

# Is Reporting of Rape on the Rise? A Comparison of Women With Reported Versus Unreported Rape Experiences in the National Women's Study-Replication

Journal of Interpersonal Violence


26(4) 807–832

© The Author(s) 2011

Reprints and permission: <http://www.sagepub.com/journalsPermissions.nav>

DOI: 10.1177/0886260510365869

<http://jiv.sagepub.com>

 SAGE

Kate B. Wolitzky-Taylor,<sup>1</sup>  
Heidi S. Resnick,<sup>2</sup> Jenna L. McCauley,<sup>2</sup>  
Ananda B. Amstadter,<sup>2</sup>  
Dean G. Kilpatrick,<sup>2</sup>  
and Kenneth J. Ruggiero<sup>2</sup>

## Abstract

Rape affects one in seven women nationwide. Historically, most rape victims do not report rape to law enforcement. Research is needed to identify barriers to reporting and correlates of reporting to guide policy recommendations that address such barriers. We investigated the prevalence of reporting rape among a national sample of women ( $N = 3,001$ ) interviewed in 2006. The study also examined predictors of reporting as well as barriers to reporting, concerns about reporting, and women's experiences with the reporting

---

<sup>1</sup>University of California–Los Angeles

<sup>2</sup>Medical University of South Carolina, Charleston

## Corresponding Author:

Kate Wolitzky-Taylor, PhD, UCLA Department of Psychology, 405 Hilgard Avenue,  
Los Angeles, CA 90095-1563

Email: [ktaylor@psych.ucla.edu](mailto:ktaylor@psych.ucla.edu)

process. Results demonstrated that the overall prevalence of reporting (15.8%) has not significantly increased since the 1990s. Differences were found between rape types, with rapes involving drug or alcohol incapacitation or facilitation being less likely to be reported than forcible rapes. Several predictors of reporting emerged in multivariable analyses. Implications for public health and public policy are discussed.

## **Keywords**

rape, sexual assault, reporting

Approximately one in seven U.S. women has been raped in their lifetimes (Kilpatrick, Edmunds, & Seymour, 1992; Tjaden & Thoennes, 2000). Despite increased public awareness of the scope of the problem over time, reporting rape to the police historically has occurred infrequently. Previous estimates from studies conducted in the early to mid-1990s indicate that only 16% to 20% of rape victims report the incident to law enforcement (Kilpatrick et al., 1992; Tjaden & Thoennes, 2006).<sup>1</sup> As there is compelling evidence to suggest that the majority of rapists are recidivists (Abel et al., 1987), unreported rapes present a significant public safety issue. Unwillingness to report rape also can have a negative impact on victims. Reporting is likely to increase access to medical care and/or psychological services (Young, Bracken, Goddard, & Matheson, 1992). Furthermore, women who report within a short period after a rape are more likely to receive a medical examination, an integral part of the forensic investigation. Resnick et al. (2000) found that women who reported an adult rape to authorities were five times more likely to receive medical care than those who did not. In addition, mental health referrals are often provided as a routine part of these medical examinations (Young et al., 1992). Thus, given well-documented associations between rape and various psychological (Kilpatrick, Acierno, Resnick, Saunders, & Best, 1997; Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993) and physical problems (Kimerling & Calhoun, 1994; Koss & Heslet, 1992), reporting may increase access to needed care.

## **Barriers to Reporting**

Rapes go unreported for a variety of reasons. Societal attitudes about rape, potential inequities (e.g., economic, gender), and other contextual factors all may impact decisions to report (Menard, 2005). Indeed, results from the National Women's Study (Kilpatrick et al., 1992) indicated that the majority of rape victims were concerned about being blamed by others (69%). In addition,

these women identified several other concerns that may decrease the likelihood of reporting, such as being at least somewhat concerned about families knowing (71%), others knowing (68%), and their names being made public (50%). Other concerns that may be likely to increase the likelihood of reporting, such as getting HIV/AIDS, getting a sexually transmitted disease (STD), or becoming pregnant, were less likely to be endorsed, with only 10%, 19%, and 34% of rape victims in the sample reporting at least some concern about HIV/AIDS, STDs, and pregnancy, respectively. Experimental literature has demonstrated that individuals continue to blame rape victims, particularly among certain groups and when certain rape characteristics are present. For example, studies have demonstrated that males are more likely to attribute blame to a victim than females in a hypothetical vignette (Bell, Kuriloff, & Lottes, 1994; Luginbuhl & Mullin, 1981) and that study participants are more likely to attribute blame to a hypothetical date rape victim than a stranger rape victim (Bell et al., 1994). These studies significantly add to our understanding of how contextual factors and societal attitudes may influence women's likelihood of reporting rapes.

## Variables Associated With Reporting

Understanding what factors are associated with likelihood of reporting can help researchers and policy makers develop targeted interventions to increase reporting. Several variables have been found to be associated with rape reporting. Stranger rapes are more likely to be reported than rapes by acquaintances (Estrich, 1987). Victims who sustain injuries are also more likely to report their rapes (Bachman, 1993, 1998; Lizotte & Wolfson, 1981), as are those whose assailants used weapons during the rape (Amir, 1971; Bachman, 1998; Lizotte & Wolfson, 1981). Furthermore, victim use of alcohol and/or drugs at the time of the assault has been found to be associated with lower likelihood of reporting (Clay-Warner & Burt, 2005; Fisher, Daigle, Cullen, & Turner, 2003).

Demographic variables have also been associated with reporting. One study found that married rape victims and highly educated rape victims were more likely to report than unmarried victims and less educated victims (Lizotte, 1985). Another study found that reports were more likely to be made if the perpetrator was African American (Greenberg & Ruback, 1992). These studies provide an important basis for understanding the variables associated with reporting, but few studies have used data with large, national samples, and many of these studies on reporting were conducted two to three decades ago. New, national data are needed to build on our knowledge of barriers to reporting and to provide an updated snapshot of the prevalence and

correlates of reporting rape in America. This is particularly important because it is reasonable to suspect that public awareness campaigns and policy recommendations may have led to an increase in the reporting of rape since the 1989 National Women's Study was conducted.

## The Current Study

We examined the prevalence of reporting rape to law enforcement in a nationally representative sample of 3,001 women interviewed in 2006. In addition, this study attempted to extend our current understanding of the (a) barriers to reporting, (b) variables associated with reporting rape, and (c) experiences women have had with the reporting process. As many of the procedures used in the present study were comparable to those used in the original National Women's Study conducted in 1989, we also had an opportunity to draw comparisons between these two samples with regard to the prevalence and correlates of reporting.

