The Longitudinal Effects of a Rape-prevention Program on Fraternity Men's Attitudes, Behavioral Intent, and Behavior

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Abstract. Rape myth acceptance, likelihood of raping, and sexually coercive behavior of 145 fraternity men randomly assigned to a control group or a rape-prevention program were surveyed. One third of 23 fraternities on a mid-Atlantic public university campus volunteered to participate in the study. The rape-prevention intervention consisted of "the men's program," a victim empathy-based presentation titled "How to help a sexual assault survivor: What men can do." Although no evidence of change in sexually coercive behavior was found, significant 7-month declines in rape myth acceptance and the likelihood of committing rape were shown among program participants. In the case of rape myth acceptance, the 7-month decrement remained lower in the participant group than in the control group. Implications of using these initial findings from the men's program for rape-prevention programming are discussed.

Key Words: fraternities, health education, men, men's program, peer education, program evaluation, rape

Rape and other forms of sexual assault have been repeatedly shown to be pervasive throughout the United States. The now-famous study by Koss et al[1] reported that more than one in four college women in a nationwide sample from 32 colleges and universities reported at least one experience after her 14th birthday that met the legal definition of rape or attempted rape. More recently, the US Centers for Disease Control and Prevention surveyed more than 4600 college students at 136 institutions and found that 20% of college women reported having been forced to have sexual intercourse at some point in their lifetimes.[2]

Given the pervasiveness of rape, effective methods for decreasing its frequency are urgently needed. Although many studies have been conducted to assess the impact of rape-prevention programs on men's attitudes,[3] research on the affect of such programming on men's behavioral intent to commit rape and on sexually coercive behavior is very limited.[4]

College fraternity men are one group who have received attention in the research literature on sexual violence. O'Sullivan[5] found that fraternity members committed 55% of the gang rapes reported on college campuses between 1980 and 1990. Research has also shown that fraternity members have more rape-supportive attitudes[6] and are more sexually coercive than other men.[7]

In a comprehensive review of rape-prevention programs published during the past 20 years, Lonsway[3] noted the recent rise in popularity of programs targeting all-male audiences. She added that "because all-male programs offer the greatest promise in truly reaching the potential of rape prevention, such programs offer particular interest for future intervention and evaluation."[3(p242)] Several authors suggest that lower levels of defensiveness are elicited by all-male programs and that stronger programmatic effects are found in all-male (as opposed to coeducational) programs.[4,8–11] All-male programs that use peer educators have been found to be particularly effective in the context of rape prevention.[10,12]

Foubert and Marriott[9] described an all-male peer education approach that was shown to lead to a significant decline, sustained over 2 months, in rape myth acceptance among men in fraternity pledge classes.[10] We found that, immediately after participating in a program called "How to help a sexual assault survivor: What men can do," participants experienced a 55% drop in acceptance of rape myths as measured by the Burt Rape Myth Acceptance Scale.[13] Two months later, a significant 32% decline remained from rape myth levels shown on the pretest. In a further study of this program, the initial phase of the present study found that fraternity men's behavioral intent to rape significantly declined immediately after the program presentation.[14] Among the 20% of men who indicated some likelihood of

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raping before participating in the program, 75% reported a lower likelihood of raping after the program. Until the Foubert and McEwen[14] study, only Schewe and O'Donohue[4] had reported an impact on men's intention to commit rape.

Before the present study, the longest sustained change in acceptance of rape myths reported by a rape-prevention program in the research literature was 2 months.[10,15] The longest change in likelihood of raping was restricted to the day of the workshop.[4,14] In the present study, I assessed the impact of an all-male rape-prevention peer education program on participants' acceptance of rape myths, their likelihood of raping, and their sexually coercive behavior during an academic year (7 months).

METHOD

Hypotheses

I tested the following hypotheses, using posttest and follow-up scores as the criterion measure:

1. Program participants will experience a significant decline in likelihood of raping and in rape myth acceptance immediately after the program, relative to their pretest scores.
2. Program participants will experience a significant decline in likelihood of raping and in acceptance of rape myths 7 months after the program in comparison with their pretest scores.
3. When levels of sexual coercion are compared between program participants and a control group, follow-up scores will indicate that program participants committed less severe acts of sexual coercion during the 7 months after the program.

