Design and implementation strategies used to collect information on rape and sexual assault: A review of the literature with recommendations for the NCVS¹

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July 18, 2012

Rape and sexual abuse are crimes that have very serious consequences. It is therefore important to have accurate measures of their incidence and prevalence so that sufficient economic and social resources for perpetrator deterrence and victim remediation can be determined and allocated. Police records are not good sources of the incidence and prevalence of these crimes because victims often do not report. Surveys like the NCVS are necessary to get a more realistic picture of the nature and extent of sexual crimes. A comparison of data from the National Crime Victimization Survey (NCVS) with police reports estimated that, on average, thirty-one percent of rapes and sexual assaults were reported to the police between the years 1992 through 2000 (Hart & Rennison, 2003).

However, surveys do not provide unbiased measures of events when the events are at odds with social norms. Typically, survey respondents underreport socially undesirable events or experiences and over-report socially desirable ones such as rape and sexual assault.

Fortunately there is a substantial survey methodological literature on reporting sensitive events in

¹ "This paper was commissioned for the National Academies Workshop on Measuring Rape and Sexual Assault in BJS Surveys. The workshop was convened by the Committee on National Statistics on June 5-7, 2012 in Washington, DC with support from the Bureau of Justice Statistics.

Opinions and statements included in the paper are solely those of the individual author, and are not necessarily adopted or endorsed or verified as accurate by the Committee on National Statistics or the National Academy of Sciences, including the National Academy of Engineering, Institute of Medicine, or National Research Council."

surveys, the consideration of which may reduce reporting bias. To our knowledge there are no studies within the standard survey methods literature on reporting rape and sexual assault victimization. However, criminologists have conducted such studies. In this report I will review the survey literature on reporting sensitive events and the criminology literature on reporting rape and sexual assualt vicimization in surveys and attempt to present a set of considerations based on findings from both literatures that may help to improve reporting of the latter concerns.

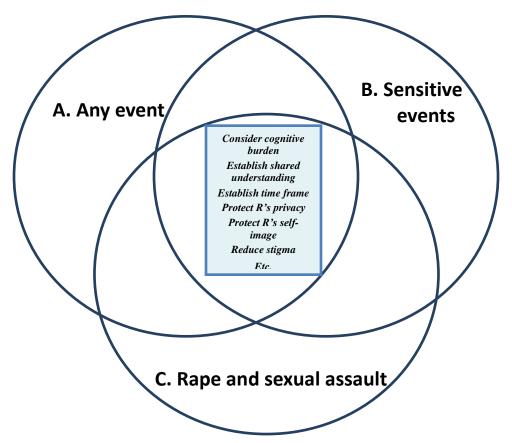
Review of survey methods research on asking sensitive questions in surveys

As a general approach to designing questions about rape and sexual assault a researcher should consider the following methodological aspects. First, since rape and sexual assault are past events, questionnaire design considerations that apply to asking questions about any past event should be considered (Tourangeau, Rips & Rasinski, 2000). Second, since rape and assault are "sensitive" events, methodologies that apply to asking sensitive questions should also be considered (Tourangeau and Yan, 2007; Tourangeau et. al, 2000). Third, methodological concerns that are specific to rape and sexual assault as sensitive events should be considered. Finally, all questions should be extensively pretested such that they present the issue in as clear and uncomplicated a way as possible, reducing respondent burden as much as possible. Figure 1 presents a graphic illustration of these considerations and their overlap, with examples of methodological concerns for rape and sexual assault questions listed in the space defining the intersection of the three types of questions.

When using surveys to assess information about events in general, questions have to be designed such that the events are understood by the respondent as the researcher wants them to be understood, a reasonable but specific time frame should be established, a method for helping respondents to stay within the time frame should be in place, and a method for cuing the events

should be available (Tourangeau et al. 2000). When the events are "sensitive" additional considerations for protecting the respondent's privacy, preserving the respondent's self-image and assuring the respondent that they will not suffer physical or psychological harn because of their disclosure must also be put into place (Sudman & Bradburn, 1982, Tourangeau et al., 2000).

