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EFFECTS OF A RAPE AWARENESS PROGRAM ON COLLEGE WOMEN: INCREASING BYSTANDER EFFICACY AND WILLINGNESS TO INTERVENE

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An experimental study evaluated the efficacy of a sexual assault risk-reduction program on 279 college women that focused on learning characteristics of male perpetrators and teaching bystander intervention techniques. After seeing The Women's Program, participants reported significantly greater bystander efficacy and significantly greater willingness to help than before seeing the program. Participants outperformed a control group. Rape myth acceptance also declined among program participants. Implications for rape awareness programming are discussed. © 2010 Wiley Periodicals, Inc.

A 2007 nationwide study found that 673,000 women currently attending U.S. colleges and universities have experienced rape at some point in their lifetime (Kilpatrick, Resnick, Riggiero, Conoscenti, & McCauley, 2007). In one year alone, 300,000 college women, over 5% of women enrolled in colleges and universities, experienced rape. This does not even include other forms of sexual assault (Kilpatrick et al.)

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Perpetrators of rape are almost always men (98%; Sedgwick, 2006); in addition, 6% of college men admit to committing rape (Lisak & Miller, 2002). Men who consume alcohol two or more times a week and who have peer support for behaving in an emotionally violent manner toward women and for being physically and sexually violent toward women are 10 times more likely to commit sexual aggression toward women than men with none of these three characteristics (Schwartz, DeKeseredy, Tait, & Alvi, 2001). Though a minority of college men rape, the vast majority of rape is committed by men; therefore, many program efforts have rightly focused their efforts on those who cause the problem. Still, it is important that educating women about sexual assault remains a priority. Doing so can help achieve the goal of reducing an individual woman's risk for experiencing rape and can help train women to intervene as bystanders when they see other women in dangerous situations. Training in bystander intervention goes beyond reducing an individual's likelihood of being a survivor to helping to change the culture in which the rape occurs (Banyard, Plante, & Moynihan, 2004; Katz, 2006).

This study aims to measure whether a rape awareness program designed for college women, The Women's Program (Foubert, 2010), can produce results, whereby women report greater efficacy and willingness to prevent rape from happening to other women when they themselves are in the bystander position. Prior studies have viewed women's roles as limited to reducing their individual risk for rape, consequently, leaving much of the prevention work to men (Katz, 2006). In the present study, we seek to document the efficacy of the program, which envisions a broader role for women in ending sexual assault: from reducing personal risk for rape to teaching women bystander intervention techniques that would help women play a role in taking action to interfere with men's plans for the perpetration of rape against other women.

Situational Variables

For years, social psychologists have stressed that the situation exerts a powerful influence on the behavior of people in any given context (Reis, 2008). Regarding rape, ethnographic research into the "college party" culture reveals that it is normative for women to find interest from men to be a source of self esteem and for men to achieve a higher standing among their peers by obtaining sex from highly desired women. Research has further shown that women are expected to be appreciative of men's hospitality in deference to men's often older age and fraternity membership. These gendered roles can place women in vulnerable positions, making sexual assault a possibility, should men choose to exploit their power (Armstrong, Hamilton, & Sweeney, 2006).

Not surprisingly, the highest sexual assault risk situation for college women is after they become voluntarily intoxicated (Kilpatrick et al., 2007). The use of alcohol or other drugs is a precursor to 75%–80% of rape incidents involving college students (Lisak & Miller, 2002; Mohler-Kuo, Dowdall, Koss, & Wechsler, 2004). Research has shown that 83% of college women who use drugs frequently also report experiencing some form of sexual abuse (rape, sexual coercion, attempted rape, or unwanted sexual contact) during college. Those women who abstain from drugs report sexual abuse less than half as frequently, 41% (Schwartz et al., 2001). Recurrent, heavy, and episodic drinking increases college women's odds of experiencing rape eight-fold (Mohler-Kuo et al.). Women who typically consume in moderation and drink a large quantity of

alcohol on one occasion are at particular risk for having a man take advantage of the opportunity to sexually assault them while their defenses are lowered (Neal & Fromme, 2007). Situations that ultimately end in rape often begin with a woman experiencing the sedating effects of alcohol in conjunction with the often pleasurable sensations of some form of sexual intimacy. The combined effects of these stimuli keep some women from recognizing that a man has become aggressive until it is painfully obvious (Macy, Nurious, & Norris, 2006).

