

The Bystander Approach to Sexual Assault Risk Reduction: Effects on Risk Recognition, Perceived Self-Efficacy, and Protective Behavior

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Several characteristics of sexual assault awareness programs for women are associated with meeting the goals of risk reduction. To date, the literature lacks an exploration of how single-sex programs affect women, particularly when they take a bystander intervention focus using women's risk recognition and avoidance as outcome measures. The purpose of this study was to investigate the effectiveness of The Women's Program (Foubert, 2011), a sexual assault awareness program geared toward women. Participants consisted of 103 undergraduate women attending a large, public university in the Midwest United States. Women in the treatment group viewed a presentation of The Women's Program, whereas the control group received no intervention. Consistent with hypotheses, program participants reported a greater ability to recognize risk cues, a greater willingness to engage in self-protective behaviors, and a greater level of perceived self-efficacy in handling threatening dating situations compared to the control group.

Keywords: sexual assault; risk reduction; bystander intervention; rape; risk cues; self-protective behavior

In the United States, 12%–20% of college women have an experience that meets the legal definition of rape (Brener, McMahon, Warren, & Douglas, 1999; Fisher, Cullen, & Turner, 2000; Kilpatrick, Resnick, Ruggiero, Conoscenti, & McCauley, 2007), and 53% of college women reported at least one experience of unwanted sexual contact. The prevalence of the sexual victimization of college women, in conjunction with additional factors including a range of psychological consequences associated with sexual victimization (Abdullah, Salleh, Mahmud, Ahmad, & Ghani, 2011; Campbell & Adams, 2009; Ellis, Atkeson, & Calhoun, 1981; Kilpatrick, Veronen, & Resnick, 1982; Koss, 1990, 1993; Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993) and a strong connection between victimization and rising health care costs (Koss, Koss, & Woodruff, 1991) has led to legislative actions by Congress. Included in these actions are mandates that federally funded institutes of higher learning must provide some type of sexual assault prevention

programming (Karjane, Fisher, & Cullen, 2005). More recent legislation has mandated new requirements to make a good faith effort for all new students, faculty, and staff to be educated about sexual assault (Schroeder, 2014).

The introduction of federal mandates has led to a proliferation of prevention programs (those that address potential offenders) and risk reduction programs (those that address potential survivors). A vast majority of these programs lack any form of theoretical grounding, explanations regarding the rationale for inclusion of specific content, or an investigation into the utility of programming (McCaughey & Cermele, 2015). Few programs have actively addressed transgendered students, focusing on either men or women (Edwards et al., 2015). Furthermore, many programs continue to emphasize content or presentation characteristics that conflict with current prevention–education scholarship (Bachar & Koss, 2001; McCaughey & Cermele, 2015). For example, despite overwhelming research support identifying single-sex programming as superior to mixed-gender programming regarding outcome effectiveness (Anderson & Whiston, 2005; Bachar & Koss, 2001; Brecklin & Forde, 2001; Breitenbecher, 2000; Exner & Cummings, 2011; Foubert, 2011), most of such interventions continue to be directed at mixed-gender audiences. Leaders in the field of sexual assault education and prevention have identified a move away from mixed-gender interventions as a necessary step toward the refinement of program development because such interventions are generally ineffective because of the pursuit of two goals that research has suggested do not overlap: preventive interventions directed at men and risk reduction programming for women (Bachar & Koss, 2001; Orchowski, Gidycz, & Raffle, 2008).

Traditional risk reduction programming has generally focused on educating women about sexual assault, and the risks associated with specific behaviors, as well as instructing them on strategies that may reduce their vulnerability toward experiencing an act of sexual victimization (Bachar & Koss, 2001; Gidycz, Rich, & Marioni, 2002). As mentioned, evaluations of risk reduction programs for all female audiences are relatively rare; thus, a limited amount of published research is available. Those evaluations that have been published have mixed findings. Although authors of some early studies of risk reduction programs reported promising findings that women who participated in a risk reduction program reported significantly lower rates of sexual victimization (Marx, Calhoun, Wilson, & Meyerson, 2001), participants in subsequent studies of this program significantly did not from a control group (Breitenbecher & Gidycz, 1998; Gidycz et al., 2001). Even with multiple revisions of the program used throughout these studies, and increased understanding of the factors that may contribute to increased risk of victimization (Gidycz et al., 2001; Marx et al., 2001; Messman-Moore & Brown, 2006), risk reduction programming remains relatively ineffective (Bachar & Koss, 2001).

