

Making Sense of Rape in America: Where Do the Numbers Come From and What Do They Mean?¹

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Kilpatrick DG (in press). What is violence against women: Defining and measuring the problem. *Journal of Interpersonal Violence*.

Kilpatrick DG, Acierno R (2003). Mental health needs of crime victims: Epidemiology and outcomes. *Journal of Traumatic Stress, 16*, 119-132.

Kilpatrick DG, Ruggiero KJ (2003). *Rape in South Carolina: A report to the state*. Charleston, SC: National Violence Against Women Prevention Research Center, Medical University of South Carolina.

Introduction

How many adults and children in the United States have ever been raped? How many victims are raped each year at the national, state, and local levels? How does the scope of the problem in one setting compare to that in another (e.g., urban vs. rural; New York vs. California; Pacific vs. mid-Atlantic regions)? Without answers to these questions, it is impossible to know the magnitude of the rape problem in a particular setting or to put it in perspective. Public policymakers, the public health system, the criminal justice system, and rape crisis centers cannot estimate the success of their efforts to prevent rape, apprehend and punish rapists, and provide effective services to rape victims without such information. Further, efforts to advance practice and policy are impeded when decisions are based on inaccurate, mixed, or contradictory statistics. Unfortunately, existing sources have produced inconsistent estimates on the prevalence of rape. As a result, service providers and policymakers have been faced with the burden of approximating the degree to which each source accurately estimates the true prevalence of rape at the national, state, or local level. In turn, this process hinders sound, efficient decision making.

This paper is designed to help public policy officials, health care professionals, and other pertinent professionals understand how rape in America is measured, what the numbers mean, and what the limitations are of existing research. From a public policy perspective, it is imperative to have good data about the magnitude and nature of a problem in order to prepare a proper public policy response. Public policy is about allocation of resources, and more resources are generally allocated to big problems that affect many citizens than to small problems that affect only a few (Kilpatrick & Ross, 2001). Thus, obtaining accurate information about rape is relevant to public policy because it provides data about the magnitude of the problem. Second, it is important to have the best information possible about rape cases. Such information is necessary for the criminal justice system to determine how many total cases of various types of rape exist, the proportion of cases reported to police, the disposition of cases (i.e., the outcome of criminal justice system processing of cases), and needs for victim services provided by the criminal justice system as well as by community-based organizations. Third, having sound information about the prevalence, nature, and consequences of rape is the foundation of the public health approach toward rape prevention (see Kilpatrick, in press).

Estimates of rape tend to differ considerably from source to source, for a host of reasons. In part, difficulties in obtaining accurate estimates of rape stem from the fact that many rape victims are reluctant to disclose their rape experiences to other people. In one major national study, victims reported rapes to police in only 16% of cases (Kilpatrick, Edmunds, & Seymour, 1992). In fact, the same study found that more rape victims expressed concerns about other people finding out or blaming them for the rape than about rape-related pregnancy or HIV-AIDS infection. It is also true that not all women or children who are raped seek services from rape crisis centers or other support agencies. Other reasons for inconsistent estimates across sources include:

- different ways of defining and measuring rape
- different population groups (e.g., adults *vs* all age groups; women *vs* both genders)
- different time frames (e.g., over the entire lifespan *vs* past year only)
- different units of analysis in reporting statistics (e.g., within a given time frame, how many *total people* have been raped *vs* how many *total incidents* of rape)

This paper is designed to serve two primary purposes. The first is to increase awareness about how rape in America is measured, what the numbers mean, and what limitations exist for studies that have measured rape. A better understanding of where the national numbers come from and what they mean can lead to more accurate predictions about often rape occurs at the local and state level. The second major purpose is to equip readers with the knowledge to interpret and respond to rape prevalence studies, including how to examine available statistics when designing public policy, prevention and intervention strategies, and other services, programs, or policies.

Rape Prevalence: Definitions, Sources, and Estimates

However it is defined and measured, rape is a prevalent problem in the United States and throughout the world (Jewkes, Sen, & Garcia-Moreno, 2002). The problem of rape has been addressed from several perspectives including that of the criminal law and public health system. Over the past three decades, considerable progress has been made in highlighting the rape problem, in understanding the scope, nature, and consequences of rape, in changing relevant legislation concerning rape, and in providing services to victims. However, progress in addressing the rape problem has been impeded by a lack of better information about several important aspects of rape. Notwithstanding this progress, debates still rage about several important issues including what types of acts should be defined as constituting rape, how various types of rape should be measured or counted, and the adequacy of governmental measures of the magnitude and nature of the rape problem.

In this section, we describe various ways that rape has been measured, limitations of these measurement methods, and estimates of rape generated by each method. Special emphasis is placed on methods that have been used to generate national United States rape estimates. To the extent possible, we focus on the measurement of rape occurring across the lifespan, irrespective of whether such events were perpetrated by strangers, acquaintances, or romantic partners. This paper provides limited attention to common emotional and behavioral consequences of rape, such as posttraumatic stress disorder, depression, and substance abuse.

