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Author(s): Robert Davis ; Pamela Guthrie ; Timothy Ross ; Chris O'Sullivan

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**REDUCING SEXUAL REVICTIMIZATION:
A FIELD TEST WITH AN URBAN SAMPLE**

Report to the
National Institute of Justice

By

Vera Institute of Justice
(Robert Davis, Pamela Guthrie, and Timothy Ross)

Safe Horizon
(Chris O'Sullivan)

ABSTRACT

Women who become victims of sexual assault are at much higher risk than other women of being victimized again. Research has suggested that psychological processes initiated by sexual victimization, especially in childhood and adolescence, result in behaviors that can increase victims' exposure to potential offenders and make them more vulnerable to the tactics of the offenders they encounter.

The Vera Institute of Justice in partnership with Safe Horizon and the Center for Sexual Assault and Traumatic Stress at the University of Washington's Harborview Medical Center developed a brief training to help sexual assault survivors reduce the risk of further assault. The workshop was developed from material that showed promise in reducing revictimization in a sample of college women. Using information gained from in-depth interviews with 33 sexual assault survivors of multiple sexual assaults in New York and Seattle, the material was adapted for urban women.

Eighty-four previously victimized women (who were receiving or had recently received counseling in regard to their sexual assaults) were randomly assigned to participate in the risk reduction workshop or to a control condition in which they did not receive the training. Both groups were assessed on measures that included knowledge of sexual assault risk factors, confidence in handling risky situations, attributions for past victimizations, PTSD, behavior in dating situations, and sexual victimization. The assessments were conducted prior to the workshop and again six months later. Results indicated that the workshop was not effective in reducing revictimization over the next six months. Further inspection revealed that the women who participated in the workshop did not gain in awareness of risky situations or reduce self-blame for prior victimizations at follow-up, the primary means through which a reduction in revictimization was hypothesized to occur.

INTRODUCTION

One of the most fruitful areas of research in criminology today is work on repeat victimization. Findings are that a small percentage of the population experiences a relatively large proportion of all crime and that one of the strongest predictors of victimization is previous victimization (see, for example, Hindelang et al., 1978; Sorenson, Siegel, Golding & Stein, 1991; Wittebrood & Nieuwbeerta, 2000; Menard, 2000). This pattern of repeated victimization is not news to those who work with victims of domestic violence: it is commonly believed that repeat abuse by an intimate partner is not only possible but likely. More surprisingly, research has shown that victims of other types of crimes are also at high risk of revictimization: robbery victims have a nine times greater chance of being robbed again than non-victims, and burglary victims have a four times greater risk of another burglary (Canada Solicitor General, 1988; National Board for Crime Prevention, 1994).

The most significant aspect of the work in repeat victimization is the implication that it may be, in part, preventable. The British have pioneered programs in working with victims of burglary, domestic violence, auto theft, and hate crimes to reduce the likelihood of a recurrence. These programs have incorporated a model of interaction between research and practice. In crimes ranging from burglary to domestic violence to racial violence, researchers have forged alliances with law enforcement authorities to define problems and assess the results of interventions (for reviews, see Davis, Maxwell, and Taylor, in press; Pease, 1998; Pease and Laycock, 1996; Farrell, 1995).

Indications are that such programs can not only reduce the chances of

revictimization for individuals but also lead to significant decreases in overall crime rates (see Davis, Taylor, & Titus, 1997 for a discussion). In this country as well, field tests have lent some empirical support to the idea that interventions with robbery, burglary, and assault victims can reduce repeat incidents (Davis & Smith, 1994; Weisel, Clarke & Stedman, 1999).

Sexual Assault Revictimization

The highest revictimization rate for crimes other than domestic violence is found among sexual assault survivors who, according to one study, stand a 35 times greater chance of sexual assault than non-victims (Canada Solicitor General, 1988; National Board for Crime Prevention, 1994). Indeed, a meta-analysis by Roodman & Clum (2001) found a moderate effect size (.59) for revictimization, and noted that between 15% and 79% of women sexually abused in childhood were raped as adults. Most studies, however, find that women who have been raped before the age of 18 have double the risk of being raped in adulthood as do women with no history of rape. (Tjaden & Thoennes, 2006). Classen, Palesh, & Aggarwal (2001) reviewed 90 studies of adult revictimization among child sexual abuse survivors and found an average of 2.5 times the revictimization rate of women who had not been abused in childhood. Some studies that have examined more discretely the age at which the child was victimized have found victimization in adolescence to be a stronger predictor of sexual assault in adulthood than victimization in childhood, although childhood victimization is associated with a higher likelihood of victimization in adolescence; those women who were victimized in childhood and adolescence faced the highest risk (Siegal & Williams, 2003; Gidycz, Coble, Latham, & Layman, 1993).

The fact that individuals with a history of sexual abuse in childhood and/or adolescence are at increased risk of sexual assault is recognized by psychological service providers and researchers. Indeed, at least five recent reviews have been devoted to the topic (Classen, et al., 2005; Messman-Moore & Long, 2003; Arata, 2002; Breitenbecher, 2001; Roodman & Klum, 2001). In the introduction to a special issue of the journal *Child Maltreatment* (February, 2000) devoted to child sexual abuse, Daniel Smith notes the need for explanatory models of repeat victimization. Smith lauds the development of scientific approaches to the cycle of repeat victimization and the development of more complex models that link the effects of the initial assault on victims' cognitions and behavior to increased vulnerability.

The correlation between childhood sexual abuse and adult sexual victimization has been established in numerous empirical studies. The studies in this literature can generally be divided into those using clinical samples (e.g., Classen, Field, Koopman, Nevill-Manning, & Spiegel, 2001; West, Williams, & Siegel, 2000; Collins, 1998; Kluff, 1990; Briere & Runtz, 1986); convenience samples (e.g., Irwin, 1999); community samples (e.g., Raghavan, Bogart, Elliott, Vestal, & Schuster, 2004; Messman-Moore & Long, 2002; Fergusson, Horwood, & Lynskey, 1997; Wyatt, Guthrie, & Notgrass., 1992; Siegel, Sorenson, Golding, Burnam & Stein, 1987); college samples (e.g., Himelein, 1995; Gidycz, Hanson, & Layman, 1995); and special populations (e.g., Merrill, et al., 1999; Browne, Miller, & Maguin, 1999).

The majority of studies, however, focus on college and clinical samples in which minority women are underrepresented (Siegel & Williams, 2003). This sampling bias is a serious weakness in the effort to understand revictimization because there is some

research indicating that African American and American Indian women are at greater risk of sexual victimization than other ethnic groups (Classen et al., 2005). Therefore, many researchers consider studies employing community samples the most useful because they are most representative of society. Research with community samples, however, often suffers from low participation and retention rates (Muelenhard, Highby, Lee, Bryan, & Dodrill, 1998).

Regardless of the type of sample used, findings are remarkably consistent in that women who suffer child sexual abuse and women who are sexually assaulted as teens or adults are at far higher risk for sexual victimization than are women with no history of sexual abuse. In addition, the severity of childhood sexual abuse (the use of force and threats, and whether there is penetration), longer duration of the abuse, and closeness of the relationship between victim and offender are associated with higher risk of revictimization (for a review see Classen et al., 2005). In describing the breadth and depth of disruption due to child sexual abuse, Noll (2005) has characterized victims as being removed from the normal workshop of development and placed on a trajectory of lower academic performance and poor physical and mental health.

Some of the most rigorous research on sexual revictimization, as well as evaluation of interventions to reduce revictimization, has been done by Gidycz and her associates. In a short-term prospective study of women in college, Gidycz and colleagues (1993) found that fully 18% experienced some form of sexual coercion within only nine weeks of the baseline measure. Using path analysis, they found that childhood sexual abuse predicted adolescent and adult sexual abuse, and that those who had experienced rape or attempted rape in adolescence (since age 14) were twice as likely to be sexually

assaulted within the nine-week follow up period. Conducting follow up at three-month intervals over nine months in a 1995 study (Gidycz, Hanson, & Layman), the results were even more dramatic. Those who had a history of sexual abuse in childhood or adolescence sexual abuse experienced twice the rate of sexual assault during the initial three-month follow up period. Data from the next two follow-up periods illustrated the immediate impact of a recent assault and the multiplying effects of repeat victimization: Those who experienced abuse during the first three months of the study experienced three times the rate of sexual abuse during the second three months, and those who were abused during the second three months experienced *twenty* times more sexual abuse during the third three months.

Models of Revictimization

Psychological processes. Numerous studies have documented the fact that sexual abuse in childhood and in adulthood has serious and lasting psychological consequences. Long term psychological correlates of childhood sexual abuse include depression, suicidality, sexual dysfunction, self-mutilation, chronic anxiety, post-traumatic stress disorder (PTSD), dissociation (the sense that one is separate from one's body or feelings, so that threatening and distressing events are not experienced directly, but as though observed), memory impairment, and somatization , i.e., anxiety manifested in physical symptoms, such as gastrointestinal distress, headaches, etc. (see Goodman, Koss, & Russo, 1993, and Resick, 1993 for reviews). Impairment in interpersonal functioning has been documented as well (Briere & Runtz, 1986; Classen, et al., 2001).

A number of models have been proposed to explain how psychological processes triggered by sexual assault increase risk of future victimization. Most of this work has

been specifically developed to explain what happens to children when they are sexually abused, but much of it applies equally well to adult victims of sexual assault.

Browne and Finkelhor (1986) developed a comprehensive “traumogenic” model to explain how early sexual abuse may increase the odds of abuse later in life through four dynamics. First, Browne and Finkelhor postulate that, through “traumatic sexualization,” child sexual abuse results in the association of sex with affection or attention, thereby promoting promiscuity or compulsive sexual behavior. Second, Browne and Finkelhor hypothesize that feelings of betrayal lead to a strong need to re-establish trust in others, but poor judgment about which individuals are trustworthy. Third, they believe that abuse leads to powerlessness, similar to the concept of learned helplessness described by Seligman (1975) in regard to depression and Walker, (1979) in regard to battered women. The sense of powerlessness inhibits victims from asserting themselves in rebuffing unwanted sexual advances. Fourth, in a process that Browne and Finkelhor term “stigmatization,” victims of sexual abuse develop a negative self-image that may lead to substance abuse, risky sexual behavior, or even criminal activity.

Other researchers have applied attribution theory to explain repeat sexual victimization. For example, Gold, Sinclair and Balge (1999) proposed that internal, stable and global attributions about child sexual abuse (i.e., the child believes the abuse was due to an unchangeable characteristic of herself that will affect other areas) may produce distress, substance abuse, or high risk sexual behavior. Arata (2000) found that both PTSD and self-blame predicted revictimization of child sexual abuse survivors in a large sample of undergraduates. Irwin (1999) found that victims of child abuse who “positively reappraised” their abusive experiences had a lower revictimization rate and

were better able to cope with new dangerous situations.

Behavioral changes. To explain how psychological changes triggered by sexual abuse increase future risk of sexual assault, the internal changes in how victims view themselves and the world must be linked to changes in their behavior. For example, it has been suggested that emotional avoidance, a common outcome of sexual abuse, may encourage victims to adopt behaviors that suppress intense emotional memories associated with abuse (Polusny & Follette, 1995). Some of these behaviors, such as substance abuse or compulsive sexual behavior increase the risk of future sexual assault (Briere & Runtz, 1987).

As proposed by Grauerholz (2000), vulnerability to re-assault can result from victim behavior that increases the possibility of contact with potential perpetrators and increases the likelihood that a potential perpetrator will act in an aggressive manner. Messman-Moore and Long (2003) elaborated on this idea in their two-part “ecological” model of sexual revictimization. The first part of their model is a straightforward application of routine activity theory (Cohen & Felson, 1979). Fattah (1991, 1993) has argued that particular persons run a greater risk of becoming victims because of choices they make or are forced into by circumstances in the areas of lifestyle, friends, and places frequented. The result is that some individuals have a higher likelihood than others to cross paths with persons with the motivation to engage in criminal behavior. According to Messman-Moore and Long, early sexual victimization may promote substance abuse and consensual sexual behavior with multiple partners, which increase the likelihood that victims will come into contact with potential perpetrators later in life.

The second part of Messman-Moore and Long’s model posits that psychological

and social vulnerability among victims of child sexual abuse (e.g., decreased awareness of danger, lack of assertiveness) are picked up on by potential offenders. Once in a vulnerable situation with a potential offender, victims of sexual abuse may not have the awareness of danger, confidence, or assertiveness to end the encounter safely.

What is the empirical evidence for a connection between behavioral changes due to child sexual abuse and sexual revictimization? Dating back to the 1980s, research has demonstrated consistently that substance abuse and a greater number of sex partners are more prevalent among victims of child sexual abuse than among other women (e.g., Koss & Dinero, 1989; Mandoki & Burkhart, 1989; Muehlenhard & Linton, 1987).

A number of studies have found that alcohol or drug abuse increases risk of sexual assault. Messman-Moore and Long (1999) found that women who abuse alcohol were 2.7 times more likely to be sexually assaulted than non-drinkers or light drinkers, and women who abused drugs were 3.2 times more likely to be sexually assaulted than those who did not abuse drugs. Similarly, a longitudinal study of urban women, predominantly low-income and black, found that alcohol problems increased the risk of adult sexual victimization 2.5 times (Siegel & Williams, 2003). Using the National Women's Study, Kilpatrick et al. (1997) found the highest revictimization rate among those who had experienced a prior assault *and* who abused drugs. These findings held true for adolescent girls as well, according to the National Longitudinal Study of Adolescent Health (Raghavan et al., 2004).¹

¹ However, while it is well-established that (a) child sexual abuse survivors are more likely than those not abused to receive a diagnosis of alcohol or drug abuse and (b) alcohol or drug abuse leads to higher risk of sexual victimization, it is not necessarily true that substance abuse explains much or all of the higher rate of adult victimization among victims of child sexual abuse. A study that specifically tested statistically for a mediating role of alcohol in the relationship between child sexual abuse and revictimization failed to confirm the link (Mayall & Gold, 1995).

Many studies have found that adult survivors of child sexual abuse begin engaging in consensual sex at a younger age, have more sexual partners, have more short-term sexual relationships, and have sex with casual acquaintances more often than women who were not sexually abused in childhood (Wyatt, 1988; Zeigler, et al., 1991; Rodriguez et al., 1992). Wyatt (1993) found that the more severely women were sexually abused as children, the more frequently they had sex in adulthood. Prostitutes and “exotic dancers” have notoriously high rates of childhood sexual abuse histories (Ross, Anderson, Herbert & Norton, 1990). Many studies, including well-designed longitudinal studies, have linked frequent consensual sex with different partners to an increased risk of repeat sexual assault (e.g., Messman-Moore & Long, 2002; Arata, 2000; Himelein, 1995). However, while it may seem logical that more sexual partners increases the chance of unwanted sexual contact, the relationship is not completely clear. Some well-designed studies found only a weak or inconsistent relationship between number of partners and adult sexual victimization (Siegel & Williams, 2003; Gidycz, et.al., 1995).

According to Messman-Moore and Long (2003), once potential victims and offenders have crossed paths, the psychological processes triggered by past victimizations may make victims of sexual assault more vulnerable than others.. Victims who suffer low self-esteem and feel powerless to control their lives may fail to take normal safety precautions or to resist trespasses by others (Friedman & Tucker, 1997; Finkelhor & Browne, 1985; Wyatt, Guthrie, & Notgrass 1992). They may find it difficult to say no or may accept victimization as part of a relationship (Classen, Field, et. al., 2001). Greene and Navarro (1998) found that low levels of assertiveness in sexual situations predicted revictimization during a three-month follow-up and Classen, et al.

(2001) found that women who were revictimized were more likely to describe themselves as non-assertive and overly nurturing.

In addition, PTSD and dissociation can inhibit women's ability to recognize and act on relevant danger cues (Casey & Nurius, 2005; Sandberg, Matorin, & Lynn, 1999; Wilson, Calhoun, & Bernat, 1999; Cloitre, Scarvalone, & Difede, 1997; Herman, 1992; Chu & Dill, 1990), and at least one study found that childhood abuse survivors who suffered from PTSD were more likely to be revictimized (Sandberg, Matorin, & Lynn, 1999). Wilson, Calhoun and Bernat (1999) found that repeat victims listening to a depiction of an unfolding acquaintance rape scenario in a laboratory study were slower than non-victims to decide whether a situation was dangerous or not. Meadows, Jaycox, and Foa (1996) found that women who had been raped repeatedly had higher levels of dissociation and lower risk recognition (according to raters' assessments of their rape narratives) than women raped once. Differences between the two groups disappeared when scores on a test of dissociation were controlled; suggesting that poor risk recognition was a function of dissociation.

In a follow-up study, Meadows, Jaycox, Orsilla, and Foa (1997) found that sexual assault victims were slower to respond to potential danger cues in narratives about male-female encounters than non-sexual assault victims. In general, victims indicated that they would leave a situation after physical contact was made while non-victims tended to indicate that they would leave before physical contact was made. Similar slowing of women's ability to detect potential danger in situations may be exacerbated by alcohol or drug use which, as we have noted, is more common among repeat victims of sexual assault.

Sexual Assault Prevention² and Risk Reduction Programs

A number of therapies have been shown to be effective in helping sexual assault survivors recover psychologically, and are in common use. These include cognitive processing therapy (Deblinger, Stauffer, & Steer, 2001; Resick & Schnicke, 1992); feminist therapy (Morgan & Cummings, 1999); and exposure therapy (Foa, et. al., 1999; Tarrrier, Pilgrim & Sommerfield, et al., 1999). These therapies aim to reduce PTSD, depression, anxiety, and phobias, but are not specifically designed to reduce the likelihood of revictimization – although to the extent treatment resolves PTSD, dissociation, low self-esteem and self-medication, they may ultimately reduce vulnerability.

In fact, although sexual assault has one of the highest revictimization rates of any crime, there have only recently been efforts to develop intervention programs to reduce behavioral risks of survivors. In part, this gap may be due to reluctance to entertain the idea that survivors may be able to exercise some control over their risk of revictimization. Some advocates reasonably object to the implication that victims somehow *cause* the re-assaults and point out that only the potential perpetrator can truly prevent a sexual assault from taking place. We acknowledge this truth. Yet while the criminal justice system attempts to thwart perpetrators, there are few programs that seek to train survivors on how to avoid risk

Our research indicates that Gidycz and her colleagues were the first to design and evaluate a non-therapeutic intervention to address repeat sexual assault victimization.

² We prefer the term “avoidance” instead of “prevention.” Victims avoid rape but do not prevent the rapist from attacking someone else. However, in order to remain consistent with the literature on similar intervention programs, we use the terms “prevention” and “risk reduction” in this report.

Hanson and Gidycz (1993) initially designed an educational program for college women that, in a single session, covered myths and facts about rape, rape avoidance strategies, dating behaviors associated with sexual assault and sexual communication – as is typical of rape awareness programs offered for incoming college students. After completing a baseline questionnaire, 360 undergraduate women were randomly assigned to an intervention group and a control group. Nine weeks later, the researchers found that the program reduced assaults (using a broad definition) among women without sexual assault histories, but had no protective effects for previously victimized women.