Figure 1. Examples of "Best practice" survey techniques to ask about...



The methodological considerations about assessing events categorized as sensitive in the survey research literature cover a wide range of questions that are either known for high rates of non-response or are known to yield reports discrepant with some external standard (or have both qualities). This literature has studied questions on sensitive events and topics defined by these

criteria that include reporting income, church attendance, voting behavior, elective abortion, and number of sexual partner, among others. It is notable that crime victimization has not typically been included in this literature.

The survey methods literature on sensitive topics has focused on the following components of the questionnaire; administration mode; question wording, interviewer effects², the presence of others during the interview, the use of confidentiality assurances, respondent motivation, and direct versus indirect methods of questioning. While we mention these as distinct subcomponents it should be noted that within a given survey many are at play simultaneously and studies on survey methods sometimes cross the distinctions made in our categorization.

Administration mode. A study by Locander, Sudman and Bradburn (1976) experimentally compared four modes of data collection (Face-to-face, self-administered, telephone and randomized response) in the accuracy of reporting information or varying levels of threat. The researchers were able to obtain verification from records for library card, voting behavior, filing bankruptcy and drunk driving. Their general finding was that underreporting increased as threat level went up but there was no clear advantage of mode.

Tourangeau and Yan (2007), reporting on a meta-analysis conducted by de Leeuw and vander Zouwen (1988), indicate that the evidence is mixed with respect to whether telephone interviews yield less sensitive reporting than face-to-face interviews, but that the results tend to favor face-to-face interviews. Experiments by Aquilino and LoScuito (1990) and Gfroerer and Hughes (1992) have found that self-administered questionnaires elicit higher responses of illegal substance use when compared to telephone interviews. Catania, McDermott and Pollack (1986) found that self-administered questionnaires elicited more reports of sexual behavior (in

² I wish to thank Paul Beimer for suggesting this topic.

particular, masturbation) than did interviewer-administered questionnaires. A recent study by Corkrey and Parkinson (2002) has shown that interactive voice response (IVR) was superior to standard telephone interviewing in eliciting reports of substance abuse. However, IVR is prone to respondent breakoff (Tourangeau, Steiger, & Wilson, 2002).

Computer assisted self-report questionnaires, especially when used with an audio component, elicited slightly more reports of sensitive behaviors than did interviewer-administered questions and computerized self-administration without the audio component (Tourangeau & Smith, 1996), although both Tourangeau and Smith (1996) and Couper, Tourangeau and Marvin, (2009) note that most respondents do not utilize the audio component. *Question wording and interviewer effects*. In a national telephone survey, Catania et al. (1996) found that enhancing questions about sexual victimization by normalizing it did not have an effect on reports of sexual victimization. The normalization information consisted of telling respondents that that indicated that other people have been victimized and that sometimes it is difficult for people to talk about it. In the same study these researchers also found that both male and female respondents reported significantly more incidents of sexual victimization when they were randomly assigned to a same sex compared to an opposite sex interviewers.

Tourangeau and his colleagues (Tourangeau, Rasinski, Jobe, Smith, & Pratt, 1997) surveying female respondents selected from an area probability sample with a seeded sample mixed in found that using interviewers who were (and were identified as) licensed practical nurses did not increase the number of reports of elective abortions over that obtained by standard interviewers in a household interviewer-administered survey. Based on results from the seeded portion of the sample, an underreporting rate of about 50% was found regardless of type of interviewer.

Presence of Others. The presence of others during the interview may have an effect on reporting of sensitive topics. A meta-analysis of research studying the effect of parental presence during an interview indicates decreased youth reports of smoking, drugs and alcohol use when parents are present during the interview but no effects of the presence of others during the interview on adult respondents (Tourangeau & Yan, 2007). In contrast, Smith's (1997) review using 1994 General Social Survey data found that adults expressed more conservative sexual attitudes when children were present during the interview.