Although many factors may contribute to the lack of effectiveness exhibited by some traditional risk reduction programs, two stand out in particular. One factor that threatens the effectiveness of a risk reduction program is an optimistic bias among women regarding their personal vulnerability to sexual victimization; this bias that may cause women to not view themselves as potential sexual assault victims and judge information provided by risk reduction programming as personally irrelevant (Chapin & Pierce, 2012; Gidycz, McNamara, & Edwards, 2006; Helweg-Larsen, Harding, & Kleinman, 2008). A second potential threat is the potential for defensiveness among participants to novel information being presented (Cooper, 2011; Critcher, Dunning, & Armor, 2010; Maertz, Hassan, & Magnusson, 2009; McElrath, 2004). Most risk reduction programs typically include two types of components: those aimed at teaching women how to recognize their personal

assault risk and avoid high-risk situations and empowerment modules designed to convince participants of their ability to exercise control over their environment (Anderson & Whitson, 2005; Gidycz et al., 2001; Gidycz et al., 2002; Orchowski et al., 2008). Although intended to work in concert, these components may be interpreted by some audience members as offering competing views of participants: one as potential victims who must avoid certain situations and another as people who can exercise control over a given situation. Furthermore, such program elements also may cause defensiveness among women who do not view themselves as victims or women as solely responsible for defending themselves against sexual victimization (Bachar & Koss, 2001; Banyard, 2008; Banyard, Plante, & Moynihan, 2004; Burn, 2009; McCall, 1993; McMahan, 2000). In fact, in their review of prevention strategies and the empirical ineffectiveness displayed by risk reduction programming, Bachar and Koss (2001) suggest that future efforts would benefit from increased focus on a manner to deliver vital information and prevention strategies, without alienating program participants.

One way that program developers have attempted to mitigate the negative impact of the factors listed earlier is through the use of a bystander intervention approach to sexual assault prevention. The bystander intervention approach differs from traditional risk reduction programming by emphasizing a community responsibility for the prevention of sexual assault, and by approaching participants as allies, rather than potential perpetrators and victims (Banyard et al., 2004; Burn, 2009; Coker et al., 2011; Foubert, 2011; Katz, 1995; McMahan, 2010). This approach involves teaching participants safe and appropriate manners by which to intervene during situations that may lead to the sexual victimization of another. Furthermore, including the bystander approach typically has components aimed at targeting social norms that support violence against women in an effort to promote more wide-scale cultural change. These unique aspects of the bystander intervention approach are not only aimed at lowering the defensiveness of participants but also aimed at reducing the burden placed on women as solely responsible for avoidance of sexual victimization (Burn, 2009; Ullman, 2007).

Participants in bystander intervention programs report encouraging changes in attitudes and behavior. Most of the literature in this area is based on the evaluation of three coeducational programs one all-male program: *Bringing in the Bystander* (Banyard, Moynihan, & Crossman, 2009), the *Mentors in Violence Prevention* (Katz, 1995), the *Green Dot Program* (Coker et al., 2011), and *The Men's Program* (Foubert, 2011). *Bringing in the Bystander*, an in-person coeducational workshop for sexual violence prevention developed by Banyard and colleagues (Banyard et al., 2009; Banyard, Moynihan, & Plante, 2007), utilize a model based on earlier findings related to the bystander intervention approach (Foubert, 2000; Katz, 1995). This model has been rigorously evaluated across multiple samples including those that consist of high-risk student populations (i.e., students involved in athletics, sororities, and fraternities), student leaders, and the general student population. Findings have consistently supported the conclusion that this program helps to increase prosocial bystander attitudes and behaviors including a greater willingness and behavioral intention to intervene during potential sexual assault situations, less support for sexist beliefs that support sexual violence, and a greater belief in their ability to prevent sexual violence (Banyard et al., 2009; Banyard et al., 2007; Moynihan & Banyard, 2008). Another coeducational program is the *Green Dot Program*. After seeing the *Green Dot Program*, participants have reported more bystander behaviors than untreated participants. Although reduction in sexual violence was not found, results were promising that the program impacted participants (Coker et al., 2011).

