Assessing sexual aggression: Addressing the gap between rape victimization and perpetration prevalence rates

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Abstract

Obtaining consistent and accurate rates of women’s sexual assault experiences and men’s history of sexual aggression has proved difficult and rates vary tremendously throughout the literature [Koss, M.P. (1993a). Detecting the scope of rape: A review of prevalence research methods. Journal of Interpersonal Violence, 8 (2), 198–222]. It has been suggested that methodological factors influence the detection of women’s sexual assault experiences and contribute to the rate disparities [Fisher, B. S., Cullen, F. T. & Turner, M. G. (2000). The sexual victimization of college women (NCJ 182369). Washington, DC: Bureau of Justice Statistics, National Institute of Justice.; Hamby, S. L. & Koss, M. (2003). Shades of gray: A quantitative study of terms used in the measurement of sexual victimization. Psychology of Women Quarterly, 27, 243–255.; Koss, M.P. (1993a). Detecting the scope of rape: A review of prevalence research methods. Journal of Interpersonal Violence, 8 (2), 198–222]. Survey methods are commonly used in the assessment of women’s experience with sexual assault victimization. Men’s history of sexually aggressive behaviors is typically examined using parallel versions of the survey instruments used with women. While much is known about variables affecting the reliability, validity, and utility of these assessment methods when applied to women, less is known about the influence of these factors in the assessment of men’s self-reported aggression. This paper discusses current sexual victimization and perpetration incidence and prevalence rates. An overview of the major sources of these data, as well as a review of the methodological factors known to influence levels of rape detection in women is presented. An examination of how these issues may be relevant in the measurement of male sexual aggression is discussed with suggestions for future research.

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Rape, as defined by most state statutes and sexual assault researchers, is an act of nonconsensual sexual penetration (oral, anal, or vaginal) obtained by force or threat of force or when the victim is unable to resist or give consent due to incapacitation (Fisher, Cullen, & Turner, 2000; Searles & Berger, 1987). Methodological factors, such as question wording and context, variations in rape and sexual assault definitions, and data collection methods have been shown to influence levels of rape detection (Koss, 1993a). Research focusing on ways to increase and understand women’s level of rape disclosure has led to measurement improvements (Koss, 2005). Development of anonymous self-report surveys such as the Sexual Experiences Survey (SES; Koss & Oros, 1982; Koss, Gidycz, & Wisniewski, 1987) is an example of one effort to overcome women’s reluctance to disclose sensitive information. As a result, over the past several decades rape and other forms of sexual victimization have clearly been established as serious problems, leading to efforts to understand the correlates and consequences of rape as well as their prevention.

Less attention has been paid to the influence of methodological factors on men’s self-reported history of sexual coercion and aggression (Cook, 2002). Questions remain as to accuracy of sexual assault perpetration estimates as they continue to be vastly incongruent with the level of sexual victimization reported by women. This paper reviews current incidence and prevalence rates of sexual victimization and perpetration and the primary sources of these data. Research on the most popular measure of sexual victimization and perpetration, the Sexual Experiences Survey (SES; Koss & Oros, 1982; Koss et al., 1987) is presented. Methodological changes in assessment that have resulted in increased rape disclosure by women are discussed and examined in relation to men’s reporting rates. A discussion of the strengths and limitations of the SES in detecting relevant male sexual behavior is presented, and suggestions for future research are offered.

1. Sources of victimization and perpetration estimates

1.1. Incidence rates

The Uniform Crime Reports (UCR) and the National Crime Victimization Survey (NCVS) are the two primary sources of official rape incidence estimates published annually. The UCR is a compilation of national crime statistics based on reports to law enforcement (Federal Bureau of Investigation [FBI]). For the year 2005, the FBI indicated through the UCR that 93,934 completed or attempted rapes were reported to law enforcement in the United States, or 31.7 reports for every 100,000 adult women (FBI, 2006). Researchers have criticized the UCR as a very poor indicator of the true scope of rape due to research showing that few rape victims report the incident to police (Clay-Warner & Burt, 2005; Fisher et al., 2000; Koss et al., 1987). The Bureau of Justice Statistics (2004) reported in the NCVS that only 38.5% of rape and sexual assaults were reported to the police (compared to 60.5% of robberies, 59.4% of aggravated assault and 42.1% of simple assaults), making sexual victimization the most underreported violent crime in the United States.

Also in 2005, the Bureau of Justice Statistics (BJS) reported through the NCVS that 64,080 completed rapes and an additional 51,500 attempted rapes occurred or 0.5 rapes/attempted rapes per 1,000 adult females (BJS, 2006). Despite recent survey revision, NCVS rape and sexual assault victimization estimates continue to be criticized primarily due to the context in which they are gathered, narrow wording of survey screening items used to assess victimization, and higher rates reported across studies relying on different methodologies (see Fisher, Cullen, & Diagle, 2005; Hamby & Koss, 2003; Koss, 1993a; Koss, 1993b for reviews).
Indeed, official estimates are lower than rape victimization rates obtained using different methodology. Results from the National College Women Sexual Victimization Survey (NCWSVS; Fisher et al., 2000) highlight how survey item number and wording can greatly affect victimization rates. In this study, victimization rates obtained from 4,442 college women using the narrow screening questions and incident report employed by the NCVS were compared with rates collected from an additional 4,446 college women using multiple behaviorally specific screener questions. An example of a behaviorally specific rape question includes, “Since school began in fall 1996, has anyone made you have sexual intercourse by using force or threatening to harm you or someone close to you? Just so there is no mistake, by intercourse I mean putting a penis in your vagina” (Fisher et al., 2000, p.6). For a seven month period, the percentage of women who reported completed rapes using behaviorally specific questions was 11 times higher than reported in the NCVS modeled study (1.7% vs 0.16%, respectively). Attempted rape estimates were 6 times higher and threats of rape were 4 times higher (NCWSVS; Fisher et al., 2000).