Koss (1993) makes the interesting point that many perpetrators of sexual abuse are family members or acquaintances and that the other person present during an interview might be abuser, whose presence may inhibit candid reporting. Partial and indirect evidence for this idea may be found in a study using a video-recording of a female respondent being asked sensitive questions in a survey. While watching the recording of a survey interview on either abortion or drunk driving female observers rated the risk of negative outcomes to the respondent as higher in the condition where her husband and daughter were present than in the condition where the respondent was alone with the interviewer. The risk was rated lowest when the respondent was alone and using a self-administered interview (Rasinski, Willis, Baldwin, Yeh & Lee, 1999). Confidentiality assurances. Another factor that has been considered in the survey methods literature is confidentiality assurance. These assurances have been shown to a have a small positive effect in eliciting reporting on sensitive topics. The effect is larger in experimental studies in which extraneous variation can be controlled than in field studies (Singer, von Thurm & Schwarz, 1995). Sensitive topic reporting is facilitated by longer confidentiality assurance statements but reporting on non-sensitive topics is inhibited by the longer statements (Singer, Hippler & Schwarz, 1992).

Respondent motivation. Respondent motivation has been shown to affect reporting of sensitive behaviors in laboratory experiments. Tourangeau, Smith, and Rasinski (1997) used a procedure developed in the early 1970's (Jones & Sigall, 1971) to convince randomly assigned participants that a non-functioning machine to which they were attached could tell whether they were lying or telling the truth when asked a question (randomly-assigned control participants were not attached to machine). All participants were asked a number of sensitive questions by an interviewer. Compared to the control group significantly higher proportions of the group attached to the machine (called the "Verifacitor") reported drinking more than average, drinking more than they should at least once, having had oral sex and using cocaine and/or amphetamines at least once. Significantly lower proportions of this group reported exercising four or more times per week. Part of the purpose of the study was to see whether underreporting was due to memory rather than to motivation. The results suggest that motivation to report truthfully was the operating factor. The investigators did not have access to an independent source of validation data. Consequently, no statement about the completeness of the reporting or about whether overreporting occurred for the motivated group can be made.

Rasinski, Visser, Zagatsky and Rickett (2004) investigated whether implicit goal priming (Bargh, Gollwitzer, Lee-Chai, Barndollar, & Troetschel, 2001) could motivate participants to report more sensitive behaviors. In a laboratory setting college-student participants received two different paper-and-pencil tasks presented as separate studies. The first task was a word matching exercise. Participants were given six target words and were asked to select from among four following words the word that, in their minds, best matched the target word. Each of the four following words was a synonym for the target word and the task was explained as being purely subjective with no right or wrong answer. The goal of the task was to nonconsciously

prime the motivation to report honestly. Half of the respondents were randomly assigned to the implicit honest priming condition is which four of the six target words and their associated matching words had to do with the concept of honesty (e.g.; the target word "honest" was followed by "open," "sincere," and "truthful"). The remaining two sets of target words were neutral with respect to the concept of honesty (e.g., "blend", "common") as were their follow-up words. The other half of participants received a neutral prime control condition word matching task consisting of six target words and their follow-ups; none of the words in this condition were related to honesty.

The second task was a two-page "Health and Education Questionnaire" that contained questions about alcohol-related behaviors and their own and their friends' exam cheating behaviors. To permit an exploration of the strength of the goal-priming manipulation the investigators counter-balanced the order of alcohol and academime cheating questions in the "Health and Education Questionnaire" in order to make order orthogonal to priming condition. Participants in the honesty prime condition reported more sensitive alcohol-related behavior (e.g. binge drinking, driving while drunk, blacking out after drinking) compared to those in the neutral prime condition, but only when the those questions immediately followed the priming condition. This magnitude of the effect of implicit goal priming was impressive. For example, only 7% of participants in the neutral prime condition said that they had drunk so much alcohol that they could not remember some things they had done while intoxicated, compared to 67% in the honesty prime condition, a difference that was statistically significant. But the effect was shortlived appearing only when the alcohol questions directly followed the honest prime and the effect did not occur with the cheating questions (it is possible that more drinking than cheating went on with the student sample) and did not occur for the alcohol questions when the cheating

questions were interposed. The authors conclude that more research is necessary to see whether the priming effect can be reinforced throughout the survey, increasing its impact.

