.4% of the university population did not specify or indicate “other” for ethnicity versus 0.2% in the sample.

FEAR OF CRIME AND THE SHADOW OF SEXUAL ASSAULT WITHIN A COLLEGE SAMPLE

The variables of primary interest in this study are six distinct crime- and perpetrator-specific fears: (1) fear of stranger-perpetrated sexual assault; (2) fear of acquaintance-perpetrated sexual assault; (3) fear of stranger-perpetrated stalking, (4) fear of acquaintance-perpetrated stalking; (5) fear of stranger-perpetrated physical assault, and (6) fear of acquaintance-perpetrated physical assault. Each of these variables was measured through single survey items asking respondents, “How worried are you personally about being sexually attacked/stalked/physically attacked by a stranger/someone you know?” Responses for each of the six items ranged from $1 = ‘not very worried’$ to $4 = ‘very worried.’$

Table 1 presents descriptive statistics for these perpetrator and crime-specific fears, and Figure 1 depicts, in graphical form, the distributions for all of the fear measures. Fear appears greater for offenses involving strangers in comparison to those involving acquaintances, with the highest levels of fear for sexual assault by a stranger. Such univariate analysis hints that the shadow of rape may be conditional upon perpetrator type, with fear of stranger-perpetrated sexual assault, in particular, shadowing other crime fears.

In order to examine this possibility further, we estimated a series of logistic regression models predicting fear of stranger and acquaintance stalking (Table 2) and fear of stranger and acquaintance physical assault (Table 3). These models are intended to help discern (1) the effects of fear of stranger and acquaintance sexual assault when both are considered simultaneously; and (2) the effects of fear of stranger and acquaintance sexual assault
TABLE 1. Descriptive Statistics for Crime- and Perpetrator-Specific Fears

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Mean</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear of stranger stalking</td>
<td>1.76</td>
<td>0.91</td>
<td>1.00</td>
<td>4.00</td>
<td>1,008</td>
</tr>
<tr>
<td>Fear of acquaintance stalking</td>
<td>1.33</td>
<td>0.67</td>
<td>1.00</td>
<td>4.00</td>
<td>1,006</td>
</tr>
<tr>
<td>Fear of stranger physical assault</td>
<td>2.19</td>
<td>0.90</td>
<td>1.00</td>
<td>4.00</td>
<td>1,010</td>
</tr>
<tr>
<td>Fear of acquaintance physical assault</td>
<td>1.25</td>
<td>0.63</td>
<td>1.00</td>
<td>4.00</td>
<td>1,010</td>
</tr>
<tr>
<td>Fear of stranger sexual assault</td>
<td>2.25</td>
<td>0.92</td>
<td>1.00</td>
<td>4.00</td>
<td>1,008</td>
</tr>
<tr>
<td>Fear of acquaintance sexual assault</td>
<td>1.37</td>
<td>0.72</td>
<td>1.00</td>
<td>4.00</td>
<td>1,009</td>
</tr>
</tbody>
</table>

when they are considered while controlling for other crime fears as well (e.g., those involving fear of physical harm and fear of strangers, regardless of specified harm).

For each of the fears modeled, we collapsed original four-item response scales in order to create dichotomous dependent variables (1 = yes; 0 = no) indicating whether the respondent was at least somewhat worried. In the binary logit models that were estimated for each fear, we also control for previous college victimization experiences. Numerous survey screening questions were utilized to determine whether respondents were classified as having ever been victims of stalking, physical assault, or sexual assault. If respondents indicated that any of the events comprising these types of victimization had occurred, they were asked whether the event had occurred before college, while in college at an educational institution other than State U, or while enrolled at State U. Based upon these screening questions, we constructed a dichotomous variable (1 = yes; 0 = no) indicating whether the respondent had experienced any of the victimizations queried since being enrolled at State U (mean = .35; SD = 0.48).