Definitions of Rape

There are several different ways to measure rape, and obtaining an accurate measurement is challenging. Prior to reviewing major sources of information, it is useful to consider a few key distinctions. First, there is a difference between *rape cases* and *rape victims*. For instance, a woman who is victimized more than once generates more than one rape case. Second, there is a

difference between the *prevalence of persons* victimized by rape and the *incidence* of rape cases. The former refers to the proportion of the population that has been victimized at least once in a specified time period. The *incidence* of rape is generally based on the number of cases occurring in a given period of time and is usually expressed as *victimization rates* (e.g., the number of rape cases having occurred per 10,000 people). The *lifetime prevalence* is defined as the proportion of the population that has ever been raped. The *past year prevalence* is the proportion of the population that was victimized during the past year. Third, there is a difference between rape estimates based on *cases reported to law enforcement* vs. *unreported cases*.

Federal criminal code definition of rape. Examination of criminal code definitions in the U.S. is complicated by the fact that we operate under a set of overlapping federal, state, military, and tribal laws that often differ in how crimes are defined (Kilpatrick, in press). Although states traditionally have had primary jurisdiction for most violent crimes, there has been an expansion of the Federal criminal code to include many violent crimes. The Federal Criminal Code of 1986 (Title 18, Chapter 109A, Sections 2241-2233) does not use the term rape, but uses the term *aggravated sexual abuse* to define what is typically described as rape. Two types of *aggravated sexual abuse* are identified: (a) aggravated sexual abuse by force or threat of force, and (b) aggravated sexual abuse by other means. *Aggravated sexual abuse by force or threat of force* is defined as follows: when a person knowingly causes another person to engage in a sexual act, or attempts to do so, by using force against that person, or by threatening or placing that person in fear that that person will be subjected to death, serious bodily injury, or kidnapping. *Aggravated sexual abuse by other means* is defined as follows: when a person knowingly renders another person unconscious and thereby engages in a sexual act with that other person; or administers to another person by force or threat of force without the knowledge or permission of that person, a drug, intoxicant, or similar substance and thereby (a) substantially impairs the ability of that person to appraise or control conduct and (b) engages in a sexual act with that person.

This current federal legal definition of rape has several implications for the types of rape that should be measured in order to generate accurate estimates of the scope of the problem at the national, state, and local level. First, measurement of rape should extend far beyond unwanted penile penetration of the vagina. The current federal definition recognizes that not all perpetrators are male, not all victims are female, and that all types of unwanted sexual penetration obtained by force or threat of force are legally defined as rape and should be measured in both genders. Second, drug or alcohol-facilitated rape is legally defined as a serious criminal offense under federal law and should be measured. Third, statutory rape (i.e., any type of nonforcible sexual penetration with a child) is defined as a serious criminal offense, and measuring statutory rape is necessary to obtain a complete picture of the scope of rape.

Data Sources and Measures

Measures of rape are derived from two basic types of sources: official government sources and studies conducted by private researchers, many of which have been funded by grants from federal agencies. The following list comprises the major U.S. sources cited in this paper:

- Uniform Crime Reports (Federal Bureau of Investigation)
- National Crime Victimization Survey (Bureau of Justice Statistics)
- National Women's Study
- National Violence Against Women Survey
- National College Women's Sexual Victimization Survey

FBI Uniform Crime Reports

The Uniform Crime Reports (UCR) is an annual publication of the Federal Bureau of Investigation that estimates the number of cases of forcible rape or attempted rape as well as other crimes that are reported to participating law enforcement agencies across the nation. According to the FBI, approximately 94% of the U.S. population resides in law enforcement jurisdictions that participate in the UCR program. Regarding the definition of rape, the UCR measures “carnal knowledge of a female forcibly and against her will. Assaults or attempts to commit rape by force or threat of force are also included; however, statutory rape (without force) and other sex offenses are excluded.” Participating law enforcement agencies compile information on relevant cases (i.e., those that fit the UCR definition) and send it to either directly to the FBI or to an agency at the state level that processes cases and sends them to the FBI. “Unfounded” cases, or cases that—according to federal reporting requirements—are presumed to be false or baseless upon investigation, are not included in the UCR totals. Estimates of rape are reported on a calendar year basis.

According to the most recent UCR publication, 95,136 forcible rapes were reported in the United States for the year 2002 (FBI, 2003). This equates to an incidence of 64.8 reported attempted or forcible rapes for every 100,000 women and girls. Approximately 91% of these victims reported rapes by force, with the remaining 9% reporting attempts to commit forcible rape. Preliminary UCR figures for 2003 suggest a slight decrease (i.e., change of -1.9%), relative to estimates for 2002, in the number of attempted or forcible rapes in the U.S. (FBI, 2004).