Indirect assessment. Indirect assessment techniques are ones that use a random process to obtain aggregate estimates. The most important feature of indirect assessment is that the respondent does not have to directly answer the sensitive question in a way that the interviewer will know the answer. For example, Warner (1965) developed an indirect method of assessment in which respondents are asked to lie or tell the truth to a sensitive question based on a random process seen only by them. A number of variants of Warner's "randomized response method" have been

developed (e.g., Boruch, 1971; Greenberg, Abul-Ela, Simmons, & Horwitz, 1969; Droitcour &

Larson, 2002; Tsuchiya & Shigeruono, 2002; Jann, Jerke & Krumpal, 2012) and the original

procedure or one of the variants are still used in surveys.

While useful in some circumstances these techniques give aggregate estimates only and do not yield individual data. Thus, statistical modeling of the sensitive event require large, stratified samples and are of low statistical power than comparable modeling of direct questioning. In addition, researchers have raised questions about how well respondents understand the method as being anonymous one rather than as some elaborate trick to get them to report something they do not want to report (Umesh & Peterson, 1991). Reports on the effectiveness of the indirect method in uncovering sensitive behaviors have been mixed (e.g., see Locander, Sudman & Bradburn, 1976, and Tourangeau & Yan, 2007). With respect to rape and sexual assault a recent study by Krebs et al. (2011) experimentally compared direct questioning with the an indirect assessment procedure called the item count method and found no significant differences in a large sample (12,000+) of undergraduate women from two universities.

To summarize, the survey methodology literature suggests that respondents are less likely to give distorted responses to sensitive questions when question are self-administered, asked in a private setting and respondents are motivated to report honestly. Confidentiality assurances are important because they are required by agencies that protect research respondents. They may also help increase willingness to report sensitive items. There has been limited success for indirect questioning possibly because even the more recent variants of Warner's (1965) Randomized Response Method Technique are complicated to explain and may not be believed by some respondents.

Review of research on assessing rape and sexual assault.

Apart from the mainstream survey methodology literature criminologists have developed survey methods designed to increase the reporting of sexual assault (Koss & Oros 1982; Koss & Gidycz 1985; Koss, Gidycz, & Wisniewski 1987, Koss, 1992; 1993). The National Crime Victimization Suvey (NCVS) has adopted some of the most important results of this research resulting in higher levels of reporting of these crimes (Lynch, 1996).

By definition, sexual assault includes rape and "any sexual contact with another person without the other's consent." (Webster's New World Law Dictionary, 2010, see also U.S. Department of Health and Human Services, Office on Women's Health Definition of Sexual Assault, 2009). The experience of being sexually assaulted can be very traumatic, inducing strong emotions which may include anger and outrage because sexual assault may be perceived as the unwanted performance of an act that when freely performed is reserved for the most intimate interpersonal encounters. Shame may also be experienced because rape is stigmatized in our culture, and fear associated with the assault itself, or associated with expectation of retaliation for reporting, may emerge.