1.2. Prevalence rates

Use of behaviorally specific questions in self-report surveys has been common for decades in sexual victimization prevalence research, generating estimates much higher than would be expected given incidences reported to police or crime surveys. In contrast to incidence rates discussed previously, which include rapes that occurred over a 7-month to 1-year period, most prevalence estimates include incidents that occur over a much longer time period. Prevalence estimates may include lifetime history of sexual assault or, in order to distinguish child sexual abuse from adult cases, include incidences that occurred since the age of 14.

The SES developed by Koss and Oros (1982), and since revised by Koss et al. (1987), is by far the most popular measure used to collect sexual victimization prevalence data (Gylys & McNamara, 1996). The most commonly used Koss et al. (1987) version of the SES consists of ten behaviorally specific items asked in a yes-no, self-report format describing four increasing levels of sexually coercive and aggressive experiences, including unwanted sexual contact, sexual coercion, attempted rape, and rape. An example of an SES item used to determine rape victimization includes, “Have you had sexual intercourse when you didn’t want to because a man threatened or used some degree of physical force (twisting your arm, holding you down, etc.) to make you?” The SES (Koss et al., 1987) is generally considered to be the best available measure of women’s sexual victimization experiences (Testa, VanZile-Tamsen, Livingston, & Koss, 2004).

Research using the SES with college women indicates that approximately 15% have experienced a completed rape since the age of 14 (18.8%, Gross, Winslett, Roberts, & Gohm, 2006; 15.4%, Koss et al., 1987; 13%, Koss & Oros, 1982; 17.2%, Testa et al., 2004). Koss and colleagues (1987) were the first to investigate the incidence and prevalence of a range of unwanted sexual experiences including rape and attempted rape in a nationally representative sample, which included 3,187 women across 32 U.S. college campuses. Approximately 15% of the women reported having experienced a completed rape since the age of 14 and an additional 12% reported experiencing an attempted rape. Although prevalence rates collected using the SES typically fall at or around 15%, higher rates were reported in a sample of 834 female Navy recruits, with 36.1% endorsing SES completed rape items (Merrill et al., 1998). Using behaviorally oriented questions about previous forced sexual intercourse but not relying on the SES, additional rape prevalence studies with national samples of women have obtained similar estimates (15%, Brener, McMahon, Warren, & Douglas, 1999; 12.7%, Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993).

1.3. Perpetration rates

A parallel “male” version of the SES (Koss et al., 1987) is also used to assess men’s history of sexually coercive and aggressive behavior towards women, as an outcome measure of the effectiveness of rape-prevention programming with male audiences (Foubert, 2000), and to study the relationship between men’s sexually aggressive behavior and a variety of other characteristics (Koss, Leonard, Beetzley, & Oros, 1985; Koss & Oros, 1982; Malamuth, Stockloskie, Koss, & Tanaka, 1991; Muehlenhard & Linton, 1987). The SES is also the most popular and considered the best available measure of male sexual aggression (Porter & Critelli, 1992; Testa, 2002).

Men’s reporting rates differ significantly from the high level of sexual victimization reported by women. On average, rape perpetration rates collected using the SES are three quarters to two thirds less than victimization rates. For example, in the national study by Koss and colleagues (1987) discussed previously where 15.4% of college women admitted to experiencing an incident of completed rape since the age of 14, only 4.4% of college men admitted this...
level of sexual aggression. An additional 3.3% admitted to perpetrating attempting rape compared to 12.1% of females reporting victimization. Although perpetration rates collected using the SES may fluctuate somewhat across the literature, when comparison data are available the same male-female reporting discrepancy emerges. For example, compared to the 36.1% of 834 female Navy recruits reporting completed rape mentioned previously, 11.3% of the 1,754 male Navy recruits endorsed completed rape items (Merrill et al., 1998).

Additional prevalence data collected using the SES (Koss et al., 1987) with a variety of college and community male samples indicate similarly low self-reported rates of sexually aggressive behavior. For example, Senn, Desmarais, Verberg, and Wood (2000) examined a community sample of 195 Canadian males and reported that 4% admitted to perpetrating rape and 3% attempted rape. In another small community sample of 67 men, a slightly higher 6% admitted to perpetrating a completed rape (Calhoun, Bernat, Clum, & Frame, 1997). Similarly, of 343 college males recently surveyed by Abbey, McAuslan, Zawacki, Clinton, and Buck (2001), 5% admitted to perpetrating rape and 3% attempted rape. While these perpetration estimates are alarming in their own right, they seem amiss when considering victimization rates.

Spitzberg (1999) aggregated rape victimization and perpetration prevalence estimates reported by over 100,000 respondents across 120 studies spanning approximately 40 years. According to the author, the original studies relied on a variety of data collection measures and operationalizations of rape. The summarized data indicated that 12.85% of women admitted to being raped while approximately 4.7% of men admitted perpetrating rape. Spitzberg concluded that the gap between victimization and perpetration estimates suggests that men’s reports are significantly biased or only a few men are responsible for the victimization of a substantial number of women.