Limitations. UCR data are limited in several ways. First, they refer only to attempted and forcible rapes reported to law enforcement during a one calendar year period. Unreported forcible rapes are not counted, and reports to authorities that are considered unfounded following investigation also are not counted. This is a significant limitation, as research has revealed that as few as 1 in 6 victims report their victimization to authorities. Second, UCR data do not include forcible rapes involving oral sex, anal sex, or penetration with fingers or objects. Third, they do not include rapes of men or boys. Fourth, they do not include rapes committed by blood relatives. Fifth, they do not include statutory rapes. Sixth, they do not include alcohol or drug-facilitated rapes (i.e., engaging in a sexual act with a person after knowingly rendering that person unconscious or unable to appraise or control conduct, such as by administering without the victim’s knowledge a drug, intoxicant, or similar substance). Finally, because 6% of the population resides in jurisdictions that do not participate in the UCR, numbers for these settings must be estimated and inaccuracies are likely to result (see Maltz, 1999, for a technical description of the limitations of statistical procedures used to manage incomplete UCR data).

National Crime Victimization Survey

The National Crime Victimization Survey (NCVS) was designed in the late 1960s as a method for determining the extent and nature of unreported crime. Interviews are conducted with all individuals ages 12 and older from a nationally representative sample of 83,660 households. In 2003, 149,040 people were interviewed; 91.6% of households and 86.3% of individuals agreed to participate (Catalano, 2004). Interviews are conducted every six months; incidents that occur between the two interviews are recorded (i.e., reference period for this bounded interview is the past six months). Some interviews are conducted in person and some on the telephone.

NCVS defines rape as “forced sexual intercourse including both psychological coercion as well as physical force. Forced sexual intercourse means vaginal, anal, or oral penetration by the offender.” Rape includes attempted rapes, male and female victims, rape by a same-sex perpetrator, and incidents where penetration is from a foreign object. History of rape is detected via the following screening questions:

- Has anyone attacked or threatened you in any of these ways: any rape, attempted rape, or other type of sexual attack?
- Incidents involving forced or unwanted sexual acts are often difficult to talk about. Have you been forced or coerced to engage in unwanted sexual activity by:
 - someone you didn’t know before?
 - a casual acquaintance?
 - someone you know well?

Information from the NCVS includes victimization experiences that were not reported to authorities in addition to those that were reported. NCVS estimates of the average annual number of attempted or forcible rapes among women and girls aged 12 and older was roughly 126,500 for 2002-2003 (including boys and men, the estimate was 142,380). This equates to 2001-2002 rates of approximately 103 attempted/forcible rapes per 100,000 women and girls ages 12 and older. Roughly 13.5% of rapes, attempted rapes, and sexual assaults involved male victims in 2003, as compared to 5.7% in 2000, 9.2% in 2001, and 12.2% in 2002.

Limitations. NCVS data refer only to recent rape cases disclosed to interviewers within a one calendar year period. Second, as will be discussed in greater depth later in this paper, NCVS rape screening questions are not state-of-the-art, are not sensitive, and probably fail to detect a significant percentage of rape cases. Third, the interview protocol does not insure privacy for respondents during the interview. Fourth, the sampling frame excludes individuals under the age of 12 years as well as individuals who do not reside in households (e.g., homeless shelters, prisons, institutional settings) and are likely to be particularly vulnerable to rape. Fifth, they do not include alcohol or drug-facilitated rapes. Finally, they do not include statutory rapes.

National Women’s Study

The National Women's Study (NWS; see Kilpatrick et al., 1997; Resnick et al., 1993) was a 3-wave victimization survey of adult women in the United States. Telephone interviews for the NWS were conducted first in 1989 with a national household probability sample of 4,008 adult U.S. women (i.e., ages 18 and older). One-year follow-up interviews were conducted in 1990 with 3,220 women from the original sample; in 1991, the final interviews were conducted with 3,006 women from the original sample. Similar to the participation rate of 89.6% in the NCVS, 85.2% of women screened and determined to be eligible for participation in the NWS agreed to participate and completed the first interview.

As with NCVS methods, information from the NWS included victimization events that were not reported to authorities as well as those that were reported. To increase the likelihood of accurate reporting, steps were taken in the NWS protocol to ensure privacy for respondents as interviews were being completed. Additionally, history of rape was detected via an introduction followed by four behaviorally specific screening questions (i.e., questions that avoided the use of undefined summary labels such as "rape" or "sexual attack" that often bias reporting). Further, data were collected about rape experiences that occurred throughout participants' lifetime, as well as between the baseline and two follow-up interviews. Finally, all interviewers were women.

The introduction to participants in the NWS was: "Another type of stressful event that many women have experienced is unwanted sexual advances. Women do not always report such experiences to police or other authorities or discuss them with family or friends. The person making the advances isn't always a stranger but can be a friend, boyfriend, or even a family member. Such experiences can occur at any time during a woman's life--even as a child. Regardless of how long ago it happened or who made the advances..."

This was followed by four behaviorally specific closed-ended screening questions to assess rape:

- 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 sex we mean putting a penis in your vagina.
- Has anyone, male or female, ever made you have oral sex by using force or threat of harm? Just so there is no mistake, by oral sex we mean that a man or a boy put his penis in your mouth or someone, male or female, penetrated your vagina or anus with their mouth or tongue.
- Has anyone ever made you have anal sex by using force or threat of harm? Just so there is no mistake, by anal sex we mean that a man or boy put his penis in your anus.
- Has anyone, male or female, ever put fingers or objects in your vagina or anus against your will by using force or threats?