Following up on this study, Gidycz added to the rape education program elements specifically addressing the higher risk of previously victimized women (Hanson, Breitenbecher & Gidycz, 1998). The program, still one session in length, included discussion of the reasons for repeat victims' increased vulnerability, extra precautions that previously victimized women could take in high risk situations, and the blamelessness of previously victimized women. Again, college women were randomly assigned to treatment or control conditions. This time, no beneficial effect of the program was found among either the previously victimized or the non-victims. A third attempt (Gidycz, Lynn et al., 2001) showed somewhat more promising results. The intervention was modified again, extended to two two-hour sessions. Measures were taken at two follow-up intervals, including a two-month follow-up and a six-month follow-up, a longer interval than had been used previously. The authors did not find a main effect of the program on revictimization at six months, but did find a complicated three-way interaction effect indicating a reduction in revictimization at six months for women who went through the intervention, but only if they had been moderately

victimized at the two-month assessment. Finally, Gidycz, Layman, et.al. (2001) found no reduction in victimization from a one-hour psychoeducational session on rape facts and myths.

Yeater and O'Donohue (2002) developed a three-component workshop, including rape facts and myths, risk factors, and response strategies. Women exposed to a one-hour workshop scored significantly better on a post-test measure than control subjects. The study found, however, that subjects in the educational treatment required more than one exposure to reach a high level of mastery of the material. This study did not include an assessment of revictimization.

The most successful risk reduction program was described by Marx, Calhoun, Wilson, and Meyerson (2001). The authors conducted a field test of a two-session risk reduction program using a sample of college women with sexual assault histories. The program was based on the protocol developed by Gidycz and her associates, including increasing knowledge about sexual assault, teaching strategies to thwart unwanted sexual advances, promoting assertiveness and the development of communication skills, and altering dating behaviors known to put women at elevated risk for assault. The program developed by Marx, et al. included an additional component of risk recognition, based on the findings that women with histories of multiple sexual assaults are slower to recognize risk cues than other women. Thus, the Marx, et al. protocol included training on recognizing danger in male-female interactions. The researchers randomly assigned 66 women to receive the prevention protocol or not. At the end of two months, the women who participated in the prevention program were significantly less likely to be raped (although there was no reduction in overall revictimization), showed improvement in

psychological adjustment, and showed greater self-efficacy in risky sexual situations relative to control participants.

Testing a New Intervention

This body of work on sexual assault revictimization shows the importance, but also the difficulty, of designing special interventions for women once victimized who are most at risk of suffering a future victimization. Evaluations of the small number of recent attempts to design programs to cut the risk of revictimization were inconsistent. But the success of the Marx, et al. study suggested that it might be possible to reduce significantly women's risk with just a brief intervention.

However, no intervention that we are aware of had been designed and tested using an urban sample with diverse socioeconomic and racial characteristics. All of the field tests of programs to reduce the likelihood of repeat sexual assault victimization had been done using samples of college students, relatively homogeneous with respect to age, socioeconomic status, education, and race. Moreover, the kinds of incidents in which these study subjects had been involved in were primarily "date rape" situations. We attempted to build on the pioneering work of Gidycz and Marx by developing a program to reduce repeat sexual victimization in a sample of urban women who were receiving counseling from crime victim treatment programs. This sample would inevitably be diverse with respect to age, ethnicity, and socioeconomic status.

In several respects, the challenges of devising a program for survivors in the community were even more daunting than designing a program for a campus community. We expected to encounter a greater diversity of victimizing situations, ranging from acquaintance rape to stranger rape. We expected that there would be issues of drug and

alcohol abuse that make women especially vulnerable to a new assault. In a diverse urban sample, we expected there might be a higher rate of abuse of street drugs, possibly prostitution and lower functioning individuals than sexual assault survivors who manage to stay in college. But in other respects, there were fewer obstacles to devising a protocol for a revictimized community population. We would be working with women already in counseling who had made the decision to seek help and had made a commitment to making changes that would improve their situation. Our intervention was intended to serve as an adjunct to counseling or therapy: While the survivor was receiving help in resolving the trauma caused by repeat victimization, the risk-reduction intervention constructed and piloted in this project addressed more practical day-to-day issues of safety and survival during the recovery process. Our goal was to develop an intervention that would be analogous to safety planning for battered women, and one that could be used by sexual assault counselors as an adjunct to psychological counseling.

Targeting the prevention program to a population currently in counseling made practical sense: These are victims who are motivated to change their lives. Testing the protocol only on victims in counseling admittedly limited the generalizeability of results, but it limited them to a population of victims most likely to participate in such a program. Our purpose here was in applied science -- developing a program that would work and would be used. Administering a risk reduction program to victims who are in counseling targets a population likely to take advantage of such a program, and it targets them at a time when they are likely to be open to making changes in their lives. In this respect, we were mimicking the successful British model of revictimization prevention where victims are approached at the time they seek services. Developing an intervention for victims

seeking services also served another important purpose: Clinicians who work with the multiply victimized report that continued victimization does not allow the client to heal and disrupts the client's ability to pursue counseling. If we could create a successful prevention protocol, it would aid in creating a safe space for survivors to address underlying trauma in counseling.

METHOD

The field test was implemented as a randomized experiment. The design called for recruitment of 90 sexual assault victims receiving services from Safe Horizon in New York and 30 victims receiving assistance from Harborview Medical Center in Seattle. Half of the eligible candidates were to be randomly assigned to participate in a four-hour workshop on avoiding sexual assault while the others were to be assigned to a control condition that did not receive the training. Both groups were scheduled to participate in a baseline assessment battery administered in person. After completion of the assessment, those assigned to the experimental condition were to begin the workshop. Researchers contacted women in both groups six months later for a second assessment, this time conducted over the phone.

The Sites

The project was conducted at Safe Horizon in New York City and at Harborview Medical Center in Seattle. The decision to have two study sites was primarily pragmatic. Although the sexual assault programs in both cities serve large client populations, neither was sufficient by itself to meet the recruitment demands of the field test. The programs used a similar approach, each offering crisis response and counseling. The crisis response model used by both programs involved 1-3 sessions designed to provide information, support, an opportunity to express feelings about the assault, and assistance in making plans for safety, reporting, obtaining social support, and treatment. Crisis response also included material assistance such as emergency financial aid, help filing compensation applications, and relocation assistance. Based on the numbers of adult sexual assault

survivors served by both programs, researchers decided to allocate $\frac{3}{4}$ of the participants from Safe Horizon and $\frac{1}{4}$ from Harborview.

The client populations of the two programs were complementary. Safe Horizon's clients are primarily Black (36%) and Latina (26%). In contrast, a majority of Harborview clients are White (59%), although Harborview also has many non-white, non-Hispanic clients. The average age of adult clients in both programs is mid to late 20s, but each included a range of client ages that extended to their 60s.

The Workshop in Avoiding Revictimization

The workshop adapted the program developed by Marx, et al. (2001). Their program consisted of two two-hour sessions intended to (a) increase knowledge of situations likely to lead to sexual assault, (b) teach communication skills and practical strategies for avoiding unwanted sexual contact, (c) teach recognition of risky interpersonal situations, and (d) teach assertiveness in social situations.

Components of the program used by Marx include presentation by a group leader and discussion of characteristics of sexual offenders, situational and personal risk factors for sexual victimization, and common post-assault reactions and feelings. Marx also used a videotape developed by Hanson and Gidycz (1993) depicting situational variables (e.g., alcohol consumption, nonassertive behavior) conducive to sexual assault. Participants were encouraged to discuss factors in the film that promoted sexual assault and to suggest alternative scenarios that would reduce risk levels. Participants were asked to fill out a worksheet listing the perpetrator, situational, and personal risk factors associated with their own victimizations. These were discussed within the group and participants were invited to suggest strategies to reduce risk should they find themselves in similar

situations in the future. Participants were also presented with several hypothetical high-risk situations and asked to formulate solutions to avoid victimization. Finally, participants were taught assertiveness skills using a covert modeling procedure.

Since the Marx et al. protocol was designed to reduce the risk of campus acquaintance rape, we needed to adapt it for an urban context and a non-student population. For that modification, we needed to gain a better understanding of the situations and dynamic interactions that lead to sexual assaults of adult women living outside an institutional setting. Therefore, prior to designing the intervention, we conducted in-depth interviews with 33 women who had experienced multiple sexual assaults (“Phase I interviews”). The women, recruited from rape crisis programs at Safe Horizon, Harborview Medical Center and other hospitals in New York and Seattle, and from advertisements, were diverse with respect to age, ethnicity, education, and socioeconomic status. Most of the women in the sample of 33 were assaulted by someone they knew casually, but usually not by someone they had been dating.

The themes that emerged from the Phase I interviews -- early sexual abuse, low self esteem, manipulation by the rapist, and alcohol or drug abuse -- echoed the research done with child sexual abuse survivors attending college and the assumptions behind the Marx, et al. workshop. The interviews strongly suggested that in the situations that resulted in an assault, the women often granted a high level of trust quickly to the assailant. The women then found themselves in situations with men who were not trustworthy (and, in fact, who preyed on that trust) and cut off from help from others. The trust was related to the connections the assailant had with a trusted friend of the victim: perpetrators were often friends of boyfriends, classroom acquaintances, cousins of

friends, or otherwise tangentially connected to the victim's social network. The Phase I interviews suggested that, although the root causes of sexual assault may be best thought of within the context of the ways gender shapes power in relationships and that blame for sexual assault rests squarely with the perpetrator, there are actions that individual women might take within this context to reduce their particular risk levels (For the Phase I interview instrument and an example of some of the analysis of those interviews, see Appendix A).

The workshop was developed and shaped using information from three sources: 1) the intervention developed by Marx and those developed previously by Gidycz; 2) the Phase I in-depth interviews with survivors of multiple sexual assaults; and 3) the literature on specific vulnerabilities of sexual assault survivors that are associated with repeat victimization. The material was also influenced by the research on and work with offenders conducted by two members of the research team, and consultant Amy Weintraub's long experience directing a crime victim treatment program at Harlem Hospital. The directors of the sexual assault programs at three hospitals in New York City (St. Luke's Roosevelt, St. Vincent's, and Long Island College Hospital) reviewed the initial draft intervention at the early stages and at a later stage an abbreviated staging of the intervention was reviewed by the sexual assault program director and sexual assault counselors at Safe Horizon. (For brief biographies of staff involved in the research and intervention design see Appendix H).

Marx's intervention provided the organization of the two-day workshop and the basis of exercises used in the intervention. The literature (reviewed earlier in this report) was especially informative about the psychological and behavioral vulnerabilities of

sexual assault survivors. Specific empirically established vulnerabilities include PTSD and dissociation; internal attributions for previous assaults; impairments of judgment around trustworthiness of others; substance abuse; multiple sexual partners; and impairment of the ability to recognize danger (e.g., Messman-Moore & Long, 2003; Casey & Nurius, 2005; Sandberg, et al., 1999; Wilson, et al. 1999; Arata, 2000; Grauerholz, 2000). To address these factors, the workshop discussed these vulnerabilities and offered particular strategies and training to attempt to counteract them or work around them.

The Phase I interviews with survivors drawn from the same population as the participants in the experiment provided information about the situations in which the assaults occurred and where the victims were encountering the men who assaulted them. That is, the many interventions developed for college students focused on parties, illicit drinking, and perpetrators who were other students. To adapt the intervention for an adult population, we needed to know the role of alcohol, the situations associated with assaults that survivors might want to avoid, and the general identify of the offenders. From the Phase I interviews, we learned that alcohol consumption by the victim or offender was sometimes but not usually associated with the assaults; that the assaults often took place in the offender's home or the victim's, where they were alone through a change in circumstances. Victims sometimes disclosed their previous sexual abuse in order to elicit protective reactions from a male friend – only to find that this strategy backfired. The offenders were most often male friends and acquaintances, although there were instances of ex-boyfriends, dates, and a customer. The abuser, it seemed, frequently gained the victim's trust and sympathy through a series of manipulative steps, then used

that trust to isolate the victim, then frequently insisted on sex as an entitlement or as something the victim “owed” the offender as a result of her own actions, and often used physical force when insistence did not succeed. We observed that the offender thus typically modified the situation and redefined the reality of the relationship and the meaning of the victim’s actions or inaction.

As an organizing framework, we observed that the material could be categorized into three themes: the sexually aggressive man who crosses the line to abuse and assault (including perpetrator characteristics, tactics, and behavioral warning signs); the situation (which is usually modified and manipulated by the aggressor); and the victim’s vulnerabilities that may hamper her ability to recognize and resist the tactics (such as the offender crossing boundaries), and her ability to escape unwanted and dangerous situations (for example, because of dissociation and tonic immobility). This framework allowed the facilitators to reinforce the role of the perpetrator in planning and creating the situation, and exploiting the vulnerabilities.

The resulting workshop, like Marx’s intervention, consisted of two two-hour sessions conducted in small groups of 3-5 women over successive days, and used lecture, discussion, and exercises.

Modules included:

DAY ONE

- *Welcome*
 - *Explanation of the nature and purpose of the course*
 - *Setting norms and rules for the workshop*
 - *Trust building exercise*
 - *A note about “freezing” and affirmation of participant’s past appropriate responses*

- *Introduction*
 - Definitions of sexual assault, sexual coercion, unwanted sexual contact
 - It is never your fault
 - Frequency of sexual assault
 - Vulnerability factors
(Effects on adults of sexual assault, especially in childhood and adolescence -- psychological changes, lifestyle changes)
- The sexually abusive man
 - Lack of empathy; rigid gender roles
 - Planning and intentions
 - Characteristics (persistent, controlling, disparaging of women, angry, emotionally abusive)
- Tactics
 - Psychological abuse
 - Manipulation and emotional abuse (invasive questions, overly flattering, inappropriate touching)
 - Coercion and physical abuse (force, disabling, overpowering, threats)
- Changing the scene
 - Isolation
 - Wearing down your resistance (promising, coaxing, forcing, seeming harmless)
 - Crossing the line (Jekyll to Hyde; throwing you off balance)
- Gender and vulnerability
 - Socialization of girls; pleasing men
 - Prior abuse (issues of drinking and drugs; self-blame; depression; need for approval; setting boundaries and trust; self-protection and self care; low self-esteem): causes and consequences
 - Boundaries: definition, setting protective boundaries
- The first session ended with instructions on the Risk Factors Worksheet

DAY TWO

- Review of Risk Factors Worksheet
- Drawing the line
- Tuning into instincts
- Discussion/exercise: what does it look like when male strangers cross the line?
Male friends or co-workers? Male acquaintances and dates? Boyfriends and husbands?
- Strategies for avoiding unwanted sexual experiences
 - Caveats: no strategy works all the time; situations and people are different; it is never a woman's fault if a man made the choice to commit a sexual assault
 - Pre-emptive strategies: know what you want; trust your instincts; shift the blame back where it belongs
 - Voice: say what you want, repeat it, name his behavior
 - Leave, let others know, stall, fight back

- Practice: instructor reads scenarios for different relationships; participants propose strategies; group reviews and critiques possible defensive actions

- *Conceptual framework for workshop: Predator-Context-Victim Model*

This framework posits that assaults are the product of motivated *predators* experienced in *shifting the context* by isolating victims or encroaching on their personal space and *victims* who often have had childhood experiences that impede their recognition of contextual shifts and ability to extricate themselves from situations as they are unfolding. The instructors covered in detail:

- Perpetrator/predator characteristics
- Situational factors/contextual shifts
- Victim vulnerability

- *Recognizing discomfort*

Participants were instructed about warning signs that situations are turning dangerous and taught to trust and act on their instincts.

- *Strategies for getting out of situations once a rape scenario has begun to unfold*

Although the aim of the workshop was to help victims recognize and avoid potentially dangerous men and situations, sometimes no amount of avoidance can prevent a rape scenario from unfolding. This section of the workshop presented results of research on the effects that fighting back, screaming, fleeing, reasoning, and other strategies have upon completion of rape and injury to victims.

- *Risk Factors Worksheet: Crossing the line exercise and homework* (see Appendix B).

The second session consisted of review, vignette exercise, and discussion:

- *Review of first session*
- *Risk factors worksheet review*
- *Vignette exercise* (see Appendix C)

Participants were presented with a series of vignettes based on the qualitative interviews, and were asked to (a) define the problem, (b) generate possible responses/solutions, (c) discuss pros and cons of responses suggested.

- *Assertiveness training*

Women assigned to the control group continued to receive counseling from Safe Horizon or Harborview (if applicable), but did not participate in the intervention. They received the same assessment battery at the same points as workshop participants, and received the same stipends upon completion of the two assessments.

Recruitment and Subjects

Our original intent was to recruit participants from among clients 18 years of age or older who were receiving or had received counseling for sexual assault at Safe Horizon or Harborview Medical Center. During the intake period, counselors at both locations were to screen their clients for repeat victimization and offer those clients who had experienced two or more incidents of sexual assault the opportunity to take part in the pilot. The names of those who expressed interest were given to research staff to contact and schedule an appointment for administration of informed consent and the baseline assessment. Volunteers were told that they would receive \$75 upon completion of an initial assessment (controls) or the workshop (intervention group), and another \$75 after a follow-up interview to be conducted six months later.

Recruitment through the counselors proved to be slow, and it became clear that the sources of intake needed to be expanded. Cooperation was secured from rape crisis programs at local hospitals, clinics, and shelters in New York City. In addition, ads were placed on the Internet and in a local New York newspaper. Part of the difficulty in recruitment stemmed from the strict inclusion criteria of the study. Participants needed to have experienced either childhood sexual abuse or more than one sexual assault after the age of 18 and to have received counseling within the past two years for the sexual assaults. Additionally, we could not recruit from programs for individuals with

addictions, psychosis, eating disorders, or borderline personality disorder, populations which are known for often having histories of sexual assault. A number of participants that responded to our advertisements and flyers, along with potential referrals from clinicians, were disqualified because of these factors (for a discussion of issues related to working with a community sample of multiply assaulted women, see Appendix G).

In all, 61 participants were recruited in New York and 23 in Seattle. Of the 84 participants, 29 were current or former clients of Safe Horizon's or Harborview's sexual assault programs, and 21 were referred to the study by similar rape crisis programs at New York City hospitals. Fifteen were recruited through the advertisements (all were screened for treatment for sexual assault and severe symptoms), and the remainder from shelters and referrals from participants recruited through other means (snowball). Thus, 60 percent were recruited directly from sexual assault programs, as planned.

Women who participated in the field test were well educated. Fully 82 percent had completed a high school degree, and 28 percent had a college degree or more. Twenty-eight percent were employed full time, another 16 percent were employed part-time, and another 10% were students. Of the remainder, 10 percent were disabled, 5 percent were homemakers, and 31 percent were unemployed. The largest proportion of participants (43%) identified as Black. Thirty-five percent identified as White, 15 percent as Hispanic, with small numbers of Asian or other ethnic affiliations. Eighteen percent of subjects were married or engaged; 24 percent were divorced, separated, or widowed; and 58 percent had never been married. The average age of subjects was 36.8 years.