In their national study using the SES, Koss and colleagues (1987) reported that although a greater percentage of women (54%) than men (25%) endorsed SES items, men endorsed aggressive acts practically equal to the number of times women endorsed each aggressive act. However, according to these researchers, men did not admit enough sexual aggression to account for the amount of victimization reported by women. These investigators rejected the notion that only a small percentage of men were responsible for the victimization of many women, asserting that future research must determine what would account for these victimization-perpetration reporting discrepancies. However, no research to date has identified the source of the victimization-perpetration reporting rate discrepancies.

2. Evaluations of the SES

Sexual assault researchers have stressed the need to evaluate the quality of current self-report measures, particularly in terms of their validity (Cook, 2002; Porter & Critelli, 1992) in detecting a wide range of relevant sexual behaviors, and specific reporting biases that may be present as a result of sexual victimization or perpetration history (DeGue & DiLillo, 2005). As current sexual victimization and aggression prevalence data are gathered almost exclusively using the SES, it is important to establish the strengths and limitations of this measure with both male and female respondents. Despite its widespread use in sexual victimization and perpetration research, the SES has undergone few empirical investigations (Gylys & McNamara, 1996; Hamby & Koss, 2003; Testa et al., 2004) and continued examination and revisions of this measure have recently been encouraged (DeGue & DiLillo, 2005; Testa et al., 2004).

2.1. SES — female version

Researchers have noted that interpreting SES reliability and validity data are somewhat confusing as much of the published data is based on modified versions of the SES (Ross & Allgeier, 1996). Additionally, actual survey items used to collect victimization data are often not published, preventing comparisons across the various versions of the measure (Ross & Allgeier, 1996). Researchers also commonly modify the SES for individual research purposes without considering how such modifications may affect the psychometric properties of the measure (Ross & Allgeier, 1996; Testa et al., 2004). For example, Ross and Allgeier (1996) pointed out that reliability and validity data reported by Koss and Gidycz (1985) is routinely cited as evidence of the strong psychometric properties of the SES. Indeed, Koss and Gidycz (1985) demonstrated adequate internal consistency (Cronbach’s alpha = .74) and reported a test-retest reliability rate of .93 over a one-week period in a sample of female college students. However, the actual 10 survey items studied were not published in the report. Koss and Gidycz (1985) noted that the items used in the study were reworded from an earlier 12-item version (Koss & Oros, 1982) of the SES. Thus, item overlap comparisons are prevented between the original SES 1982 version and the modified survey used for the 1985 reliability study.
Further, researchers consistently cite the Koss and Gidycz (1985) psychometric study in support of using a newer Koss et al. (1987) version of the SES without knowing the extent of item overlap between these two versions. Close comparison between the original (Koss & Oros, 1982) and revised (Koss et al., 1987) versions reveals that although similarities exist on many items, exact wording does not match on any single item. Ross and Allgeier (1996) criticized these citation practices and urged additional psychometric investigations of the most recent and popular version of the SES (Koss et al., 1987).

2.2. Intoxicant-related items

Available research generally supports use of the SES in identifying a wide range of women’s sexual victimization experiences (Gylys & McNamara, 1996; Koss & Gidycz, 1985; Testa et al., 2004). However, a question that has been raised concerns the extent to which SES survey items are operationally defined to be consistent with reformed legal definitions of sex crimes. This issue is of particular importance since SES items are typically cited as meeting legal definitions of rape.

Gylys and McNamara (1996) asked prosecuting attorneys to rate the extent to which SES (Koss et al., 1987) items used to categorize rape and attempted rape victims were consistent with rape and attempted rape Ohio Revised Code (1993, as cited in Gylys & McNamara, 1996). The remaining SES items describing less severe forms of sexual aggression were also examined to determine if they met legal criteria for any other sexual offense. Evidence was found to support the validity of the SES in identifying victims of rape, attempted rape and other felonious sex offenses, as 6 of the 10 items on the SES fell into one of these legal categories.

However, the majority of prosecuting attorneys did not endorse one of the three rape items, and one of the two attempted rape items involving the use of alcohol and drugs as meeting legal definitions for these crimes. Gylys and McNamara reported that the SES intoxicant-related items do not adequately capture important aspects of the criminal code, which states, “For the purpose of preventing resistance, the offender substantially impairs the other person’s judgment or control by administering any drug or intoxicant to the other person, surreptitiously or by force, threat of force or deception” (Ohio Criminal Code, 1993, as cited in Gylys & McNamara, 1996, p. 247). The SES rape item is less behaviorally specific, stating, “Have you ever had sexual intercourse when you didn’t want to because a man gave you alcohol or drugs?” (Koss et al., 1987, p.167). Thus, the authors concluded that the SES requires further revisions to correct intoxicant-related items too ambiguously worded to adequately capture the administration of substances in a manner consistent with legal definitions. Precisely capturing intoxicant-related rape with a single question is undoubtedly difficult, as legal definitions of sex crimes vary from state to state. Thus, it is unclear if SES intoxicant-related items as currently worded meet legal criteria for any other sexual offenses (e.g., sexual battery) in states other then Ohio.

Intoxicant-related SES items also have been criticized as being too ambiguous and open to interpretation resulting in exaggerated rape prevalence rates (Gilbert, 2005; for a response see Koss & Cook, 2005). Indeed Gylys and McNamara (1996) noted that a substantial portion of female rape victims has been identified using the intoxicant-related item alone, highlighting that if victims identified solely by this item were removed from the Koss and colleagues’ (1987) national study, the prevalence would drop from 15% to 10.6%. They further noted that of the 60 females categorized as rape victims in the study by Layman, Gidycz, and Lynn (1996), almost half were identified using the intoxicant-related rape item alone.