Making matters worse when alcohol is involved, when women consume, or even have a placebo they believe to be alcohol, they respond to stimulus vignettes with fewer mentions of both physical and verbal assertions for sexual contact to end than sober women (Masters, Norris, Stoner, & George, 2006). Instead, women who consume alcohol respond more passively by utilizing negotiating and joking techniques as their projected methods to end undesired sexual contact. This, in combination with research that shows that men often interpret intoxicated women as being sexually aroused, can create a dangerously high-risk situation (Masters et al.).

Bystanders

The first study on the effects of what came to be known as “bystanders” was published by Darley and Latane (1968). Based on their original research, they found that to intervene in an emergency, people must sequentially notice an event, interpret it as one in which their immediate involvement is needed, and perceive it as one in which they are personally responsible to act.

Katz (1995) brought this understanding of bystander intervention into the sexual assault prevention field with his discussions of the sociocultural constructions of manhood and the way he addressed them through the Mentors in Violence Prevention (MVP) program. Katz offered the idea that focusing on the potential bystander role when educating men reduces men’s defensiveness toward the topic of rape because it avoids treating them as potential perpetrators.

Later, Banyard and her colleagues conducted numerous studies on the bystander intervention effect and the impact of bystander intervention programming (Banyard, Moynihan, & Plante, 2007; Banyard et al., 2004; Banyard, Ward et al., 2007). In addition to finding that participants can be taught to have increased willingness and efficacy to intervene, they found that women are more willing to intervene when faced with an emergency situation and report more bystander behaviors than men. This suggests that training women to intervene in situations that could result in sexual assault is a fruitful enterprise.

A growing literature base suggests that young adults are willing to intervene to prevent rape. For example, men perceive their peers’ willingness to prevent rape as being less than their own willingness to prevent it (Stein, 2007). In a sense, this is encouraging to those who seek to educate students to intervene as bystanders because men are actually more willing to intervene than they are perceived to be by their peers. This willingness to intervene gives us the opportunity to train them how to do so. In addition, men who are exposed to sexual assault peer educators, report a greater willingness to intervene in sexual assault situations (Stein). This supports the influence of peer culture on bystander intervention.

There also exists an important role of informal helpers and friends in the recovery process for survivors. Research has shown that a friend is the most likely person a survivor seeks help from, followed by a family member (Ahrens, Campbell,

Ternier-Thames, Wasco, & Sefl, 2007). In fact, one in three college women and one in five college men are told by friends that they survived an unwanted sexual experience (Banyard, Moynihan, Walsh, Cohn, & Ward, 2009). Informal helpers and friends have a crucial role to play and are a critical part of the support system of survivors. When comparing the quality of support received from friends, strangers, and family, the highest quality of support received from survivors was from their friends (Ullman, Filipas, Townsend, & Starzynski, 2006). When negative social reactions are received, posttraumatic stress disorder is more likely (Ulman et al.).

Schwartz and Pitts (1995) postulated a feminist routine activities theory as a model for explaining the prevalence of sexual assault on college campuses. This theory takes the criminology theory of routine activities theory and its concepts of the presence of likely offenders, the lack of effective guardians, and the presence of available targets (Cohen & Felson, 1979). The concept of effective guardians, when this theory is applied to rape, is a complex one, given that with many crimes, an effective guardian is often an intimate partner. With sexual assault, an intimate partner is often the perpetrator (Fisher, Daigle, & Cullen, 2010). Feminist routine activities theory adds a focus on what motivates men to rape on college campuses. To test this theory, the authors suggest studying college men who refuse to support violence against women, thus helping to provide the effective guardian condition in a feminist routine activities theory (Schwartz & Pitts). Precious little is known about the guardianship that women show for each other (Schwartz et al., 2001).

Just as many young men feel invincible toward the typical risks faced by teens and young adults (Kilmartin, 2005), many young women believe they are too strong or too smart to become a victim of sexual assault (Domitrz, 2005; Russell, 2003). Without disempowering these women, they can be engaged as bystanders rather than as potential victims by teaching them how to intervene to protect their friends from sexual aggression and how to better respond to a friend who discloses victimization. Clearly, one advantage of adopting a bystander approach to sexual assault and rape awareness programming is that this type of information is equally relevant to males and females. The goal of this approach is to give everyone the skills necessary to intervene or reach out for help. Another advantage is that this type of programming doesn't have to overcome women's psychological barriers about their own risk potential to be effective.