While such emotions may occur as the result of the sexual assault research suggests that assault-related emotions generally do not play a large role in underreporting of these events in survey interviews. Using a convenience sample of 628 Norwegian mothers recruited for a web questionnaire development study Thoresen and Øverlien (2009) found that 50% of those who reported being exposed to violence or to sexual assault also reported difficulty in choosing to disclose this on an anonymous web survey. But after analyzing free text responses about why they experienced this difficulty the authors' report reasons that are more cognitive than emotional. Often respondents wondered whether the event was "'serious' enough; was the physical contact sufficiently hard; did it last long enough or occur with sufficient frequency; was enough force or threat used?" to be considered an assault (pp. 12). The authors conjecture that these doubts would make it unlikely for a woman to report a sexual assault unless she could formulate an unqualified answer to the questions of frequency, consent and intention. Prototypical stranger rape might fall into that category but other assaults might trigger doubts and may lead a woman to discount what an outside observer might judge to be a clear case of sexual assault. Thoresen and Øverlien also report that victims' concerns about protecting the perpetrators' reputation figured into the difficulty of reporting the event in a survey. Another study indicates that some experienced emotion does apparently play a role in reporting sexual assault to the police. Wolitzky-Taylor et al. (2011) found that the greater the fear a woman experienced during a rape the less likely she was to report the rape to the police. But her results suggest that this fear does not translate into refusing to report the event on a confidential survey.

The National Crime Survey (NCS) was first implemented in 1972 to provide better information on criminal victimization than could be obtained from crimes reported to the police (Bachman & Taylor, 1994). Critics of the NCS charged that its method of assessment led to

substantial underestimates (Fisher & Cullen, 2000). In the early 1980's Koss and her colleagues devised a set of questions that described explicit experiences to women respondents and asked whether and how often they occurred. (Koss & Oros 1982; Koss & Gidycz 1985; Koss, Gidycz, & Wisniewski 1987). Although her samples consisted of college students, Koss' questions resulted in substantially higher incidence and prevalence rates for rape and other forms of sexual assault than those obtained from the NCS (Koss, 1992; 1993). The NCS did not directly ask about rape and did not ask at all about other kinds of sexual assault besides attempted rape (Bettye, 1976). Rather rape and attempted rape were picked up in an "incident report" and only if a respondent indicated in the crime screener that she had been that she had been the victim of an attack. Koss and Oros (1982) in their original Sexual Experiences Questionnaire used direct, evetn-specific, questioning. For example, the researchers asked their female respondents if they had ever "Had sexual intercourse with a man when you didn't want to because he threatened to use physical force (twisting your arm, holding you down, etc.) if you didn't cooperate?" Koss and Oros used self-administered questionnaires administered in college classrooms while the NCS was administered by an interviewer.

The NCS questionnaire was revised in 1992 to include rape and sexual assault in the screener, not just the incident report. The following two-stage format was created: Q41c "has anyone attacked or threatened you in any of these ways (exclude telephone threats) (a) With any weapon, for instance, a gun or knife (b) With anything like a baseball bat, frying pan, scissors, or stick.... (e) Any rape, attempted rape, or other type of sexual attack..." and q43a "Incidents involving forced or unwanted sexual acts are often difficult to talk about. (Other than any incidents already mentioned) have you been forced or coerced to engage in unwanted sexual activity by (a) Someone you didn't know before, (b) A casual acquaintance, (c) Someone you

know well?" For each positive event indicated the interviewer asked questions from an "incident report" which had more detailed questions about what occurred. Lynch (1996) reports that the revised NCVS format increased the estimate of incidence of rape by 250% and of sexual assault by 40% over the NCS format.

Kilpatrick and his colleagues designed a questionnaire for their National Women's Study (NWS) that obtained much higher estimates of rape than did even the revised NCVS (Kilpatrick, Edmunds, & Seymour, 1992). Lynch (1996) conducted an extensive review of differences in sample and questionnaire design between the two surveys that help to account for the differences in estimates. Sample size differences are notable. The NCVS sample consisted of about 110,000 people, 25 times greater than the NWS sample of 4,008. Lynch (1996) concluded that sampling error alone could explain the difference in estimates because the NWS estimate for rape with its larger standard error contained the NCVS rape estimate within a 95% confidence interval.