However, excluding intoxicant-related rape items altogether would not result in more accurate rape prevalence estimates but rather omit a form of rape included in most state statute definitions. Rather, Gylys, and McNamara (1996), as well as other researchers (Testa et al., 2004; Lisak & Roth, 1988), revised these items to be more behaviorally specific. Although raising reading requirements, rewording the intoxicant-related rape item to read, “Have you ever had sexual intercourse when you didn’t want to because a man intentionally impaired your judgment or control substantially by giving you alcohol or drugs by force, threat of force, or deception?” resulted in 83.7% of evaluators endorsing the item as consistent with the rape statute (Gylys & McNamara, 1996, p.247). Testa and colleagues (2004) recently collected victimization rates using more specifically worded intoxicant-related SES items as suggested by these researchers. Intoxicant-related rape estimates were comparable with rates reported by Koss et al. (1987; 17.2% vs. 15.4% respectively) thus providing support for the use of more precisely worded items reflecting legal definitions. Additionally, this strategy provides more precise information regarding the role of intoxicants in rape. The impact revisions may have on reliability and validity of the measure remains unknown.
2.3. Rape detection

Using multiple behaviorally specific questions, particularly in self-report format, has been advocated in sexual assault research for a number of reasons. Presenting multiple behaviorally specific questions allows respondents additional time and provides additional memory cues that may enhance recall for a variety of relevant experiences (see Koss, 1993a, for a review). Also, asking about rape in behavioral terms circumvents the need to use stigmatizing labels such as “rape” or “sexual assault,” which generally yields very low estimates compared to using the specific and graphic behavioral acts to define these experiences (Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004; Koss et al., 1987; Koss, 1993a). Finally, asking about rape using behaviorally specific terms reduces ambiguity, leaving less room for interpretation by respondents in terms of deciphering what information may be relevant to the researcher and eliminates the need for respondents to be familiar with current legal definitions of sex crimes (Koss, 1993a).

All of these factors are considered important in the detection of rape because the majority of women who endorse behaviorally specific survey items describing rape experiences do not label their experience as rape (Bondurant, 2001; Fisher et al., 2000; Harned, 2005; Kahn, Jackson, Kully, Badger, & Halvorsen, 2003; Kahn, Mathie, & Torgler, 1994; Koss, 1985; Koss et al., 1987; Layman, et al., 1996). For example, in the national study by Koss and colleagues (1987), only 27% of college females endorsing SES rape items were self-acknowledged rape victims. Koss (1985) investigated a sample of 2016 university women and of the 256 endorsing SES rape items, 43% did not conceptualize the experience as rape. She referred to these women as hidden or unacknowledged rape victims. In her study, unacknowledged victims were more likely than acknowledged rape victims to have been acquainted and previously intimate with the perpetrator. She concluded that being in an intimate or dating relationship with the perpetrator may have “disqualified the experience as rape in the victim’s mind” (p. 210).

Researchers have identified additional factors associated with rape acknowledgement and continue to report high percentages of unacknowledged victims who endorse SES rape items. For example, Bondurant (2001) reported that 64% of 109 college women endorsing SES rape items answered “no” on a survey item asking if they had ever been raped. In this study, greater violence rather than acquaintance with the perpetrator better predicted rape acknowledgment. Layman et al. (1996) examined victimization data from 591 college females and reported that only 27% of the 85 women endorsing SES rape items labeled the experience as rape. The intoxicant-related SES rape question exclusively identified approximately half the rapes in this study, 65% of which were nonlabelers, leading the authors to speculate that inebriation might lead some women to blame themselves for the experience or influence their perceptions of the experience in ways yet unknown.

Harned (2005) examined 251 college women’s written descriptions of unwanted sexual experiences indicated on the SES and found that just as many labelers as nonlabelers indicated use of intoxicants. Nonlabelers indicated that their ability to provide consent was not diminished as a result of their intoxication, but rather viewed intoxication as indication that they were at least partly responsible for the experience. Labelers, on the other hand, indicated that intoxication and subsequent incapacitation (i.e. being blacked out, unconscious) lead them to acknowledge victimization. Harned (2005) and Laymen et al. (1996) both reported that acknowledged victims reported using greater resistance, indicated clear refusal to the perpetrator, and perceived the assault as more forceful and serious than unacknowledged victims.

Kahn and colleagues (1994) compared data from 198 female college students asked to write about a “rape scenario” and complete a modified version the SES and other measures about rape and sexual experiences. Analysis revealed that 23% of these women had experienced rape, with 47% unacknowledged victims. Unacknowledged victims were more likely to possess stereotypical, violent, stranger rape scripts — referred to as blitz rape scripts, than acknowledged victims whose definitions and scenarios of rape were more likely to involve less physical force and include acquaintance rape. Thus, the authors concluded that discrepancies between an unacknowledged rape victim’s experience and her definition of rape might prevent her from labeling the experience as rape.