The median number of different forms of sexual abuse the women reported

having ever experienced was five. One in three women reported an incident of sexual abuse during the six months before the baseline assessment. The most common forms of unwanted sexual contact reported by participants were fondling or intercourse as a result of being overwhelmed by continual arguments and pressure and intercourse as a result of threats or physical force. Eighty-three percent of the women reported having been victimized as children (age 12 or under). A majority of the victims of child sexual abuse reported having been victimized on five or more occasions. Eighty-percent of the sample reported having been victimized as a teenager, and over a third of those victimized as teens were victimized on five or more occasions.

We noted substantial differences between the women recruited at the two sites (see Table 1). Compared to New York subjects, those recruited in Seattle were significantly more likely to be white and young (mean age = 31.0 for Seattle subjects, compared to 39.1 for New York recruits). Seattle participants were also more likely to have post-high school education and to be employed, although these differences did not reach statistical significance. These data indicate that the Seattle site did add substantially to the diversity of the sample, as we had hoped in planning the study.

Table 1: Demographic Differences According to Study Site

	New York (n=61)	Seattle (n=23)	Total (N=83)
Post-high school education	55%	70%	59%
Employed full or part-time	40%	52%	43%
Married now or previously	48%*	26%	42%
Proportion white	23%**	65%	35%
Over 35 years old	62%**	26%	52%

* $p < .10$

** $p < .05$

Assignment Process

At the point that they agreed to participate in the study, subjects were to be randomly assigned to either the treatment or control group. Each site used different randomization procedures. Seattle researchers spread out cards face down on a table. The cards were evenly split to represent risk reduction training or control conditions. The interviewer picked a card to assign each participant to a condition and then threw the card out, considering that space filled. At Safe Horizon, researchers reached into an envelope and selected one of two pieces of paper marked either “control” or “intervention” and discarded the slip or were assigned by a coin toss. Later, participants were assigned to conditions using the random number generator application on the Microsoft Excel program.

In all, 46 victims were assigned to the experimental condition and 38 to the control condition. However, there were multiple exceptions to the assignment process. In seven cases of women living in emergency domestic violence shelters, researchers bypassed the assignment process to put the women into the risk reduction group. Because they were sharing a house and in some cases were sharing a room, we felt there would be contamination if some were assigned to the control and some were assigned to the intervention. Only three of these women were retained at follow-up. In addition, two cases were randomly assigned to the control group but received the intervention. They were invited to the intervention at the last minute when two women who were scheduled for the final workshop cancelled their appointments. Four cases were assigned to the intervention group, but missed the sessions.

Differences by Case Assignment

We observed some differences between subjects assigned to the two treatment groups in terms of demographic characteristics (see Table 2). Differences were 10 percentage points or less in regard to education, marital status, and race. Women who were assigned to the intervention group and participated in the study were more likely to be unemployed than women in the control group (62% compared to 50%), but this difference did not reach statistical significance. We did find a significant difference by age: A larger proportion of women in the intervention group were over 35 years of age (mean age 39.4 years for women in the treatment group compared to 33.7 years for women in the control group).³

Table 2: Demographic Differences According to Experimental Assignment

	Intervention Group (n=46)	Control Group (n=38)
Post-high school education	56%	63%
Employed full or part-time	38%	50%
Married now or previously	47%	37%
Proportion white	31%	40%
Over 35 years old	61%	42%*

* $p < .10$

Assessments

Assessments were conducted before the workshop and again six months after intake. For control group participants, the baseline administration of the assessment battery was conducted at the Safe Horizon research office or at the Harborview sexual

³ $F[1,79]=5.52, p<.02$. Women randomly assigned to the intervention group may have had more difficulty adapting their schedules to the workshops, conducted on two successive evenings in New York, if they were employed or had young children. Therefore, there may have been differential attrition from the experimental group as compared to the control group.

assault program office. For the follow-up interview, participants were offered the option of returning to the office or completing the assessment by telephone.

Success in conducting follow-up interviews

Overall, 84 percent of study participants were contacted and agreed to participate in the follow-up interview. (This retention rate actually exceeded the expectation of 75 percent in the project proposal.) Seattle participants had a somewhat higher follow-up rate (91%) than New York participants (87%). Researchers were also somewhat more successful completing follow-up assessments with control cases (90%) than with experimental cases (80%). Neither differences in follow-up rates by city nor differences by treatment condition approached statistical significance.⁴

The follow-up interviews, designed to be conducted six months after the intervention or baseline interview, in fact occurred fairly close to the target dates. The mean time between baseline and follow-up interviews was 219 days, and the median was 212 days. (These figures are based on just 40 victims for whom interview dates were available.) Although victims in the control group received follow-up assessments somewhat later on average than victims in the experimental group (238 days compared to 203 days), the difference did not approach statistical significance⁵.

Women who participated in the follow-up interview were more likely to have continued their education past high school than those who did not participate (see Table 3). Women who participated in the follow-up were also somewhat more likely to be currently or previously married and somewhat less likely to be White, compared to women who did not participate.

⁴ Chi-square [1] = 1.30, n.s. for differences by treatment condition

⁵ $F[1,38]=0.85$, ns.

Table 3: Demographic Differences According to Follow Up Status

	Follow-up obtained (n=71)	No follow-up obtained (n=13)
Post-high school education	63%*	39%
Employed full or part-time	43%	46%
Married now or previously	46%	23%
Proportion white	33%	46%
Over 35 years old	53%	46%

* $p < .10$

Assessment Instruments

The battery for both baseline and follow-up assessments included measures of sexual assault knowledge, attributions for a prior assault in adulthood (NY sample only), behavior in dating situations, confidence in avoiding re-assault, post-traumatic stress disorder, and sexual revictimization. In addition, the baseline assessment included measures of alcohol consumption and tonic immobility, or the extent to which victims felt immobilized during a sexual assault:

(a) Alcohol consumption

The measure of alcohol consumption used in the study was developed from the alcohol use AUDIT. The AUDIT is a commonly-used scale for identifying problem drinkers or persons at risk of developing a problem (Babor, et al., 1989). Three items were adapted for use in the current study. (*Administered at baseline assessment only.*)

(b) Tonic immobility

The Tonic Immobility Scale (Heidt, Marx, & Forsyth, in press) was developed as a measure of paralysis (e.g., inability to move or scream, trembling, dissociation) that victims may experience during a serious violent crime. Marx and his associates have demonstrated that the scale is a good predictor of recovery from sexual assault. The scale has a reliability coefficient of 0.94.

The instructions for the scale indicate that answers should apply to the most recent sexual assault as an adult. In practice, however, if there had been no adult assault, most interviewers administered the scale to women who were

victimized in their teens. We used Marx's scoring to produce an overall measure of tonic immobility. (*Administered at baseline assessment only.*)

(c) *Knowledge of sexual assault risk factors*

This assessment was based on Hanson and Gidycz's (1993) Sexual Assault Awareness Survey, adapted to our training materials. The resulting scale was designed to measure subjects' knowledge of sexual assault and situations leading up to it. Typical of items included in the scale are: "Heavy use of alcohol is associated with acquaintance rape." Subjects respond to items in a true-false format.

Since the revisions were extensive, we examined the new scale for cohesion. It turned out that the scale was not as cohesive as we would have liked. Subjecting the 14 items to a principal components analysis, we found that first factor accounted for just 18% of the variance. The initial reliability for the scale (alpha coefficient) was just 0.46. Using a backward elimination procedure, we reduced the scale to seven items.⁶ That scale had an alpha coefficient of 0.66. There were no gains in reliability with smaller versions of the scale, so we used the seven-item scale in our analyses. (*Administered at baseline and follow-up assessments.*)

(d) *Attributions*

Attributions for the most recent assault (extent to which women blame the assault on their behavior in the situation, their own character, or external factors), were assessed using the Sexual Assault Rating Scale (Arata, 1994; 1999). Attribution theory primarily distinguishes between internal and external attributions for the causes of events, and also between controllable and uncontrollable causes. Characterological and behavioral attributions are both internal, but the first is not controllable and the second is controllable. Reliability coefficients for the scales are 0.78 for characterological self-blame and 0.72 for behavioral self-blame. To the extent that the intervention increased behavioral attributions and decreased characterological attributions, we would expect that more effective rape-avoidance strategies might be adopted. (*Administered at baseline and follow-up assessments.*)

(e) *Self-efficacy*

Research has indicated that higher self-efficacy among sexual abuse survivors is negatively correlated with revictimization (Cotney, 1997; Leonard, 1992). Participants rated their confidence that they could ward off unwanted sexual behavior using three items derived from a scale developed by Hall (1989). The three items included confidence in

⁶ Item #s 2-5,7,8,and 11; see Appendix C.

regard to recognition of danger, ability to control a situation where a man was trying to manipulate her, and ability to avoid sexual assault. Although items on Hall's original version are rated using a 7-point Likert scale, the items used in the current study were open-ended questions, scored from 0 to 3.

Scores on the confidence scale at the baseline assessment ranged from 0 to 9, the maximum possible score. We computed a reliability statistic for the confidence measure at the baseline assessment. It was low, with an alpha coefficient of 0.58. With three items, however, we did not have the option of creating a more cohesive scale from a subset of items. (*Administered at baseline and follow-up assessments.*)

(f) *Risky Behaviors*

This scale, adapted to suit our sample from the Dating Behavior Survey (Hanson & Gidycz, 1993), assessed the frequency with which women engaged in behaviors associated with risk of sexual assault (or with protective actions – 2 items are reverse-scored) in dating situations within the past six months (e.g., drug and alcohol consumption, spending time alone with a man she had just met, and assertiveness in the face of abuse or unwanted sexual advances). In the 14-item scale, six of the items were essentially the same as in the original scale and eight were newly created. Typical of items included in the scale were, “The first few times we went out, we spent time alone together in a place where no one else was present.”

We administered the scale only to women who had dated a man within the past six months. This excluded at least two-thirds of the sample both at baseline and follow-up assessments. Women weren't dating men for a number of reasons: some were married or involved in long-term relationships with men, whereas others dated women or avoided dating entirely.

A principal components analysis on the revised scale did not indicate a strong factor structure. The first factor extracted accounted for 23 percent of the variance, and the alpha coefficient for the scale was just 0.42. Backward elimination of items resulted in a scale that included 11 of the original 13 items, and a reliability coefficient of 0.51. (*Administered at baseline and follow-up assessments.*)

(g) *PTSD Symptomology*

PTSD symptoms were measured using the Trauma Symptom Checklist (TSC-33) developed by Briere and Runtz (1989). The TSC-33 consists of 33 symptom items, each rated for frequency of occurrence on a four-

point scale. Combinations of the items are summed to produce an overall score and five symptom subscales. The subscales include Dissociation, Anxiety, Depression, Post-Sexual Abuse Trauma, and Sleep Disorder. The reliability coefficient for the whole scale is 0.89. Reliability on the subscales range from 0.66 to 0.75. Briere and Runtz reported the mean total score for sexually abused women to be 39.97. (*Administered at baseline and follow-up assessments.*)

(h) Sexual Victimization

Sexual victimization was assessed using the Sexual Experiences Survey (Koss, et. al., 1987). The SES is a self-report measure that describes various degrees of unwanted sexual behavior. Items range from fondling and kissing to attempted rape and rape. For each item endorsed, subjects were asked to indicate frequency of occurrence. The scale has an internal consistency of 0.74.

We constructed two measures by summing the number of incidents reported lifetime (on separate scales for children, adolescents, and adults) and the number of incidents reported over the past six months. (*Administered at baseline and follow-up assessments.*)

A copy of the assessment instrument is included in Appendix E.

RESULTS

In this section, we compare women assigned to the intervention group with women assigned to the control group on measures taken at the baseline and follow-up assessments. We begin by analyzing differences between groups prior to the workshop and then turn to changes from baseline to follow-up assessments and effects of the intervention on the outcome measures.

Although there were deviations from the random assignment process, we nonetheless chose to analyze cases according to the treatment to which subjects were assigned as the primary analytic approach. The temptation in field tests is to compare only those who complete treatment (and therefore get the full “dosage”) to a comparison

group. Even though “crossovers” result in loss of statistical power when “analyzing as randomized,” this approach is most frequently recommended in both the criminal justice literature and the medical literature on clinical trials (e.g., Weinstein & Levin, 1989; Armitage, 1996). The alternative (analyzing cases according to the actual treatment they receive) runs a serious risk of defeating the purpose of randomizing in the first place, i.e., creating groups of cases equivalent prior to treatment. In our study, one of the exceptions to the assignment process was created when women who were assigned to the experimental condition did not show up for the workshop and therefore had the same experience as women in the control group. The other occurred when two women assigned to the control condition were asked if they could come to an intervention because of two last minute cancellations from women scheduled to receive the training. Neither of these reasons for exceptions could be construed as random. Therefore, analyzing according to treatment received would compromise the integrity of the design. Sherman (1992) proposed following the “analyze as randomized” dictum as long as the proportion of treatment crossovers does not exceed the proportion of cases with negative outcomes. If we take revictimization as our major outcome measure, then the proportion of crossovers (11%) in our study is well below the rate of revictimization (about 28%).

We also include at the end of the results a table that shows a reanalysis of the data according to treatment actually received by the women in the study. In this analysis, we also controlled for baseline scores, with the exception of the Dating Behavior Survey, which could not be controlled for given the small number of completed instruments. It turns out that the results are consistent no matter whether cases are analyzed as assigned or according to treatment received.

Baseline Scores

The measures administered at the baseline interview were adopted to serve one of two purposes: one set was associated with risk factors for revictimization. These scales were included as control measures (i.e., perhaps the intervention would be less protective for those with specific heightened vulnerabilities, although the intervention was designed with the intent of making all victims safer); and others were designed as pre- post measures and were given at baseline for the purpose of comparison with outcome measures six months after the intervention, as well as for comparison between control and experimental groups.

Risk factors for revictimization

The first set of measures we will describe are those that the literature shows are associated with a higher risk of victimization, or that might interfere with learning or adopting the risk reduction strategies offered in the course.

Alcohol Use

The Alcohol Use Audit was administered only at the baseline assessment. Nearly a third of the sample (32%) had scores of zero on the alcohol use measure, indicating that they did not drink at all. The average score on the scale was quite low, with a median of 2.0 (mean = 2.8) out of a maximum possible score of 12. Differences between women in the experimental and control conditions did not approach statistical significance either using a dichotomous prevalence measure or a measure of the total score over the three component items (see Appendix F).

Tonic Immobility

On the tonic immobility measure, scores ranged from 13 to 59 out of a possible

60. The median score was 37.0 (mean = 36.3, sd = 10.9). Individual items with scores of 4 or above (out of a possible 6) included “Extent to which you felt panic during your most recent adult experience of unwanted sexual activity” (mean = 4.76), “Degree to which you felt frozen or paralyzed during the event” (mean = 4.56), and “Extent to which you felt detached from yourself (that is, mentally removed from your body) during the event” (mean = 4.21). The differences between experimental and control participants on the TIS were minimal, and did not approach statistical significance (see Appendix F). However, the mean score of 36.3 in our sample is comparable to the mean Marx and colleagues reported for inpatients with a history of childhood sexual abuse (34.3), higher than that for undergraduate students (25.9), and much higher than their mean for non-abused women (16.3).

Post-traumatic Stress Disorder and Related Symptomology

Baseline scores on the Traumatic Symptom Checklist ranged from 0 to 70 on the overall scale (mean = 32.39, s.d. = 16.65) ; 0 to 16 on the anxiety subscale (mean = 6.75, s.d. = 4.16); 0 to 20 on the depression subscale (mean = 9.45, s.d. = 4.56); 0 to 14 on the dissociation subscale (mean = 5.26, s.d. = 3.38); 0 to 12 on the sleep disturbance subscale (mean = 5.74, s.d. = 3.32); and 0 to 16 on the trauma subscale (mean = 6.13, s.d. = 3.58). Differences between women assigned to the experimental condition and women assigned to the control condition did not approach statistical significance for the overall scale or any of the subscales (see Appendix F).

Outcome Measures Administered at Baseline

These measures were administered at baseline to assess equivalence of experimental and control groups and for pre-post comparisons within groups, and again

at follow-up to assess the impact of the intervention as well as the validity issue of history, or change over time regardless of treatment.

Sexual Assault Awareness

Awareness of sexual assault definitions, situations, and risk factors was assessed with the revised sexual assault awareness survey (SAAS). On the reduced 7-item scale, the possible range of scores was 0-7. At the baseline assessment, the scores ranged from a low of 2 to a high of 7, with a median of 4.8 (mean = 5.0, s.d. = 0.93). Since the individual scale items were true/false, these average scores indicate that participants already knew an average 5 of 7 possible answers, even before the intervention. The differences between experimental and control subjects on this scale at the baseline assessment were minimal and did not approach statistical significance (see Appendix F).

Confidence in Difficult Situations

Scores on the confidence scale at the baseline assessment ranged from 0 to 9, the maximum possible score. The median score was 5.5 (mean = 5.6, s.d. = 2.32). At the baseline assessment, the experimental and control subjects differed significantly in confidence scores at the .04 level (see Appendix F). Women assigned to the control condition (mean score = 6.0) exhibited greater confidence than women assigned to the intervention group (mean score = 5.3).

Attributions

We had only 32 valid cases at the baseline assessment as this scale was used only in New York due to IRB delays in Seattle. Initially this measure was administered at both baseline and follow up, but a decision was later made to only administer the test at follow up. Scores on the two subscales ranged from 10-35 for the behavioral blame

subscale (mean = 24.2, s.d. = 7.0) and from 14-37 for the characterological blame subscale (mean = 24.8, s.d. = 7.2). At the baseline assessment, participants assigned to the control condition had significantly higher behavioral self-blame scores than women assigned to the experimental condition (see Appendix F). Participants assigned to the control group were also somewhat more likely than those assigned to the intervention to blame their character for the assault. This difference was marginally significant.

Dating Behavior

The range for the revised Dating Behavior Survey (DBS) at baseline was 0 to 9 with a mean of 4.23 and standard deviation of 2.00. However, just 22 women completed the scale at the baseline assessment. Women assigned to the control condition had significantly higher scores at the baseline assessment than women assigned to the experimental condition (see Appendix F).

Sexual Experiences

Baseline scores on the SES, representing lifetime sexual abuse, ranged from 1 to 18; our sample had a mean of 10.51, with a standard deviation of 4.09. Differences between women assigned to the experimental condition and women assigned to the control condition were minimal (see Appendix F). Due to the small number of cases and the large number of dependent variables, we did not have enough power to rerun analyses using different developmental periods or severity of abuse instead of six month follow up scores and thus cannot comment on the role of age and/or severity of assault in revictimization.

Outcomes at the Six-Month Follow-Up

The baseline results indicated a number of differences between women assigned to experimental and control conditions both on demographic measures and scale scores. Women assigned to the control condition were, on average, several years younger than women assigned to the intervention group. Women assigned to the control group were also more likely to engage in risky dating behavior, and were more likely to blame their behavior and less likely to blame their character for being assaulted. Finally, women assigned to the control group were more optimistic about being able to avoid or handle difficult situations in the future, perhaps reflecting the fact that they were more likely to think that their behavior rather than their character was to blame for their assault(s).