Evaluations of the MVP program, a nationally recognized coeducational program aimed at increasing the perceived responsibility among student athletes to assume a leadership role on matters of violence against women (O'Brien, 2001) are consistent with the findings reported by Banyard and colleagues (Banyard et al., 2009; Banyard et al., 2007). The MVP program is also successful in raising individuals' willingness to intervene in additional forms of violence against women including physical, emotional, and verbal abuse (O'Brien, 2001). Finally, The Men's Program is an all-male program that approaches men as helpers in the elimination of sexual violence on college campuses. Multiple investigation regarding the effectiveness of The Men's Program has consistently demonstrated an ability to alter men's attitudes and behaviors including (a) a decrease in acceptance of myths that support sexual violence against women, (b) a decrease in the likelihood of men to commit an act of sexual violence, (c) an increase in men's level of empathy toward sexual assault survivors, (d) an increase in the likelihood men will offer support to sexual assault survivors, (e) an increase in willingness to refrain from comments or actions that support sexism, and (f) fewer and less severe incidents of sexual violence committed by program participants than those in a control group (Foubert & Cowell, 2004; Foubert & LaVoy, 2001; Foubert, Newberry, & Tatum, 2007; Foubert & Perry, 2007).

Although results of bystander intervention programs are promising, outcome measures are typically limited to attitudinal measures such as willingness to intervene in sexual situations, perceived efficacy of an intervention, level of empathy toward sexual assault survivors, and support for myths that support sexual violence against women (Banyard et al., 2009; Banyard et al., 2007; Moynihan & Banyard, 2008).

Currently, The Women's Program is the only all-female program based on the bystander intervention approach that has been evaluated in the literature (Foubert, Langhinrichsen-Rohling, Brasfield, & Hill, 2010). Participants in The Women's Program have greater bystander efficacy, bystander willingness, and lower rape myth acceptance than untreated participants (Foubert et al., 2010). No published research investigates the approaches' impact on altering variables associated with participants' risk recognition and avoidance. This study attempted to address this gap in the literature by evaluating the efficacy of The Women's Program to increase the participant's ability to identify risk cues in their environment, their willingness to engage in resistant behaviors prior to and during dangerous dating situations, and their level of perceived self-efficacy in handling various compromising interpersonal circumstances.

The importance of this research is found in the fact that only one current study evaluates the effectiveness of a program that uses the bystander approach to sexual assault prevention, in altering variables associated with risk recognition and avoidance. Although one may question why research is needed to assess whether the bystander approach is effective in altering women's personal recognition and avoidance of risk, considering the aim of such programs is teaching participants to intervene when others are in danger, three facts suggest that this is a reasonable avenue of inquiry: First, The Women's Program, just as other bystander invention programming, is based on the same theoretical frameworks used to conceptualize conventional risk reduction programs (Banyard et al., 2009; Foubert, 2011; Orchowski et al., 2008). Second, as mentioned, bystander programming uses many of the same components found in traditional risk reduction programming (Banyard et al., 2007; Foubert, 2000; Moynihan & Banyard, 2008; Orchowski et al., 2008). Third, the bystander focus has been used to successfully overcome men's defensiveness by approaching them as helpers instead of potential perpetrators (Banyard et al., 2004). This same logic can be applied to women participants by approaching them as allies rather than potential

victims. Furthermore, because most women do not tend to view themselves as vulnerable to experiencing sexual victimization as other women (Gidycz et al., 2006), participants may be more apt to learn information regarding risk recognition and avoidance if they believe such material will help others.

The hypotheses for this study were that women who view a presentation of The Women's Program will report greater risk recognition ability, willingness to engage in protective behaviors, and perceived self-efficacy in handling threatening dating situations than the control group.

METHOD

Participants

Participants for this study consisted of 103 undergraduate college women currently attending a large, public university located in the Midwest United States. All participants attended the same university. Experimental participants ($n = 53$) were women who volunteered to view a presentation of The Women's Program in their place of residence. Control participants ($n = 50$) were untreated and recruited through a human subjects pool managed by the university's College of Education. For their participation in the study, participants enrolled in College of Education classes received credit toward a requirement for a class. Most participants were first-, second-, or third-year students (85.4%), which included fewer seniors than in the general university population (28%). The age of participants was primarily 18–21 years old (92.4%) and heterosexual (97.1%). The race of students in our study was close to the overall student population. Our sample included those who identified as White (79%), 8% as African American, 6% as Hispanic/Latina, 4% as Native American, and 4% listed as other. Relative to the university population, Native American and African American students were overrepresented, and Asian and multiracial students were underrepresented. The university population at large is 75% White, 5% African American, 6% Native American, 5% Hispanic, 2% Asian, and 7% multiracial.