A comprehensive review of the research literature (Banyard et al., 2004) revealed that several factors have been shown to increase the likelihood that people will intervene as bystanders. These include being aware of a situation in which a man chooses to rape a woman, making a prior commitment to help, having a sense of partial responsibility for helping, believing that the victim has not caused the situation to occur, having a sense of self-efficacy related to possessing the skills necessary to do something, and seeing others model prosocial behavior. Potential bystanders are also likely to weigh the costs and benefits of intervention relative to how they personally believe it will affect their status in a reference group (Banyard et al., 2004).

Although the presence of other bystanders influences an individual's choice to intervene, the relationship between the bystander and other individuals present also matters in decisions to act. Specifically, when the bystander is a member of the same "in group" as the others present, a motivating influence is exerted, leading to a greater likelihood of bystander action. So, both a connection to other bystanders and perceiving these others as part of one's in group increases the likelihood that a bystander will intervene (Levine, Cassidy, Brazier, & Reicher, 2002).

By training potential bystanders to intervene in a sexual assault situation, those present before such a situation occurs are empowered to stop an incident before it starts. If the mission of the bystander intervention initiatives is achieved, then people in a community can recognize when a situation is occurring that could turn into a sexual assault, interpret it as a problem, and decide they have a responsibility to intervene and act, and sexual assault incidents that otherwise would have happened do not. Thus, within a community where the norm is set to intervene, sexual assault incidents should be expected to decline.

Programs

A synthesis of research from the 1980s and 1990s suggested that rape awareness programs geared toward female audiences did not result in reductions in incidences of sexual victimization (Breitenbecher, 2000). More recent research suggests that risk reduction programs are becoming more effective (Hanson & Broom, 2005). Some suggest that programs for women have focused too much on women's risk behavior and not enough on educating women about recognizing danger cues in the behavior of potential perpetrators (Rozee & Koss, 2001). The more a woman can recognize threatening cues in a situation that could turn into a sexual assault situation, the more likely she can resist or escape (Turchik, Probst, Chau, Nigoff, & Gidycz, 2007). Thus, preparing women to respond assertively to threatening situations has the potential for helping women to resist assaults (Turchik et al.). Simultaneously, teaching women bystander intervention strategies empowers women to help all others to begin to be free from the societal burden of rape (Banyard, Ward et al., 2007). Another study found that the effects of a bystander intervention program for female participants showed improvement on variables such as bystander efficacy and bystander willingness to help after seeing a 90-minute Bringing in the Bystander program (Banyard, Moynihan, & Crossman, 2009).

The present study adds to the literature on the variety of bystander intervention programs available by utilizing an experimental design to consider the efficacy of a rape awareness program that focused on the bystander behavior of college women, The Women's Program (Foubert, 2010). Specifically, we evaluated a program that was designed to increase women's bystander efficacy and their willingness to intervene in situations in which a sexual assault could occur. First, and specific to the theory underlying the design of The Women's Program, it was hypothesized that women experiencing the intervention would increase their bystander efficacy significantly more than women in the control condition. Second, it was expected that women in the intervention group would increase their willingness to intervene as a bystander to an abuse situation more than women in the control condition. Third, it was hypothesized that this program would also be effective such that women in the intervention group would experience a decline in their rape myth acceptance and that this decline would be significantly greater than that reported by women in the control condition.

METHOD

Participants

A total of 279 females participated in the study, with 189 participating in the treatment group and 90 participating in the control group. The majority of participants

identified themselves as first-year students ($n = 266$), followed by sophomores ($n = 6$), juniors ($n = 2$), seniors ($n = 1$), and other ($n = 1$). The mean age of participants was 18.87 years (standard deviation [SD] = 3.17, range = 17 to 46). Participants in this study were enrolled in one of many freshman orientation seminars ($n = 64$, taught by a total of 49 professors) at a moderately sized university in the southeastern United States.