NWS data revealed that 12.65% of women reported having been raped (i.e., endorsed at least one of the four rape screening questions) at least once in their lifetime. Past-year prevalence of rape was 0.71%, or 710 per 100,000 U.S. adult women, which is substantially higher than the rape rate estimates of 62.9 and 115.4 per 100,000 for the UCR and NCVS, respectively. Further highlighting the degree to which these estimates differ, UCR and NCVS data summarize the past-year estimated *total number of rapes* that have occurred against women in the U.S., whereas NWS data summarize the past-year estimated *total number of women* in the U.S. who have been raped. [Consider a woman who has encountered four rapes in the past year. Assume, for purposes of this example, that two of these rapes were reported to the authorities. The application of UCR, NCVS, and NWS methodology to this example would yield two UCR cases, four NCVS cases, and one NWS case. The NWS interview was not designed to assess total number of rapes among women who endorsed the past-year occurrence of rape.] Also, NWS estimates do not include instances of attempted rape, whereas UCR and NCVS estimates do.

Limitations. NWS data are limited to women who reside in households with telephones. This excludes the 6% of adult women who reside in households without phones, and also excludes adult men as well as all individuals under the age of 18 years. NWS methodology also does not include assessment of attempted rapes, statutory rapes, and drug or alcohol-facilitate rapes. NWS interview items do not include assessment of the number of rapes experienced by victimized women, which precludes estimates of the overall rate of rape in America. Finally, the NWS was conducted over a decade ago, so NWS estimates of rape are not current.

National Violence Against Women Survey

The National Violence Against Women Survey (NVAWS; Tjaden & Thoennes, 2000) was a victimization survey of U.S. adult women. Telephone interviews for the NVAWS were conducted in 1995-1996 with a national household probability sample of 8,000 adult women and 8,005 adult men (i.e., ages 18 and older). Of the women who were screened and determined to be

eligible for participation in the NVAWS, 61.7% agreed to be interviewed and completed the interview. This participation rate was somewhat lower than participation rates for the NCVS and NWS. To maintain focus on female victims (for purposes of generating direct comparisons across surveys), we refer only to analyses conducted with female participants in the NVAWS.

As with NCVS and NWS methodology, information from the NVAWS includes victimization experiences that were not reported to authorities in addition to those that were reported. NVAWS methodology was similar in many ways to that of the NWS with regard to assessing rape. For instance, history of rape was detected via an introduction that was followed by five behaviorally specific screening questions. The introduction in the NVAWS was as follows: "We are particularly interested in learning about violence women experience, either by strangers, friends, relatives or even by husbands and partners. I'm going to ask you some questions about unwanted sexual experiences you may have had either as an adult or as a child. You may find the questions disturbing, but it is important we ask them this way so that everyone is clear about what we mean. Remember the information you are providing is confidential. Regardless of how long ago it happened..."

This introduction was followed by five behaviorally specific screening questions to assess rape or attempted rape:

- 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 sex we mean putting a penis in your vagina.
- Has anyone, male or female, ever made you have oral sex by using force or threat of harm? Just so there is no mistake, by oral sex we mean that a man or boy put his penis in your mouth or someone, male or female, penetrated your vagina or anus with their mouth or tongue.
- Has anyone ever made you have anal sex by using force or threat of harm? Just so there is no mistake, by anal sex we mean that a man or boy put his penis in your anus.
- Has anyone, male or female, ever put fingers or objects in your vagina or anus against your will by using force or threats?
- Has anyone, male or female, ever attempted to make you have vaginal, oral, or anal sex against your will, but intercourse or penetration did not occur?

NVAWS data revealed that 14.8% of women reported having been raped (i.e., endorsed at least one of the four rape screening questions) at least once in their lifetime. An additional 2.8% of women endorsed at least one attempted rape. Past-year prevalence of attempted or forcible rape was 0.27%, or 270 per 100,000 U.S. adult women, which is higher than the rape rate estimates of 62.9 and 115.4 for the UCR and NCVS, respectively; but lower than the NWS estimates of 710 per 100,000 women. As with NWS data, NVAWS data estimate the past-year total number of *women* in the U.S. who have been raped (rather than total number of *rapes* in the U.S.).

Limitations. As with the NWS, NVAWS data exclude the 6% of adult women who reside in households without phones, as well as adult men and persons under the age of 18 years. NVAWS methodology also does not include assessment of statutory rapes and drug or alcohol-facilitate rapes. Further, estimates of past-year rape are not bounded. Finally, NVAWS interview items do not include assessment of the number of rapes experienced by victimized women, which precludes estimates of the overall rate of rape in America.