Both surveys used bounded interviews. Bounding is a procedure used to help respondents place events accurately within time periods (Neter & Waksburg, 1964). Following is an example of how the procedure is implemented. In the initial interview of a longitudinal study respondents are asked about events that occurred before the interview date. At the second interview the interviewer tells the respondent the events reported in the previous interview and then asks about events that occurred since then up until the current time. The interviewer also checks the newly reported events with the previous ones to insure that there is no duplication in reporting. Data from the unbounded interview is typically discarded. Its main function is to help the respondent establish a base level of events to help respondents accurately recall subsequent events thus redocing report "telescoping" (Sudman & Bradburn, 1973).

NCVS and NWS used bounded recal differently. NCVS interviewers mentioned the reporting date range nine times during the bounded interview. NWS interviewers asked only whether the event reported in in the bounded interview occurred in the past 12 months or since the last time respondents were interviewed. In addition, while NCVS interviewers had a list of events reported in the unbounded interview NWS interviewers were not provided with this information so they could not check for duplications or report the unbounded interview events to the respondent.

There were other differences, thoroughly documented by Lynch (1996), which may have been expected to favor the NCVS. However, one difference that is now considered to be critical to many researchers in the area of rape and sexual assault is that the NWS included explicit descriptions of sexual behavior. For example, The NWS asked "Has a man or boy ever make you have sex by using force or threatening to harm you or someone close to you? Just so there is no mistake, be sex we mean putting a penis in your vagina." Similar questions were included for oral, anal and object sex. In fact, the term "rape" was not used in the NWS at all, while it was used in the NCVS.

Lynch (1996) mentions the possibility that the different contexts of the survey can account for the differences in reporting. The context for the NCVS was crime victimization, which may not have been conducive to revealing sexual assault. In contrast, the context for the NWS concerned identifying traumatic events that may have predisposed women for substance abuse. Lynch (1996, pp. 421) writes that "Respondents to a crime survey may not be willing to mention sexually related events where force is ambiguous. They may be less reticent to do so in a survey dealing with traumatic life events." This supposition is consistent with the Thoresen and Øverlien (2009) results reported earlier.

Also consistent with Lynch's supposition are results by Galesic and Tourangeau (2007). These researchers used a randomized experiment embedded in a web survey to study the effect of survey sponsorship on reporting workplace events that were neutral with respect to sexual harassment or that could be interpreted as sexual harassment. They found small but statistically

significant effects due to how the questions were framed. One group was told that the sponsor of the questions was an organization called "Women Against Sexual Harassment". The questions for this group appeared under the heading "Sexual Harassment Survey". The other group was told that the sponsor was a research organization called the "Work Environment Institute". Identical questions appeared under the heading "Work Atmosphere". The survey was completed by 2,615 respondents.

Results indicate that respondents who received the "Women Against Sexual Harassment" questionnaire reported experiencing more of the events that could be interpreted as sexual harassment (e.g., 'A manager/supervisor comments to employees that they looked nice in their clothing') compared to respondents receiving the "Work Environment" questionnaire. Those receiving the sexual harassment frame rated that they were more bothered by these incidents and were more likely to interpret "neutral" workplace behavior (such as being given impossible deadlines or having work-related information withheld) as sexual harassment. Women reported being more bothered by neutral and potentially sexual events compared to men regardless of the framing condition but there were no sex differences in interpretation of any of the events as sexual harassment in either condition.

Bachman (2000) and Fischer (2009) each conducted important studies that attempt further to clarify the reporting differences obtained from the two-stage questioning technique used in the NCVS and the direct and explicit technique used first in the NSW and now in the CDC's National Violence Against Women (NVAW) survey (Tjaden & Thoennes, 2000). Bachman (2000) attempted to constrain the sample and the questions analyzed to make the annual incident rate of rape and physical assault obtained from the NCVS and the NVAW surveys as comparable as possible.