Outcomes at the Six-Month Follow-Up

The finding of significant differences between treatment groups prior to the intervention is quite unusual for a randomized experiment. It likely reflects the fact that the random assignment process was compromised in some cases.⁷ In addition, those who were randomly assigned to the experimental condition but were unable to devote two evenings to the workshop (because of child care responsibilities or other time constraints) were forced to drop out of the study, whereas those with the same time constraints assigned to the control condition were able to schedule a one hour interview at their convenience, and complete the follow-up by telephone. Also, differences are more likely to be seen when sample sizes are small, as was the case in this field test. The baseline differences mean that it is important to control for initial scores on scales (as

⁷ There were thirteen exceptions to the assignment process. In seven cases referred by shelters, women were assigned to the intervention because they all lived together and there was concern women might discuss material learned in the workshop. Of these seven women, four missed the intervention and were reassigned to the control group. Two cases were randomly assigned as controls but received the intervention when other women failed to show up. Four cases were assigned to the intervention group, but missed the sessions.

well as age) in conducting analyses of outcome measures.

The preferred way to test for treatment effects on multiple outcomes is through a multivariate analysis of variance (MANOVA) test, which tests for effects of dependent measures simultaneously. One advantage of using MANOVA over individual tests of significance is that the test adjusts for the possibility that, when running multiple tests of significance, a result may be found to be statistically significant just by chance because many tests are being run. However, the small sample size precluded use of MANOVA.

So instead, our strategy was to use individual ANOVA tests. We considered using repeated measures tests that would have included factors representing both assigned condition and time (baseline or follow-up assessment) in addition to age as a covariate (since we found that participants assigned to the intervention were significantly older than women in the control group). More covariates would have been useful given deviations from the random assignment process, but the sample size would not accommodate additional factors. Using the repeated measures models, we would judge the intervention to be a success if the time by treatment interaction was statistically significant, i.e., if the women assigned to the prevention workshop improved from baseline to follow-up assessment relative to women assigned to the control group.

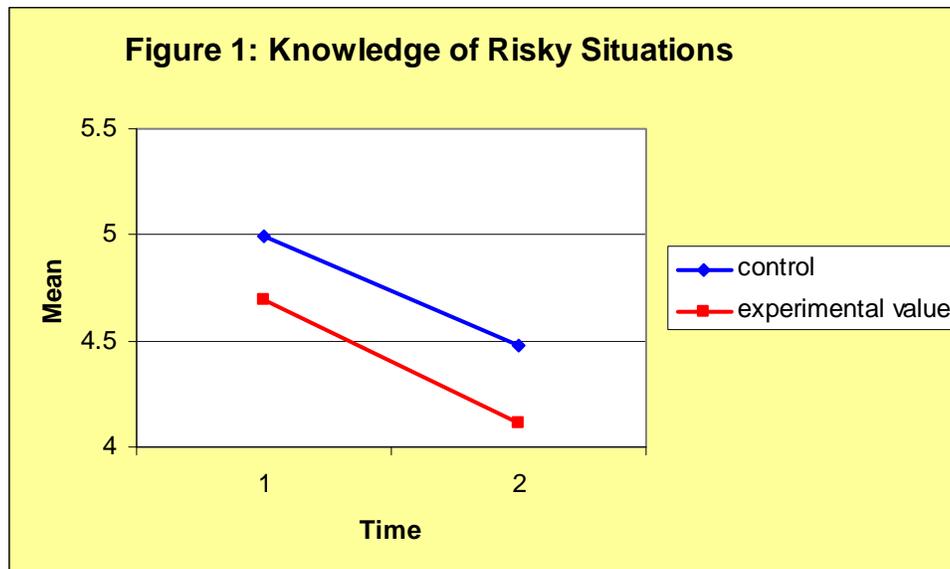
In the end, however, we opted for an ANOVA model that included three factors: Assigned treatment, baseline score on the measure used as the criterion in each analysis, and age. When there are just two time points, this model is similar conceptually to a repeated measures ANOVA. But, since this model does not include interaction terms, the number of factors tested is fewer than in a repeated measures model, an important consideration with the small sample size we were working with.

For two of the scales – the measures of attributions and behavior in dating situations, the Ns were too small even to use the ANCOVA models with three predictors. Therefore, we used simpler, but less informative, tests (see below). All of the scales conformed to a multivariate normal distribution, appropriate to an ANOVA model.⁸ The significant exception was the revictimization measure, which showed substantial skewness since two in three subjects had not experienced any victimization between baseline and follow-up assessments. For that test, we used a negative binomial model.

Sexual Assault Awareness

One of the immediate effects that we expected of the intervention was an increase in knowledge of sexual assault issues. The mean number of correct answers on the SAAS at the six-month follow-up (4.2) was actually lower than the baseline mean score of 5.0 (see Figure 1). The decline between pre and post scores attained a high degree of statistical significance ($t[83] = 2.95, p = .004$).

⁸ The distributions of the knowledge of risk factors and confidence measures were somewhat skewed and the characterological attribution and PTSD dissociation subscales did not meet the assumption of homogeneity of variances. Data transformations (log and reciprocal) corrected these problems, but produced the same outcomes as analyses on the untransformed data. Consequently, only the results based on the raw data are reported here.



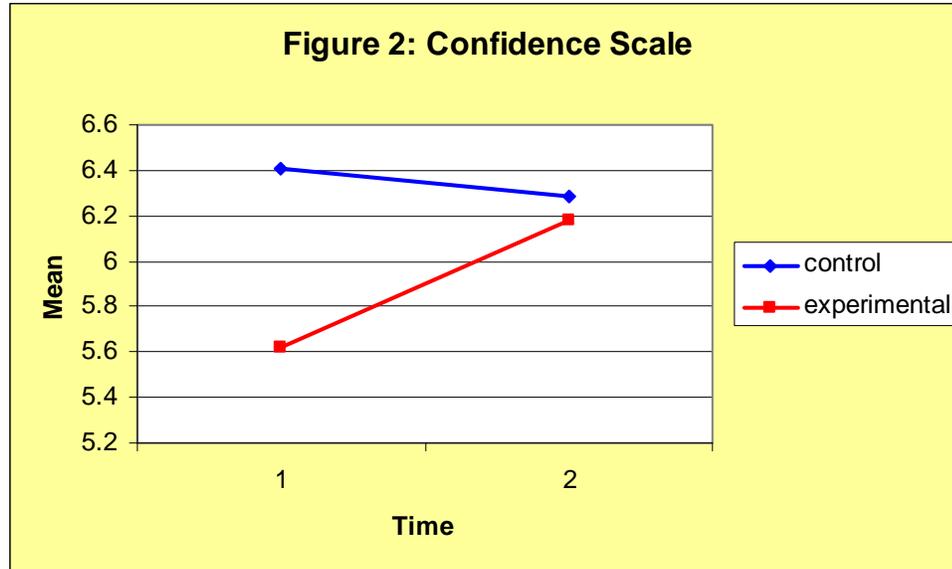
The figure does not show any relative improvement of the treatment group. This was confirmed in the ANCOVA test (see Table 4). In the ANCOVA, the effect of experimental treatment did not approach statistical significance, nor did the effects of the baseline knowledge scores or age.

Table 4: Treatment Effects on Knowledge of Risky Situations

	F	Significance
Age	0.80	.37
Baseline knowledge	2.17	.15
Assigned treatment	0.49	.49
Model R-square = 0.05		

Confidence in Difficult Situations

If the workshop was effective, one of the other immediate results would be that participants would have greater confidence in handling difficult situations. Mean scores six months after the baseline measure had increased from 5.5 at the baseline assessment to 6.14 (see Figure 2). However, the difference between the two waves did not approach statistical significance ($t[55] = -0.91$, n.s.).



Although Figure 2 suggests that the difference between groups narrowed from first to second assessments, the ANCOVA in Table 5 does not indicate an effect of the prevention workshop, nor did the effect of age approach significance. The baseline confidence measure was significantly correlated with confidence at the six-month follow-up.

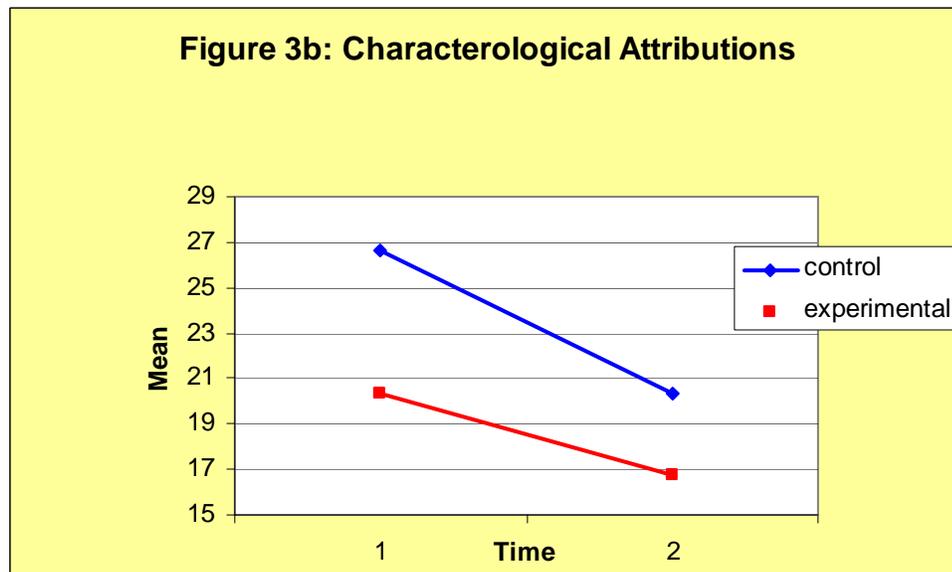
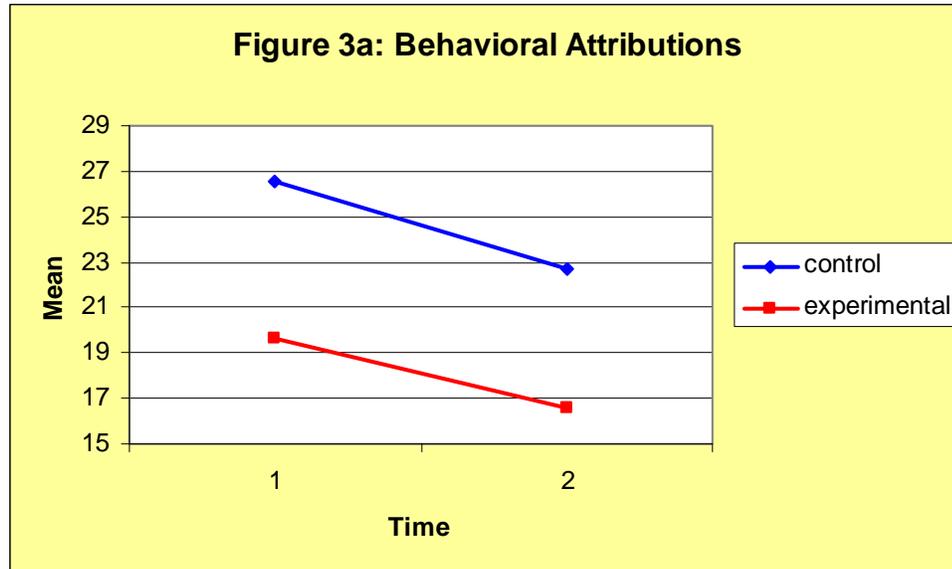
Table 5: Treatment Effects on Confidence Scale

	F	Significance
Age	0.09	.77
Baseline confidence	10.07	.00
Assigned treatment	0.19	.73
Model R-square = 0.17		

Attributions

The intervention was also intended to affect participants’ attributions about their sexual assault. In particular, it was expected that – if the intervention was effective – workshop participants would be more likely to attribute the assault to something they did, or behavior that could be changed, than to unchangeable characteristics. Six months after

the baseline measure, behavioral and characterological attributions were significantly lower than at the baseline assessment. For the behavioral attribution subscale, the follow-up mean was 19.9 compared to baseline mean of 23.4 ($t[23] = 2.48, p = .02$). For the characterological subscale, the follow-up mean was 18.7 compared to a baseline mean of 23.7 ($t[23] = 3.31, p = .003$): See Figures 3a and 3b.



The figures do not show a reduction of differences between treatment and control groups following the intervention for either the behavioral or characterological attribution measures. We had just 24 cases that received both baseline and follow-up versions of the attributions subscales -- not enough to conduct the same ANCOVA test that we used with most of the other outcome measures. We substituted a single factor ANOVA based on change scores – the differences for each subject between the follow-up and baseline scores on the attribution scales. The results in Table 6 confirmed the conclusion that there was no effect of the prevention workshop on either attribution measure.

Table 6: Treatment Effects on Attribution Change Measures

	F	Sign.
Behavioral attributions	0.07	.79
Assigned treatment		
Model R-square = 0.00		
Characterological attributions	0.77	.39
Assigned treatment		
Model R-square = 0.03		

Dating Behavior

One of the key results that a successful intervention would produce would be more cautious behavior in interactions with potential rapists. However, the baseline assessment included just 22 subjects that completed the revised Dating Behavior Survey at baseline and 24 that completed the DBS at follow-up. Figure 4 indicates that, while control cases had higher scores on this measure at the baseline assessment, the scores had narrowed by the follow-up assessment. This would not indicate a positive effect of the prevention program. Again, the problem with these outcome measures developed for college students is that they had less relevance to the lives of most women in our sample, who were not dating or were not dating men.



Just 12 subjects completed the survey at both times. Therefore, it was not possible to compute change scores for this measure (or a repeated measures ANOVA), as we had done for the attribution scales. Instead, we conducted a one-way ANOVA examining differences between treatment groups only at the six-month follow-up. The one-way analysis of variance did not reveal any significant differences between treatment groups at the follow-up assessment (see Table 7).

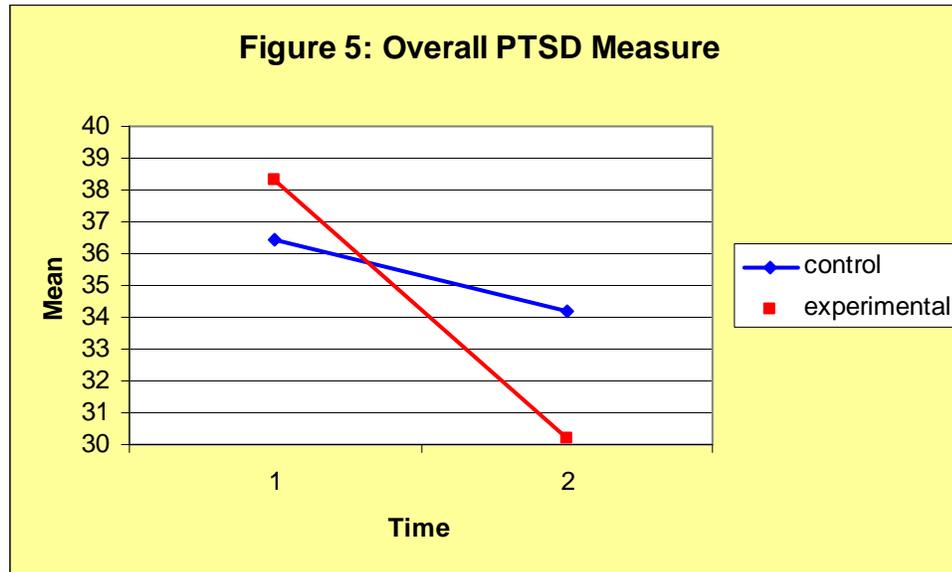
Table 7: Treatment Effects on Dating Behavior

	F with df=1,23	Sign.
Assigned treatment	0.01	.92
Model R-square = .00		

Post-traumatic Stress Disorder and Symptomology

A number of the PTSD symptoms declined between the baseline and follow-up assessments six months later. Figure 5 shows that significant reductions occurred in the

total score ($t[63] = 2.35, p = .02$). Similar declines occurred on the anxiety subscale ($t[65] = 2.17, p = .03$); and on the dissociation subscale ($t[65] = 2.83, p = .01$). No significant changes occurred in the depression, trauma, or sleep disturbance subscales.



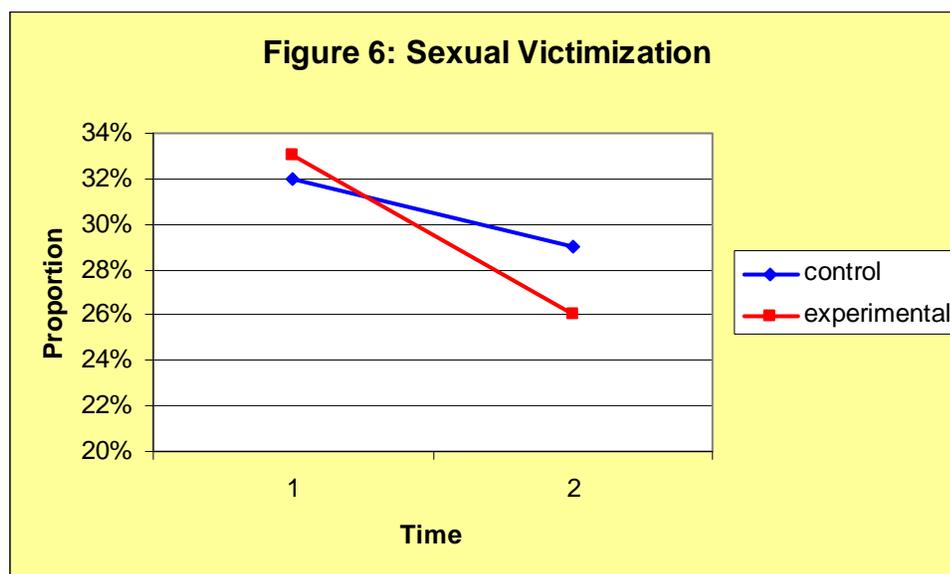
We ran ANCOVAs for the overall scale and the five subscales. We found a significant effect of treatment for the sleep disturbance subscale. While the same trends were evident for the other post-traumatic stress subscales, no other differences approached statistical significance (see Table 8). For each of the PTSD subscales, the baseline score was highly correlated with the follow-up score. Although we initially intended to control for PTSD symptomology scores as moderators of sexual assault, we did not have enough cases to conduct such analysis.

Table 8: Treatment Effects on Post-Traumatic Stress

	Total		Sleep Disturbance		Anxiety		Depression		Dissociation		Trauma	
	F	p..	F	p.	F	p.	F	p.	F	p.	F	p.
Age	1.20	.28	0.22	.64	0.01	.92	0.46	.50	2.31	.13	0.44	.51
Baseline score	22.80	.00	51.49	.00	30.93	.00	11.61	.00	35.49	.00	24.03	.00
Assigned treatment	1.69	.20	7.10	.01	0.11	.75	1.97	.17	0.97	.33	1.02	.32
Model R-square	0.33		0.50		0.34		0.21		0.45		0.31	

Sexual Experiences

The ultimate benefit of the sexual assault workshop would be a reduction in revictimization, as measured by the Sexual Experiences Survey (SES). Between baseline and follow-up assessments, slightly more than one in four (28%) of women reported an incident of sexual abuse. This victimization rate is just slightly lower than the victimization rate reported within six months before the baseline interview. Figure 6 indicates that trends in the proportion of women experiencing sexual victimization did not vary according to treatment group.