While inconclusive, these and other research findings suggest that acquaintance or previous intimacy with the perpetrator (Kahn et al., 2003; Koss, 1985, holding stereotypical rape scripts (Bondurant, 2001; Kahn et al., 1994), experiencing forced anal, oral, and non-penile penetration (Kahn et al., 2003), and possibly incapacitation as a result of intoxicants (Kahn et al., 2003; Layman et al, 1996; Harned, 2005) are associated with nonlabeling. Whereas, greater force from an assailant (Bondurant, 2001; Harned, 2005; Kahn et al., 1994; Laymen et al., 1996) who is not an acquaintance or boyfriend (Kahn et al., 2003; Koss, 1985) is associated with labeling an experience as rape. These studies highlight the methodological challenge of developing valid self-report survey items that avoid stigmatizing labels yet are capable of accurately detecting women’s coercive and aggressive sexual victimization experiences.
Development and revisions of behaviorally oriented SES items represent important efforts to refine rape detection and other forms of unwanted sexual experiences. These behaviorally specific items appear to effectively tap victimization experiences in women allowing researchers to examine prevalence rates of sexual aggression against women. While the available data suggest that SES is a reliable and valid measure of women’s sexual victimization experiences, as noted above, several problems with this measure have been identified in the literature. Reporting practices and ambiguities regarding the reliability data for the SES have been criticized (Ross & Allgeier, 1996). Additionally, the validity of intoxicant-related SES items has been challenged due to inconsistencies with legal definitions of sex crimes (Gylys & McNamara, 1996). Additional research is warranted on how item modifications may affect the psychometric properties of the SES (Testa et al., 2004). Although data clearly indicate that the women’s version of the SES identifies unwanted sexual experiences, analyses of SES self-report data also reveal that many women fail to identify their unwanted sexual experiences as rape and attempted rape. Subsequent research with these survey items has provided a clearer understanding of the issues hindering rape disclosure, how women conceptualize their experiences, and the effects and correlates of rape and rape acknowledgement. Further work in this area is important in order to enhance the likelihood that victims of sexual assault access appropriate support services.

2.4. SES — male version

While the female version of the SES is generally considered the measure of choice for identifying victims of sexual aggression, the male version of the SES is also considered the measure of choice for identifying perpetrators of sexual aggression against women. Unfortunately, there exists a limited database concerning male self-reporting and how men label and describe their own sexual behavior. As Cook (2002) has noted, “little is known about factors that influence self-reports of perpetration” (p.542). Less is known about factors that may be involved in men’s perceptions of whether they have engaged in sexually inappropriate behavior and how those perceptions influence self-reported aggression.

Beyond early reliability and validity investigations (Koss & Dinero, 1988; Koss & Gidycz, 1985; Koss et al., 1987), the use of the SES as a measure of male sexual aggression has undergone few additional empirical evaluations. Koss & Gidycz (1985) demonstrated high internal consistency (Cronbach’s alpha = .89) and item agreement (93%) across two administrations of the SES (Koss & Oros, 1982) with a sample of college males over a one-week period. The correlation between respondents’ level of sexual aggression on the self-report version and as related to an interviewer was .61, with men tending to endorse lower levels of sexual aggression in the presence of the interviewer. However, as discussed previously, SES (Koss & Oros, 1982) items were reportedly reworded for this investigation but not published in the report. Thus, it is unclear which version of the measure was used in the investigation and item overlap comparisons are prevented between the ones used in the reliability study and other published versions of the measure (Ross & Allgeier, 1996).

More recent research indicates high correspondence between men’s answers on the self-administered SES as they do to an interviewer asking the same questions. Koss and colleagues (1987) administered the most recent version of the SES to 15 college males in a self-report format and one-to-one interview on the same day and found that 14 men (93% of respondents) gave the same answers across both administrations. These men also reported a 95% honesty rating of their responses to survey items.

Lisak and Roth (1988) used a modified version of the SES (Koss et al., 1987) with a sample of college males and found a 94% correspondence rate between self-administered and interview-based versions. Gavey (1991) asked a sample of 176 college males in New Zealand to provide accuracy ratings of their SES responses. On a 5-point scale with 5 indicating the highest level of accuracy, a mean accuracy rating of 4.7 was reported by respondents. Thus, studies reviewed suggest that men tend to consistently report high levels of confidence in the accuracy and honesty of their SES item responses; however, as Ross and Allgeier (1996) point out, establishing the validity of men’s reports requires an understanding of their SES item interpretations.

SES validity studies indicate that men’s SES item interpretations may vary considerably. Ross & Allgeier (1996) asked men (N = 102) to complete the original SES (Koss & Oros, 1982) self-administered survey and then, in a face-to-face interview, provide their interpretations of four SES items believed by the investigators to be ambiguous. Respondents reportedly provided multiple interpretations of each item assessed. Due to these multiple interpretations, the authors warn that a number of men in previous prevalence studies using the original version of the SES (Koss & Oros, 1982) may have misinterpreted items and consequently been misclassified as sexually coercive or noncoercive. They also pointed out that researchers routinely alter SES items without considering how revisions may affect men’s
(and women’s) interpretations. They recommended additional validity studies explore both men (and women’s) item interpretations of the most popular version of the SES (Koss et al., 1987).

Using the more popular version of the SES (Koss et al., 1987) with a sample of 62 college males, Ouimette et al. (2000) compared men’s responses on two self-administered surveys and one face-to-face interview. Men responded consistently across the two self-administered surveys and reports of using threats or use of force to obtain nonconsensual sex showed stability across all SES administrations. However, self-administered and interview reports were more variable, mostly on rape and attempted rape items related to the use of alcohol and drugs. Discordant responding was related to higher scores on social anxiety measures suggesting that men admitting to sexually inappropriate behaviors on self-administered surveys may deny them in the presence of an interviewer due to social anxiety.

Discordant responses were also attributed to item ambiguity. The authors noted that although the intoxicant-related items appear to have accurately detected some incidences of rape, i.e., some men admitted to having sex with an unconscious intoxicated woman, other incidences did not correctly fit the legal category of rape, resulting in false positive. For example, the authors noted that male respondents admitted to encouraging women to use alcohol or drugs with the intention of gaining consent. Men reported that they engaged or attempted to engage in sexual intercourse once consent was obtained. According to the authors, raters had difficulty determining the woman’s level of intoxication based on male reports and coded these circumstances as sexual coercion rather than rape or attempted rape as they did not match the legal definitions of these crimes. The investigators judged alcohol and drug-related items as less behaviorally specific than other SES items. These findings are consistent with Gyllys and McNamara’s (1996) concerns reviewed previously that intoxicant-related SES items might assess consensual as well as nonconsensual forms of sexual victimization/perpetration and Ross and Allgeier’s (1996) conclusion that, in the absence of men’s item interpretations, ambiguous wording may lead to imprecise estimates of sexual assault perpetration.