We also include a control for the respondent’s perception of campus danger. This global assessment of campus risk/danger is measured utilizing a dichotomous variable (1 = yes; 0 = no) indicating whether the respondent thought the campus was unsafe (‘‘very unsafe’’ or ‘‘somewhat unsafe’’). Fifteen percent of sample respondents indicated that campus was unsafe (SD = 0.36). We realize the limitation of not providing crime-specific, personal measures of risk perception (e.g., ‘‘what are the chances that you personally will experience _____?’’), but such measures were not available from the survey. Our measure of assessment of campus danger does not coincide with the fear-related dependent variables in several potentially important ways. First, the referent domain is different across the measures; perception of campus danger is assessed for campus specifically, whereas crime- and perpetrator-specific fears are not domain-specific. Secondly, the global versus personal nature of the measures are different. The measure of perception of campus danger is global in that it is based upon a survey item that asks respondents to assess conditions on campus—conditions that, presumably, anyone on campus would experience. In contrast, the fear measures are based upon survey items that ask respondents to assess personal worries or concerns about crime. Finally, the measure of perceived campus danger is general (referred to nonspecific forms of crime), while the measures of fear are crime- (and perpetrator-) specific. Given these differences, we recognize that respondent assessment of campus safety is not a measure of personal, crime-specific victimization risk, often found to be a strong correlate in previous studies of crime-specific fear (e.g., Ferraro, 1995, 1996; Fisher & Sloan, 2003; LaGrange, Ferraro, & Supancic, 1992; Lane & Meeker, 2003; Lee & Ulmer, 2000; May, 2001), and we realize that lack of such a measure in our models...
is a potential limitation leading to necessary qualification of our findings. Still, we view our multivariate analysis as an important first step toward defining more clearly (within multivariate models) the role of perpetrator type (stranger versus acquaintance) in the production of shadow effects. While limited, our measure of campus danger does at least provide a control for respondents’ perceptions of general risk referent to a domain (campus) in which they spend a significant amount of time. Thus, to the extent that respondent fears refer to concerns about campus-based victimization (we have no way of knowing what this extent is), our measure of perception of campus danger would seem important as, at minimum, a control variable, and perhaps, more importantly, a proxy for personal risk perception.