The finding of no difference in proportion of victimizations was confirmed in a logistic regression analysis (see Table 9). Neither the effect of treatment nor age approached statistical significance. Four women experienced forcible rape, and fourteen women reported engaging in some type of sexual activity because they were “overwhelmed by continual arguments and pressure;” and in both circumstances women were split evenly between the experimental and control groups.

Table 9: Treatment Effects on Revictimization Rates (logistic regression)

	Exp (B)	Sign.
Age	0.97	.31
Baseline victimization	1.03	.64
Assigned treatment	1.05	.93
Nagelkerke R-square=0.03		

We conducted a second multivariate test, this time on the *frequency* of new victimizations instead of the dichotomized dependent variable (see Table 10). This test, using a negative binomial model, reinforced the finding of no effect of the intervention. In this model, we did find that both age and victimization for the six months preceding the baseline assessment predicted victimization between baseline and follow-up assessments.

Table 10: Treatment Effects on Revictimization Frequencies (negative binomial regression)

	Coefficient (b)	b/std error	Sign.
Age	-0.72	2.31	.04
Baseline Victimization	0.32	2.04	.06
Assigned treatment	-0.26	-0.63	.57
Model chi-square = 9.76			

Outcomes at Follow-Up According to Treatment Received

We argued earlier for analyzing cases according to the condition to which they were assigned, rather than the treatment that they actually received. Having found essentially no effect of the intervention, it seemed prudent to re-analyze the data according to the treatment actually received. It seemed unlikely that six cases that did not

receive the assigned treatment would have a substantial effect on the results.⁹ But, to be sure, we redid all analyses in a fashion identical to the results presented above, this time using the treatment received as the independent variable. The results, presented in Appendix G, are identical to the original analyses: The only one of the 12 measures for which treatment was significantly related to outcomes was the sleep disturbance subscale of the trauma symptom measure. None of the other scales approached statistical significance.

Testing the Assumptions of the Intervention

Even though the intervention did not produce the desired effects, it still is of interest to know whether some of the assumptions behind the program model were valid. If the assumptions are supported, then one can infer that the failure to find an effect of the program was due to weaknesses in the implementation. In that case, it might be fruitful to attempt to develop a better program based on the same principles. However, if the assumptions behind the program model are not supported, then a new theory basis for developing an intervention – a new understanding of risk factors for sexual revictimization -- would have to be developed,

The literature upon which we based the program model suggests that behaviors such as alcohol abuse and risky behavior in dating situations are directly related to the likelihood of sexual revictimization. There are also suggestions in the literature that high levels of PTSD inhibit women's ability to recognize and act on relevant danger cues and therefore are associated with a higher likelihood of revictimization. The program curriculum sought to test whether increasing awareness of sexual assault risk factors and

⁹ Of the thirteen participants that were not randomly assigned, four did not complete follow up measures, two of which were women who were assigned to receive the intervention but did not attend.

dangerous predatory behavior, increasing self-efficacy, and shifting attributions from immutable characterological causes to mutable behavioral causes could change the odds of sexual revictimization.

In Table 11 below, we present correlations between risk factors measured at the baseline assessment with whether or not women were revictimized six months later. Because of the very small Ns for these measures, we cannot know whether these findings are statistically reliable. If the patterns in the table remained with a larger sample size, they are suggestive.

The table indicates that three factors at the baseline assessment predicted the odds of revictimization. They were the risky dating behavior scale and both the behavioral and characterological self-blame scales. As predicted, there were indications that higher incidence of risky dating behavior and higher levels of characterological self-blame were associated with higher likelihood of revictimization. Contrary to expectations, higher levels of behavioral self-blame were also associated with greater likelihood of revictimization. No association with revictimization was observed for prior victimization, whether it was in childhood, in the teen years, in the six months prior to the baseline assessment, or over the lifetime. The same was true for knowledge of sexual assault risk factors, alcohol use, PTSD, or self-efficacy measures.

Table 11: Testing Assumptions of the Program Model

Factor	Correlation
Risky dating behavior	0.38
Behavioral attributions	0.51*
Characterological attributions	0.33
Knowledge of risk factors	0.00
Self efficacy	-0.12
Alcohol use	0.12
PTSD	0.05
Childhood sexual victimization	0.06

Teen sexual victimization	0.14
Lifetime sexual victimization	-0.07
Six-month victimization	0.17

p = .01

We had originally intended to construct a multivariate model of revictimization. However, that proved impossible since the only measures associated with elevated odds of revictimization were the attribution scale and risky dating behavior scale, both of which had too much missing data (more than two-thirds of the cases) to use for this purpose.

The results do not provide strong support for the basis for the program model. High levels of risky dating appear to be positively related to revictimization as the program model assumed. However, due to missing data, this conclusion is based on a minority of the sample and may not be statistically reliable. The assumption that behavioral self-blame would lead to lower rates of revictimization was not borne out and, in fact, self-blame was associated with significantly higher risk of revictimization.

Women's Evaluation of the Prevention Workshop

We asked women who had been through the workshop to tell us what they thought of it at follow-up. A series of three questions was asked on 14 of the follow-up assessments for women who had participated in the intervention. The first question asked whether participants had learned anything in the workshop that was useful in their lives. Twelve of the 14 women answered in the affirmative. One woman said that the workshop had taught her how men try to take control verbally. Another participant felt that the workshop had made her aware that there are many ways that people can be abusive, "He is not supposed to tell me what to wear or where to go." However, there were other women who, even though they liked the workshop, did not seem to have

retained anything concrete after six months. One woman said that she remembered feeling that the workshop had given her useful insights, but now six months later, she couldn't recall any. Another woman said that, although she couldn't pick out one thing in particular, she thought of herself "differently now – more positive and more confidence in myself."

The second evaluation question asked women whether there was anything in the workshop that was not useful or didn't apply to their lives. Only one of the 14 women recalled something that they didn't find relevant. She did not like that men "were being depicted as monsters," and felt that they should have been portrayed with more empathy.

The final evaluation question asked whether there had been anything in the workshop material that women had initially found challenging but later realized made sense. Five of the 14 women who completed this section of the assessment said, "Yes." In her answer, one woman said that the workshop had taught her the importance of trusting someone new gradually. The other four women who answered affirmatively did not identify anything specific: As one said, "Everything was just helpful. [The workshop] made me stronger."

The responses to the workshop evaluation questions suggest that participants enjoyed the workshop, and that it was a positive emotional experience. But the responses reinforce the quantitative analysis of the outcome measures by suggesting that they did not retain specific information on reducing risk.

Discussion

The six-month follow-up assessment did not yield any convincing evidence that the workshop in sexual assault risk reduction had an effect. Out of 12 outcome variables, just one showed a statistically significant effect of the intervention, a result that could well be attributed to chance given the number of tests we ran.

There were some more favorable trends among the women assigned to the workshop. Women assigned to the intervention group tended to improve relative to the control group on measures of post-traumatic stress from the baseline to the follow-up assessment. This trend was observed for each of the five subscales and for the overall post-traumatic stress measure, but did not approach statistical significance except on the sleep disturbance subscale. Similarly, women assigned to the treatment group improved relative to controls on the measure of confidence in their ability to handle potentially dangerous situations, but again, the narrowing in scores for the two groups was not close to attaining statistical significance.

In spite of these favorable trends, there is little reason to think that the intervention reduced repeat victimization. There are five measures that are arguably the most important to testing the effects of the intervention. The measure of sexual assault knowledge is the key proximate measure since the workshop is essentially educational in nature, seeking to give women a better understanding of sexual assault risk factors. Shifting attributions for assaults from one's character to one's behavior is an essential step in realizing that women can alter their risk by how they act in the world. More cautious behavior in encounters with men is the means through which the workshop

hoped to lower participants' risk of being assaulted again. The most significant ultimate measure is, of workshop, revictimization.

On none of these critical measures was there a suggestion of an effect of the workshop. Curiously, knowledge scores for both groups were *lower* on the follow-up than the baseline assessment, perhaps because by this time they had been out of treatment at the rape crisis program from which they were recruited. Without an increase in knowledge of risk factors, it would be hard to argue that the intervention could affect any of the other key measures of women's attributions, behavior, and revictimization.

Why Did the Intervention Show No Effect?

First, let us consider the possibility that the intervention was successful, but we simply could not detect it with the methods we used. The study did suffer from limitations that could have obscured effects even if the intervention were successful. The intended sample size of 120 cases was small, but designed to be sufficient to detect a moderate effect size with a good degree of statistical power. The power considerations were based on the Marx, et al. study, the most recent similar field test at the time this study was designed. However, the actual sample size attained was only 82, substantially less than the target. Even more significantly, the attribution and dating behavior measures were administered to small subsets of the 82 women, rendering these measures far less sensitive than they would have been had they been available for the entire sample. Most of the outcome measures were designed for college students and simply did not apply to our population very well. Either the measures were skipped for women to whom they did not apply (the Dating Behavior Survey) or they were modified and suffered from

loss of reliability and validity. Note, also, that most of these studies of interventions with college students who had been previously victimized showed no effect of brief interventions. The only study that did show a positive effect showed that effect only for rape, not other forms of victimization. We did not test separately for rape because the number of women who experience rape was, fortunately, too low to conduct an analysis..

A post-intervention assessment administered immediately after completion of the prevention workshop might have detected how well participants absorbed the material. Researchers and clinicians feared, however, that an immediate assessment following the second evening of the two hour workshop would prove too demanding on the participants and might keep the participants out later at night than was comfortable for them. Furthermore, as Morrison et al. (2004), in their review of the effectiveness of sexual assault prevention programs, point out, immediate post-tests following too closely after the intervention may show ephemeral effects and demand characteristics. They recommend, and decry the absence of, longer follow up assessments: “most studies...fail to evaluate how long attitudinal and behavioral effects last by conducting follow-up assessments over the long term” (p. 14).

It would have been interesting to know, however, whether there might have been an effect of the intervention on knowledge of risk factors that faded over time by conducting an assessment a month after the intervention. If we had found that result, it would imply different strategies for designing a more successful version of the workshop. That time period might not have allowed for measurement of revictimization, but could have allowed for measurement of knowledge and attitudes. If the material was absorbed, but only temporarily, then a more successful workshop might include “refresher”

sessions. Without the intermediate assessment, we do not know whether the material was absorbed and lost, or never absorbed at all.

These measurement shortcomings notwithstanding, the absence of an effect on critical measures makes it reasonable to conclude that the workshop did not produce the intended effect of changing the way the women approached risky situations. This result could indicate implementation problems or that the design was inappropriate for this population. We were unable to observe workshop sessions because the facilitators were concerned that the presence of a researcher in such a small group would make women uncomfortable or inhibit their participation. As such, treatment fidelity was not measured or compared across sites.

Additionally, there were some differences between our intervention and the one used by Marx et al. (2001) that might have mitigated the effectiveness of the program. Our groups were comprised of 3-5 individuals, whereas Marx had 5-10 participants per group. The opportunity to learn among a larger group of women might have made the sessions feel more like an educational workshop as intended and less like group therapy—a distinction that needed to be gently reinforced by the workshop facilitators on occasion. It is also possibly that a larger group may have made clear to the participants that their situation is not uncommon, thus further underscoring the importance of developing proactive risk reduction strategies.

Survivors also might be more amenable to listening to a peer who has lived through a similar experience than two counselors using a more educational approach. Perhaps a facilitating team comprised of a counselor and a survivor would have balanced such alternating needs.

Alternatively, there is also the possibility that the smaller group size interfered with the lessons of the workshop itself. “Advice giving” by participants was a problem that the facilitators sought to control, especially when it came from a different model of risk reduction (such as 12-step programs), as well as individuals disclosing current and past trauma that impeded delivery of the information and risked traumatizing other participants. Because of the small size of the group, it was difficult to keep a didactic focus and the women spent more time on self-disclosure than would have been possible in a larger workshop. Additionally, the time spent recounting past experiences may have raised feelings of sadness or anxiety that compromised women’s ability to fully absorb the content of the workshop. .

Furthermore, Marx et al. (2001) gave women a worksheet where they were asked to identify the malleable risk factors from their own assaults and then discussed them in class. The fact that women had to closely examine their own personal risk factors and then talk publicly in the group about other strategies they could have used then, and could use now, might have made the intervention more salient for women. Reflecting on a personal experience is different from using an example from someone else’s life that then becomes abstract in learning new behaviors and applying them to your daily life. The concern of the sexual assault program staff involved in reviewing drafts of the intervention precluded giving an exercise that forced participants to consider alternative behaviors which, the exercise suggested, might have helped them avoid their previous assaults. The program staff felt that this exercise as originally designed would increase the feelings of self-blame that are already a problem among sexual assault survivors. Marx’s exercise, however, if it had been included, might have further driven home the

message that changes in individual behavior can alter personal outcomes.

The other possibility is that the concept of a psycho educational workshop itself is flawed. Recently published research suggests that brief educational formats may not be sufficient to change the ability to identify and respond to risky social situations. Yeater and Donohue (2002) found that it took longer than they expected to train college women to a pre-set criterion in a workshop with material similar to the material we used. It took most women more than one session to master the material. This finding confirms the absence of an increase in knowledge of risky situations after brief training in this study, and may suggest that lengthier class time is needed for participants to master the lessons of the workshop. This explanation makes sense: the increased risk faced by the women in our study resulted in part from their experiences and psychological development over many years. Expecting a substantial impact from a few hours of training after a lifetime of sexual abuse is overly optimistic.

Yeater and Donohue also question whether an “information-processing model of social competence” is a valid approach to altering the processes involved in sexual victimization. In other words, it may be that a model that promotes learning is not sufficient to bring about significant behavioral change. A fair reading of the studies on workshops to reduce risk of sexual victimization does not give reason for optimism. It is true that Marx, et al. (2001) did find an effect. But four other studies in the literature and this one did not find any consistent effect of an education-based approach on victimization.

We worked with a population of women who were considerably older than the typical college student, who had less freedom to make choices about living situations.

Although our sample was well educated, a number of women were experiencing severe problems. Many of the women were unemployed, some were in abusive relationships, and others had recently left abusive relationships and were living in emergency shelters at the time of the baseline interview. Some participants were so traumatized by their previous assaults that they rarely leave their apartments. Indeed, one participant is unable to enter a room with unknown men present. Participants may not have had the capacity at this time to integrate the lessons of the workshop into their daily lives, or could have had more immediate concerns to address such as finding childcare, medical treatment, an apartment, or a job.

Furthermore, although the original intent was to recruit the sample from among women in sexual assault counseling – presumably a more stable population that has a higher capacity to translate cognitive information into changes in behaviors -- these sources actually contributed 60 percent of the overall sample¹⁰. Although other participants received treatment within the last few years, the number of women currently in therapy is unclear since it was not measured. Women recruited through ads may have been more motivated by the financial incentive.

If we accept the premise that a degree of emotional stability may be a prerequisite to absorbing the cognitive content of a risk reduction workshop, then the question becomes what that means for intervening with victims of sexual assault. It may suggest that brief educational workshops are appropriate only for women who are stable,

¹⁰ In this regard, our experimental design was problematic: some of the counselors were only willing to refer clients to the study (and some of the potential participants were only willing to consent) if they could be guaranteed they would get the intervention. They saw the intervention as a possible help to them, but the assessment without the intervention as a possible harm. Therefore, the experimental design may have eliminated some of the most motivated women.

functioning well, and thus able to make changes in their lives and behaviors. The key then becomes developing ways to assess the appropriate levels of stability and social functioning. This would imply that future studies should use stricter criteria in screening participants to ensure that they are at a place in their lives where they have the time and resources to enroll in a risk reduction workshop, and recruitment should stress the benefits of participation over monetary incentives.

For victims who do not yet have the capacity or circumstances to absorb the lessons of a risk reduction course or to translate information into changes in behavior, intensive therapy may be necessary to bring about stability. So, in a sense, we have come full circle, initially arguing for a brief prevention workshop as a way to keep women safe while they undergo intensive therapy and concluding that therapy may often be needed to prepare women to benefit from a prevention workshop. There is clearly a role for both approaches: the key is to figuring out how to make them complement each other in the most advantageous way. Finally, we should keep in mind that most studies have not found an effect of brief interventions for child and adolescent sexual abuse survivors. The Marx et al. study that this research adapted did find an effect that applied only to rape, not other sexual violence, and it has not been replicated.

Some of the lessons we may take from this study are that more attention needs to be paid to learning principles, including the role of repetition; that we need better measures of sexual assault attitudes, knowledge and experiences that are not normed on college students; and that we need more effective interventions for women who are in intimate partner relationships or co-parenting with abusers. A conclusion that calls for more research is trite. While this study showed an example of an intervention that did not

impact the likelihood of future victimization, there is little empirical research illustrating how to accomplish this goal. One firm conclusion that this study reached is that multiple sexual assaults have devastating psychological consequences for victims. Learning more about how to prevent such events from happening remains a moral imperative.

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APPENDIX A

Phase I Interview Instrument & Sample Analysis

Phase One Interview Instrument

QUESTIONS FOR SEXUAL REVICTIMIZATION IN-DEPTH INTERVIEWS

INTRODUCTION/PREAMBLE:

Before we begin the interview, do you have any further questions about the consent form?

I remind you that we are tape recording this interview. You don't have to answer any question that you don't want to and can stop the interview altogether at anytime. If you want to pause the tape or take a short break, just let me know. If you start feeling upset, there is a counselor on hand to help you out. Please let me know as soon as you feel you might need to talk to her. It is really important that you are truthful in answering the questions that you do choose to answer. If you feel that you can't be truthful, then please skip the question.

In this interview, I will be asking you some questions about your experience of sexual assault and about the person who sexually assaulted you. How would you like me to refer to this person during the interview (by name or first initial, as "the man who assaulted you," some insulting term, etc.)? Please understand that the following questions about your relationship to X, the circumstances surrounding the assault, and your leisure activities are designed to help us understand risk factors. In no way do they reflect on you or imply you have any responsibility for what X did to you. Rather, they are to help us understand people who are sexually abusive and how they operate.

Note to interviewer: For participants who experienced more than one assault at age 15 or older, we will ask them about their two most recent assaults. We will first ask them questions 1-16 regarding the earlier assault. We will then repeat questions 1-16 regarding the most recent assault before continuing with the remainder of the questions (#17 to the end).

I. Sexual Assault(s)

Knowledge of Assailant

1. Did you know the man who assaulted you prior to the assault? (If no, skip to question number 4.) If yes, what was your relationship to him?

Seen him before
Acquaintance

Co-worker/classmate

Authority figure (boss, teacher, minister, friend of parents, etc.)

Friend

Partner/Ex-partner

Relative

How well did you know him, and how did you feel about him? (Probe for the nature of the relationship: Did she know his first and last name, did they have friends in common, did her family know him, how long had she known him?)