Estimating Rape Prevalence: A Comparison of Methodologies

Estimates of rape prevalence differ considerably from one another when they are based on sources with dissimilar methodologies. For instance, relative to NWS and NVAW estimates, UCR and NCVS estimates are based upon different ways of defining and measuring rape. Results from the National College Women's Sexual Victimization study (NCWSVS) offer a more direct opportunity to observe the effects of different ways of defining and measuring rape (Fisher, Cullen, & Turner, 2000). NCWSVS data also provide insight into the degree to which the NCVS appears to underestimate the prevalence of rape in America.

The NCWSVS was a victimization survey of college women completed in 1996-1997. Telephone interviews were conducted with a nationally representative sample of 4,446 women who attended a two- or four-year college or university during the fall of 1996. Similar to NWS (85.2%) and NCVS (89.6%) participation rates, 85.6% of contacted women agreed to participate in the NCWSVS. A comparison sample of 4,432 college women then was selected and interviewed using methodology that was identical to that for the main sample, differing only on the type of sexual assault screening questions participants were asked. For the comparison sample, 91.6% of contacted women agreed to participate in the study.

Similar to NWS/NVAWS methodology, assessment of attempted and forcible rape for the main sample included introductory statements that were used to orient participants to the wide range of unwanted sexual experiences targeted by screening questions, including reference to the broad range of potential perpetrators (e.g., strangers, family members, dating partners). Specific screening questions used to measure rape with the main sample also were similar to those used in the NWS and NVAWS. For the comparison sample, interviewers used a slightly modified version of NCVS screening questions.

NCWSVS results revealed that 1.7% of women in the main sample reported experiencing a forcible rape within the first few months of the school year (see Table 1 below). In contrast, only 0.16% of women in the comparison sample reported experiencing a forcible rape. Further, 1.1% of women in the main sample reported an attempted rape within the school year, as compared to 0.18% of women in the comparison sample. These findings lend support to the concern that the NCVS methodology likely fails to detect a significant percentage of rape cases, thereby underestimating the number of rapes that occur in America at the national, regional, and local levels each year.

Table 1 *National College Women's Sexual Victimization Survey (NCWSVS) Estimates of Rape Occurring within the School Year*

Types of Rape	Main Study		Comparison Study	
	% in sample	Est. annual %	% in sample	Est. annual %
Completed	1.7%	3.0%	0.16%	0.3%
Attempted	1.1%	1.9%	0.18%	0.3%
Completed/Attempted	2.8%	4.9%	0.34%	0.59%

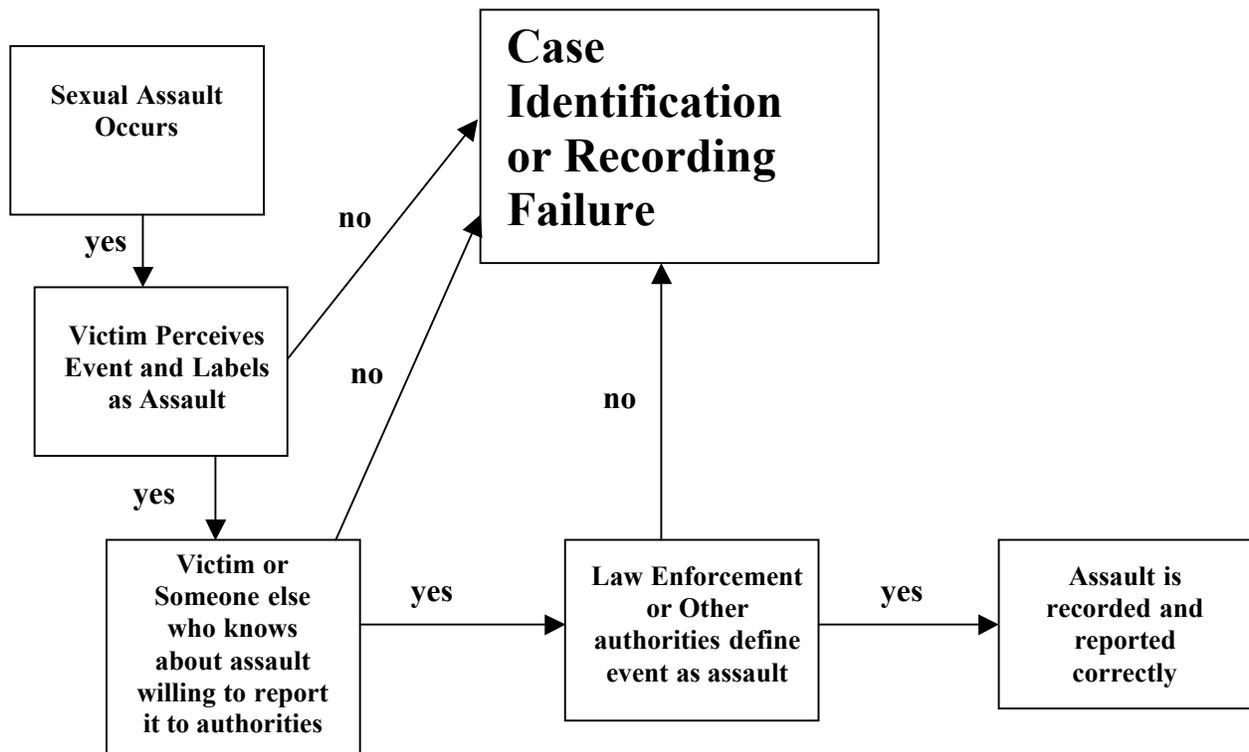
Limitations. First, the sampling frame only included college women, so other adult women and children under age 18 were excluded. Second, survey results did not include drug- or alcohol-facilitated rapes. Third, statutory rapes also were not included.