Within our binary logistic regression models, we also control for respondent’s race with a dichotomous variable indicating whether the respondent is non-White (1 = yes; 0 = no; mean = 0.14, SD = 0.35) and whether the respondent is currently involved with a romantic partner in the form of a spouse, a cohabiting partner, or a noncohabiting girlfriend/boyfriend (1 = yes, 0 = no; mean = 0.62; SD = 0.49). Household structure is controlled with a variable indicating the number of adults with whom the respondent lives (mean = 1.24; SD = 1.19). Finally, four dummy variables are used to indicate class standing (freshman [18.1%], sophomore [13.7%], junior [16.5%], senior [25.6%]); graduate student status (26.2%) serves as the reference category.
TABLE 2. Logistic Regression Coefficients, Standard Errors (in parentheses), and Odds Ratios for Fear of Stalking (‘‘Somewhat or Very Worried’’ Versus ‘‘Not Worried or Just a Little Worried’’)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Fear of Stranger Stalking</th>
<th>Fear of Acquaintance Stalking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>Fear stranger sex assault</td>
<td>1.76* (0.19) 5.80</td>
<td>0.86* (0.24) 2.36</td>
</tr>
<tr>
<td>Fear acquaint sex assault</td>
<td>0.71* (0.24) 2.03</td>
<td>0.48* (0.27) 1.61</td>
</tr>
<tr>
<td>Fear stranger physical assault</td>
<td>1.25* (0.24) 3.49</td>
<td>—</td>
</tr>
<tr>
<td>Fear acquaint physical assault</td>
<td>0.14 (0.32) 1.15</td>
<td>—</td>
</tr>
<tr>
<td>Fear stranger stalking</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Fear acquaint stalking</td>
<td>1.51* (0.28) 4.54</td>
<td>—</td>
</tr>
<tr>
<td>College victimization</td>
<td>0.28 (0.18) 1.33</td>
<td>0.10 (0.19) 1.10</td>
</tr>
<tr>
<td>Perceived campus danger</td>
<td>0.33 (0.22) 1.39</td>
<td>0.39 (0.23) 1.47</td>
</tr>
<tr>
<td>Race (non-White)</td>
<td>0.66* (0.24) 1.94</td>
<td>0.59* (0.25) 1.81</td>
</tr>
<tr>
<td>Freshman</td>
<td>0.21 (0.28) 1.24</td>
<td>0.09 (0.30) 1.09</td>
</tr>
<tr>
<td>Sophomore</td>
<td>0.81* (0.29) 2.26</td>
<td>0.87* (0.30) 2.38</td>
</tr>
<tr>
<td>Junior</td>
<td>0.11 (0.29) 1.12</td>
<td>0.11 (0.30) 1.11</td>
</tr>
<tr>
<td>Senior</td>
<td>0.40 (0.25) 1.50</td>
<td>0.29 (0.27) 1.34</td>
</tr>
<tr>
<td>Romantic relationship</td>
<td>-0.01 (0.18) 0.99</td>
<td>-0.01 (0.19) 0.99</td>
</tr>
<tr>
<td>Household adults</td>
<td>0.07 (0.07) 1.08</td>
<td>0.09 (0.07) 1.10</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.97</td>
<td>-3.19</td>
</tr>
<tr>
<td>Model chi-square</td>
<td>167.82*</td>
<td>228.13*</td>
</tr>
<tr>
<td>df = 11</td>
<td>df = 14</td>
<td>df = 11</td>
</tr>
</tbody>
</table>

*p < .05.
Considering first the effects of perpetrator-specific fear of sexual assault on stalking fears, without controlling for other crime fears (see Model 1 for both fear of stranger stalking and fear of acquaintance stalking), results in Table 2 suggest that both fear of sexual assault by a stranger and fear of sexual assault by an acquaintance are positively and significantly related to both stalking fears. The coefficients and odds ratios for fear of stranger sexual assault are especially strong. For instance, odds of fear of stranger stalking are 580% higher for those who worry about sexual assault by a stranger in comparison to those who do not, while the odds of fear of stranger stalking are just over 200% greater among those who worry about sexual assault by an acquaintance (versus those who do not worry). A similar pattern holds for predicting fear of acquaintance stalking. The odds ratio for the effect of fear of stranger sexual assault is 4.19, while the odds ratio for the effect of fear of acquaintance sexual assault is 3.34; both effects are highly significant.

In the second models presented for both fear of stranger stalking and fear of acquaintance stalking, additional crime fears are added to the model to see if the effects of the sexual assault fear hold or if instead they are tempered by considerations of further crimes involving strangers and/or crimes involving physical harm. As results in Table 2 show, the effects of both stranger- and acquaintance-specific sexual assault on both measures of stalking hold upon controlling for the other crime fears, though the coefficients do decline substantially. Further, there is no clear pattern of findings regarding the effect of other crime fears. Fear of stranger-perpetrated physical assault is significantly, positively related to fear of stranger stalking, but it is nonsignificant in the estimation of fear of acquaintance stalking. Fear of physical assault by an acquaintance is not related to either stalking fear. Fear of acquaintance stalking is significant in the model estimating fear of stranger stalking, and vice versa, fear of stranger stalking is significant in the model estimating fear of acquaintance stalking. In sum, fear of stalking by a stranger appears correlated with fear of both types of sexual assault (i.e., stranger and acquaintance types), fear of other forms of stalking (i.e., acquaintance type) and fear of physical attack by a stranger. Fear of acquaintance stalking appears related to, again, fear of sexual assault, generally (i.e., regardless of perpetrator relationship), and fear of other forms of stalking (i.e., stranger stalking).