2. (If not a former partner or partner) – Had he shown interest in you? (Was he “after” you? Had he “come on” to you?) If so, how was he pursuing you? (Tried to meet you alone? Had he called you? Talked to others about you?)
3. Was there anything about the man who assaulted you that concerned you before the assault? (Had he done anything in the past or that evening/day to make you uncomfortable? Did he have a reputation that you knew about? What kind of reputation? Probe for history of violence.)

Location/Physical Setting

4. Please describe where the assault took place. (Probe for indoors/outdoors, public/private area, type of place – e.g., your home, his home, home of mutual friends; bar; park, roof, street.)
5. What were you doing? (Walking home, meeting friends, hanging out...) What was he doing? Do you know how X ended up in the same place where you were?
6. Tell me about your use of drugs or alcohol immediately before the assault. (If she used, probe for quantity of drugs and alcohol and type of drug; was this more than she was used to? Had she used this type of drug before or was this the first time she had tried it? Was she intoxicated? Who gave her the drugs or alcohol – did X have anything to do with supplying them?)
7. Tell me about X’s/his use of drugs or alcohol. (Probe for how she knew if drugs or alcohol were being used, how she could tell if the man who assaulted her was intoxicated or not, if she knows who provided him with drugs or alcohol.)

Social Context

8. Who were you with before the assault? (Probe for alone or with others; men/women, older, younger, etc.)
9. Who was he with before? (Probe for alone or with others.)

10. What relationship did you have with others in the area? (Probe for friends or acquaintances of either hers or the offender's.) What were they like? Had they been drinking or using drugs? Do you know if any of them had a criminal history or had been in trouble with the police (been arrested, charged with crimes, or convicted, or served time in jail)?

Events immediately preceding and during the assault

11. Who may have witnessed or been aware of the assault? (Probe for relationship of possible witnesses to her or to the man who assaulted her.) What was the behavior of any others who may have been around during the assault?
12. What went on between you and X immediately before the assault? (Probe for remarks he made to her, conversation they had, his mood before the assault; how much attention was he paying to her, anything he did to her, was he touching her?)
13. What did he do just before the assault? (Probe: Did you suddenly find yourself alone with him, for example? How did that happen?)
14. At any point, did you feel you might be in danger? If so, when did you know you were going to be sexually assaulted? (Probe for use of physical force, threats, verbal persuasion or other forms of coercion.)
15. A. Do you recall whether you said anything to him during the assault? What, if anything, did he say to you? (Probe for what words were exchanged, if and how she tried to resist, how he responded to her words or actions.)

B. How about immediately after the assault?
16. A. What were you feeling or thinking during the assault? (Probe for emotions or lack of emotions, fear, anger, confusion. Particularly probe for traumatic stress and dissociation responses: did you feel numb, like you weren't really in your body or you were just watching?) (Be open to the possibility that she doesn't remember anything, was drugged or inebriated and go on to B.)

B. How about immediately after the assault?

For second assault after 15, return to Q1.

II. Everyday Life and Routines

Exposure to risky situations

The next set of questions is about your living situation and everyday routines and how you spend your free time. Again, I want to remind you that we are asking these questions not so much to find out about your habits and living situation, but to find out about sexually abusive men and where a woman might encounter them. The following questions refer to the time of the most recent assault.

17. Tell me what your neighborhood was like. (Probe for how safe she felt, how familiar she was with her neighborhood and surrounding areas, criminal activity that may have occurred there.)

Has this changed since the assault?

18. Tell me about your home and home life at the time of the assault. Did you live alone or with others? If others, who? Were there people you were not related to in your household? How old were they? Were there often people who didn't live there hanging around or staying over? Were there parties? Did people who lived in your household drink or use drugs? Did you feel safe there? Has this changed

Has this changed since the assault?

19. A. Where did you go around the city on a regular basis at the time of the assault? (Probe for work, school, family visits, friends, entertainment, shopping or doctor, daycare, etc...) What boroughs or neighborhoods did you travel to?
- B. When did you make these trips – what time of day or night? What time did you usually get home on a weeknight? On a weekend?
- C. How did you usually get to these places? (Probe for walking or public transportation, if she used different ways depending on where she is going and time of day or night, how she traveled if alone or with others, did she ever feel unsafe while traveling around?)

Has this changed since the assault?

Now I am going to ask you about how you spent your free time at the time of the assault?

20. Tell me about your experiences hanging out with friends. (Probe for a few specific occasions. Who were they? Was it a big group or a small group? Mixed group or mostly women or mostly men? Were there people in the group you didn't know? Where do you usually hang out with friends? What do you do? Did she drink? Use drugs? Become intoxicated? Were others she was with drinking, using illegal drugs, intoxicated or carrying weapons?)

Has this changed after the assault?

21. IF BARS/CLUBS NOT COVERED IN 20: Tell me about your experiences in bars or social clubs at the time of the assault. Who did you go with? How long did you stay? Did you go from one to another or stay in one the whole night? (Probe for a few specific stories, why she went, whether she went alone or with others, if she used drugs or alcohol, if she became intoxicated, if others she was with were intoxicated or carrying weapons.)

Has this changed after the assault?

22. IF PARTIES NOT COVERED IN 20: Tell me about your experiences at parties. How often did you go to parties at the time of the assault? How well did you know the person who gave the party? How long did you stay at the party? How big was it? Did you go with people? Did you leave with the same people or other people? (Probe for a few specific stories, why she went, how often she went alone or with others, if she used drugs or alcohol, if she became intoxicated, if weapons were present, if others she was with were intoxicated or carrying weapons.)

Has this changed after the assault?

III. Relationships and encounters

- 23. PREAMBLE: Now I am going to ask you some personal questions – about your sex life. Remember that you can decline to answer any question that makes you uncomfortable. Also, remember that we are asking these questions not to find out about you, really, but to find out about sexually abusive men and how you might have been exposed to them – how they find their victims.**

How many consensual sexual partners did you have in the six months prior to the assault? That is, how many different people did you have sex with when you chose to be sexual with them? (Probe for how she met them, whether she knew anything

about them, how they spent early times out together.)

How many consensual partners did you have in the past six months?

IV. Friends' social life

Now I'd like to ask you the last few questions again but about a woman you feel close to who is 18 years old or older and that you hung out socially with at the time of the assault. I don't want to know who they are specifically, but it should be someone you spend social time with. What is that person's first initial? How much time did you spend with her on a weekly basis?

24. Tell me about how much time she spends hanging out with friends. What do they usually do? Where does she spend time with her or his friends? Does she usually drink or use drugs? Does she get drunk or high? What do you know about her friends? Do they have a criminal history that you know of? (Have they been in trouble with the police, arrested, charged with crimes, or convicted, or served time in jail?) Has she been a victim of violent crime? Does she carry a weapon?
25. IF BARS/CLUBS NOT COVERED IN 24: Tell me about how often your friend goes to bars or clubs. Whom does she/he go with? How long does she/he stay? Does she/he go from one to another? Does she/he leave with the same people she/he went with or others? (Probe for a few specific stories, why she/he would go, how often she/he went alone or with others, if she/he used drugs or alcohol, if she/he became intoxicated, if others she/he was with were intoxicated or carrying weapons.)
26. IF PARTIES NOT COVERED IN 24: Tell me about your friend and parties. How often did you think she/he goes to parties? Does she/he go to parties given by people she/he doesn't know? How long does she/he stay at parties? Does she/he go with people? Does she/he leave with the same people or other people? (Probe for a few specific stories, if she/he used drugs or alcohol, if she/he became intoxicated, if weapons were present, if others she/he was with were intoxicated or carrying weapons.)
27. How many consensual sexual partners do you think this friend has had in the past six months? That is, how many different people did she/he have sex with? (Probe for relationship to each of them, how well she/he knew them. Were any of these partners people she/he "picked up" at bars or parties?)

Are you still close with this friend? If yes, skip to question 32. If no, ask questions 28-32.

Now, I would like you to think of another woman friend you spend a lot of time with now. This person must be 18 or over. What is this person's first initial? About how much time do you spend with her, on a weekly basis?

28. Tell me about how much time she or he spends with friends. What do they usually do? Where does she/he spend time with her/his friends? Does she/he usually drink or use drugs? Does she/he get drunk or high? What do you know about her or his friends? Do they have a criminal history that you know of? (Have they been in trouble with the police, arrested, charged with crimes, or convicted, or served time in jail?) Has he or she been a victim of violent crime? Does he or she carry a weapon?
29. IF BARS/CLUBS NOT COVERED IN 24: Tell me about how often your friend goes to bars or social clubs. Whom does she/he go with? How long does she/he stay? Does she/he go from one to another? Does she/he leave with the same people she/he went with or others? (Probe for a few specific stories, why she/he would go, how often she/he went alone or with others, if she/he used drugs or alcohol, if she/he became intoxicated, if others she/he was with were intoxicated or carrying weapons.)
30. IF PARTIES NOT COVERED IN 24: Tell me about your friend and parties. How often did you think she/he goes to parties? Does she/he go to parties given by people she/he doesn't know? How long does she/he stay at parties? Does she/he go with people? Does she/he leave with the same people or other people? (Probe for a few specific stories, if she/he used drugs or alcohol, if she/he became intoxicated, if weapons were present, if others she/he was with were intoxicated or carrying weapons.)
31. How many consensual sexual partners do you think this friend has had in the past six months? That is, how many different people did she/he have sex with? (Probe for relationship to each of them, how well she/he knew them. Were any of these partners people she/he "picked up" at bars or parties?)

V. Services received

32. Please tell me about services you have received in relationship to sexual assault or other trauma or psychological issues. (Probe for: crisis counseling, group or individual therapy, psychotropic medication, treatment by psychiatrist, psychologist, clinical social worker; length and timing of therapy; treatment for alcohol or drug abuse.)

VI. Open-ended

33. What would you say to a woman who has been sexually assaulted to help her avoid another assault? If you were in charge of a program to help women who were sexually assaulted avoid additional victimization, what would you include?

34. Is there anything else that we haven't covered that you think would be important for us to know about the assault?

The interviews conducted in Phase I examined in detail the events leading up to survivors' sexual assaults, their relationships with their assailants, their reactions during the assault, as well as information about dating, friends, and recreational activities. Researchers used the information gathered in these interviews to adapt the intervention for an urban population, focusing primarily on the events and circumstances that took place just prior to the assault itself. Although these interviews typically lasted for about 90 minutes and the transcripts of each interview fall between 20-40 pages, the chart below focuses specifically on the situational and environmental factors that researchers used to look for patterns in assault histories. All interviews took place in New York, except for those that have a case number ending in "S," in which case they occurred in Seattle. "V" stands for victim and "P" stands for perpetrator.

Case number	Relationship	Violence history	Drug/alcohol use	How was victim isolated?	Bystanders present?	Force /Coercion used	Victim reaction
1	Stranger	unknown	V was "a little intoxicated"	Attacked in hall outside her apartment	No one in hall	Perpetrator may have had knife	Victim blacked out
2	Boyfriend	Violent with Victim, criminal history	Perpetrator was "on drugs"	Perpetrator and others accosted Victim when she was coming out of store and took her to a park	Yes, outside store	Physical force, stick	Tried to get help from people on street
4	Sister's boyfriend	Known DV & criminal history	Both drinking, V was "wasted"	V went from porch to bedroom to sleep	Sister in house	Perpetrator overpowered Victim	Said no repeatedly
5	Friend of a friend	Unknown	P gave V "medicine" for cold. V was "woozy"	V invited P to dorm room when everyone else at dance	None	Some physical force, plus "persuasion and coercion"	Unsure, thinks she may have screamed
6	Two friends	Both had had trouble with law	P drank, V did pot. None were high	V invited Ps to dorm room. Flirtatious talk got out of control	Probably others in dorm	Groping, fondling	Tried to fight them off; screamed, ran out of room. Ps fled
7	Stranger	Unknown	None	V grabbed walking to bus stop, pulled into isolated place	Houses apparently nearby	Threat to kill	Unsure of reaction. P fled when bystanders approached
8	Boyfriend	Unknown	None	P invited V to his house. No one else home	None	P overpowered V	V said "stop", yelled, pushed P
10	Father	Had assaulted V before	P was drinking	P called her into his room	7 year old sister was home	Groped, ripped off shirt	V told him to stop, ran out of the room
2-S	Friend	Unknown	V,P, & friend all drinking. V "passed out"	Incident took place at P's home. Friend left after V passed out	Friend left before incident	V unconscious	V unconscious
3-S	Seen at school	Unknown	None	V went to P's home on errand for friend	None	P dragged V upstairs, held her down	V asked P to stop
6-S	Stranger	Unknown	Interviewer did not ask	P accosted V in hall of restaurant, pulled her into bathroom	People in restaurant, but not bathroom	P pushed V into stall, groped her	V fled from bathroom

Case number	Relationship	Violence history	Drug/alcohol use	How was victim isolated?	Bystanders present?	Force /Coercion used	Victim reaction
7-S	V was P's babysitter	Unknown	None	V & P alone in house, maybe with young kids. P called V into his room	No adults in house	P grabbed V, forced himself on V	V asked P to stop
9	Stranger	Unknown	V & P both "high" on crack	P invited V into his van, drove her to alley	5-6 men standing on corner	P beat, stomped V	V screamed. Bystanders didn't help, but P took off
11	Spouse & friend	Spouse was violent, DV history & previous murder	All three were "high" on drugs	V was home alone with P's	None	V was taken by surprise, afraid to stop because spouse might get violent (had in the past)	Felt very upset and bad about it for days
12	Stranger	Unknown	None	P picked up V hitching, 2 others joined him in car	No one other than Ps in apt	Ps carried V up to apt, pulled gun	V screamed, tried to con P, reasoned with P
13	Friend	unknown	None	P invited V to go to apt after group outing	No one in apt	Flirtation began, P wouldn't let V leave	Tried to leave, ran out once he climbed off of her
14	Knew V's friend/customer	unknown	None	V went to P's hotel room with her friend	V's friend	P talked about sex, got on top of V	V started crying
16	Co-worker	Unknown	None	V invited to P's apt	No one else in apt	Sitting on bed kissing, P kept going after V said no	V said no
17	School acquaintance	Unknown	V "tipsy" from 6 beers. Also, P drugged her	Incident took place at outdoor party at someone's home	Partygoers present	P undressed V, got on top of her	V told P to stop, called for help, tried to fight back
20	Stranger	Unknown	None	V attacked in empty subway station	None	P pushed V against wall, fondled her	V said stop. P ran off.

APPENDIX B

RISK FACTORS WORKSHEET Dealing with men who cross the line

(To be completed at the end of Day 1)

I want to do an exercise with you to think about how to apply some of the ideas we talked about in today's session to situations that come up in your life. I want you to think about a dating or sexual situation with a man in which you felt uncomfortable or felt things were going wrong and you weren't sure how to get out of the situation.

Do you have a situation in mind?

(1) In the situation you've picked, can you write down on the worksheet what he did that made you uncomfortable? Did it change how you felt about him or how you saw him?

(2) What was there about the situation that made it unsafe for you? Did he change the situation so that it became risky?

(3) Given what we have talked about over these two hours, what might work? Or what might not work? What are alternative responses? Please try to think of *all* the possible options you might have in this kind of situation.

(Lead a discussion of participants' responses to each of the three areas, encouraging creative problem-solving actions.)

CROSSING THE LINE WORKSHEET

(1) Observations about the man who made you uncomfortable. How did he cross the line? What did he do that made you uncomfortable? How did your perception of him change?

(2) Observations about the situation. What about the situation made it unsafe? Did he change the setting or scene? Did he persuade you to go somewhere or do something that made the situation riskier?

(3) Observations about your responses and alternatives. What did you think and what did you do when you become uncomfortable? What are all the possible responses?

APPENDIX C

VIGNETTE EXERCISE

FACILITATORS: (Do not give this document to participants.) These stories are based on some of the Phase 1 interviews. Identifying details have been removed, and a few of the facts have been changed. In the intervention, in order to steer the conversation away from judging or blaming survivors, we do not tell the participants that these are actual encounters that preceded sexual assaults. The purpose of this exercise is to give participants the opportunity to analyze risky situations, identify the three factors that go into a sexual assault, brainstorm possible strategies women might use to avoid assault, and role-play these strategies. This exercise should be used at the end of Day 2 of the intervention. Facilitators should use at least one or two stories in each category: stranger, acquaintance, and partner.

INSTRUCTIONS TO READ ALOUD:

“Now we will read some short descriptions of encounters between a woman and a man. We are going to analyze them by talking about the three factors that go into a sexual assault: 1) a sexually abusive man, 2) a risky scenario, and 3) a vulnerable woman.”

“We are going to talk about

- 1) the man’s behavior and how he changes the scenario to make it dangerous.
- 2) Next, we are going to think of possible strategies that a woman might use in these situations.
- 3) Finally, we are going to role-play the encounters, using the different strategies we have identified.”

Stranger:

1. A woman has just visited some friends and is on her way home, walking toward the bus stop. A man is there, but she can’t see him before she is very close to him. He asks her for a light. There aren’t a lot of other people around.

2. A woman is visiting some friends. When she’s walking with a group of them, one of her friends points out a man who is walking by and casually introduces him to the group. A little later, the woman is heading home, and the man is coming out of a store. He asks her to hold the door of his building for him.

Acquaintance/Friend/Date/Co-worker:

- 1.** A woman is at home when her sister's boyfriend comes over and brings liquor. A neighbor comes over, too. The woman's sister isn't there. The woman, her sister's boyfriend, and the neighbor all sit on the porch and drink. The woman's sister's boyfriend touches the woman's leg a couple of times.
- 2.** A woman goes to a concert with her ex-boyfriend and another male friend of theirs whom the woman had hooked up with a few weeks before. First, the new guy starts kissing her. She isn't comfortable kissing him in front of her ex, and she tells him she isn't into it. Then, the two men start joking about which one is going to sleep with the woman. After that, the two men say they want a threesome.
- 3.** A woman's friends are all out at a party, but she is home with the flu. Her best friend's ex-boyfriend comes over and brings some medicine that makes her woozy. He begins telling her that his parents don't love him and have abandoned him, and she is so beautiful, and...
- 4.** A woman is at a nightclub with some female friends. They are all drinking and having fun. A man comes over and asks the woman to dance. They dance all night, talk in the corner, really hit it off, and he seems like a perfect gentleman. He asks her if she wants to go to his house. The two of them leave together. She isn't sure if she is going to go all the way, and she makes it known to him because she is seeing somebody. He says, "We can just talk, whatever." At his apartment, he makes it known that he wants to have sex. She tells him, "I don't know you like that." She isn't sure. To her, the main problem is that he doesn't have any condoms. She tells him they would need protection, and he tells her he doesn't use condoms. They are about to have sex, and she tells him to get a condom. Then he says, "I'm clean; it doesn't matter if we have a condom."
- 5.** A woman knew this guy in high school. He really liked her, but he was a real doormat, and he tried too hard. She told him she wouldn't go out with him until he got some self-respect. Seven years later, he is back in town and begs her to give him another chance. They go out to dinner. They were going to see a movie, but he says there aren't any movies he likes in the theater. So they rent one. They go back to his place, which is way out of town. She doesn't know how to get there. When they are watching the movie, he keeps staring at her, and he keeps getting closer and closer. Soon, he is all over her.
- 6.** A woman and her co-workers and all hang out together. There is one man who is after her. He is polite but too persistent. She isn't interested in him in that way. He always sits next to her and tries to hold her hand. After a few months, he asks her over to his house. They watch TV with his roommate. He shows her the rest of his house. They sit on his bed and look at pictures. He starts kissing her, and she doesn't want him to.
- 7.** A male acquaintance tells a woman that he wants her to have sex with his friend, that

she could earn some money that way. She says she doesn't want to, and he keeps bringing it up, saying that she is stupid not to do it.