*Toward a Better Understanding of America's Rape Problem:
Integrating Data from Available Sources*

Because several sources provide different estimates of rape based on differing methodologies, it is important to recognize the strengths and limitations of each. It is also important to recognize where these sources complement one another so that, taken together, they facilitate a better understanding of America's rape problem. For example, whereas UCR and NCVS data do not provide estimates on the number of individuals who have ever been raped at any time in their lives, this information was provided by the NWS and NVAW data. Also, whereas the NWS and NVAW surveys offer limited statistics relating to changes in rape prevalence over time, the UCR and NCVS do provide valuable annual trend data dating back several decades. However, it is also important to remember that the NCVS uses screening questions that are not sensitive and the UCR only includes reported cases. Thus, some sources are better equipped to fill gaps in knowledge than others, and for this reason it is helpful for policymakers and pertinent professionals to be aware of the range and limitations of estimates that each major source has to offer. These issues are addressed briefly here, but for a thorough discussion of recent issues and controversies, see Fisher and Cullen (2000).

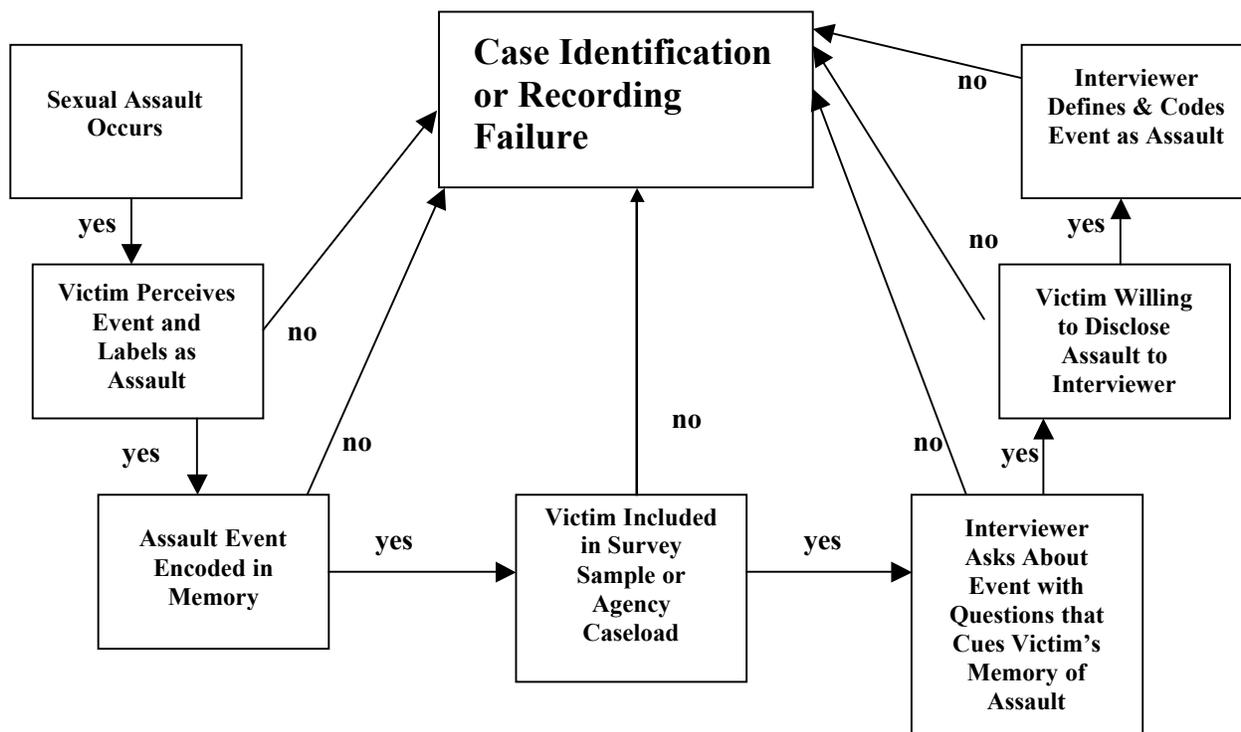
A useful and efficient approach to understanding the limitations of existing sources is to consider the rape and sexual assault cases that different methods of measurement inherently fail to detect. For example, sources that rely on reports to authorities, such as the UCR, inherently fail to detect rape cases that are not reported to the authorities or that fall outside of the technical definition of rapes used by law enforcement or author authorities. Figure 1 (next page) illustrates the steps at which sources that rely on reports to authorities may fail to detect rape cases.