## Method

### Participants

The data presented in this article are from the National Women's Study–Replication. The sample of 3,001 women was formed from two U.S. population samples: a national cross-section of 1,998 women aged 18 to 34, plus a cross-section of 998 women aged 35 and older, and 5 women who refused to provide their age. The sample was weighted to bring the distribution of demographics in line with the 2005 U.S. Census estimates. The final weighted sample consisted of 3,001 women (aged 18 to 76 years), with a mean weighted age of 46.58 ( $SD = 17.87$ ).

### Measures

**Demographics.** Participants were asked to provide their age in years at time of their most recent rape incident (below 11 years, 12 to 17 years of age, or 18 or older) and their racial/ethnic status (White, Black, Hispanic, or Other). In addition, we assessed highest level of education attained at the time of the interview, marital status at the time of the interview, and estimated household income at the time of the interview.

**Rape experiences.** We assessed women's most recent/only and, if multiple rape incidents were endorsed, first incident of rape. Rape was defined as penetration of the victim's vagina, mouth, or rectum without consent. Questions

(see the appendix)<sup>2</sup> were closed-ended and behaviorally specific and did not require women to personally label the experience as a *rape*. This decision was based in part on research showing that a significant percentage of women who have experiences that would meet the definition of rape do not label their experience as such (e.g., Kahn, 2004).

**Most recent rape incident characteristics.** Several incident characteristics of women's most recent/only rape were assessed including victim's memory of the rape, peritraumatic fear (i.e., fear at the time of the trauma), injuries sustained during the rape, year of rape, and relationship to perpetrator. Memory of the event was assessed by asking women "How well do you remember the details of what happened in this incident?" Women reporting remembering "extremely well" and "very well" were coded as remembering the event well, whereas women reporting remembering the event "not so well" and "not well at all" were coded as not remembering the event well. Peritraumatic fear was assessed by asking women if they were "afraid (they) might be killed or seriously injured." Injury was assessed by asking if women suffered "serious physical injuries, minor physical injuries, or no physical injuries as a result of the incident." Both serious and minor injuries were included as affirmative responses to injury. Year of the rape was determined by subtracting the age at the time of the rape from the age of the participant at the time of the interview and subtracting that number from 2006 (date of the interview). The variable was coded into rapes occurring "in 1980 or earlier" or "1981 or later." Women were considered to have been raped by an intimate perpetrator if they endorsed that the perpetrator was their husband, ex-husband, boyfriend/lover, or ex-boyfriend/lover at the time of the incident. Women were considered to have been raped by a stranger if they endorsed (a) that they had not ever seen the perpetrator before or (b) that they did not know the perpetrator well or at all. Women who were not classified as being raped by a stranger or an intimate partner were categorized as having been raped by a nonintimate partner, nonstranger (i.e., nonintimate relative, nonintimate acquaintance).

**Most recent rape type.** Cases were defined as *forcible rape* (FR) if the perpetrator used force or threat of force, or the victim reported being injured as a result of the assault. The key element of *incapacitated rape/drug-alcohol facilitated rape* (IR/DAFR) was that the victim either perceived the perpetrator to have raped her when she was intoxicated and impaired via voluntary intake of drugs or alcohol by the victim (i.e., IR), or that the perpetrator was perceived by the victim as having deliberately attempted to produce incapacitation by administering drugs or alcohol to the victim (i.e., DAFR). In IR/DAFR cases, the victim was unable to consent to sexual intercourse due to incapacitation (e.g., lack of consciousness/awareness or ability to control behavior). Classification of individuals into rape categories was based on their most recent/only rape

experience; classification was nonmutually exclusive. Women who reported elements of more than one rape type as part of a single incident were considered to have experienced each form of rape for which they met criteria.

*Prior rape history.* In addition to most recent rape experience, we also assessed whether women had a history of previous rapes. Women endorsing multiple rapes during their lifetime were also asked about their first rape, and rape was defined as described above. This variable was coded dichotomously as yes/no history of previous rape.

## *Procedure*

Our random-digit-dial (RDD) methodology involved three steps. First, the sample was geographically stratified with sample allocation proportionate to population distribution. Second, a sample of assigned telephone banks was randomly selected from an enumeration of the Working Residential Hundreds Block (defined as each block of 100 potential telephone numbers with an exchange that includes one or more residential listings) within the active telephone exchanges within the strata. Third, a two-digit number was randomly generated by computer for each Working Residential Hundreds Block. All interviews were conducted between January 23 and June 26, 2006.

Women were interviewed using a computer-assisted telephone interviewing (CATI) system. The CATI system is designed to reduce interviewer error in both data collection and data recording. The CATI system presents each question one screen at a time and does not move to the next interview item until an appropriate response has been entered by the interviewer. It also allows for the programming of skip patterns, which reduces risk for interviewer error. Only experienced female interviewers were involved in survey procedures.

English and Spanish versions of the interview were developed; the version administered was based on respondent language preference. Completed interviews averaged 20 min. This study was approved by the institutional review board at a major medical university. After determining that the residence contained one or more women eligible for the study, the interviewer introduced the study and provided a toll-free telephone number to confirm authenticity of the study. When a residence had more than one woman who met study criteria, the woman with the most recent birthday was selected. Whenever possible, women were interviewed immediately after respondent selection was determined. Otherwise, appointments were scheduled or blind callbacks were made at different times of day and days of the week. A minimum of five callbacks were made before a case was abandoned. After a complete description of the study was provided, oral consent was obtained. All

**Table 1.** Frequencies for Independent Variables Among Women Classified as Having Experienced a Rape ( $N = 526$ )

Variable	<i>N</i>	%
<b>Demographics</b>		
Age at time of most recent rape <sup>a</sup>		
Less than 10	56	10.7
11 to 17	154	29.3
18 or older	299	56.8
Education		
Up to some high school	60	11.4
High school graduate/some college	300	57.1
College graduate	123	23.3
Some graduate school/graduate degree	43	8.2
Race <sup>a</sup>		
White	394	74.9
Black	81	15.4
Hispanic	28	5.3
Other	16	3.0
Married		
No	263	50.0
Yes	263	50.0
Income <sup>a</sup>		
<US\$20,000	126	24.0
US\$20,000-US\$60,000	224	42.6
>US\$60,000	138	26.2
<b>Rape type</b>		
History of DAFR/IR		
No	392	74.6
Yes	134	25.4
History of forcible rape		
No	68	12.9
Yes	458	87.1
<b>Rape characteristics</b>		
Injury		
No	294	55.9
Yes	232	44.1
Calendar year of rape <sup>a</sup>		
1980 or earlier	187	35.5
1981 or later	322	61.2

*(continued)*

**Table 1. (continued)**

Variable	N	%
Memory of rape <sup>a</sup>		
No	153	29.1
Yes	369	70.2
Stranger perpetrator		
No	465	88.3
Yes	61	11.7
Intimate partner perpetrator		
No	389	74.0
Yes	137	26.0
History of previous rape		
No	274	52.1
Yes	252	47.9

Note: DAFR/IR = drug and alcohol facilitated rape or incapacitated rape.

a. Missing data. Percentages do not include missing cases and so will not add up to 100%.

participants were asked the same screening questions, and additional questions were asked when participants endorsed having certain experiences (see the appendix for a list of the interview questions).