Materials

Illinois Rape Myth Acceptance Scale Short Form (IRMA-SF). Participant's attitudes toward sexual assault were measured using the short form of the Illinois Rape Myth Acceptance Scale (Payne, Lonsway, & Fitzgerald, 1999). This scale includes 20 items scored on a scale of 1 (*not at all agree*) to 7 (*very much agree*). Scores at the higher end of this scale indicate stronger belief in rape myths. Payne et al. developed this scale through six studies, including a factor analysis for construct definition and item pool selection, a complete-link cluster analysis to determine the structure and dimensions of the scale, item pool selection based on fit to a hierarchical model, and a construct validity study correlating the IRMA to seven similar measures (r 's = between .50 and .74, $p < .001$). They also conducted a study where groups known to differ in rape myth acceptance scored differently as predicted on the IRMA ($p < .001$) and a validity study correlating IRMA scores with a content analysis of open-ended scenarios written by participants that were analyzed for rape myth content ($r = .32$, $p < .05$). This scale yielded an alpha reliability of .88 in the current sample at pretest. The coefficient alpha at posttest was .94.

Bystander Efficacy Scale (BES). Willingness to intervene as a bystander was measured by the bystander efficacy scale, developed by Banyard, Plante, and Moynihan (2005). This measure asks participants to indicate whether they believe that they could do each of 18 bystander behaviors and, if so, to indicate their level of confidence in performing this bystander behavior. This scale yielded an alpha reliability of .89 in the current sample of women at pretest. The coefficient alpha for this scale at posttest was .92.

Bystander Willingness to Help Scale (BWHS). The Willingness to Help Scale was developed by Banyard et al. (2005) and measures participants' degree of likelihood of engaging in 12 bystander behaviors on a 7-point scale. Items came from research literature and discussions with advocates and professionals working in the field of sexual violence. The alpha reliability for these 12-items was .82 in the present sample at pretest and .88 at posttest.

Procedure

International review board approval was obtained for the procedure used to collect these data and all participants gave informed consent prior to their participation. Participation was voluntary and all data were collected anonymously. The instructors of these courses were required to cover a variety of topics designed to aid the new student in their transition to a college life (e.g., study skills, knowledge of various resources on campus, career counseling). Many instructors elect to have their students attend university-wide programs that are tailored to address certain required topics in lieu of the topic being discussed in each class. Dating violence, including sexual assault, was one of the required topics for this course. The females in the experimental

condition ($n = 189$) of this study were those whose instructors required them to attend the Women's Program as a part of their course curriculum, who agreed to participate, and who had not already participated in this study as part of the randomly selected control group.

Control group program. To obtain a control group, we attempted to contact 17 instructors of the freshman orientation course who taught a total of 22 classes. These 17 instructors were chosen via a random selection process. Of the 17, contact information was available for 16 of the instructors (94.1%). An e-mail was sent to each instructor requesting permission to attend their class, provide instruction on another required freshman seminar topic unrelated to sexual assault (e.g., stress management or attention difficulties and college success), and to obtain student responses to the same voluntary and anonymous survey packet that we planned to administer to the experimental participants. Just as with the experimental students, for or consenting college students in the control condition, surveys were administered twice, both before and after their exposure to the comparison material. Of the 16 contacted instructors, nine (56.25%) agreed to let their students be recruited for the control condition for a total of 10 classes. The remaining instructors all indicated that their class time was already fully scheduled. Data were collected from 10 classes, with nine of the classes receiving the stress management control condition. Among these classes, 90 females participated. All data collection for the control condition took place prior to the experimental condition (i.e., The Women's Program) coming to campus. So, women who were randomly recruited for the control condition were told not to complete the survey when and if they attended the Women's Program. These instructions were given as part of the debriefing process. To ensure that these women did not inadvertently participate twice, multiple verbal and written reminders were also provided about this during the experimental portion of the study.

The procedure in each control classroom was as follows. Researchers provided a consent form to students and discussed its contents with the class. After obtaining informed consent, researchers distributed the surveys. Presurveys were passed out along with sealed envelopes containing a postsurvey. Participants were told not to open the sealed envelopes until they were instructed to do so. Both presurveys and postsurveys were identified via matching subject numbers; participant's names were never obtained. Researchers collected the presurveys after completion and began a video and a discussion on either stress management or attention difficulties. After the control presentation, participants were asked to open their sealed envelopes and complete the postsurveys located inside. Once postsurveys were completed and collected, researchers discussed the study and answered participants' questions during the debriefing process. Institutional review board approval was obtained for this procedure and ethical procedures were followed in the collection of these data.