Table 3 presents a similar analysis for perpetrator-specific fears of physical assault. In the first model presented for fear of stranger-perpetrated physical assault, only fear of stranger-perpetrated sexual assault is significant among the shadow of rape independent variables. Fear of acquaintance-perpetrated sexual assault is non-significant. The significance of stranger-specific sexual assault fear holds after controlling for other crime fears (Model 2, Stranger Physical Assault), though two of the three fears added also display significant coefficients. In sum, fear of stranger physical assault appears associated with fear of stranger sexual assault, fear of stranger stalking, and fear of other forms of physical assault.

The initial model estimating fear of acquaintance-perpetrated physical assault reveals significant coefficients for both stranger- and acquaintance-perpetrated sexual assault. However, upon controlling for additional crime fears, the coefficient for fear of stranger-perpetrated sexual assault disappears, while the coefficient for fear of acquaintance-perpetrated sexual assault remains statistically significant. Fear of acquaintance physical assault, therefore, appears correlated with fear of acquaintance sexual assault, fear of other physical assaults, and fear of acquaintance stalking.

Overall, when considering findings from Tables 2 and 3 together, fears of sexual assault by both strangers and acquaintances appear correlated with most other crime fears under
<table>
<thead>
<tr>
<th>Variable</th>
<th>Fear of Stranger Physical Assault</th>
<th>Fear of Acquaintance Physical Assault</th>
<th>Fear of Stranger Physical Assault</th>
<th>Fear of Acquaintance Physical Assault</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td></td>
<td>Coeff. (SE)</td>
<td>Coeff. (SE)</td>
<td>Coeff. (SE)</td>
<td>Coeff. (SE)</td>
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<tr>
<td>Fear stranger sex assault</td>
<td>3.40* (0.19)</td>
<td>3.31* (0.21)</td>
<td>1.29* (0.35)</td>
<td>1.24* (0.31)</td>
</tr>
<tr>
<td>Fear acquaintance sex assault</td>
<td>0.21 (0.29)</td>
<td>0.38 (0.32)</td>
<td>0.69 (0.33)</td>
<td>0.59 (0.31)</td>
</tr>
<tr>
<td>Fear stranger physical assault</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear acquaintance physical assault</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear stranger stalking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear acquaintance stalking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived campus danger</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race (non-White)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Freshman</td>
<td>0.43 (0.25)</td>
<td>1.50 (0.21)</td>
<td>1.40 (0.34)</td>
<td>1.45 (0.43)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>0.14 (0.29)</td>
<td>0.57 (0.32)</td>
<td>0.17 (0.30)</td>
<td>0.18 (0.30)</td>
</tr>
<tr>
<td>Senior</td>
<td>0.27 (0.30)</td>
<td>0.56 (0.34)</td>
<td>0.14 (0.30)</td>
<td>0.13 (0.29)</td>
</tr>
<tr>
<td>Household adults</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>2.78</td>
<td>2.97</td>
<td>4.25</td>
<td>5.06</td>
</tr>
</tbody>
</table>

Model chi-square: 515.78* \( df = 14 \)

Model chi-square: 113.21* \( df = 11 \)

\* \( p < .05 \)
examination. Less clear patterns emerge regarding the effects of the nonsexual crime fears, except that (1) fear of physical assault (specific to the perpetrator other than one represented by the dependent variable) is consistently significant in the estimation of physical assault and (2) fear of stalking (specific to the perpetrator other than one represented by the dependent variable) is consistently significant in the estimation of stalking. The general pattern is one whereby both fear of physical assault and fear of stalking appear to be general fears in that there is close association between stranger- and acquaintance-perpetrated fear within each of these two crime types. However, neither fear of physical assault nor fear of stalking appear general across crime type. Neither crime fear is consistently related to fear of the other crime. As such, perpetrator type seems to matter less than crime type when it comes to understanding associations among crime fears.