### *Statistical Analyses*

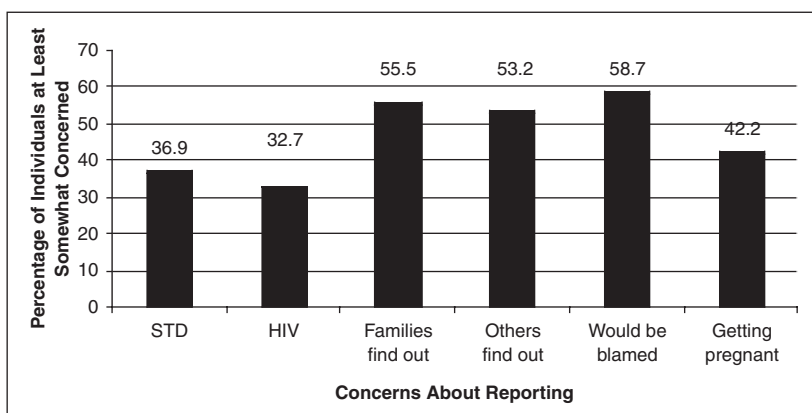
Logistic regression analyses were conducted to identify variables within each predictor set: demographics (age at time of most recent assault, education, ethnicity, marital status, income), most recent rape incident characteristics (memory of event, peritraumatic fear, relationship to perpetrator, injury, calendar year of rape), most recent rape type (FR, IR/DAFR), and other rape history (history of previous rape) that were associated with reporting their most recent/only rape incident to authorities. Significant predictors emerging from these analyses were entered into a final multivariable logistic regression analysis predicting reporting of most recent/only rape incident. SUDAAN (version 10.0) was used for all regression analyses to account for complex survey design and sample weighting.

## **Results**

### *Prevalence of Reporting Rape and Concerns About Reporting*

Table 1 reports the frequencies of the independent variables among those women who were classified as having a history of a forcible rape or DAFR/IR. Out of 526 individuals (17.5% of sample) classified as having a history



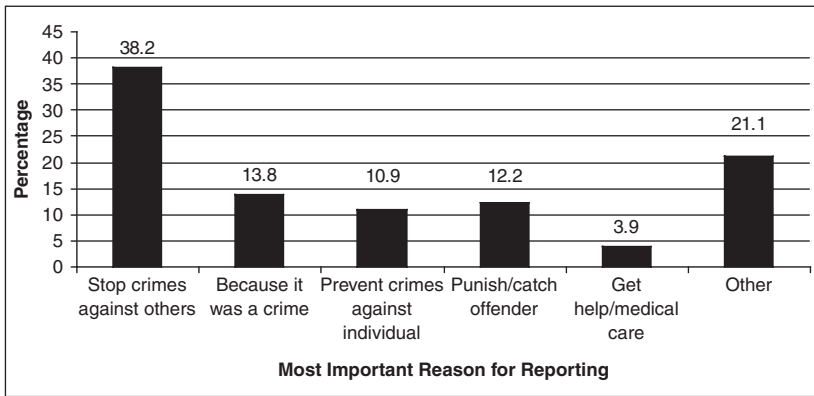


**Figure 1.** Percentage of participants endorsing at least some concern about reporting

of forcible rape or IR/DAFR, 15.8% (83 women) indicated that their most recent/only rape was reported to law enforcement officials either by the victim or by someone else. More than 17% of FR cases were reported, whereas only 11.9% of DAFR/IR cases were reported. Figure 1 shows the percentage of individuals who were raped (regardless of whether they reported) who endorsed specific concerns related to reporting. The most commonly endorsed concern was that other people would think the rape was their fault (58.7%).

### *Characteristics of the Most Recent/Only Rape*

As noted above, 83 women indicated that their most recent/only incident of rape was reported to the authorities. Of these, 25.3% of the perpetrators were identified as strangers and 24.6% were identified as intimate partners. Among women who reported the rape, 62.3% stated they sustained injuries and 70.2% reported getting medical care following the assault. Nearly 72% of women who reported their rapes indicated that they remembered the assault extremely or very well, and 75.4% stated that they feared they would be seriously injured or killed. Of the rapes reported, 76.6% were reported by the victim. These victims were asked to indicate the most important reason why they chose to report the crime. The percentage of individuals endorsing each reason is illustrated in Figure 2. Of those who did report, the most common reason why the individuals said they reported was because they wanted to stop the offender from committing crimes against others (38.2%).



**Figure 2.** Most important reason why individuals reported to the police

### *Experiences With the Reporting Process*

Victims who reported the rape (i.e., most recent/only rape) themselves were asked a number of questions regarding their experiences with the reporting process. Of women reporting their rape, 70.3% indicated that they felt the police believed them and took their reports seriously. Only 51.8% of those who reported said they knew if anyone was arrested or if charges were brought against anyone in connection to the rape. More than half (60.4%) of individuals reported being at least somewhat satisfied with the way they were treated by the police, with only 41% stating that they were “very satisfied.” The majority (91.4%) of those who reported the rape indicated that they felt they had made the right decision to report. Just less than half (47.2%) of individuals who reported the crime indicated that before reporting, they consulted with someone else about the possibility of reporting. The majority of those who consulted with someone else (83.3%) indicated that the person(s) with whom they consulted encouraged them to report to the police. When asked if they would report in the future should a similar incident occur, 84% stated they would definitely report again.