Experimental group program. A group of four male, recent college graduates from the organization One in Four visited the campus, where the study took place, and presented "The Women's Program: Helping Friends Avoid Rape and Empowering Survivors to Recover" to women in the experimental group. A pretest was administered to all consenting students who attended one of a series of group presentations. Researchers greeted participants as they arrived to the venue, discussed the consent form, and obtained verbal consent. As in the control condition, each participant was given a presurvey along with a sealed envelope containing a

postsurvey. Participants who arrived late to the venue were not asked to participate as they had too little time to complete the presurvey before The Women's Program was to begin. The researchers collected the presurveys after participants completed them and the program began.

The program "Helping Friends Avoid Rape and Empowering Survivors to Recover" also known as the Women's Program was developed in 2006 with the help of male and female sexual assault awareness experts nationwide. The program was pilot tested during the 2007–2008 academic year, with over 1,000 women across the United States participating in gender-specific groups. Over 95% of the female participants suggested continuing presentation of the program with either no changes or minor changes. No participant reported suffering traumatic effects as a result of experiencing the program.

Program presenters went over basic definitions of rape, mental incapacity, and physical helplessness. Next, presenters showed a DVD from the National Judicial Education Program, in which a researcher interviewed a man who committed rape. Program presenters then discussed the interview with the audience, identifying characteristics of high-risk men to prepare audience members for situations in the future where they could help their friends avoid high-risk men and get out of dangerous situations. After that, presenters talked about how to help a friend who survives rape. Then they asked audience members to talk about how they could intervene as active bystanders if a potential alcohol-related rape situation were about to occur in their presence. Given the importance of the issue of personal safety in this discussion, presenters discussed a wide range of intervention techniques from calling the police, verbal intervention, diverting attention, to physical intervention and encouraged participants to keep their personal safety a top priority. Finally, presenters closed by asking audience members what they personally were willing to do after the program to intervene as bystanders in rape situations. After the program was presented, the female participants were asked to open their sealed envelopes and complete the inserted postsurvey. All participants were debriefed at the conclusion of the postsurvey.

RESULTS

Bystander Intervention

Missing data. Schafer and Graham (2002) note that ipsative mean imputation (IMI) is a satisfactory method for treating missing data. IMI can be used in situations where there are multiple items that comprise a unidimensional scale. If a respondent has partial missing data for such a scale, then the missing items can be replaced by the mean of the respondent's nonmissing items. Of the original 279 female participants, 225 had complete response sets on both the bystander scales. From the 54 cases with missing data, 17 subjects were viable candidates for IMI. Most of these were missing only a single item response; none were missing more than four items on either bystander scale. Thus, the total usable sample size for the bystander analyses was increased to 232 female participants.

Multivariate analysis of variance (MANOVA). A 2 group (experimental versus control) \times 2 occasion of measurement (pre vs. post) mixed MANOVA was performed on the set of two correlated dependent variables—namely, the Bystander Efficacy Scale (BES) and

the Bystander Willingness-to-Help Scale (BWHS). The between-subjects factor was the treatment group (exposure to The Women's Program, $n = 158$ female college students vs. the control condition, $n = 84$ female college students). The within-subjects factor was the occasion of measurement with pretest and posttest as the two levels. Analyses were conducted using the generalized linear model function of SPSS version 17. No demographic differences on the variables in questions emerged.

Omnibus tests. Using Rao's transformation of Wilk's lambda as a criterion, the group main effect, $\Lambda = .97$, $F(2, 239) = 3.49$, $p = .03$, partial $\eta^2 = .03$, the occasion of measurement (pre vs. post) main effect, $\Lambda = .55$, $F(2, 239) = 98.68$, $p < .001$, partial $\eta^2 = .45$, and the group by occasion interaction, $\Lambda = .82$, $F(2, 239) = 27.19$, $p < .001$, partial $\eta^2 = .18$ were significant.