Nonetheless, it appears that a substantial portion of rape perpetration is identified using the single intoxicant-related SES (Koss et al., 1987) rape item. For example in one study, 57.7% of rape perpetrators were classified using this intoxicant-related rape item exclusively (Merrill et al., 1998). While it is impossible to know the extent to which this item may have led to false positive (e.g., the proportion of negative cases—not rapes—that were incorrectly reported as positives—rapes), the research with male respondents reviewed above (Ouimette et al., 2000) suggests that the sensitivity of intoxicant-related SES items (the probability of the measure to detect cases of rape that occurred) is higher than the specificity (the probability of the measure to not detect cases that did not occur). Thus, it is important to determine the level of sensitivity and specificity of the item in future research. Research on the SES with men (Koss & Oros, 1982; Koss et al., 1987) reviewed above indicates that the overall reliability of the SES male version is quite good. Males seemingly interpret and respond to SES questions in consistent ways. However, the consistent perpetration-victimization self-report discrepancies and the lack of SES item interpretation studies indicate that additional validity examinations of the male version of the SES are necessary. Researchers have suggested examining the means attached to sexual experiences through in-depth interviews with respondents (Banyard, Plante, & Cohn, 2005). More importantly, comparisons of men and women’s SES item interpretations and self-reports across various versions of the measure may help clarify the source of self-report discrepancies and inform the design and testing of new survey questions.

3. Point of view: the male vs female perspective

Koss (1993a) discussed two potential threats to the validity of prevalence estimates that may contribute to the wide variation in prevalence and perpetration figures across the literature: fabrication and nondisclosure. Fabrication or intentional false overreporting of victimization by respondents is considered unlikely in victimization research (Koss, 1993a). Koss and Gidycz (1985) compared women’s survey and interview-based victimization reports and found no evidence of fabrication. Similar to victimization research findings, no evidence of intentional false overreporting or fabrication of sexually aggressive behavior has been reported by researchers comparing men’s survey and interview-based reports (Koss & Gidycz, 1985; Koss et al., 1987; Ouimette et al., 2000; Ross & Allgeier, 1996).

Koss (1993a) suggested two types of nondisclosure that may be major threats to obtaining accurate estimates: purposive nonreporting (withholding relevant experiences) and unintentional nonreporting (lack of recall). With regards to reporting discrepancies, Koss et al. (1987) suggested that dishonesty, or intentional nondisclosure on the SES by men is not likely the problem, but rather the wording of the SES may not be eliciting a full range of men’s sexual
experiences and that men most likely view their previous sexual encounters as consensual. This implies that male and female interpretations and perceptions of sexual encounters may differ, and that unintentional nondisclosure on the SES represents the primary threat to the validity of perpetration estimates. If this is the case, it is not surprising that survey items as written would elicit discordant information. In addition to willingness to disclose sensitive information, responses to survey items depend on men and women’s perceptions and recollections of their sexual experiences.

One interpretation of victimization-perpetrator reporting disparities that may be worth exploring is the issue of survey respondent perspective — that is, the facts as known to the respondent. Consider the following male and female versions of an SES (Koss et al., 1987) sexual coercion item:

**Female version**

“Have you given in to sexual intercourse when you didn’t want to because you were overwhelmed by a man’s continual arguments and pressure?”

**Male version**

“Have you engaged in sexual intercourse with a woman when she didn’t want to by overwhelming her with continual arguments and pressure?”

The first question asks the female respondent whether or not she has engaged in unwanted intercourse after feeling overwhelmingly pressured. The women’s answer is based on her interpretation of her desires (to engage in sexual intercourse) and emotions (feeling overwhelmed). On the other hand, the man’s answer is based on his interpretations of the woman’s desires and emotions as a result of his behavior (continual arguing and pressure). For a male respondent to answer this question affirmatively, he would have to be aware that the woman did not want to have sex, recognize and admit that he was overwhelming her with pressure and arguments, and believe that intercourse took place as a result of his continual pressure and arguments. While some men might accurately recognize, interpret, and admit to all of these factors, it is not unreasonable to assume that many men could misinterpret, distort and/or deny any one or all of these factors and circumstances.

The above SES question, as well as others, appears to have been worded primarily from a female perspective, then following minor word changes was (reworded for) used with males. Both versions are behaviorally specific; however, a female respondent is asked to interpret her own behaviors, desires and emotions, whereas the male respondent is asked to interpret the female’s behaviors, desires and emotions (i.e. sexual intentions and resulting behavior) in addition to his own. The male-female reporting discrepancies may, in part, result from differences in what male and female respondents must perceive and acknowledge in order to endorse SES items. DeGue and DiLillo (2005) suggested that potential biases may be present as a result of perpetrator versus victimization status. Examination of these potential biases may prove helpful in the development and testing of future survey items that are more congruent with how men describe their experiences, and as a result enhance item validity.