### *Reasons for Not Reporting*

For those who did not report the rape to the police, several reasons for this decision were indicated. The most common reason endorsed for not reporting was fear of reprisal by the offender, stated by 68.1% of individuals

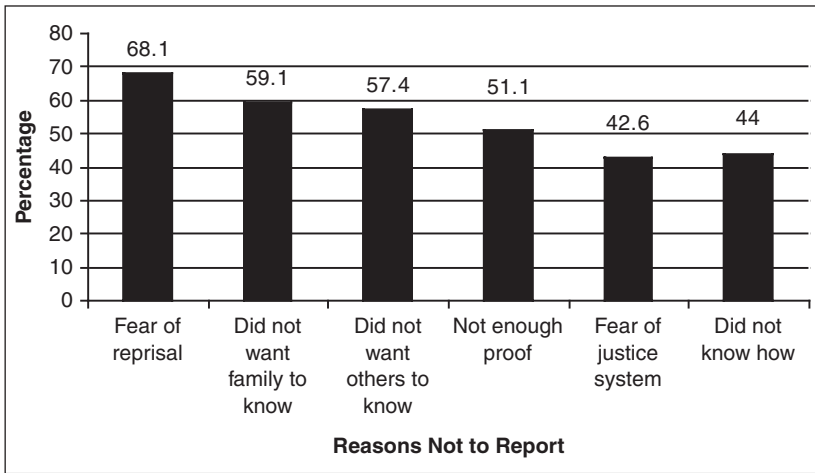


Figure 3. Reasons why individuals did not report to the police

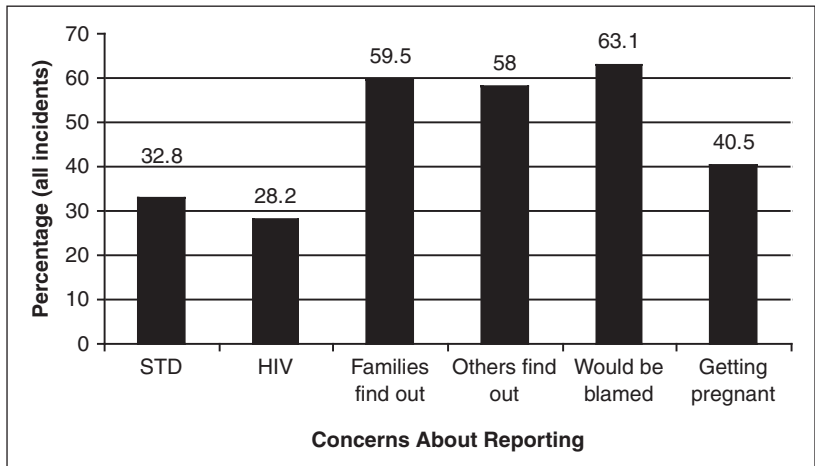


Figure 4. Percentage of participants endorsing at least some concern about reporting, considering all incident

who did not report the rape to the police. The percentage of individuals indicating each reason why they did not report to the police is presented in Figure 3. Concerns about reporting (for all most recent/only rapes) are presented in Figure 4.

Table 2. Correlations Among Predictor Variables

	Inc.	Ed.	Cauc.	Blk.	Hisp.	Oth.	Age	Mem.	Int.	Stran.	Inj.	Fear	FR	DAFR/IR	Prior	Year
Mar.	.47***	-.05	.21***	-.21***	-.03	-.05	-.12**	.04	-.11*	.05	-.03	.04	-.01	-.05	-.16***	-.11**
Inc.	—	.16***	.10*	-.10*	-.08	.05	-.04	-.05	-.10*	.08	-.04	-.05	-.08	.07	-.09	-.18***
Ed.	—	—	.13**	-.12**	-.07	.02	.03	-.09*	-.10*	-.10*	-.08	-.16***	-.10*	.05	-.03	-.06
Cauc.	—	—	—	—	—	—	.03	-.08	.03	-.01	-.08	-.12**	-.05	.04	-.05	-.02
Blk.	—	—	—	—	—	—	-.02	.10*	-.04	-.06	.11*	.07	.07	-.09	-.01	.09*
Hisp.	—	—	—	—	—	—	-.03	-.04	.02	.05	-.02	.03	-.02	.04	.02	.11*
Oth.	—	—	—	—	—	—	-.02	.04	-.00	.09*	-.01	.12**	.02	.02	.12**	.08
Age	—	—	—	—	—	—	—	-.07	.30***	.09*	.05	.07	-.11*	.19***	.07	.21***
Mem.	—	—	—	—	—	—	—	—	.16***	-.14**	.13**	.28***	.44***	-.50***	-.10*	-.05
Int.	—	—	—	—	—	—	—	—	—	-.22***	.08	.14***	.14**	-.17***	.08	.04
Stran.	—	—	—	—	—	—	—	—	—	—	-.02	.06	-.06	.15***	.01	.09*
Inj.	—	—	—	—	—	—	—	—	—	—	—	.41***	.34***	-.21***	.18***	-.09*
Fear	—	—	—	—	—	—	—	—	—	—	—	—	.39***	-.35***	.17***	-.07
FR	—	—	—	—	—	—	—	—	—	—	—	—	—	-.66***	.14**	-.23***
DAFR/IR	—	—	—	—	—	—	—	—	—	—	—	—	—	—	-.06	.32***
Prior	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.06

Note: Mar. = married; Inc. = income; Ed. = education; Cau. = White; Blk. = Black; Hisp. = Hispanic; Oth. = Other race; Age = age at most recent rape; Mem. = remembered rape; Int. = rape by intimate partner; Stran. = rape by stranger; Inj. = injury; Fear = peritraumatic fear; FR = forcible rape; DAFR/IR = drug and alcohol facilitated rape or incapacitated rape; prior = prior rape history; Year = calendar year of the rape.

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

## Predictors of Reporting

As described above, a series of logistic regression models were created to examine predictors of reporting rape to law enforcement. A correlation matrix of all key variables is presented in Table 2. The preliminary models are presented in Table 3. The final model is presented in Table 4.

**Demographics.** Within the demographic variables, race/ethnicity and educational attainment were significant predictors of reporting, whereas age at most recent rape, marital status, and income were not. When compared to White women, women in the “Other” racial/ethnic category (includes Asian, Native American, and Pacific Islander) were 4.32 times more likely to report their rape to the authorities. Black and Hispanic women were not more likely to report to the authorities than were White women. With regard to education, women with a college degree were less likely than women with some high school education to report (OR = 0.27). The other education categories were not significantly different than the “some high school degree” category, suggesting similar likelihood of reporting.

**Most recent incident characteristics.** Among the incident characteristics of the women’s most recent (or only) rape, endorsement of peritraumatic fear (OR = 3.71), being raped by a stranger (OR = 2.37), incurring an injury as a result of the rape (OR = 1.94), and rapes occurring after the year 1980 (OR = 3.51) were associated with increased odds of reporting. Neither having a clear memory of the rape nor the perpetrator being an intimate partner added predictive value.