Multivariate postomnibus tests. The significant and predicted group by occasion interaction effect was further explored by analyzing the simple main effects of the two factors. As expected, there were significant increases in the composite mean bystander score from the pretest to posttest within the treatment group, $\Lambda = .38$, $F(2, 156) = 125.45$, $p < .001$, partial $\eta^2 = .62$. However, there were significant increases in the composite mean bystander score for the control group as well, $\Lambda = .69$, $F(2, 82) = 18.40$, $p < .001$, partial $\eta^2 = .31$. Thus, the most revealing comparisons came from the simple main effects of the group factor within each of the two levels of occasion of measurement. This showed that the treatment versus control contrast for posttest scores was significant, $\Lambda = .91$, $F(2, 239) = 11.40$, $p < .001$, partial $\eta^2 = .09$, while the same contrast at the pretest occasion was not, $\Lambda = 1.00$, $F(2, 239) = .03$, $p = .97$. In other words, although both the treatment and the control groups showed significant increases in bystander behavior from pretest to posttest, the treatment group showed a significantly greater increase than did the control group. The pretest to posttest differences for the experimental group accounted for 62% of the variance, a large effect size. This significant interaction effect is depicted in Figure 1.

Univariate postomnibus tests. Follow-up univariate analyses were conducted to determine which of the individual dependent variables were contributing to the significant multivariate effects. Both the BES and BWHS showed similar patterns of significance as observed in the multivariate analysis. An analysis of the BES in isolation revealed that the pretest-posttest comparisons were significant within the treatment group,

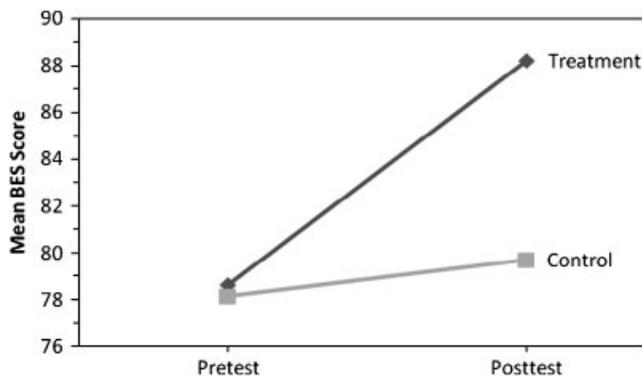


Figure 1. Mean Bystander Efficacy Scale scores by occasion of measurement (pretest, posttest) and group assignment (treatment, control).

$F(1, 157) = 159.93, p < .001$, partial $\eta^2 = .50$ and within the control group, $F(1, 83) = 7.45, p = .01$, partial $\eta^2 = .08$, as was the treatment-control comparison under the posttest condition, $F(1, 240) = 22.28, p < .001$, partial $\eta^2 = .08$. The only simple main effect that was not significant for the BES was treatment-control contrast under the pretest condition, $F(1, 240) = .07, p = .80$. As predicted, female participants who experienced the Women’s Program reported significantly greater increases in their bystander efficacy over time than did female participants who experienced the control condition (Table 1).

Similarly for the BWHS, the pretest-posttest contrast within the treatment group, $F(1, 157) = 210.28, p < .001$, partial $\eta^2 = .57$ as well as within the control group, $F(1, 83) = 36.55, p < .001$, partial $\eta^2 = .31$ were significant. The treatment-control group comparison within the posttest occasion of measurement was significant, $F(1, 240) = 16.07, p < .001$, partial $\eta^2 = .06$, but it was not at pretest, $F(1, 240) = .02, p = .89$. So, as hypothesized and as was found with the BES, female participants who experienced the Women’s Program reported significantly greater increases over time in their willingness to help a potential victim when in the bystander role than did female participants who experienced the control condition (Fig. 2).

Rape Myth Acceptance

Missing data. Of the original 279 female subjects, 195 had complete responses on the Illinois Rape Myth Acceptance instrument. From the 84 cases with missing data, 20 subjects were viable candidates for the same IMI procedure as was used with the missing responses to the bystander measures. Most of these participants were missing

Table 1. Cell Means for BES and BWHS

Group	BES		BWHS	
	Pre	Post	Pre	Post
Treatment	78.63	88.23	3.97	4.50
Control	78.15	79.04	3.96	4.21

Note. BES = Bystander Efficacy Scale; BWHS = Bystander Willingness to Help Scale.