Intervention Materials

The program used in this study is a published, publicly available program called The Women's Program (Foubert, 2011). This program has been presented to several thousand female students on universities nationwide and at national conferences since 2006. The program is a 1-hr interactive presentation that includes didactic and discussion-oriented components. The Women's Program has three goals: (a) teach women how to recognize common characteristics associated with high-risk perpetrators, (b) raise women's willingness to intervene in potential sexual assault situations, and (c) provide women with information to aid rape survivors. In addition, the program operates on the belief that teaching and empowering women to be active bystanders not only increases the likelihood they would intervene in a potential sexual assault situation but also leads women to recognize threats to personal safety and engage in appropriate risk-reducing behavior. Facilitators of the program are typically female undergraduate students or professional presenters.

The program is divided into five sections (Parts A–E). Material is presented verbally along with a slide presentation and through an instructional DVD. Parts A (Establishing Rapport and Definitions) and B (Recognizing Dangerous Men) of the program are primarily psychoeducational. Participants are presented with (a) an overview of the

program, (b) definitions of terms used frequently throughout the presentation (i.e., rape, mental capacity, physical helplessness), (c) statistics regarding the prevalence of sexual assault, and (d) common characteristics of perpetrators. In Parts C (Helping a Friend) and D (Becoming an Active Bystander), the use of the bystander intervention approach to sexual assault prevention is evident. The main points addressed in these parts are the appropriate manner to handle a sexual assault disclosure and safe ways to intervene during a potential sexual assault situation. Finally, in Part E (Closing), participants are invited to provide comments and ask questions regarding the information presented and are asked to commit to the actions they are willing to take to prevent a sexual assault.

Procedure

Institutional review board (IRB) approval was obtained for this procedure. Participation was voluntary, and all surveys were completed anonymously. The study was completed during the Spring 2013 semester.

The experimental group consisted of undergraduate women who agreed to participate in The Women's Program. Following a short introduction, participants received an information sheet that included a detailed explanation of the study and their rights as a participant. The researcher asked any in attendance who had previously participated in any form of a prevention program to please abstain from completing the measures. The participants then viewed The Women's Program, delivered by female student presenters. After completion of the presentation, the measures and a resource list were distributed. Participants were asked to tear the resource list from the packet and keep it for their own review, not to record any identifiable material on the packet, read the directions of each measure and complete them as fully as possible, and place the finished measure in a box upon completion. The primary investigator then left the room. The presenters delivered the envelopes to the primary investigator, who entered all responses into SPSS.

Control participants were recruited via a human subjects research pool. These participants read an electronic version of the informed consent provided to the experimental participants. The electronic version of the informed consent included questions to assess participants' prior participation in The Women's Program, participation in other prevention programs, or any other past experiences that may skew baseline values of the variables under study. Control participants then completed the same instruments as those in the experimental group. Class credit was given when applicable. Following completion of the online measures, a debriefing form that includes the researcher's contact information, available resources, and an offer to attend a presentation of The Women's Program appeared on the screen.

Measures

As mentioned, prior to the dissemination of materials, participants received an information sheet that included a detailed explanation of the study and their rights as a participant. Participants then completed a brief demographic survey assessing participants' age, race, sexual orientation, marital status, and year in school. A debriefing statement that included contact information and available on-campus resources was distributed to participants along with the measures.

Sexual Experiences Survey. The Sexual Experiences Survey (SES; Koss & Oros, 1982) is a 10-item self-report measure designed to assess participants' history of unwanted sexual experiences. According to Koss and Gidycz (1985), the SES is particularly constructed to

identify “hidden rape” in the general population. Participants indicate unwanted sexual experiences by answering “yes” or “no” to items that address four classes of unwanted sexual experiences: unwanted sexual contact, sexual coercion, attempted rape, and rape.

This measure yields an internal consistency coefficient of .74 and a test–retest coefficient of .93 (Koss & Gidycz, 1985). Construct validity, obtained through calculation of the Pearson product–moment correlation between item scores and the level of victimization assessed through responses to an interviewer, was .72 ($p < .001$). In addition, few discrepancies were found between the two self-reports because only two (3%) of women who reported some level of sexual victimization on the SES gave differing responses on the survey and on an in-person interview.