The methodologies used by the two surveys were sufficiently different such that any attempt to equate them completely is impossible. In particular, the NVAW did not use bounded

recall while the NCVS did. Only rape was considered. Other sexual assaults were excluded because of difficulties comparing their assessment in the two surveys. NVAW focused on lone-offender victims. Consequently Bachman limited her use of the NCVS data only to assessments of lone-offender victims. NCVS data were restricted to women 18 years of age or older to match the NVAW sample. A big difference is that NVAW used the behaviorally explicit questions for rape described by Lynch (1996) and reported earlier whereas NCVS used the two-stage system also reported earlier.

After her careful attempts to equate the two surveys, Bachman (2000) found that the population estimates of the incidence of completed rape in 1995 from NVAW were substantially and significantly higher than those from the the NCVS. In contrast, the estimates for physical assaults obtained from the two surveys were not significantly different. This increase in estimates of rape might be explained by the different questioning methods used by the two surveys but the overreporting problem associated with unbounded interviews must also be taken into consideration. Bachman notes that estimates of physical assault were comparable across the two surveys even though similar questioning differences and similar differences in the use of bounded reporting were used to assess physical assault. This provides indirect evident that it is the questioning technique and not problems with recall that accounts for the differences between the estimates of rape from the two surveys.

Fischer (2009) analyzed differences in estimates of rape from two national surveys of college women conducted at roughly the same time and with identical sample designs. Each surveys used only female telephone interviewers with similar training and each was conducted by the same survey organization. One survey, called the National Violence Against College Women (NVACW) study, used questions that were aligned as closely as possible with those in

the NCVS. The second survey, called the National College Women Sexual Victimization (NCWSV) survey, modified the NCVS format to include 12 behaviorally specific sexual victimization screener questions. A behaviorally specific question was defined as not simply asking a respondent if she had been raped. Instead the question "describes an incident in graphic language that covers the elements of a criminal offense (e.g., someone 'made you have sexual intercourse by using force or threatening to harm you . . . by intercourse I mean putting a penis in your vagina').

Each study used a two-stage process for asking about rape. Depending on the study the NCVS-like or the behaviorally-specific question screener was used. For each positive incident an incident report contained follow-up questions about event details. The same method to categorize incidents as rape were used for both surveys but the operationalization of rape differed. The NCWSV incident report asked seperately about acts that were completed, attempted and threatened. Multiple response questions were used in the incident report to identify the type of penetration the victim had experienced followed by questions asking whether actual or threatened physical force was used. The NVACW incident report conformed more closely to the incident report used in the NCVS. Respondents who indicated that an event occurred were asked follow-up questions about what happened. An incident was categorized as rape if the respondent indicated that she was subjected to unwanted sexual contact and then indicated whether the contact was forced or coerced, attempted or actual sexual intercourse.

The estimates for completed rape, attempted rape and threatened rape derived from the the NVACW data were considerably smaller than those derived from the NCWSV data. Fisher (2009) attributes the difference to the use of behaviorally-specific, graphically-worded screener questions in the NCWSV that apparently prompted more women to report their sexual

victimizations. She concludes that "behaviorally specific screen questions are more successful in prompting women who have in fact been sexually victimized to answer in such a way that they are then "skipped into" the incident report by interviewers."

Conclusion.

The purpose of this review was to determine the applicability of results from the survey methods literature to assessing sensitive topics to improve the assessment of rape and sexual assault in the NCVS and to compare and contrast them with studies criminologists have done exploring the reporting of rape and sexual assault victimization in national surveys. It appears that the largest concerns of criminologist are related to survey context, the question asking procedure and environment and, especially, question wording. The concerns are that the NCVS establishes a crime context which makes some women reluctant to report rape and sexual assault incidents because either they were not sure it was a crime or because the perpetrator was a relative or acquantance and they did not wish to get the person in trouble with the law (even though the identity of the perpetrator is not asked). Related to this is the potential lack of privacy during the interview. In some cases the perpetrator may be physically present when the interview is taking place. Finally, the current version of the NCVS uses the words "rape" and "sexual assault" in their screening section. Some women may be reluctant to describe their experiences in these socially stigmatizing ways.