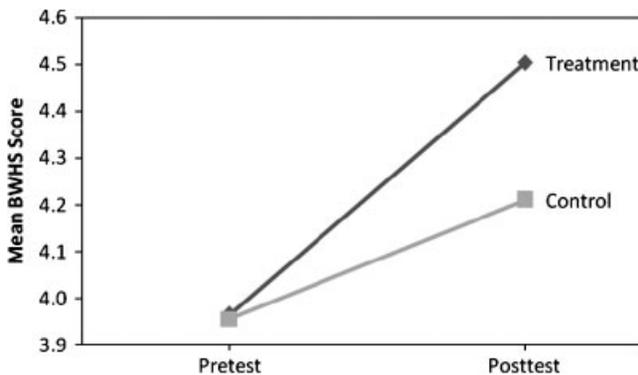


Figure 2. Mean Bystander Willingness to Help Scale scores by occasion of measurement (pretest, posttest) and group assignment (treatment, control).

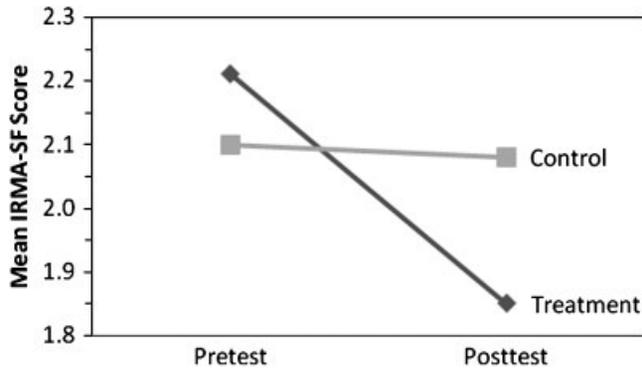


Figure 3. Profile plots for mean Illinois Rape Myth Acceptance Scale Short Form scores by occasion of measurement (pretest, posttest) and group assignment (treatment, control).

only one or two item responses. Thus, the total usable sample size was increased to 215 female participants ($n = 130$ treatment versus $n = 85$ control).

MANOVA. A 2×2 mixed analysis of variance was performed using the simple composite score of the Illinois Rape Myth Acceptance Scale, Short Form (IRMA-SF), as the response variable (Payne et al., 1999). In this analysis, higher scores denote greater rape myth acceptance. As before, the between-subjects factor was the group assignment with two levels: exposure to the treatment versus exposure to the control conditions. The within-subjects factor was the occasion of measurement with pretest and posttest as the two levels. Analyses were conducted using the generalized linear model function of SPSS version 17.

Omnibus tests. As predicted, the interaction of group membership (treatment vs. control) and occasion of measurement (pre vs. post) was shown to be significant, $F(1, 213) = 14.990, p < .001$, partial $\eta^2 = .066$. Although the occasion main effect was found to be significant, $F(1, 213) = 19.057, p < .001$, partial $\eta^2 = .082$, the group main effect was not, $F(1, 213) = .234, p = .629$. This interaction is depicted in Figure 3. The significant interaction was further explored by analyzing the simple main effects of each factor. As predicted, these tests revealed a significant decrease in the mean score of the IRMA-SF from the pretest to posttest within the treatment group, $F(1, 213) = 42.906, p < .001$, partial $\eta^2 = .168$. Furthermore, and consistent with the lack of rape-related content in the control condition, the pretest-posttest comparison on the rape-myth acceptance scale within the control group was not significant, $F(1, 213) = .101, p = .751$. Unlike women experiencing The Women's Program, female participants in the control condition did not experience a significant reduction in their rape myth acceptance. The treatment versus control contrast for the pretest scores was not significant, $F(1, 213) = .809, p = .369$. Unfortunately, the contrast between the groups failed to reach significance at the posttest occasion, $F(1, 213) = 2.618, p = .107$. This pattern shows that the focal point for the interaction is the pretest-to-posttest drop in the mean IRMA-SF score for the treatment group.

DISCUSSION

The purpose of the current study was to use a pretest treatment-control experimental design to determine if there were significant changes in the bystander behavior of

women who attended a rape awareness program, The Women's Program (Foubert, 2010), that was designed to facilitate action on the part of bystanders to intervene in a situation that could turn into rape while also combating rape myth acceptance. Two different scales were used to assess bystander behavior. They were the Bystander Efficacy Scale and the Bystander Willingness to Help Scale. The Illinois Rape Myth Acceptance Scale was administered to determine the degree to which the Women's Program is effective at changing rape-related beliefs.