8. A male neighbor is hitting on a woman, and she isn't interested. He keeps saying that he knows that she is giving it to other guys, and why doesn't she want to give it to him?

9. A woman is working at Coney Island and meets this guy who is her co-worker. They date for a while and then break up. Then her friend starts dating him, and they all hang out sometimes. One time they are at the female friend's house, all of them drinking. The female friend goes out to get some more liquor, so the woman and her ex-boyfriend are alone in the apartment. He tells her that he wants to get back together, and she says she doesn't want to. He keeps saying he wants to get back together. He won't drop it, and he starts trying to kiss her.

10. A woman goes to a house party with a group of friends. They are all drinking, and she feels drunk. She starts feeling pretty tired, like she wants to lie down. Then she notices that this guy is staring at her, looking at her up and down.

11. A woman's car is in the autobody shop for some repairs. She goes to the autobody shop to check on her car, and the shop owner seems to be the only one there. He is talking with her, trying to flirt with her. She gets in her car, and then he gets in, too.

12. A woman is with some co-workers and a male acquaintance at a diner. After they are done eating, the male acquaintance asks the woman if she wants to see his apartment, which is right next door. Everyone else goes home, and she goes to his apartment. He is flirting. He gets her on the bed between him and the wall.

Male Partner/Boyfriend/Husband:

1. A woman's boyfriend and friends of his come over while she is cleaning, and she accidentally hits her boyfriend with a mop. He gets really angry at her, as if she had done it on purpose. He starts chasing her.

2. A woman and her husband have parties at their apartment with some other people. He begins telling her to have sex with the other men to get drugs.

3. A woman is pregnant, and her doctor says that she should take it easy, rest, lie down often, and not have sexual intercourse for the last several weeks of the pregnancy. Her husband is okay with that at first. Then, he starts getting pushy and talking about how his needs aren't being met.

4. A woman's husband was abusive to her. She divorced him, and they now live in different boroughs. Lately, he's been contacting her and trying to get her to come over to his house.

APPENDIX D

BASELINE ASSESSMENT BATTERY

Interviewer(s): _____ Participant ID #: _____

Date:

Condition: E C T1 T2

Referral source:

City: NY Seattle

I. DEMOGRAPHIC BACKGROUND

What is your age? _____ years

What is your date of birth? _____

What is your current marital status?

- Single
- Married
- Common Law
- Divorced
- Separated

What is your current employment situation? (check all that apply)

- Employed, full-time
- Employed, part-time
- Homemaker
- Seasonal/temp worker
- Looking for work
- Unemployed
- Student
- Disabled

What is the highest level of education you have completed?

- 8th grade or less
- Some high school
- High school graduate/GED
- Some college or vocational school
- College graduate (BA/BS)
- Graduate/professional school

How do you identify yourself in terms of race and ethnicity? CHECK ALL THAT APPLY

- African descent/African American
- European descent/White
- Latina/Hispanic
- Asian/Pacific Islander (China, Thailand, Philippines, etc.)
- Middle Eastern (Arab, Israeli)
- South Asian (India, Pakistan, Bangladesh, etc.)
- American Indian or Alaskan native
- Other: _____

II. Attitudes, Beliefs, Experiences

A. REVISED S. A. A. SURVEY – True False

DIRECTIONS: Please indicate whether each of the following items is true or false.

1. Heavy alcohol use is associated with acquaintance rape.
a) True b) False
2. Women are more likely to be assaulted by a stranger than by someone they know.
a) True b) False
3. Rapists usually have a certain look about them.
a) True b) False
4. It's rape only if a woman physically resists.
a) True b) False
5. Women who dress suggestively are at greater risk for rape than women who dress conservatively.
a) True b) False
6. If you are attacked by your date, it's safer just to go along with it.
a) True b) False
7. Women stand a greater chance of being raped if they "sleep around."
a) True b) False
8. If a woman is unconscious and a man has sex with her, it is not considered rape.
a) True b) False

9. Men who rape tend to think that women who have been drinking are sexually 'available.'
- a) True b) False
10. A woman can be raped by her husband.
- a) True b) False
11. Women whose friends "sleep around" are more likely to be raped.
- a) True b) False
12. Rapists are more likely than other men to make sexist remarks or condone violence toward women.
- a) True b) False
13. Women who have been sexually assaulted have a greater chance of being assaulted in the future than do other women.
- a) True b) False
14. Men who rape tend to be overly persistent, always seeming to want things their own way.
- a) True b) False

II. B. DATING BEHAVIOR SURVEY(R)

DIRECTIONS: The following questions refer to relationships with men you have gone out with or been involved with in the past six months. Please indicate whether each of these situations has happened to you with a man during that time.

Screening Questions:

- A. Have you been in a monogamous relationship for longer than the past 6 months? Yes No**
If yes, skip this questionnaire (go to section III). If no, go to B.
- B. Have you dated or socialized with a particular man or men in the past 6 months? Yes No**
If yes, please complete this questionnaire. If no, go to C.
- C. Do you avoid dating or going out with men for safety reasons? Yes No**
Please skip the rest of this questionnaire and go to section III.

1. The first few times we went out, he got drunk or high.
 - a. Never happened with any man in the past 6 months
 - b. Yes → How many men did this happen with? ____ one ____ two-three ____ four or more

2. The first few times we went out, I got drunk or high.
 - a. Never happened in the past 6 months
 - b. Yes → How many men did this happen with? ____ one ____ two-three ____ four or more

3. The first few times we went out, we spent time alone together in a place where no one else was present.
 - a. Never happened with any man in the past 6 months
 - b. Yes → How many men did this happen with? ____ one ____ two-three ____ four or more

4. The first few times we went out, we spent part of the time fooling around or having sex.
 - a. Never happened with any man in the past 6 months
 - b. Yes → How many men did this happen with? ____ one ____ two-three ____ four or more

5. The first few times we went out, I tried to do something that included other people.
 - a. Never happened with any man in the past 6 months
 - b. Yes → How many men did this happen with? ____ one ____ two-three ____ four or more

6. Before I went out with a man for the first time, I tried to find out something about him.

- a. Never happened with any man in the past 6 months
 - b. Yes → How many men did this happen with? ____ one ____ two-three ____ four
or more
7. I left a party or bar with a man I met there.
- a. Never happened with any man in the past 6 months
 - b. Yes → How many men did this happen with? ____ one ____ two-three ____ four
or more
8. I went out with a man who had a bad reputation.
- a. Never happened with any man in the past 6 months
 - b. Yes → How many men did this happen with? ____ one ____ two-three ____ four
or more
9. I continued to go out with a man who was abusive toward me.
- a. Never happened with any man in the past 6 months
 - b. Yes → How many men did this happen with? ____ one ____ two-three ____ four
or more
10. I went out with a man who hangs out with a crowd that gets into trouble.
- a. Never happened in the past 6 months
 - b. Yes → How many men did this happen with? ____ one ____ two-three ____ four
or more
11. I allowed a man to touch me when I really didn't want him to because I was too uncomfortable to tell him to stop or I wanted him to like me.
- a. Never happened with any man in the past 6 months
 - b. Yes → How many men did this happen with? ____ one ____ two-three ____ four
or more
12. I allowed a man to touch me when I really didn't want him to because I was afraid of

what he

might do.

a. Never happened with any man in the past 6 months

b. Yes → How many men did this happen with? ____ one ____ two-three ____ four or more

13. I went with a man to his apartment, my apartment or somewhere similar alone with him but I wasn't interested in having sex with him.

a. Never happened with any man in the past 6 months

b. Yes → How many men did this happen with? ____ one ____ two-three ____ four or more

14. In response to unwanted touching by a man, I was assertive, clearly stating in some way that I did not want what he was doing.

a. Never happened with any man in the past 6 months

b. Yes → How many men did this happen with? ____ one ____ two-three ____ four or more

15. I have been in sexually uncomfortable situations where I found certain strategies to be effective in attempting to avoid assault.

a. Never happened with any man in the past 6 months.

b. Yes → Which strategies?

16. I have been in sexually uncomfortable situations where I found certain strategies to be ineffective in attempting to avoid assault.

a. Never happened with any man in the past 6 months.

b. Yes → Which strategies?

a. About how many times did it happen (age 13 to 17)?

1 2 3 4 5 or more

b. Please check the general nature of the contact (check all that apply):

- fondling or groping,
- made you touch their genitals,
- pornographic photos or videos taken,
- oral sex performed on you
- forced you to perform oral sex
- attempted intercourse or other penetration
- intercourse
- other penetration (fingers, objects, etc.)

c. Was the perpetrator a teen-ager adult

e. Did you know the person(s) involved? Yes No

If yes, please specify your relationship with the assailant(s) (e.g., parent, step-parent or parent's partner, uncle, friend of family, sibling or sibling's friend or partner, your friend or acquaintance, someone in neighborhood, teacher, boss, or other authority figure, etc.) _____

C. Adulthood

Sexual Experiences Survey - F (Adult)

1. From age 18 on, have you ever given into sex play (fondling, kissing or petting, but not intercourse) when you didn't want to because you were overwhelmed by continual arguments and pressure?

NO go to question 2

YES answer next two questions (Circle correct response)

- 1a. About how many times has it happened (from age 18 on)?

1 2 3 4 5 or more

- 1b. How many times has this happened in the past six months?

0 1 2 3 4 5 or more

2. From age 18 on, have you ever had sex play (fondling, kissing, petting, but not intercourse) when you didn't want to because someone used a position of authority (boss, teacher, supervisor, camp counselor) to make you?

NO go to question 3

YES answer next two questions (Circle correct response)

- 2a. About how many times has it happened (from age 18 on)?

1 2 3 4 5 or more

- 2b. How many times has this happened in the past six months?

0 1 2 3 4 5 or more

3. From age 18 on, have you ever had sex play (fondling, kissing, petting, but not intercourse) when you didn't want to because someone threatened or used some degree of physical force (twisting your arm, holding you down, etc.) to make you?

NO go to question 4

YES answer next two questions (Circle correct response)

- 3a. About how many times has it happened (from age 18 on)?

1 2 3 4 5 or more

- 3b. How many times has this happened in the past six months?

0 1 2 3 4 5 or more

The following questions are about sexual intercourse, including vaginal, oral or anal intercourse. By vaginal intercourse we mean penetration of the woman's vagina, no matter how slight, by a penis. By oral or anal intercourse, we mean putting his penis in your mouth or rectum. Ejaculation is not required. When you see the words "sexual intercourse," please use this definition.

4. From age 18 on, has someone attempted sexual intercourse (got on top of you, attempted to insert his penis) when you didn't want to by threatening to use some degree of force (twisting your arm, holding you down, etc.) but intercourse did not occur?

NO go to question 5

YES answer next two questions (Circle correct response)

4a. About how many times has it happened (from age 18 on)?

1 2 3 4 5 or more

4b. How many times has this happened in the past six months?

0 1 2 3 4 5 or more

5. From age 18 on, has someone attempted sexual intercourse (got on top of you, attempted to insert his penis) when you didn't want to by giving you alcohol or drugs, but intercourse did not occur?

NO go to question 6

YES answer next two questions (Circle correct response)

5a. About how many times has it happened (from age 18 on)?

1 2 3 4 5 or more

5b. How many times has this happened in the past six months?

0 1 2 3 4 5 or more

6. From age 18 on, have you ever given in to sexual intercourse when you didn't want to because you were overwhelmed by continual arguments and pressure?

NO go to question 7

YES answer next two questions (Circle correct response)

6a. About how many times has it happened (from age 18 on)?

1 2 3 4 5 or more

6b. How many times has this happened in the past six months?

0 1 2 3 4 5 or more

7. From age 18 on, have you ever had sexual intercourse when you didn't want to because someone used a position of authority (boss, teacher, supervisor, camp counselor) to make you?

NO go to question 8

YES answer next two questions (Circle correct response)

7a. About how many times has it happened (from age 18 on)?

1 2 3 4 5 or more

7b. How many times has this happened in the past six months?

0 1 2 3 4 5 or more

8. From age 18 on, have you ever had sexual intercourse when you didn't want to because someone gave you alcohol or drugs?

NO go to question 6

YES answer next two questions (Circle correct response)

8a. About how many times has it happened (from age 18 on)?

1 2 3 4 5 or more

8b. How many times has this happened in the past six months?

0 1 2 3 4 5 or more

9. From age 18 on, have you ever had sexual intercourse when you didn't want to because someone threatened or used some degree of force (twisting your arm, holding you down, etc.) to make you?

NO (you have completed this questionnaire)

YES answer next two questions (Circle correct response)

9a. About how many times has it happened (from age 18 on)?

1 2 3 4 5 or more

9b. How many times has this happened in the past six months?

0 1 2 3 4 5 or more

===== End of Section 3, Sexual Assault History - One more section

SEXUAL ASSAULT ATTRIBUTION RATING SCALE

I am going to ask you a series of questions about your thoughts and feelings related to the sexual assault(s) you have experienced. If any of these questions make you feel uncomfortable, you do not have to answer them. If you want to take a break or stop altogether, please let me know. Do you have any questions before we begin?

In the past six months, I have had these thoughts or feelings about the assault(s).

	Never	Rarely	Some times	Often	Declined
1. I thought that I did not resist enough.	1	2	3	4	-1
2. I thought that I trusted people too much.	1	2	3	4	-1
3. I felt that I put myself in a situation I couldn't get out of.	1	2	3	4	-1
4. I thought: There are never any people around when you need them.	4	3	2	1	-1
5. I felt that I got what I deserved.	1	2	3	4	-1
6. I thought that I have bad luck.	1	2	3	4	-1
7. I thought that sexually abusive men target the most vulnerable women and children.	4	3	2	1	-1
8. I have felt that I am a bad person.	1	2	3	4	-1
9. I thought that it is unsafe for a woman or girl to go anywhere by herself.	1	2	3	4	-1
10. I felt that I couldn't take care of myself.	1	2	3	4	-1
11. I thought that I was somewhere I shouldn't have been.	1	2	3	4	-1
12. I thought that I made a rash decision.	1	2	3	4	-1
13. I thought that people don't want to get involved.	4	3	2	1	-1
14. I thought to myself, I must have been stupid.	1	2	3	4	-1
15. I thought that I was a poor judge of character.	1	3	3	4	-1
16. I thought that I could have screamed for help.	1	2	3	4	-1
17. I felt that I did not trust my instincts at the time.	1	2	3	4	-1
18. I thought that I was the victim type.	1	2	3	4	-1
19. I thought that I was too impulsive.	1	2	3	4	-1
20. I thought that I was not assertive enough.	1	2	3	4	-1
21. I thought that this world is filled with emotionally disturbed people.	1	2	3	4	-1
22. I thought: I did not know how to say "no."	1	2	3	4	-1
23. I thought that I am a careless person.	1	2	3	4	-1
24. I thought that sexually abusive men deliberately create dangerous situations.	4	3	2	1	-1

4. Rate the degree to which you were unable to call out or scream during the event.
(skip this question if your mouth was covered during assault)

0	1	2	3	4	5	6
could scream freely						could not scream at all

5. Rate the degree to which you can remember the details of the event.

0	1	2	3	4	5	6
can remember vividly						Unable to remember at all

6. Rate the degree to which you felt numb or felt no pain during the event.

0	1	2	3	4	5	6
could not feel any pain						could feel pain very clearly

7. Rate the degree to which you felt cold during the event.

0	1	2	3	4	5	6
did not feel cold at all						felt extremely cold

8. Rate the extent to which you felt feelings of fear/panic during the event.

0	1	2	3	4	5	6
felt extreme fear or panic						felt absolutely calm

9. Rate the extent to which you feared for your life or felt as though you were going to die.

0	1	2	3	4	5	6
absolutely no fear for my life						extreme fear for my life

10. Rate the extent to which you felt detached from yourself (that is, mentally removed from your body) during the event.

0	1	2	3	4	5	6
No sense of detachment from myself						extreme sense of detachment from myself

11. Rate the extent to which you felt detached from what was going on around you (that is, mentally went to another place) during the event.

0	1	2	3	4	5	6
extreme detachment						No sense of detachment from surroundings

12. Rate the extent of your feelings of guilt/shame following your most recent sexual experience.

0 1 2 3 4 5 6
 extreme no shame or guilt
 shame or guilt

13. Have you experienced any of the above symptoms during a sexual assault prior to your most recent one [Include only experiences that occurred **AS AN ADULT** (age 18 or older)]? Yes No

If yes, please use the list below to indicate which symptoms you have experienced before:

- Felt frozen or paralyzed Yes No
- Unable to move, though not restrained Yes No
- Body was trembling/shaking Yes No
- Unable to call out or scream Yes No
- Details of the event(s) are clear Yes No
- Felt numb or felt no pain Yes No
- Felt cold Yes No
- Felt extreme fear or panic Yes No
- Feared for your life Yes No
- Believed you were going to die Yes No
- Felt detached from yourself Yes No
- Felt detached from your surroundings Yes No
- Felt guilt/shame Yes No
- Could fight/resist during assault(s) Yes No

Alcohol Use (AUDIT)						
Item		Never	Monthly or less	2-4 times a month	2-3 times a week	4 or more times a week
1	How often do you have a drink containing alcohol?	0	1	2	3	4
		1 or 2	3 or 4	5 or 6	7 to 9	10 or more
2	How many drinks containing alcohol do you have on a typical day when you are drinking?	0	1	2	3	4

		Never	Less than monthly	Monthly	Weekly	Daily or almost daily
3	How often do you have six or more drinks on one occasion?	0	1	2	3	4

Confidence about the Future

How confident are you that you can identify a man's manipulative behavior that may precede sexual abuse? Please explain.

How confident are you that you could get out of a situation where a man has taken control in a way you don't want? Please explain.

How likely do you think it is that you will be a victim of sexual assault by someone you know in the next year? Please explain.

This concludes the questionnaires. Thank you for answering our questions. Be sure to let the facilitator know if answering these questions has roused painful feelings and memories that you would like to talk to someone about. We appreciate your resilience and courage.