Risk Perception Survey. The Risk Perception Survey (RPS), developed by Messman-Moore and Brown (2006), consists of two vignettes used to assess risk perception and behavior in female participants. The vignettes consist of two separate scenarios: the first with a male acquaintance in a social setting and the second with a stranger in a nonsocial setting. During the construction of each scenario, particular attention was given to the incorporation of common and clear risk factors (Norris, Nurius, & Graham, 1999). When completing this measure, participants read the scenarios independently of one another. The vignettes consist of 25 chronological statements that gradually increase in risk for sexual assault beginning with verbal persuasion and eventually ending with physical force.

Participants were directed to imagine interacting with the men depicted in the vignettes. Then, they were asked to indicate when they feel “uncomfortable” and would “leave the situation” by writing or typing the number preceding that event in the appropriate location. Responses were scored according to their “discomfort score,” or the number associated with the chronological statement they identified. High numbers were indicative of a greater risk for sexual victimization and decreased risk awareness. Messman-Moore and Brown (2006) established validity for the RPS via expert ratings. Raters were requested to identify the level of risk they associated with each chronological statement. In addition, raters were asked to reply to two questions along a 5-point scale (ranging from *strongly disagree* to *strongly agree*): (a) whether “risk for rape increased as activities in the vignette progressed” and (b) if the hypothetical “situation was real, whether risk for rape would increase the longer the woman remained in the situation.” According to Messman-Moore and Brown, every expert rater strongly agreed that both scenarios indicated a gradual increase in sexual assault risk, and the longer the participant remained in the situation, such a risk became greater. Internal consistency reliability for the RPS in this study was Cronbach’s alpha = .74.

Self-Efficacy Ratings Questionnaire. The Self-Efficacy Ratings Questionnaire (Marx et al., 2001) is a 7-item self-report measure designed to assess feelings of self-efficacy during engagement in sexual situations. Participants indicate their level of perceived self-efficacy in handling various threatening dating situations according to a 7-point scale (1 = *not at all confident*, 7 = *very confident*). Higher scores on this measure indicate a greater amount of perceived self-efficacy in participants to recognize sexual assault risk cues, apply appropriate problem-solving strategies, and ability to be assertive regarding sexual limitations. According to Calhoun and Gidycz (2002), the development of the measure was based on self-efficacy research conducted by Bandura (1977) and Hall (1989), and the format models that of other efficacy scales. The Self-Efficacy Ratings Questionnaire (Marx et al., 2001) has demonstrated a test–retest reliability of .86 and high internal consistency with a Cronbach’s alpha = .97. Internal consistency reliability for the Self-Efficacy Ratings Questionnaire in this study was Cronbach’s alpha = .91.

The Dating Self-Protection Against Rape Scale. The Dating Self-Protection Against Rape Scale (DSPARS; Moore & Waterman, 1999) was used to assess participants' willingness to engage in resistant behaviors prior to and during dangerous dating situations. The DSPARS consists of 15 self-report items that address situational factors commonly associated with a decreased risk of acquaintance rape including precautionary planning (i.e., telling a family member where you are going and with whom), willingness to use self-defense strategies if the need arises, and willingness to speak directly and assertively during potential sexual assault situations. Participants respond to each item on a 6-point, Likert-type scale ranging from 1 (*never*) to 6 (*always*). High scores indicate a greater willingness to engage in the risk-reducing behaviors detailed previously.

This measure has demonstrated good internal consistency reliability (Cronbach's $\alpha = .86$) and good split-half reliability with a Spearman-Brown = .81 (Moore & Waterman, 1999). In addition, higher scores on the DSPARS have been found to be negatively correlated with risk-related behavior and delayed risk recognition (Breitenbecher, 2008). Past research that used the DSPARS in the examination of rape prevention education programs found individuals who participated in the program scored significantly higher than those who did not (Moore & Waterman, 1999). Internal consistency reliability for the DSPARS in this study was Cronbach's $\alpha = .82$.

To maintain participant anonymity, investigators received no names, and participants were identified only by codes. Results were analyzed using SPSS Version 21, and probability values of less than .05 were used to indicate significant differences between groups.