### 4. Sexual misperceptions

Indeed, research suggests that men and women differ in how they convey and interpret sexual interest and willingness to engage in sexual intercourse. These gender differences in communication and interpretation of sexual intent and/or consent have been implicated as contributors to rape and other types of unwanted sexual experiences (Abbey, 1982, 1987; Muehlenhard, 1988; Shotland & Craig, 1988; Vrij & Kirby, 2002). The impact gender communication differences alone may have on sexual coercion and aggression has been referred to as the “Miscommunication Hypothesis” (McCaw & Senn, 1998). While research supports that sexual miscommunications are likely, empirical evidence does not support that miscommunication directly leads to sexually coercive or aggressive behavior in men (Bondurant & Donat, 1999; Hickman, & Muehlenhard, 1999; McCaw & Senn, 1998). However, there is an emerging consensus among researches that sexual misperception or overperception by some men may play a role (Abbey, 1987; Abbey et al., 2001; Bondurant & Donat, 1999; Fisher & Walters, 2003; Sawyer, Pinciaro, & Jessell, 1998; Virj & Kirby, 2002).

Researchers have consistently found that men tend to rate their own and other men and women’s behavior more sexually than women do (Abbey, 1982, 1987; Shotland & Craig, 1988; Vrij & Kirby, 2002). More recently, research has expanded on these findings by going beyond simple gender differences and examining specific attitudes and beliefs that may drive an overperception bias among men. For example, Fisher and Walters (2003) examined individual and situational characteristics that influence men and women’s interpretations of individuals’ sexual interest.
They found that gender was not the only determinant of sexualized perceptions. Although men were more likely to interpret sexual intentions than women, men with calloused sexual attitudes, more traditional beliefs about women’s roles, and lower social desirability concerns were most likely to report sexual interpretations of behavior than women or other men.

Similarly, Bondurant and Donat (1999) compared level of sexuality male and female respondents attributed to a woman’s behavioral cues and did not find evidence for an overall gender difference in the perceptions of women’s sexual behavior. However, it was reported that men who held rape supportive attitudes and endorsed SES rape items were more likely than other men or women to misinterpret women’s behavior in a sexualized manner (Bondurant & Donat, 1999). More specifically, men reporting a history of sexual misconduct on the SES misperceived women’s mundane and romantic behaviors as indicative of sexual interest, whereas no difference was found among these men and other participants when interpreting women’s explicit sexual behavior (e.g., touching a man’s genitals). Further, men with affectively-based rape supportive attitudes (e.g., more interested in and accepting of rape, less disgusted and appalled by rape, and have negative opinions about rape victims) were more likely to demonstrate sexual overperceptions as well. Thus, it appears that men and women are equally capable of identifying explicitly sexual behaviors in women; however, men with more calloused sexual beliefs and a history of sexual aggression as measured on the SES demonstrate a sexual overperception bias.

In an effort to compare male and female perceptions of date rape, Sawyer et al. (1998) presented 474 college students with one of eight written dating scenarios all ending in sexual intercourse. Levels of sexual coercion and consent were varied across the eight scenarios. Participants were asked to identify whether the man in the scenario used sexual coercion, if the female gave sexual consent, if rape occurred, and were asked if the man in the scenarios should be criminally charged or punished for the offense. Men evidenced greater difficulty than women interpreting ambiguous responses to sexual advances and were more likely to interpret a lack of verbal response as consent to sexual intercourse. Female respondents were better able than men to identify when consent was given and if coercive strategies were used in the ambiguous sexual encounter. Thus, it appears that ambiguous situations represent greater interpretive challenges to men than women.

Rather than an overall gender difference in sexual misinterpretations, men with certain characteristics appear more likely than others to overperceive women’s behaviors in a sexualized manner. These studies indicate that a substantial number of men misperceive women’s sexual intentions. While current self-report survey items appear capable of detecting some of the cases ending in sexual aggression, when considering the sizable perpetration-victimization reporting discrepancy, it seems likely that a number of men with these biases remain undetected. The impact misperceptions may have of self-reported aggression remains unknown. Future research examining how perceptual biases in men may affect self-reported sexual aggression is necessary to inform future survey item development.

5. Conclusions

Due to the sensitive nature of sexual assault experiences, behaviorally specific self-report surveys have proved to be the best available assessment option to sexual assault researchers. In the assessment of sexual victimization of women and sexual aggression by men, the SES has been demonstrated to be the instrument of choice (and as a result, has been the focal point of this review). Overall, the SES women’s version appears to possess good reliability and validity, as well as offering good clinical utility. While the male version also demonstrates good reliability, additional studies are warranted with regards to the validity of male self-reports.

When considering the substantial gap in male-female self-reports of sexual perpetration and victimization, it is reasonable to assume that current self-report surveys used to collect rape perpetration estimates are detecting only a fraction of cases. Several researchers have pointed out that it is unlikely that any single self-report measure could fully capture the full range of relevant male sexually aggressive behavior (DeGue & DiLillo, 2005; Koss et al. 1987). Examination of the above factors would allow for male and female response comparisons and perhaps add to our understanding of reporting discrepancies. It is important to promote efforts to develop and refine measurement tools from a conceptualization that takes into account potential respondent biases. The SES is clearly the best available measure of women’s sexual victimization and male’s sexual aggression. Following Testa and colleagues’ (2004) suggestions, the recommendations presented here are intended to promote continued research designed to improve the utility of the SES in the detection of sexual victimization/perpetration.
6. Future directions

This review suggests that improving the validity and utility of men’s self-reports of sexually aggressive behavior may require consideration of several issues. As noted above, the common practice of making minor changes in the item wording of the women’s version of the SES and administering it to men may fail to take into account the perspective of the respondent. In the absence of recognition of male versus female perspectives, survey items may be less congruent with male perpetrators perceptions of sexual events resulting in greater underreporting biases.