As expected, results indicated that the program significantly decreased female participants' endorsement of rape myths. Participants in the experimental group experienced a decline in their rape myth acceptance; control group participants did not. Although the experimental group had lower rape myth acceptance than the control group at the postassessment period, this difference was not significant. This suggests that even successful programs, such as The Women's Program, need to continue to enhance their efficacy. It is also possible that measures of rape myth acceptance could be enhanced to be more sensitive to change.

That there was a multivariate effect for increases in bystander intervention for the control group was not expected. This could indicate a priming effect of taking the scales used in this study. Given that a posttest was administered just an hour later without time for discussion of the instrument with peers in the meantime, it is not likely that taking the survey led to a great deal of reflection on the issues or discussion with others that could have led to improvement on these scales. Future research should evaluate whether these scales have pretest effects using a Solomon 4 square design for program evaluation research.

Results regarding changes in bystander behavior in the experimental group were as expected. As we predicted, participation in The Women's Program significantly increased both women's confidence in their ability to intervene as a bystander and their perceived willingness to help a potential abuse victim. These findings are important for many reasons. First, research suggests that traditional programs for women have focused too much on individual women's risk behavior and not enough on educating women about recognizing the behavior of potential perpetrators (Rozee & Koss, 2001). In contrast, this study focused on a program that was designed to educate women about typical predator behavior and what they can do to intervene.

These results show that this type of program had desirable effects on the female participants' intent to behave in ways that can help reduce incidents of sexual assault. These effects accounted for relatively large amounts of the variance in women's self-reported bystander behavior. It is theorized that teaching women bystander intervention strategies will empower women to help others to begin to be free from the societal burden of rape (Banyard, Moynihan, & Plante, 2007). This study adds to the variety of successful approaches for successfully educating students about rape using a bystander framework. Though most bystander intervention programs have focused on men's involvement (Foubert, Newberry, & Tatum, 2007; Katz, 1995), the present study demonstrated the importance of involving women in the role of effective guardians, and it showed that the program evaluated could increase women's willingness and efficacy to play the role of the intervening bystander.

Limitations

Although one of the strengths of this study was that it used an experimental design with random assignment of participants to the control condition, there are some

limitations to these results that are worth noting. First, the degree to which these attitude changes predict future behavioral changes is not known. Longitudinal research will be needed to answer that question empirically. Second, although female students were randomly assigned by class to condition, there may have been other selection processes occurring that were not controlled for by this design choice. Replication of these results with a design that uses random assignment of participants to conditions, rather than by classes, would be optimal. Finally, these results were obtained from a sample of college students located at one institution within the southern part of the United States. The extent to which these findings generalize to other groups and regions will need to be determined.

Another limitation to this study was the use of self-reported data. The use of such a method makes this study subject to social desirability; thus, results may be skewed in the direction of making participants look more favorable than is actually the case. An experimental method in a laboratory setting or observing actual situations where students could intervene would be a more valid way of studying the phenomena in question.

Implications

Future research should conduct follow-up assessments to determine the degree to which participants actually intervene as bystanders in accordance with the material they learn in programs such as The Women's Program. It would also be interesting to study groups of participants who intervene and don't intervene in an experimental situation and then conduct focus groups with women from each population to determine why they made the choices they did. In particular, it would be useful to figure out if there are women who have been exposed to this program who still choose not to intervene and what might interfere with them doing so. This, in turn, could lead to future program enhancements.

That the program successfully led women in the experimental group to report increased likelihood and confidence in their bystander intervention ability is an endorsement of the approach taken by The Women's Program (Foubert, 2010). Thus, the techniques of talking with women about perpetrator characteristics and tactics, with learning how to help a friend recover from rape, and how to intervene as a bystander were shown to be successful in producing desirable educational outcomes, including decreasing rape myth acceptance and increasing positive bystander behavior.

Questions remain regarding the duration of these changes and the degree to which changes in perceptions are reflected in changes in behavior. Nonetheless, this study moves the field forward by using an improved design and demonstrating that this particular program, The Women's Program, holds promise as a relatively cost-effective strategy for decreasing the tremendous burden that sexual assault places on people in our society.

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