APPENDIX E

DIFFERENCES BETWEEN EXPERIMENTAL AND CONTROL PARTICIPANTS PRIOR TO TREATMENT

	Experimental Cases mean (sd)	Control Cases mean (sd)
Alcohol Use Audit (N=84) RANGE		
Any current alcohol use?	70%	66%
Total score on Alcohol Use Audit	2.89 (2.88)	2.74 (2.88)
Tonic Immobility Scale (N=61) RANGE AND CUT OFF		
Total score	36.22 (11.86)	36.55 (8.96)
Sexual Assault Awareness Survey(N=84) RANGE		
Total right answers GIVE PERCENTAGES	4.74 (0.98)	4.92 (0.88)
Confidence (N=81)		
Total score RANGE	5.32 (2.24)	5.97** (2.40)
Dichotomous measure	69%	46%**
Attributions (N=32)		
Behavioral blame RANGE	21.52 (5.00)	27.19** (7.43)
Characterological blame RANGE	22.75 (6.55)	27.13* (7.44)
Dating Behavior		
Total items endorsed OUT OF HOW MANY?	3.54 (1.61)	5.22** (2.17)
Post-traumatic Stress Disorder give % above cut-offs		
Total	40.17 (21.64)	39.97 (19.30)
Anxiety	8.71 (5.77)	8.22 (5.89)
Depression	10.95 (6.03)	11.03 (4.78)
Dissociation	6.93 (4.28)	7.03 (4.20)
Sleep disturbance	6.19 (3.58)	6.39 (2.88)
Trauma	7.60 (4.57)	7.31 (3.97)
Sexual Abuse		
Total types of abuse experienced	10.43 (3.81)	10.60 (4.49)

* p < .10

** p < .05

APPENDIX F:

ANALYSIS ACCORDING TO TREATMENT RECEIVED

	Knowledge of risk factors	Confidence	PTSD total	Behavioral attribution*	Characterological Attribution*	Dating Behavior	SES**
	F Sign.	F Sign.	F Sign.	F Sign.	F Sign.	F Sign.	Exp(B) Sign.
Age	0.33 .57	0.06 .82	1.35 .25	----	----	----	0.97 .35
Baseline score	2.63 .11	9.66 .00	20.84 .00	----	----	----	1.03 .68
Treatment received	0.14 .71	0.01 .92	0.90 .35	0.16 .69	0.07 .80	0.46 .50	1.20 .76
Model R-square	0.04	0.16	0.33	0.01	0.00	0.02	0.03

* Dependent measure is change score

** Analysis is logistic regression

APPENDIX G

Difficulties of conducting research on sexual assault with a traumatized community sample: Lessons learned

Research with community samples presents unique challenges, especially when the study group has also endured traumatic experiences. The research team for this project had decades of experience in this work. Nonetheless, the team encountered a range of unexpectedly large or unanticipated obstacles. This appendix summarizes these challenges, discusses how the team sought to overcome these obstacles, and what lessons emerged from this process. The challenges fall into four categories: working with multiple Institutional Review Boards, working with a diverse population with limited study resources, recruiting a study group of people who have experienced severe trauma, and conflicts with the orientation of other treatment modalities.

Working with Multiple Institutional Review Boards

Institutional Review Boards (IRBs) are charged with ensuring that research studies conform to the federal regulations related to the ethical treatment of human subjects. IRBs at each of the three institutions (Safe Horizon, Vera, and Harborview) reviewed the research protocol independently. The backgrounds of IRB members, the processes used to review research, the schedules for meetings, and the concerns and conclusions of each IRB, however, differed. The uncoordinated nature of IRB reviews led to substantial delays in the project and altered instruments that made maintaining the uniformity of the research design challenging.

The research team understood that the project involved an extraordinarily vulnerable population and IRBs would scrutinize the protections researchers had

proposed. Many safeguards were built into the research to minimize the chance of adverse reactions and to address such reactions should they occur. Only women 18 or over were allowed to participate (a requirement that reduced the number of referrals from Safe Horizon). Two experienced social workers who have worked with this population delivered the workshop to a maximum of five participants at a time. If a participant became upset, one social worker could work privately with her while the workshop continued. Research staff did not observe the intervention to avoid any discomfort their presence might cause. Only female project staff spoke directly with the participants—even for the purposes of scheduling appointments—and all had at least master’s degrees in social work, counseling or another relevant field. Counselors were available if the baseline measures or the workshop triggered distress and women were given resource lists containing information on books, websites, hotlines, and support groups for sexual assault survivors.

As described in the body of the report, the workshop curriculum was based in the literature, previous interventions successful with sexual assault survivors in a college sample, and the in-depth interviews conducted with survivors of multiple sexual assaults in Phase I, not in response to IRB concerns. Still, human subjects concerns were noted in the context of the development of the workshop. The intervention was designed as an educational workshop, not group therapy. The facilitators made that distinction clear at the beginning of each workshop and gently reminded participants that the workshop’s goals were to teach material without delving into the personal experiences of each participant. The workshop emphasized placing blame on perpetrators, not survivors, and stressed that a variety of responses during a sexual assault occur, from fighting back to

freezing up, and that all of these reactions are normal and do not in any way minimize the sole responsibility of the perpetrator of the attack.

To protect human subjects further, researchers sought to recruit participants through existing counseling programs. A master's level clinician conducted a screen of all potential participants not referred by their counselor or therapist to assess their appropriateness for the study before baseline measures were administered. The clinical screen sought to ensure that women with severe emotion problems that would put them at increased risk did not participate in the study, as researchers felt that exposing this group to any level of risk was inappropriate. All three institutions work regularly with vulnerable populations and standard protocols were followed concerning data storage and confidentiality.

The IRBs of the three institutions came with different orientations. As a medical institution, Harborview's IRB followed an approach common to clinical trials and consisted primarily of medical staff. They reviewed the IRB submission without the researchers in the room to answer questions, met once every six months, and limited dialogue between the IRB and the researchers. Vera's IRB is composed primarily of lawyers, as much of Vera's research focuses on areas that are connected with legal processes: criminal justice, juvenile justice, and child welfare. Safe Horizon's IRB consists primarily of victim assistance service providers and focuses on protecting clients. Their familiarity with the population and with the study staff (including the clinical director of the sexual assault program) gave the Safe Horizon IRB more confidence in the safety of participants. Vera and Safe Horizon allow researchers in their IRB meetings to answer questions and the meetings are scheduled as needed.

The composition and the processes of each IRB, though different, conform to accepted practices. However, differing and at times conflicting concerns of IRBs delayed the research and weakened the methodology. Changes to research protocols required by one IRB needed review by the other IRBs. For example, one IRB requested changes to the *Sexual Assault Attribution Rating Scale* so that items began “I thought” instead of “I believe.” This IRB reasoned that asking a survivor to agree or disagree with a negative statement about herself could be harmful and prompt feelings of self-blame, but re-phrasing the question might mitigate this effect. The validation studies of the instruments, however, had used the original language, not the language requested by the IRB. Scheduling difficulties prevented the revised instrument from being presented to one of the other IRBs because doing so would have delayed the study by several months and was not financially viable. As a result, the study instruments differed slightly at Harborview and Safe Horizon.

One IRB required that only women who had received counseling be allowed to participate. This requirement seemed manageable at the time of the IRB meeting, as the researchers envisioned participants as coming primarily from counseling programs. When recruitment issues arose, however, the requirement further limited the research team’s capacity to have a large sample size. Any changes to the recruitment process needed IRB approval from each institution, which lengthened the study and placed additional demands on study resources.

In sum, reviews by the three IRBs took 18 months to complete and involved multiple reviews at each institution to incorporate changes requested by other institutions. As originally conceived, the project timeline called for completing the study in 24

months. Because adaptations to the protocol could take several months to implement, researchers faced tough choices between making adjustments to the protocol that could ameliorate problems in recruitment or instrumentation and completing the study on time and on budget. The time devoted to IRB issues also sapped resources from the remainder of the project.

Readers should not interpret this explication of problems as an attack on the operations of IRBs. The researchers understood and supported the scrutiny that this project received given the delicacy of the subject matter and the experiences of the study group. The point is to warn future researchers that ample resources are needed when engaging multiple institutions with different orientations and those efforts to streamline the IRB review process will facilitate research. One alternative that future researchers might explore is an interagency IRB agreement with one IRB taking responsibility for the project and the others agreeing to comply with their decisions.

Working with a Community Sample

Part of the appeal of the project lay in the opportunity to test an intervention with a more diverse group than the predominantly white middle class population involved in previous campus-based studies. However, the diversity of the population posed challenges that were magnified by resource limitations. Financial constraints prevented non-English speaking individuals from participating in this study. We had hoped to conduct the workshop in Spanish, but this would have required translation of the intervention, the baseline and follow up measures, and additional Spanish-speaking staff to recruit participants and administer the instruments. The research team did not have the resources to cover this expense. The language constraint prevented many clients at Safe

Horizon, our primary source of participants, from participating in the study.

The workshops were scheduled in the evening to make them as convenient as possible for working women. However, this time schedule posed problems for some participants. Other women worked in the evenings and one woman would not go out after dark. Though child care was provided, some women may have felt uncomfortable bringing children to the intervention—only one participant took advantage of this resource. These realities made the biggest obstacle in completing the study, recruitment, that much more difficult.

Recruitment

Identifying and recruiting women who met the study's eligibility criteria presented the biggest challenge the research team faced. Though this study's sample size exceeds that of most other research projects with this population, the study fell well short of its recruitment goals. This shortfall occurred despite employing a range of recruitment strategies and extending the original timeline of the project by almost two years over its original projection. Given other statistics that suggest that a large number of women experience multiple sexual assaults, how is it that the study recruited only 84 participants? There are several answers that fall into the following categories: women eligible for the study that did not want to participate, resistance by counselors to participate in a random assignment experiment, and counselor turnover.

The initial recruitment strategy called for Harborview and Safe Horizon counselors to refer women to the study. Initial discussions and the experiences of the research team suggested that many women in counseling fit the eligibility criteria. For the reasons we discuss below, it became apparent that recruitment would be more

difficult than originally envisioned. The research team held multiple meetings with three hospital based crime victim treatment programs that have contact with victims of sexual assaults. To make recruitment more palatable to the hospitals, the researchers offered the hospitals an incentive for successful enrollment (\$50 per person) to cover the costs of making the referrals. When this strategy did not produce many new recruits, the researchers went to an additional 14 programs where presentations were made to staff about the study and flyers with contact numbers were left. Despite the broad outreach, few women called the 800 number set up to facilitate screening of potential participants.

In response, the researchers placed advertisements on *Craig's List* and *The Village Voice* (a website and newspaper). This strategy resulted in a higher volume of calls, but many of the callers did not meet the eligibility requirements of the study because they either never received counseling for their assault or they had been diagnosed with a mental illness such as Bipolar Disorder or a severe case of Post-Traumatic Stress Disorder. That so many women who met the eligibility criteria had not received counseling is both a factor to consider when planning this type of research and a sign that research and programs in this area are needed.

Finally, the research team went to battered women's shelters and other locations where potential participants might be directly approached. This "on the ground" strategy increased the sample size, but came at the price of introducing bias into our sample. Women in the shelter system may or may not be representative of the broader set of sexual assault victims this study sought to recruit.

Why did such a diversity of tactics carried out over an extended period produce such a weak response?

Victim reluctance to participation

While it is impossible to know how many potential participants saw the flyers and heard presentations made by Vera staff, the research team felt that the locations where recruiting took place were appropriate. Program staff at these locations agreed that they saw a substantial number of clients that met the study's eligibility criteria.

Instead, the researchers felt that many eligible women did not want to participate in a research project. Some women who initially signed up for the study decided against participation once they learned more about what the study entailed. Some women told research staff that they didn't think they were in a place where they could participate in a study of this type. Other women agreed on the phone to participate but then did not keep their appointments for baseline measures or did not show up at the workshop. Although this research was grounded in the premise that women in treatment would be sufficiently stable, motivated, and able to participate in a risk reduction workshop, it remains unclear *at what point in treatment* survivors are comfortable engaging in this type of program. It is also unclear if women who did not participate after an initial interest decided against participating because of logistical issues, fear of research generally, or because they found this specific type of intervention unattractive.

Particularly for women in emergency shelter, but also for other women in this population, keeping appointments is difficult. Of the eight women in the emergency domestic violence shelter, all of whom had been given the baseline assessment in advance and were scheduled to participate in an intervention in their residence, five did not make it to the intervention because they had been asked to leave the shelter, decided to go to the hospital for a voluntary procedure, or were ill. Many of the women in this

population face immense challenges and participating in a research project is often not a high priority.

Resistance from counselors

The research team also found that while counselors supported the goals of the project, many felt uncomfortable with having their clients randomly assigned. Counselors often stated that they were willing to recommend clients but only if their clients participated in the workshop instead of the control group. The discomfort with random assignment on the part of sexual assault counselors extended across many programs and persisted after researchers explained the importance of random assignment to the counselors. Apart from the random assignment issue, other clinicians were afraid of compromising their relationship with their patient if she had a bad experience in the workshop or felt that their clients as a group were not ready to participate just yet. These concerns might explain the limited support the programs offered for the study. While 18 different hospitals and counseling programs in New York City assisted with recruitment on some level, all but four limited their involvement to posting flyers in their waiting rooms and on bulletin boards. Staff at Seattle also reported reluctance among counselors and suggested that counselors were very conservative in their assessments of what their clients could safely handle.

A common response to recruitment difficulties is to institute or increase the stipend paid to participants. Participating in the study required a substantial time commitment, potentially to participate in several hours of workshop over two days, and be available for follow up several months later. All three IRBs approved the \$75 stipend given after completing the baseline instruments and an additional \$75 stipend after

completing the follow up instruments. This level of compensation is not out of the range of what many market research firms pay participants, but is higher than many other research studies. Furthermore, the stipend represented a significant amount of money for some participants, particularly those who were unemployed, collecting disability, or working part-time.

In one case, researchers learned that a participant had told her friends about the study because of the stipend and coached them on the screening process. These participants were excluded from the study and a new screening question was added (“how did you hear about this study?”). Future researchers may want to place more emphasis on the non-financial gains of participating in this type of research or offer a lower level of compensation. In sum, while the research team had done some preliminary analysis about the feasibility of recruitment, future research should pay closer attention to this issue. Future funders of this type of research may want to provide resources for feasibility studies or allocate more resources for recruitment.

Conflicts in treatment modalities

The model of the workshop was not suited for all participants, particularly those participants who had prior experience with treatment based on conflicting theoretical orientations. For women who were in recovery from substance abuse—a common problem among sexually victimized women—the theoretical underpinnings of the intervention did not always mesh with those of the substance abuse treatment they received. This proved particularly relevant to participants who had participated in 12-step programs. Parts of 12-step program models place a heavy emphasis on personal responsibility for ones’ actions and resulting events. The workshop, however,

emphasized that while certain behaviors increased the chances of an assault, blame for the assault lay solely with the assailant. Some participants with a 12-step background vocally disagreed with the premise of the intervention and became disruptive during the workshop. Although these participants had received treatment, it is clear that the type of treatment they were exposed to did not complement the material in the workshop.

Conclusion

Working with a community sample of a traumatized population poses serious challenges for researchers. In general, every aspect of this project took longer than anticipated despite the considerable experience of the team conducting this research. In addition to the drain on resources, working with community samples often means making methodological compromises that are unnecessary in more controlled conditions. However, these studies are critical to our understanding the effect of interventions in actual conditions. None of the issues we point out here should discourage future researchers or funders: our hope in identifying these issues is to help others anticipate problems and increase the quality of this vital work.

APPENDIX H

Staff and Consultant Biographies

Rob Davis, Research Director of the Police Foundation, has conducted several major randomized experiments on repeat victimization. His work in this area includes articles in *Criminology* and the *Journal of Experimental Criminology*. He has also published extensively on violence against women issues and is the editor of three books on crime victims.

Chris O'Sullivan, Ph.D., Senior Research Associate at Safe Horizon, is a social psychologist with 25 years experience conducting research on male violence and victimization of women. Her first experience in this field was conducting a study of incest for Diana H. Russell's International Tribunal on Crimes Against Women. Subsequently, as director of a women's program in a rural area, she provided rape crisis intervention and domestic violence services. After receiving her doctorate in experimental psychology, she began to study group sexual assault on campus, with a focus on the social dynamics of group assaults, the social context of support for sexual exploitation in male groups, and criminal justice procedures. She served as a consultant for prosecutors in Pennsylvania, New Jersey, Kentucky and Florida in the prosecution of acquaintance rape cases. Since joining Safe Horizon in 1995, her research has continued to examine judicial processes, but her work has focused more on intimate partner violence, batterer programs, and child exposure to domestic violence. She has been principal investigator or co-principal investigator of 10 grants from NIJ and the State Justice Institute.

Lucy Berliner, M.S.W. is Director of the Harborview Center for Sexual Assault and Traumatic Stress, and a Clinical Associate Professor at the University of Washington School of Social Work and Department of Psychiatry and Behavioral Sciences.

Timothy Ross, Ph.D., is the Director of Child Welfare, Health and Justice Program at the Vera Institute of Justice. For the past seven years, Dr. Ross has led several child welfare research projects including studies of the overlap between child welfare and juvenile justice, the prevalence of children in foster care whose parents are incarcerated, and how the police and child protective workers coordinate responses to allegations of severe maltreatment. Dr. Ross has also edited a book on crime mapping and taught at Hunter and Baruch Colleges. He has undergraduate degrees in political science from Williams College and the University of Kent at Canterbury, and a Ph.D. in government and politics from the University of Maryland.

Pamela Guthrie, M.A., is a research analyst at the Vera Institute of Justice and is a doctoral student in clinical psychology at Long Island University. She is also a rape and domestic violence crisis counselor in the emergency room at Beth Israel Medical Center and runs a weekly group on relationship violence for teenage girls who have been

arrested for prostitution.

Michele Vigeant, LMHC, NCC, is the Program Office Director for Safe Horizon. She also works part time with the Safe Horizon Counseling Center where she provides individual trauma focused treatment to victims of crime and abuse. From 2002 to 2005, she was the Director of Sexual Assault and Clinical Services for Community Programs at Safe Horizon. In this role, she clinically supervised, supported and trained staff and directors of the five Community Programs of Safe Horizon and was responsible for the administration of the Rape Crisis Program. She has worked as a consulting therapist for the Staten Island Community Residential Center where she provided individual counseling to adolescent female survivors of sexual abuse in custody of the Office of Children and Family Services. Since joining Safe Horizon in 1997, she has worked directly with survivors of sexual assault, domestic violence and the World Trade Center terrorist attacks. Ms. Vigeant received her Masters in Education in Counseling Psychology from Teachers College, Columbia University. She is nationally certified through the National Board of Certified Counselors and holds a New York State license in Mental Health Counseling.

The second workshop facilitator is an LMSW and trained psychotherapist who has worked survivors and offenders for 10 years, conducted assessments, developed treatment plans, developed curricula and provided training for staff who work with batterers, families at risk, and victims. Due to the dangerous nature of this person's position, further identifying information is omitted.

Amy Weintraub, Ph.D. is a sociologist affiliated with Columbia's School of Public Health, and director of the Crime Victims Treatment Program at Harlem Hospital.

Brian Marx, Ph.D., is a professor of psychology at Temple University. Dr. Marx has thirty-seven peer-reviewed journal publications, and has co-authored a book and five book chapters. His research has been externally funded, with grants coming from the Centers for Disease Control and Prevention, the Alcoholic Beverage Medical Research Foundation, and the Pennsylvania Department of Health. Dr. Marx has served numerous times as a grant reviewer for the National Institutes of Health and is a reviewer for a number of scientific journals.