The issue of male versus female perspective may impact reporting in a number of ways. The impact of prior experience with perceived token resistance (i.e. having sex with a woman who initially said no then stopped resisting in response to continued sexual advances) on men’s interpretations of sexually coercive and aggressive behavior is unknown. Marx and Gross (1995) examined the impact of perceived token resistance on men perceptions of when a woman wants a date to discontinue sexual advances. In this study, one hundred college males listened to an audiotape of a date rape scenario after being informed that the couple in the scenario had been on 5 dates and previously engaged in sexual contact (not intercourse). Participants were randomly assigned to either a perceived token resistance group (i.e., informed that the women initially objected to the male’s sexual advances but then subsequently stopped resisting) or a no previous resistance group (the woman did not object the male’s previous sexual advances). They found that relative to controls, men in the perceived token resistance group took longer to discriminate when the woman in the scenario wanted the man to cease making sexual advances. These findings suggest that men who perceive a woman’s refusals as token may have difficulty discriminating when a woman’s refusals are genuine. A man may more easily misinterpret his level of sexually coercive and aggressive behavior if, after initial sexual advances and refusals, a women stops resisting sexual advances. Unfortunately, repeated experiences with this type of sexual encounter may inadvertently shape increasing levels of male sexual coerciveness, as a result of the male perceiving the sexual contact as reinforcement for his sexual strategy. That is, women may stop resisting a man’s sexual advances after repeated refusals due to any number of reasons (e.g., fear for her wellbeing), men may incorrectly interpret a lack of continued resistance by a female as an indication that she changed her mind and desires sex. It is unclear how men’s history with perceived token resistance may impact his perceptions of his own sexually coercive behavior.

Researchers have focused on understanding how women come to label their experiences as rape (i.e., detected versus undetected rape victims) and how situational factors influence their perceptions of unwanted sexual experiences. Although the research is not conclusive, women appear more likely to label experiences as rape if the assailant was a stranger and greater force and resistance were used in the assault. The impact situational factors may have on men’s perceptions and subsequent self-reports of sexually aggressive behavior is unknown. A better understanding is needed of how factors such as male sexual strategy used (e.g., coercion, deceptive use of intoxicants, threats of force, actual physical aggression, etc.), type of sexual contact that occurred (e.g., sexual contact, oral, anal, vaginal intercourse, etc.), characteristics of the perpetrator (e.g., level of rape supportive attitudes, knowledge of what legally constitutes rape and/or coercion) and other situational variables (e.g., degree of intoxication and acquaintance with the victim) combine to affect men’s conceptualizations and reporting of sexual experiences. Further, whether the detection of sexual aggression varies as a product of survey item wording and men’s perceptions of these various types of sexual encounters is unclear.

Specific information regarding use of alcohol in sexual aggression is lacking in the prevalence research. Although research clearly indicates that alcohol is a common factor in sexual assaults, current survey items do not provide detailed information about alcohol-related assaults. Utility of the assessment measures would be greatly enhanced by more specifically worded items that include the intent of the perpetrator, mode of substance administration (e.g., force, threat of force, deceptive use, etc.), type of intoxicant used (e.g., Rohypnol, alcohol, etc.), and intoxication level of victim and perpetrator. Females often report that they would not have engaged in sexual behavior had they not been drinking alcohol. We know little about how men conceptualize their sexual experiences with women who drink willingly and are subsequently unable to resist advances and/or are unconscious, and how these factors influence the level of correspondence between men and women’s reporting. Increasing the number of intoxicant-related items would be necessary to obtain this level of information regarding the role of intoxicants in rape and other forms of unwanted sexual experiences.

It may be somewhat inaccurate to describe intoxicant-related SES (Koss et al., 1987) items as they are currently worded as meeting standard legal definitions of rape and attempted rape. These items have been criticized by researchers as vague and in need of rewording (Gyllys & McNamara, 1996; Ouimette et al., 2000). As these items are used to identify a substantial portion of victims and perpetrators of rape and attempted rape, revisions and psychometric
studies of the new items are needed. Preliminary research by Testa and colleagues (2004) suggests that revising these items to be more behaviorally specific leads to more precise information regarding the use of intoxicants in sexual victimization and results in equivalent victimization prevalence rates (Testa et al., 2004). However, how revisions of these items might affect perpetration estimates and the reliability and validity of the measure is unclear. Future research must determine if, and in what direction, the use of reliable behaviorally specific intoxicant-related items impacts perpetration prevalence estimates. Comparisons of perpetration self-reports obtained using the SES (Koss et al., 1987) with more behaviorally specific intoxicant-related items are sorely needed, as well as examinations of item endorsement in relation to item interpretation across all versions of the measure.

In comparison to research on women’s conceptualization of their sexual experiences, relatively little work has been completed with males. Qualitative research examining men’s personal accounts of their sexual experiences and interpretations of current survey items is necessary to inform measurement refinement. This type of research may help researchers identify the language men use to describe their experiences, and thus develop survey items that are more consistent with how men view their encounters. Recently, in their research on the SES with female respondents, Testa and colleagues (2004) suggested that “Modifications of items, ideally, would use language that better reflects the terms that women use (e.g. he went too far) and the way that they view these incidents...” (p.264). Although these researchers were offering suggestions for future research aimed at refining victimization data collection, the same attention and level of investigation is sorely needed with perpetrators. Gaining a better understanding of the language men use to describe their experiences may aid researchers in developing items that are more consistent with perpetrators’ perspective and that yield increased disclosure rates. Reworking of survey items that attempt to minimize the impact of respondent biases and attitude may help bridge the gap between male and female disclosure rates.

References