**Most recent rape type.** History of FR, in comparison to history of either DAFR or IR, was associated with a fourfold increased likelihood of reporting.

**Prior rape history.** Women’s history of a previous rape was not significantly associated with increased likelihood of reporting their most recent rape.

**Final model.** All significant predictors from the individual models were entered into a final multivariable model (see Table 4). Education remained a significant predictor, again with women with a college degree being less likely (OR = 0.29) to report compared to those with up to some high school education. No other education categories were significantly different. Peritraumatic fear remained a significant predictor, and similar to the individual model described above, individuals endorsing extreme fear during the rape were at greater odds of reporting than those who did not report fear (OR = 2.21). Similarly, being raped by a stranger remained significantly associated with increased likelihood of reporting (OR = 2.58). In addition, rapes occurring after 1980 were associated with higher likelihood of reporting (OR = 3.33) compared to rapes occurring in 1980 or earlier. Racial/ethnic status, injury as a result of the rape, and rape type did not remain significant in the final model.

**Table 3.** Logistic Regression Results: Reporting

Predictor	OR	95% CI	p Value
<b>Model 1: Demographics</b>			
Age at most recent rape			
11 and under	1.00	—	.53
12-17	1.44	0.62-3.33	
18 and older	1.05	0.46-2.36	
Education			
Up to some high school	1.00	—	.03
High school graduate/some college	0.82	0.36-1.88	
College graduate	0.27	0.09-0.76	
Some graduate school/graduate degree	0.46	0.12-1.69	
Race			
White	1.00	—	.02
African American	1.20	0.46-3.13	
Hispanic	0.59	0.23-1.52	
Other	4.32	1.62-11.52	
Married			
No	1.00	—	.70
Yes	0.89	0.50-1.60	
Income			
<US\$20,000	2.12	0.87-5.19	.22
US\$20,000-US\$60,000	1.78	0.83-3.83	
>US\$60,000	1.00	—	
<b>Model 2: Most recent incident characteristics</b>			
Memory of rape			
No	1.00	—	.55
Yes	0.73	0.26-2.04	
Peritraumatic fear			
No	1.00	—	<.001
Yes	3.71	1.95-7.07	
Perpetrator intimate partner			
No	1.00	—	.52
Yes	0.72	0.26-1.96	
Perpetrator a stranger			
No	1.00	—	.01
Yes	2.37	1.21-4.64	
Injury			
No	1.00	—	.03
Yes	1.94	1.08-3.48	

*(continued)*

**Table 3. (continued)**

Predictor	OR	95% CI	p Value
Calendar year of rape			
1980 or earlier	1.00	—	.03
1981 or later	3.51	1.16-10.65	
Model 3: Most recent rape type			
Rape type			
FR	4.09	1.38-12.14	.01
DAFR/IR	1.00	—	
Model 4: Prior rape history			
History of previous rape			
No	1.00	—	.12
Yes	1.54	0.89-2.66	

Note: OR = odds ratio; CI = confidence interval; FR = forcible rape; DAFR/IR = drug and alcohol facilitated rape or incapacitated rape.

## Discussion

This study demonstrated that fewer than one in six rapes are reported to the police, with less than one in five forcible rapes and just above one in ten DAFR/IRs reported. The percentage of rapes reported (15.8%) is consistent with previous studies from the 1990s (Kilpatrick et al., 1992) and suggests that reporting of rape continues to be at historically low levels. Recall that these percentages include rape victims who do not label their experience as rape, as a significant percentage of women who are raped do not acknowledge that their experience is a rape. However, even when considering only those women (63.1%) who label their experience as rape, this percentage rises only to 21.3% for all rapes. Women consistently indicated that the biggest concern about reporting was fear that they would be blamed. Other concerns that were endorsed highly included concerns that family members or others would find out about the rape if it was reported. Concerns that were less frequently endorsed included fears of getting pregnant, contracting an STD, or contracting HIV/AIDS. Interestingly, this pattern is similar to that observed in the National Women's Study (Kilpatrick et al., 1992) and suggests that women continue to be concerned about potential negative responses from others after a rape. Despite the similarities of these findings to those of the 1992 study, the percentage of individuals who expressed concern about pregnancy, STDs, and HIV/AIDS is notably higher in the current sample, suggesting that awareness of public health issues such as STDs and HIV may have the potential to have a positive influence on receipt of appropriate care. However, the current findings did

**Table 4.** Logistic Regression Results: Final Model of Reporting

Predictor	OR	95% CI	p Value
<b>Education</b>			
Up to some high school	1.00	—	.03
High school graduate/ some college	0.91	0.41-2.01	
College graduate	0.29	0.11-0.78	
Some graduate school/ graduate degree	0.58	0.16-2.14	
<b>Race</b>			
White	1.00	—	.11
African American	1.80	0.64-5.02	
Hispanic	0.48	0.19-1.24	
Other	2.41	0.73-7.97	
<b>Peritraumatic fear</b>			
No	1.00	—	<.01
Yes	2.21	1.23-3.98	
<b>Perpetrator a stranger</b>			
No	1.00	—	<.01
Yes	2.58	1.31-5.10	
<b>Injury</b>			
No	1.00	—	.1
Yes	1.61	0.91-2.85	
<b>Rape type</b>			
FR	2.35	0.73-7.59	.15
DAFR/IR	1.00	—	
<b>Calendar year of rape</b>			
1980 or earlier	1.00	1.36-8.16	<.01
1981 or later	3.33	—	

Note: OR = odds ratio; CI = confidence interval; FR = forcible rape; DAFR/IR = drug and alcohol facilitated rape or incapacitated rape.

not seem to support the notion that an increase in rape-related concerns about STDs has had a positive impact on reporting.