These concerns are not unreasonable and they appear to be supported by research. But there is an aspect of the questionning procedure in the NCVS that, in my opinion, should also be considered and that one might see as a partial alternate explaination for the question wording differences. In my observation the screening questions about rape and sexual assault in the NCVS are likely to place a large cognitive burden on the respondent (or, to put it plainly, are likely simply to confuse her). First, repondents are asked about rape within a a series of 7

different types of violent attacks. Six of these are not presented as being related to unwanted sex but they could be. Second, respondents are are asked later only about "forced or unwanted sexual acts" but this time within the context of who the perpetrator was ((a) Someone you didn't know before, (b) A casual acquaintance, or (c) Someone you know well?). Using different terms to refer to the potentially the same events ("rape", in one question and "forced or unwanted sexual acts" in the second) and embedding rape and sexual assaults in these different contexts are not straithforward ways of asking about these events and are more likely to confuse than to clarify.

Indeed, it may be that part of the increased reporting obtained from the behaviorally specific, graphically portayed questions used in other studies measuring rape and sexual assault can be explained by the straightforward nature of their questions. For example, the question from the National Women's Survey "Has a man or a 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." not only avoids the stigmatizing word rape and replaces it with a graphic description but it is a single uncomplicated question. One might wonder whether dropping the last part "Just so there is no mistake, by sex we mean..." thereby further simplifying the question would produce equally high numbers of incidents (I am assuming here that most adults know what having sex means). I believe that it was the desire of NCVS designers to make it possible to get at rape and sexual assualt in the incident report through a number of different paths in the screener, but given the underreporting that still seems to be present it may be worth investigating whether the different paths in the screener as it is are currently structured are not contributing to underreporting by confusing respondents. One simple suggestion for avoiding confusion, if this is a problem, is to ask about rape and sexual assualt incidents in a separate section in the screener.

Other issues to consider, based on the survey methods literature on reporting sensitive topics are privacy, self-administration, and respondent motivation to report. The NCVS interviewers inform respondents that they can end the interview and make an appointment to call back at any time, which is a responsible and ethical allowance. But might privacy be further enhanced if the interview asks the female respondent at the start of the interview whether she is alone, who she is with, and whether she is comfortable talking about violent acts with that person or those people around (regardless of whether they are perpetrators, house guests, parents, children or friends)? The interviewer could then reschedule the interview, taking a proactive approach to insuring privacy rather than letting the respondent make the decision when she may already be in an uncomfortable situation.

The survey literature is fairly consistent on the value of self-administration in the assessment of sensitive issues. It is a least worth considering whether this can be implemented in the NCVS. During the in-person interview, if rape and sexual assault screener questions are given their own section, the interviewer could easily convert her CAPI interview into a CASI interview by simply turning the computer around to the respondent. On the phone, a brief IVR portion could be introduced when asking about sexual assault (with the caveat that a system that won't encourage break-offs can be developed. These techniques would allow the sensitive rape and sexual assault screening questions and the follow-up incident reports to be administered in complete privacy. Finally, studies have shown that respondent motivation is important in sensitive event reporting. One way of encouraging motivation to report may be to return to questions of rape and sexual assualt at the end of the interview. This would give the respondent another chance to report or to revise an earlier report at a time when she may feel more comfortable about it.

The unbiased assessment of rape and sexual assault using surveys remains will continue to be a difficult task. The researchers who have devoted themselves to this worthy endeavor are to be commended but should know that solutions are likely to emerge slowly and, at best, be imperfect. Still, progress has been and will continue to be made through dilligent attention to the issue. Theories about why underreporting exists on this topic that are supported by sound experimentation will help move the area forward.

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