DISCUSSION AND CONCLUSIONS

College women in our sample feared sexual assault by a stranger more than any other offense examined. Further, despite the fact that victimization data from the survey utilized herein revealed that the percentage of women sexually assaulted by an acquaintance greatly exceeds the percentage of women experiencing stalking or physical assault by a stranger, women expressed far greater fear of these latter two offenses in comparison to fear of sexual assault by an acquaintance. Overall, then, college women we surveyed were most fearful of crimes perpetrated by strangers, especially sexual assault. Given the differentials that exist between fears of stranger- versus acquaintance-perpetrated crimes, we examined whether stranger- versus acquaintance-perpetrated rape might shadow other crimes in a variable fashion when estimating women’s fears. We presented multivariate analyses intended to serve as a first step towards refining the notion of the shadow of sexual assault, especially in terms of whether the shadow effect among college women is conditional upon victim-offender relationship.

The picture that emerges from our analysis of this issue is fairly complex. On the one hand, the analyses presented above show that both fear of stranger-perpetrated sexual assault and fear of acquaintance-perpetrated sexual assault were often associated with increased fear of other crimes. As such, sexual assault appears fairly general across perpetrator type in terms of its shadow effects. However, the effects of fear of stranger-perpetrated sexual assault were typically associated with larger coefficients and effects that remained after controlling for other crime fears. Most specifically, the associations were generally strongest between fear of stranger-perpetrated sexual assault and fear of other stranger-perpetrated crimes. Therefore, fear of stranger- and acquaintance-perpetrated sexual assaults are usually correlated with other crime fears, but it is stranger-specific sexual assault and other stranger-perpetrated crime fears that are most noticeably correlated, or ‘‘perceptually contemporaneous,’’ to build upon Warr’s work on women’s fear of sexual assault (e.g., Warr, 1984, 1985). Inconsistent evidence was found regarding the idea emerging from recent scholarship that fear of physical harm may be more closely associated with other crime fears than fear of sexual assault (Lane & Meeker, 2003). The effects of physical assault, overall, were not as consistently significant as those for sexual assault. However, in some models (e.g., the model estimating fear of stranger stalking), the effects of fear of sexual assault were larger than those of sexual assault, lending some support for the idea that fear of physical harm should not be neglected when trying to understand women’s crime fears.

"Should one of these say "physical assault"? (Last sentence of 2nd paragraph under "Discussion and Conclusions.")"...effects of fear of sexual assault were larger than those of sexual assault...'' doesn't make sense.
While we think these findings are an important step towards refining the notion of the shadow of sexual assault, thereby leading to a better understanding of women’s fear of crime, we do recognize the limitations of our study that necessarily qualify the results. For instance, as mentioned previously, we are unable to present crime-specific shadow effects net of crime-specific measures of personal victimization risk, since no such risk measures were available. Personal, crime-specific risk is an important predictor of fear in the extant literature, thus an important covariate is not controlled in our models. We think, however, that the models presented are meaningful. Personal risk perception, while an important correlate of fear, does not appear to explain away the shadow effects of other crime fears. Indeed, most studies of the shadow of sexual assault hypothesis have found shadow effects larger than those for personal risk perception (e.g., Ferraro, 1995; Lane & Meeker, 2003). As such, we suspect that substantive findings regarding the associations between crime fears—especially those related to stranger-perpetrated sexual assault (our most robust independent variable)—would remain similar even in models that controlled for personal crime-specific risk perception. Nonetheless, this speculation remains an empirical question, and we encourage future studies to continue refining our understanding of the shadow of sexual assault through use of multivariate models that include such risk measures. We also recognize the limited scope of the crime fears examined here. While we think the substantive differences between sexual assault, physical assault, and stalking are meaningful (see discussion in “The Present Study”), we encourage future work to expand upon our analysis and incorporate other perpetrator-specific crime fears.