Those who did not report were asked to provide reasons for not reporting. The most commonly endorsed reason was fear of reprisal by the offender. Fear of reprisal by the offender may suggest an underlying distrust of the legal system such that victims may not expect to become protected from the offender shortly after the reporting occurs. Perpetrators may dissuade women from disclosing their experiences by using threat. Prevention or education programs that provide realistic information about potential advantages to safety after reporting may increase reporting in these cases. Women who



reported their rapes were also asked to provide information about their experiences with the reporting process. Roughly only one half of individuals reporting were at least somewhat satisfied by the way they were treated by the police. These findings point to the need for further investigation to shed light on the specific aspects of the reporting process or concerns about the potential consequences of reporting to which reporters are likely to react negatively. Policies that better prepare and educate victims about the reporting process may be beneficial to women who are unfamiliar with such procedures. Furthermore, planned follow-up communications with law enforcement or victim advocates may present an opportunity to better address any frustration, anger, or other negative reactions that may have occurred in the context of the reporting process. Negative experiences with the reporting process may also be due in part to difficulties among law enforcement and other first responders in understanding the acute experience of the rape victims. In an interesting study, high interrater reliability between social system responders (e.g., medical personnel, police officers) and rape victims was observed when asked about services provided and interactions during the rape disclosure/report (Campbell, 2005). However, victims reported significantly more postsystem-contact distress than the first responders thought they were experiencing. Future research may be needed to more specifically identify ways in which first responders can be trained to better address these difficult situations. Presently, these data suggest that a large percentage of women are not satisfied with the reporting process. Research should explore the reporting process itself to better meet the needs of women who may not perceive the current process to be helpful or sufficient.

Several variables were examined as potential predictors of reporting. The finding that stranger rapes are more likely to be reported is consistent with previous work done in this area (Estrich, 1987). This pattern has remained consistent since the 1980s. In contrast, being raped by an intimate partner was not significantly associated with reporting. These findings may illustrate maintenance of a traditional belief in society about who gets raped and by whom. That is, rapes by strangers are more consistent with the stereotype of rape, and women may be less likely to label rape by intimate partners as such (Koss, Dinero, Seibel, & Cox, 1988). Interestingly, those who were raped by strangers were marginally less likely to be “very” or “somewhat” concerned about being blamed,  $\chi^2 (N = 526, df = 1) = 2.91, p < .09$ , suggesting that the relationship between reporting and relationship to perpetrator may be mediated by concern about blame. This finding indicates that victims whose incidents fit the stereotypical pattern of rape adopted by society may be more confident that people will believe it was an assault and less concerned that people will misinterpret the situation, potentially leading to greater likelihood of reporting. This is an interesting, but very preliminary, potential association that deserves further study.

The finding that more recent rapes (i.e., occurring after 1980) were more likely to be reported than earlier rapes is promising and suggests that some progress has been made in the last 30 years with regard to increasing reporting. This may be due to increased public awareness and policy changes. However, it is also reasonable to suspect that age-cohort effects played a significant role in this finding. Indeed, about two thirds of women in the present sample were between the ages of 18 to 34 years at the time of interview; most of these women therefore were not born before 1980, and the oldest of these women would have been approximately 8 years of age. Limited statistical power in this study did not allow for a more specific decade-by-decade analysis of these data, which could have yielded a clearer picture. Future research should therefore examine these patterns more closely and with more precision, which would require larger sample sizes. Viewed in the larger context, fewer than 16% of rapes in the overall sample of women with a history of a rape were reported: a prevalence that does not differ from that of a nationally representative sample of women from the early 1990s. Taken together, these findings suggest that whereas women were more likely to report rapes occurring after 1980 than those occurring before 1980, the conclusion that the vast majority of victims do not report is as accurate today as it was decades ago.

Interestingly, and consistent with previous work (Bachman, 1993, 1998; Lizotte & Wolfson, 1981), injuries in the context of rape significantly predicted reporting in the preliminary model, but this finding was no longer significant in the final model. One possibility is that the inclusion of peritraumatic fear resulted in significant shared variance with injury characteristics, thereby reducing its strength of association with reporting. Indeed, those who may have been the most fearful may have also been the victims of more violent rapes resulting in injury. The moderate correlation observed between peritraumatic fear and injury supports this hypothesis, as does the moderate correlation between injury and forcible rape. Whereas research has shown that injuries are likely to lead a victim to receive medical attention and, thus often to report (Resnick et al., 2000), peritraumatic fear, which is associated with injuries, may be an even stronger motivating factor with regard to reporting.

Although DAFR/IR experiences were less likely to be reported than FR in the preliminary model, this finding did not hold when included with other significant predictors in the final model. Still, the overall prevalence of reporting was lower among DAFR/IR rapes as compared to FR and is consistent with previous work demonstrating that rapes involving drugs and alcohol are less likely to be reported (Clay-Warner & Burt, 2005; Fisher et al., 2003). As with the finding that stranger rapes were more likely to be reported than nonstranger rapes, the finding that DAFR/IR rapes were less likely to be reported may be due to the impact of societal norms and stereotypes about what constitutes a

“rape.” This is an important finding, suggesting that rape-prevention and education programming should emphasize risk for, and reporting around, DAFR/IR experiences. Given that many women are concerned about others blaming them for the rape or not believing them, or that perpetrators will avoid legal action due to the circumstances of the case, many women may not consider these types of rapes worthy of reporting. Furthermore, our findings also indicated that women are often worried that there will not be enough proof to convict someone of rape. These concerns may be particularly salient with these types of experiences, and reporting these types of rapes should be encouraged through education programs. In particular, increased reporting and prosecution of these types of rape may only increase once the public and the justice system recognize these perpetrator strategies and begin to routinely identify these incidents as rape.

### *Conclusions, Limitations, and Future Directions*

Several findings from the current study provide direction for educational programs and public policy recommendations that may affect reporting. First, education programs should be developed and implemented to inform the general public about blaming the perpetrator and address erroneous public perceptions of victims of rape. These programs may also have an impact on reducing the stigma associated with being a victim of rape, thereby reducing the concerns related to others finding out.

Second, providing information to women about the legal process, safety planning, and statistics about recidivism among perpetrators may increase willingness to report. The information about recidivism may be particularly important given that those who did report in this sample indicated that the most important reason for reporting was to protect others from the perpetrator. However, it may also take efforts on the part of the law enforcement agencies to take further steps toward protecting rape victims from the alleged perpetrators after the report is made as well as efforts by criminal justice system agents to ensure that the victim is protected as much as possible during the legal proceedings. Indeed, some have argued that individuals of low social power may choose not to report due to low self-efficacy for addressing injustices on an individual level and that these individuals may make other choices to ensure their safety (Fine, 1992). In the current system, many women may not see reporting as their best option for ensuring their safety and well-being. Improving a system to increase women's confidence that their decision to report will make them safer may have an impact on reporting. However, these theoretical concepts should be evaluated empirically.