Figure 1: Steps Required to Identify and Record a Sexual Assault Case Reported to Authorities



Clearly, there are several steps at which sources relying on reports to authorities fail to detect rape cases. Unfortunately, there also are several steps at which survey methods (e.g., such as those used in the NCVS, NWS, and NVAW) fail to detect rape cases. Figure 2 depicts the steps that are required to identify and record a rape case in either a victimization survey or in a service setting. As the figure indicates, the process of identifying a rape case involves many steps, and failure to identify and correctly record a case can occur at any step in the process. After an incident occurs, the victim must perceive the incident and label it. In some cases, victims either may not clearly perceive what happened in an incident (e.g. a woman is sexually assaulted after the perpetrator gives her rohypnol) or she may not label it as a rape. In addition, the event must be remembered after it occurs—events involving head injury, traumatic amnesia, or memory loss due to intoxication may lead to a failure to identify. If the incident is not perceived to be or labeled as rape or is not remembered, it is unlikely that it will be identified and recorded. If a victim of rape is not included in a victimization survey sample or in the caseload of a victim service agency, there is no possibility that the victimization they experienced will be identified and recorded.

Figure 2: Steps Required to Identify and Record a Sexual Assault Case in Survey/Service Settings



The next step in the process is critically important. The interviewer, health-care professional, or victim service provider must ask questions about potential rape experiences in such a way as to accurately capture key elements of the event in question and to cue the victim's memory of the event. If the screening questions used do not accomplish both of these requirements, the incident will not be identified or recorded. For example, Koss (1985, 1988) demonstrated that a majority of women who have experienced forcible rape as determined by screening questions measuring key elements of the crime of rape say “no” when asked if they have ever been a victim of rape. Another important step in the process is the victim's willingness to disclose the incident to the interviewer or service provider. A woman may have experienced an incident, remember it clearly

after being asked appropriate screening questions, and still be unwilling to disclose it to an interviewer or service provider. In such cases, the rape incident will remain unidentified and unrecorded. The final step in the process is whether the interviewer or service provider defines the event disclosed to him or her by the victim as constituting rape. For example, the victim may disclose an incident that a particular interviewer or service provider does not classify as rape. In such cases, the incident would not be identified or recorded.

In summary, there are numerous steps involved in identifying and recording rape, and the potential for misadventure is great at each step in the process. Although all of the steps are important, there are two steps of paramount importance. First, screening questions must tap all types of rape that are of interest and must cue victims' memory of incidents they have experienced. Second, the context in which screening questions are asked must facilitate victims' willingness to disclose rape experiences.

Because rape is measured in the same way each year for the UCR and NCVS, data from these sources have significant value. However, as shown by the findings described in the previous section, UCR and NCVS methodologies produce significant underestimates of rape in America. Better estimates are obtained by using more precise screening questions such as those used in the NWS, NVAWS, and NCWSVS. However, the latter three survey methodologies are not without flaws. For example, in addition to limitations depicted in Figure 2, none of the sources reviewed in the previous section examined statutory or alcohol- or drug-facilitated rape. As noted in a recent National Institute of Justice publication, "*No one really knows how common drug-facilitated rape is because today's research tools do not offer a means of measuring the number of incidents*" (Fitzgerald & Riley, 2000, p. 10). Clearly, none of the studies reviewed provide *any* numbers about this important type of rape, and it is critically important that we start collecting information about it.

Annual trend data on rape prevalence obtained via UCR and NCVS estimates enable us to observe changes over time at the national, regional, and local levels. However, because there is substantial research evidence that rape has persistent, long-term effects on victims' mental and physical health problems, it is important to measure not only recent rape experiences but also those that occur throughout the lifespan. This is one example where data from the NWS, NVAW, and other relevant sources can complement national, regional, and local data on rape prevalence trends over time. Other examples include sources (such as the NWS and National Survey of Adolescents) that, in addition to assessing lifetime and past-year rape prevalence, also assess mental and physical health outcomes such as posttraumatic stress disorder, major depression, and substance-related outcomes. Thus, sources that include assessment of victimization history as well as relevant emotional and behavioral outcomes can provide valuable guidance beyond that offered by sources that estimate victimization history alone.

Interpreting Estimates from Specific Sources: Recommendations

Recommendation 1: Carefully examine how rape or sexual assault is defined in the study.

This recommendation relates to the previous discussion on how rape is defined in each study. If you are in need of statistics relating to a broad definition of sexual assault that includes all types of contact and non-contact sexual events (e.g., forced oral, vaginal, or anal penetration; unwanted fondling; sexual harassment), you would want access to the results of a survey that measures a wide range of sexual acts that fall within that broad definition. However, if you are looking for

statistics relating to a narrower definition of sexual assault that focuses on violations of the criminal code, you generally would benefit from information derived from surveys measuring those offenses only. The issue of what types of acts should be covered in the definition of sexual assault or rape is critically important for policymakers. Obviously, if we define sexual assault broadly, and attempt to measure all types of assault that have ever been experienced by women or female children, the prevalence will be relatively high. The prevalence will be much lower if we define sexual assault more narrowly and measure only rapes involving penetration that are perpetrated by specific types of offenders (e.g., strangers).