RESULTS

The Women's Program participants were compared to those in the control group using a posttest-only control group design. A one-way multivariate analysis of variance (MANOVA) was calculated examining the effect of participation in The Women's Program. Consistent with hypotheses, women who viewed a presentation of The Women's Program reported a greater ability to recognize risk cues, a greater willingness to engage in self-protective behaviors, and a greater level of perceived self-efficacy in handling threatening dating situations when compared to the control group, $\lambda(3, 100) = .714, p = .000$.

Risk Recognition

Univariate effects were examined once multivariate significance was found. When examining the effects of program participation on risk recognition, we found that the difference between the two groups was statistically significant. Program participants possessed a greater ability to identify potential risks in their environment, $F(1, 103) = 25.86, p < .00$, with a large effect size (Cohen's $d = 1.0$).

Self-Protective Behaviors

Univariate effects for self-protective behaviors were also examined. The difference between the two groups was statistically significant, such that women who participated The Women's Program reported a greater willingness to take self-protective action in situations that could lead to sexual assault $F(1, 103) = 21.93, p < .00$, with a large effect size (Cohen's $d = .91$).

Perceived Self-Efficacy

Finally, we assessed the impact of The Women's Program on feelings of self-efficacy during engagement in sexual situations. Univariate results suggest a significant difference between the two groups, with women who viewed the presentation reporting greater perceived self-efficacy in handling threatening dating situations, $F(1, 103) = 13.70, p < .00$, with a large effect size (Cohen's $d = .72$).

DISCUSSION

This study investigated the impact of The Women's Program on participants' ability to identify specific risks, willingness to take self-protective actions, and perceived self-efficacy when faced with potential sexual assault situations. These variables were investigated using a posttest-only design that involved the comparison of a treatment group and a no-treatment control group. The posttest-only design was chosen to avoid several single-group threats such as instrumentation, mortality, history, and attrition. The results of the intervention were promising. More specifically, women in the treatment group reported a greater ability to identify risk cues in their environment, willingness to engage in resistant behaviors prior to and during dangerous dating situations, and level of perceived self-efficacy in various compromising interpersonal circumstances, when compared to the control group. Effect sizes for all variables were large. These findings suggest The Women's Program is an effective way to teach women risk identification and avoidance.

Implication for Prevention Programming

The findings of this study are important given the prevalence of sexual assault and unwanted sexual conduct on college campuses (Fisher et al., 2000; Kilpatrick et al., 2007) as well as the inability of past reduction programs to provide consistent results (Breitenbecher & Gidycz, 1998; Gidycz et al., 2001). Furthermore, the results of this study seemingly contradict the findings of previous research regarding the necessary length of prevention programming as well as the frequency such programming must be presented to enact change in attitudes or behavioral intent. Although previous researchers have identified length and frequency as important contributors toward program success (Gidycz et al., 2002; Orchowski et al., 2008), The Women's Program was associated with a high effect following a single presentation. Although the comparison between prior studies and the present investigation are compromised by differences in theoretical grounding and audience, we suggest that the manner by which participants are approached, allies versus potential victims, is a considerably more important characteristic of prevention programming success.

The findings of this study suggest program development may benefit from further consideration of the manner by which participants are approached. Although many variables may have contributed to the finding of this study, the most markedly different aspect that separates The Women's Program from other risk reduction programs is the use of the bystander intervention approach in an all-female environment. As mentioned, an underlying theory of this study was that a focus on training women as potential helpers, rather than potential victims, would help overcome the optimistic bias women experience when faced with information that identifies them as vulnerable. The results offer support for this theory, and similar findings on future research may lead to further changes in programming.

Although previous research suggests The Women's Program has a significant impact on rape myth acceptance and bystander variables such as efficacy and willingness (Foubert et al., 2010), this study suggests the program may have impact in areas not heretofore known. The results of this study extended earlier findings, offering a second initial investigation of the approach taken in the curriculum of The Women's Program (Foubert, 2011) and provided insight into the information and promising structure for women's programs more generally. To extend this line of research, further investigations should include inquiry into the durability of the effects as well as the actual behavioral changes that result from viewing the program. Both of these considerations are crucial because changes in immediate behavior intentions and beliefs may not be consistent with behavior.