As many women also indicated they did not report because they did not believe they had enough proof for a case, providing education about the benefits

of reporting in getting access to medical care, which may provide some criminal evidence during the rape kit, may enhance willingness to report. Promising new legislation that took effect in January 2009 (Violence Against Women Act 2005, H.R. 3402) allows access to medical care after a rape regardless of whether the incident is reported. This policy has the potential to lead to increased anonymous data gathering in cases in which women choose not to pursue a criminal case and would also allow more victims of rape to receive medical care and referrals for mental health or social services following assault. Furthermore, programs designed to teach women about the process for collecting evidence as well as ways in which to preserve potential evidence (e.g., not showering immediately following the rape) may have an impact on reporting prevalence. However, the challenge with these interventions is that women who do not report are not necessarily accessible for these targeted educational programs after the rape. Thus, these interventions may be most useful as part of health education classes in schools or in brochures in women's health clinics.

Third, the fact that stranger rapes were significantly more likely to be reported suggests that efforts should be made to increase reporting of non-stranger rapes. Programs in schools and community settings may improve general understanding that women can be raped by intimate partners and acquaintances and that these rapes are just as deserving of being reported and prosecuted as stranger rapes. Similarly, education about prevalence and characteristics of rapes that involve voluntary and/or administered drug or alcohol intoxication may lead to increased reporting and prosecution of such incidents.

Despite the strengths of the study, there were some limitations worth noting. First, all data were retrospective, self-report, and subject to the limitations imposed by this methodology. Second, women without landline phone numbers were excluded from this sample. Taken together, these findings demonstrate that rape reporting has not improved in the past decade; that there is room for improvement with regard to making the reporting experience more positive for women; that barriers to reporting in the 2006 sample are similar to those reported in the original National Women's Study conducted roughly 16 years earlier; and that those who are raped by strangers and experience significant fear during the rape are more likely to report than other rape victims. Public policy recommendations made in the National Women's Study continue to be relevant. For example, it was recommended that legislation should be enacted to protect the privacy of victims and that the public, including the criminal justice system and jurors, should be provided with education to eliminate widely held, inaccurate stereotypes about rape and its victims (Kilpatrick et al.,

1992). However, these recommendations appear not to have had a significant impact on reporting. It is unclear whether the continued low level of reporting is due to a lack of actual policy change based on these recommendations or whether these recommendations need further development. Perhaps more oversight and greater specificity at the public education program development, implementation, and policy-making levels is warranted.

## Appendix

### *Sexual Assault Interview Questions to Determine the Presence of a Rape*

*Sexual Assault Screening Questions.* Many (IF COLL = 1, college) women tell us they have experienced unwanted sexual advances at some point during their lives. Women do not always report such experiences to police or discuss them with family or friends. Such experiences can happen anytime in a woman's life—even as a child. (IF COLL = 1: Some of these experiences happen when women are in college.) The person making these unwanted advances can be friends, boyfriends, coworkers (IF COLL = 1, professors), teaching assistants, supervisors, family members, strangers, or someone they just met. The person making the unwanted sexual advances can be male or female.

We would appreciate it if you would answer as many questions as possible, but you don't have to answer a question if it makes you too uncomfortable.

Now I am going to ask you about different types of unwanted sexual advances you may have experienced. Some of the language may seem graphic to you, but using correct terms is the only way to determine whether women in the study have had such experiences. Regardless of how long ago it happened or who made the unwanted sexual advances . . . .

*QSA1:* Has a man or boy ever made you have sex by using force or threatening to harm you or someone close to you? Just so there is no mistake, by having sex, we mean putting a penis in your vagina.

Yes	1
No	2
Not sure	8
Refused	9

*QSA2:* Has anyone, male or female, ever made you have oral sex by force or threatening to harm you? So there is no mistake, by oral sex, we mean that a man or boy put his penis in your mouth or someone penetrated your vagina or anus with their mouth or tongue?

Yes	1
No	2
Not sure	8
Refused	9

*QSA3:* Has anyone ever made you have anal sex by force or threatening to harm you? By anal sex, we mean putting their penis in your anus or rectum.

Yes	1
No	2
Not sure	8
Refused	9

*QSA4:* Has anyone ever put fingers or objects in your vagina or anus against your will by using force or threatening to harm you?

Yes	1
No	2
Not sure	8
Refused	9

Some women tell us they have had sex when they didn't want to because they were very high, intoxicated, or even passed out because of alcohol or drugs. We would like to ask you about these types of experiences you might have had. Again, we are interested in these experiences regardless of how long ago it happened, who did it, or whether it was reported to police.

*QSA5:* Has anyone ever had sex with you when you didn't want to after you drank so much alcohol that you were very high, drunk, or passed out? By having sex, we mean that a man or boy put his penis in your vagina, your anus, or your mouth?

Yes	1
No	2
Not sure	8
Refused	9

*QSA6*: Has anyone ever had sex with you when you didn't want to after they gave you, or you had taken enough drugs to make you very high, intoxicated, or passed out? By having sex, we mean that a man or boy put his penis in your vagina, your anus, or your mouth?

Yes	1
No	2
Not sure	8
Refused	9

(If answers for QSA1, QSA2, QSA3, QSA4, QSA5, and QSA6 are all “no” (= 2), “not sure” (= 8), or “refused” (= 9), skip to next section)

(If any answers for QSA1, QSA2, QSA3, QSA4, QSA5, or QSA6 are “yes” (= 1), continue)

Thank you for answering these questions. I want to make sure that I have this right.

You said that you have had the following unwanted sexual experiences [READ ALL WITH “YES” ANSWERS]

QSA1: Someone made you have sexual intercourse.

QSA2: Someone made you have oral sex.

QSA3: Someone made you have anal sex.

QSA4: Someone penetrated you with fingers or objects.

QSA5: Someone had sex with you when you were drunk, high, or passed out due to alcohol.

QSA6: Someone had sex with you when you were high, intoxicated, or passed out due to drugs.

### Authors' Note

Views expressed in this article do not necessarily represent those of NIJ.

### Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

## Funding

The authors disclosed that they received the following support for their research and/or authorship of this article: This research was supported by National Institute of Justice Grant No. 2005-WG-BX-0006 (PI: Dean G. Kilpatrick, PhD).

## Notes

1. These studies used behaviorally specific definitions of rape and these percentages include women who do not necessarily acknowledge their experience as rape.
2. Interview items included in the Appendix consist of those used to help make a determination about rape status. Additional interview questions available upon request.