Replication is obviously necessary before our findings guide policy. However, assuming they can be replicated, our results do have potentially important implications for how we might redirect efforts to address women’s heightened fear levels, particularly regarding women on college campuses. In trying to lower college women’s fear of crime, our results imply that it might be fruitful to address fear of strangers as much as fear of sexual assault per se. Previous scholarship on the shadow of sexual assault hypothesis has suggested that it is fear of rape that needs to be addressed in order to affect fear of crime more generally among women (Ferraro, 1995, 1996; Fisher & Sloan, 2003). Another recent analysis suggested that it was fear of physical harm that needed to be addressed (Lane & Meeker, 2003). Our analyses provide some support for both of these previous findings (see above). However, in distinguishing effects of perpetrator-specific fears, our analysis also suggests that it is sexual assault by a stranger that is most consistently related to women’s other crime fears, thereby refining previous conclusions.

Such findings have significant implications for academic institutions that are challenged to establish comprehensive responses to violence against college women. Colleges and universities, it is now clear, must attend to both actual, direct victimization and more indirect victimization experiences, including fear of victimization. Our results suggest that attending to fear of victimization means partially deconstructing long-held notions of danger being associated with strangers as opposed to acquaintances. Study results presented here appear to support educational programs directed at informing women more accurately as to their level as well as to the source of risk of crime. This not only affords the opportunity for actual risk reduction and violence prevention, it directs itself to women’s cognitive and emotional appraisals of their victimization risk. Effective educational programming should lower the extent to which fear of stranger-perpetrated sexual assault, in particular, prevails and, in fact, drives other crime fears regardless of direct stranger-rape victimization experiences.

We do not advocate that college women let down their guard or view strangers as low risk, as we recognize that some of this fear of strangers undoubtedly serves to reduce future
victimization risk, thus highlighting a very functional feedback loop or reciprocity between victimization and fear (Cook, 1986). Neither do we advocate doing away with programs aimed at stranger assault cases, for these have great potential benefit for reducing women’s fear levels given the pervasiveness of fear of strangers. For instance, applied programs aimed at self-defense training (which are targeted more to stranger assault cases) may enhance women’s sense of safety and personal empowerment, thereby influencing their emotional appraisals of risk regarding strangers in particular. Such programs, while perhaps targeting a type of victimization less likely to be experienced by college women, do address an important source of fear among college women. Despite the benefits of healthy levels of fear of strangers and traditional antiviolence programming, however, we do advocate better dissemination of information regarding the facts of college women’s victimization, so that women’s fears of stranger- versus acquaintance-based crime are more commensurate with actual risk.

Beyond enhanced efforts at dissemination of information, our results support cognitive-based therapeutic or educational programs that can prevent or intervene in emotional stress caused by fear of crime on campus. More specifically, our findings suggest that campus professionals designing curricula and programs that can optimally enhance women’s well-being need to be aware that stranger-perpetrated crimes—especially stranger-perpetrated rapes—are foremost on the minds of college women.

NOTE

1. Ordinal logistic models (not shown) were problematic due to violation of the “parallel-lines assumption.” In a model with a four-category dependent variable (DV), such as our fear measures, ordinal logistic regression simultaneously estimates equations based upon three potential contrasts: (1) $DV_1$ versus $DV_{2, 3, 4}$; (2) $DV_{1, 2}$ versus $DV_{3, 4}$; (3) $DV_{1, 2, 3}$ versus $DV_4$. Based upon these simultaneous equations, ordinal logistic regression then provides one coefficient per independent variable and simply assumes that slope coefficients are consistent across the different contrasts. However, preliminary analysis showed that this assumption was violated. Hence, we elect to report here binary logistic regression coefficients for the particular DV contrast of most substantive interest to us, that being the contrast between feeling somewhat or very worried ($DV_{3, 4}$) versus feeling “just a little worried” or “not very worried at all.”

REFERENCES


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