Like previous research, this study found desirable effects resulting from a bystander intervention program (Coker et al., 2011). Based on these findings, we believe that program developers should consider the bystander intervention approach to programming as a method to overcome obstacles women encounter during knowledge acquisition, in much the same way the approach has been used to overcome men's defensiveness. This suggestion emphasizes the notion that participants must first believe the information presented during prevention programming is personally relevant, or such information will be disregarded. Second, programs should include both interactive and experiential learning. This type of programming has been increasingly included in both risk reduction and prevention programming. These are included in The Women's Program in the form of interactive video presentations and role-playing, efforts aimed at increasing the perceived self-efficacy of participants (Bachar & Koss, 2001; Gidycz et al., 2001; Gidycz et al., 2002; Orchowski et al., 2008). Third, a component that provides information aimed at enhancing participants' risk recognition ability and the manner by which to assess and address ambiguous danger cues should be included. An inability to recognize such cues has an obvious association with increased victimization and revictimization (Gidycz et al., 2001; Marx et al., 2001; Messman-Moore & Brown, 2006). The Women's Program performed extremely well in this area during this study. As such programs are designed, authors should provide protection around potential victim blaming and self-blame for participants who may judge high self-efficacy but do not act as they would have predicted when placed in given situation, or who know others who did not. Finally, prevention programming would benefit from the inclusion of a module that addresses the perceived self-efficacy of participants to identify risks and perform defensive actions. The concept of self-efficacy, an individual's judgment in their capability to organize and execute an action that will produce a desired effect (Bandura, 1977, 1992, 2000a, 2000b), has substantial research support as a necessary component in the performance of a learned activity. Although The Women's Program addresses the multiple sources of self-efficacy through the inclusion of interactive and role-playing components, results suggest this area can be further strengthened.

Limitations of the Current Study

The findings of this study should be interpreted with careful consideration of several important, and in some cases significant, limitations. First, this study relied on self-report measures. Such measures are highly vulnerable to several divisive response patterns such as acquiescence and negativism responding (McGrath et al., 2010). Furthermore, self-report measures are dependent on two rather tenuous assumptions, that participants will be honest in the answers they provide and possess the degree of insight necessary to provide an accurate estimation of their attitudes and behaviors. Second, posttest measures were completed

immediately following the intervention. Therefore, nothing is known about the long-term effects of the program. Future studies should focus on the ability of The Women's Program to sustain behavioral and attitudinal alterations over time. Third, this study used a two-group posttest-only design. Although considered one of the best for assessing cause-effect relationships (Trochim, 2006), this design may lead investigators to negate individual alterations in the variables under study by not establishing a baseline by which to compare postintervention results. Fourth, like other similar programs, presenters did not specifically address sexual assault involving transgendered students. Although the program recognized that female-to-female sexual assault occurs, it was not a primary emphasis of the intervention. Future research should include analysis of interventions designed for transgendered students and for female-on-female sexual violence. In addition, in this study, we measured participants' attitudes and behavioral intentions, not the ability of the program to lower incidence of sexual assault. Therefore, although results may suggest viewing a presentation of The Women's Program would lead to greater risk identification and avoidance, there is no guarantee that these findings will have a direct impact on the incidence of sexual assault. A group comparison with longitudinal information, as obtained through a 6-month or 1-year follow-up, would be necessary to measure such a development. Fifth, participants in the experimental group volunteered to attend a presentation. They could have had a motivation to attend that was not the same as those in the control group. Future research should include subjects who are randomly assigned to control and experimental groups. The size of our sample, Although not uncommon for program evaluation studies, is relatively small. A larger sample would be more valid for generalizing findings. Given that participants in the College of Education (all of the control group and some of the experimental group) received credit toward meeting course requirements for participating in this study, these participants may have been simply saying what they felt the authors wanted to hear. Although participating was unlikely to improve their grade per se, it did help them meet a course requirement, which could introduce bias to these results. Finally, this study failed to account for the impact of curriculum related to substance use, most notably alcohol use. The link between substance use and sexual victimization is well documented (Abbey, 2002; Abbey, Ross, McDuffie, & McAuslan, 1996). Future research aimed at examining the importance of such curriculum will further refine development and focus.

Despite these limitations, this study is notable because it is the first to investigate the ability of an all-female bystander-based prevention program to alter the intended behaviors and efficacy beliefs of participants. The results of this study suggest The Women's Program (Foubert, 2011) holds promise for not only prompting individuals to intervene as a bystander during a potential sexual assault but in the area of strengthening participants' personal protection against such an experience.

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