## References

- Abel, G., Becker, J., Mittelman, M., Cunningham-Rathner, J., Rouleau, J., & Murphy, W. (1987). Self-reported sex crimes of non-incarcerated paraphiliacs. *Journal of Interpersonal Violence, 2*, 3-25.
- Amir, M. (1971). *Patterns in forcible rape*. Chicago: University of Chicago Press.
- Bachman, R. (1993). Predicting the reporting of rape victimizations: Have reforms made a difference? *Criminal Justice and Behavior, 20*, 254-270.
- Bachman, R. (1998). The factors related to rape reporting behavior and arrest: New evidence from the National Crime Victimization Survey. *Criminal Justice and Behavior, 25*(1), 8-25.
- Bell, S., Kuriloff, P., & Lottes, I. (1994). Understanding attributions of blame in stranger rape and date rape situations: An examination of gender, race, identification, and students social perception of rape victims. *Journal of Applied Social Psychology, 24*, 1719-1734.
- Campbell, R. (2005). What really happened? A validation study of rape survivors' help-seeking experiences with medical and legal systems. *Violence and Victims, 20*, 55-68.
- Clay-Warner, J., & Burt, C. H. (2005). Rape reporting after reforms: Have times really changed? *Violence Against Women, 11*, 150-176.
- Estrich, S. (1987). *Real rape*. Cambridge, MA: Harvard University Press.
- Fine, M. (1992). Coping with rape: Critical perspectives on consciousness. In M. Fine (Ed.), *Disruptive voices: The possibilities of feminist research* (pp. 61-76). Ann Arbor: University of Michigan Press.
- Fisher, B. S., Daigle, L. E., Cullen, F. T., & Turner, M. E. (2003). Reporting sexual victimization to the police and others: Results from a national-level study of college women. *Criminal Justice and Behavior, 30*, 6-38.
- Greenberg, M., & Ruback, B. (1992). *After the crime: Victim decision making*. New York: Plenum.



- Kahn, A. S. (2004). What college women do and do not experience as rape. *Psychology of Women Quarterly*, 28, 9-15.
- Kilpatrick, D. G., Acierno, R., Resnick, H. S., Saunders, B. E., & Best, C. L. (1997). A 2-year longitudinal analysis of the relationships between violent assault and substance use in women. *Journal of Consulting and Clinical Psychology*, 65, 834-847.
- Kilpatrick, D. G., Edmunds, C. N., & Seymour, A. K. (1992). *Rape in America: A report to the nation*. Washington, DC: National Victim Center.
- Kimerling, R., & Calhoun, K. S. (1994). Somatic symptoms, social support, and treatment seeking among sexual assault victims. *Journal of Consulting and Clinical Psychology*, 62, 333-340.
- Koss, M. P., & Heslet, L. (1992). Somatic consequences of violence against women. *Archives of Family Medicine*, 1, 53-59.
- Koss, M. P., Dinero, T. E., Seibel, C. A., & Cox, S. L. (1988). Stranger and acquaintance rape: Are there differences in the victim's experience? *Psychology of Women Quarterly*, 12, 1-24.
- Lizotte, A., & Wolfson, F. (1981). *The social location of rape and reporting: A victimization study*. Paper presented at the annual meeting of the American Sociological Association, Montreal, Quebec, Canada.
- Lizotte, A. (1985). Uniqueness of rape: Reporting assaultive violence to the police. *Crime and Delinquency*, 31, 169-190.
- Luginbuhl, J. C. & Mullin, C. (1981). Rape and responsibility: How and how much is the victim blamed? *Sex Roles*, 7, 547-559.
- Menard, K. (2005). *Reporting sexual assault: A social ecology perspective*. New York: LFB Scholarly.
- Resnick, H. S., Holmes, M. M., Kilpatrick, D. G., Clum, G., Acierno, R., Best, C. L., et al. (2000). Predictors of post-rape medical care in a national sample of women. *American Journal of Preventive Medicine*, 19, 214-219.
- Resnick, H. S., Kilpatrick, D. G., Dansky, B. S., Saunders, B. E., & Best, C. L. (1993). Prevalence of civilian trauma and PTSD in a representative sample of women. *Journal of Consulting and Clinical Psychology*, 61, 985-991.
- Tjaden, P., & Thoennes, N. (2000). *Full report of the prevalence, incidence, and consequences of violence against women: Findings from the National Violence Against Women Survey*. Washington, DC: U.S. Department of Justice, National Institute of Justice.
- Tjaden, P. & Thoennes, N. (2006). *Extent, Nature, and Consequences of Rape Victimization: Findings From the National Violence Against Women Survey*. Washington, DC: National Institute of Justice.
- Young, W. W., Bracken A. G., Goddard M. A., & Matheson, S. (1992). Sexual assault: Review of a national model protocol and forensic medical evaluation. *Obstetrics and Gynecology*, 80, 878-883.

**Bios**

**Kate B. Wolitzky-Taylor**, PhD, received her PhD in clinical psychology at the University of Texas at Austin and is currently a postdoctoral fellow in the Anxiety Disorders Research center at UCLA. Her primary research interests consist of improving the effectiveness of and access to treatment for anxiety disorders.

**Heidi S. Resnick**, PhD, received her PhD in clinical psychology from the University of Indiana in 1987. She is currently a professor in the department of psychiatry at the Medical University of South Carolina, as well as a leading investigator at the National Crime Victims Research and Treatment Center. For the past 18 years, she has been conducting research, teaching, and performing clinical activities related to PTSD and other adaptations following exposure to potentially traumatic events, including crime and disaster.

**Jenna L. McCauley**, PhD, is completing a postdoctoral fellowship with the National Crime Victims' Center for Research and Treatment at the Medical University of South Carolina. Her research focuses on trauma, with a specific emphasis on sexual assault and substance use across the lifespan.

**Ananda B. Amstadter**, PhD, is an assistant professor at the National Crime Victims Center in the Medical University of South Carolina's department of psychiatry and behavioral sciences. Her main research interests include elucidation of genetic and psychosocial risk and resilience factors for traumatic stress related phenotypes.

**Dean G. Kilpatrick**, PhD, is a distinguished university professor of clinical psychology and the director of the National Crime Victims Research and Treatment Center at the Medical University of South Carolina in Charleston, SC. His primary research interests include measuring the prevalence of rape, other violent crimes, and other types of potentially traumatic events as well as assessing the mental health impact of such events.

**Kenneth J. Ruggiero**, PhD, is an associate professor at the Medical University of South Carolina and Research Health Scientist at the Ralph H. Johnson VA Medical Center. His has collaborated on numerous federally funded projects targeting mental health correlates of sexual assault and other types of violence. He is also leading several ongoing projects to develop and evaluate Internet-based resources in the secondary prevention of mental health problems in the aftermath of disasters and violence.