Recommendation #2: Identify the time frames on which rape prevalence estimates are based.

Another controversy among professionals concerns whether we should be primarily interested in gathering information about recent cases, cases occurring within particular parts of the lifespan (e.g. childhood, adolescence, adulthood, or old age), or cases occurring throughout the lifespan. Having information about recent cases is clearly important. If collected longitudinally, such information provides trend data with respect to changes in rape prevalence over time as well as information about the number of new victims who may require services and/or processing by the criminal justice system. Most of the criminal justice system measures of violence against women address only past year cases (e.g. the FBI Uniform Crime Reports; the National Crime Victimization Survey). Likewise, most state and local data on cases reported to police or child protective services are aggregated within a calendar year period.

Recommendation #3: Carefully consider the sources from which data were gathered.

This recommendation encompasses several issues. First, prevalence estimates differ considerably between male and female participants, with women and girls being more likely than men and boys to have experienced rape during the past year or during their lifetime. Thus, prevalence estimates based on samples with both genders can be expected to be lower than estimates based on samples with women only. A second question concerns whether information about victimization and perpetration should be gathered from children and adolescents as well as adults. A few governmentally-sponsored surveys already collect some information about victimization experiences from adolescents (e.g., the National Crime Victimization Survey and the CDC Youth Risk Behavior Survey). There have also been several non-governmental surveys that collected information about victimization of adolescents. For example, Elliott and colleagues initiated the National Youth Survey almost 30 years ago in 1975 (Ageton, 1983; Elliott, Huizinga & Menard, 1989). Finkelhor and colleagues studied youth victimization including physical and sexual assault among a national household probability sample of 10-16 year olds (Boney-McCoy & Finkelhor, 1996). The National Survey of Adolescents obtained information about physical and sexual assault from a national household probability sample of 12-17 year old adolescents (Kilpatrick, Saunders, & Smith, 2003). Yet, virtually no information about either victimization or perpetration has been collected from representative samples of children under the age of 10. Clearly, there are numerous methodological and human subject protection challenges involved in collecting such information from children and adolescents. However, the lack of contemporaneous information about the scope and nature of victimization of female children and adolescents is problematic.

A third issue concerns potential sources of systematic data collection. As noted in a CDC publication in the Morbidity and Mortality Weekly Report (CDC, 2000) there are a number of criminal justice, health-care, and other sources of national data on rape. In most cases, these sources involve collection of systematic data from survey samples. However, in many cases, the

ability of these surveys to provide useful data is hindered by their failure to include well-designed measures. There are strong proponents for each of these potential sources of information about rape, and there are clear advantages to each source. However, a much more comprehensive picture of rape would emerge if these potential data sources would utilize common definitions of rape and collect data in as similar a format as possible (CDC, 2000). As we have seen in our review of existing sources, when definitions and measures for rape differ between studies, dramatic differences in rape prevalence estimates often result.

Recommendation #4: Be aware of regional or local differences in rape prevalence that may relate to the potential impact of policy decisions.

Data from the UCR and NCVS have suggested that the prevalence of rape differs depending on the region of the U.S. in which people live. For example, the most recent report on NCVS data (Catalano, 2004) estimated that, among persons aged 12 and older living in the Northeast region of the U.S., 20 in 100,000 had been raped in the past year. In contrast, this estimate was 150 per 100,000 in the Northwest region of the U.S., 90 per 100,000 in the South, and 60 per 100,000 in the West (note that some of these estimates were based on 10 or fewer positively identified rape cases). Also, using NWS and NVAW data, Kilpatrick and Ruggiero (2003) reported that lifetime rape prevalence estimates were as low as 11.0% in the mid-Atlantic region and as high as 21.0% in the Mountain region of the U.S. (estimates for the other 7 regions of the U.S. ranged between 11.4% and 17.7%). Further, Ruggiero, Van Wynsberghe, Stevens, and Kilpatrick (in press) found that sexual assault prevalence among adolescents, as well as rape prevalence among adult women, was higher in urban relative to rural settings. This finding is consistent with reports from the UCR and NCVS that have implied increased risk among residents of urban relative to rural settings.

Conclusions

Rape in America is about more than just numbers. Although having accurate numbers is important, it is even more important to recognize that there is a person behind every rape statistic who needs our advocacy, assistance, and acceptance. Many victims/survivors who do not report to law enforcement or participate in victimization surveys do seek services from rape crisis centers or other sexual assault agencies. Such rape victims show up in agency case loads but not in official rape statistics. Therefore, it is important for agencies to compile and disseminate statistics on the rape victims they serve because many of these victims will be invisible otherwise. Finally, it is important to recognize that we will never have perfect data about rape victims or rape cases because it will never be possible to detect all rape victims in law enforcement records, surveys, or agency caseloads. We will probably always be arguing about the numbers, but we hope that we can all agree that even one rape in America is one rape too many.

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