Participants

After receiving approval from the university human subjects review committee, all 23 fraternities at a mid-Atlantic public university were asked whether they would be willing to participate in the study. Eight fraternities (35%) agreed to do so. I randomly assigned 4 of the volunteer fraternities to participate in the program; their members constituted the experimental group (n = 109). The control group (n = 108) consisted of members of the 4 fraternities that did not participate in the program.

Within each group, I randomly assigned 2 fraternities to pretest and posttest conditions and randomly assigned 2 other fraternities to the posttest-only condition. Of these 217 participants assigned to the conditions, 145 completed all parts of the study required of them, resulting in a return rate of 67% (see Table 1).

The mean age of the 145 participants was 20.33 years (SD = 1.23). Members of the experimental group were overwhelmingly White (91%), with an additional 2% African American/Black, 4% Asian American or Pacific Islanders, 2% Hispanic/Latino/Chicano, and 1% listed as "other." At the time of the April data collection, 3% were 1st-year students, 41% were sophomores, 35% were juniors, and 21% were seniors.

TABLE 1
Participants in a Campus Rape-prevention Program for Fraternity Men, Showing Time of Measurement

Condition/ group	Membership N	Time measured: Pretest n	Posttest n	Follow-up n
Experimental group				
Pretested				
Fraternity 1	41	28	28	20
Fraternity 2	36	31	31	23
Posttest only				
Fraternity 3	21		16	10
Fraternity 4	50		34	17
Control group				
Pretested				
Fraternity 5	15	14		12
Fraternity 6	43	32		23
Posttest only				
Fraternity 7	16			10
Fraternity 8	34			30

Instruments

The Burt Rape Myth Acceptance Scale

I used the Burt Rape Myth Acceptance Scale to assess belief in rape myths; Burt defined the term *rape myth* as "prejudicial, stereotyped, or false beliefs about rape, rape victims, or rapists."[13(p217)] Scores at the higher end of this 19 to 133 scale range indicate stronger agreement with beliefs that correlate with sexually coercive behavior. The internal consistency for this scale was .87 on the pretest, .85 on the posttest, and .82 on the follow-up. Validity is supported by research showing that high scores correlate significantly with adversarial sexual beliefs (r = .40) and that men who report a higher likelihood of raping endorse more rape myths (r = .59).[11]

Behavioral Intent to Rape

To assess behavioral intent to rape, I used Malamuth's[16] question: "If you could be assured of not being caught or punished, how likely would you be to rape?" Participants answered this question on a scale from *not at all likely* (1) to *very likely* (5). Malamuth reported that men who reported a higher likelihood of raping also reported higher levels of anger, aggression, and a desire to hurt women.

The Sexual Experiences Survey

The Sexual Experiences Survey (SES)[17] asks respondents to indicate their most serious level of sexually coercive behavior, ranging from coerced fondling to forced intercourse. The internal consistency of the SES among 143 male introductory psychology students was .89. Koss et al[1]

found that 93% of male participants in their validity study of the SES reported the same information on a survey as in an interview.

Design and Procedures

The pretested experimental group completed the dependent measures immediately before they saw the 1-hour program in September 1997. As soon as the program ended, they completed the dependent measures for the posttest. I administered a follow-up, using the same measures, in April 1998. Posttest-only participants completed the dependent measures after the September 1997 program and again in April 1998. The pretested control group completed the dependent measures in September 1997; the posttest-only control group did not do so. All control group participants completed a follow-up administration of the dependent measures in April 1998, the same as the experimental group.

I modified the instructions for the SES[17] on the follow-up to ask participants whether they had committed any of the sexually coercive behaviors since completing the initial survey in September 1997. Participants did not attend any other rape-prevention programs during the academic year in which the study took place. In an attempt to prevent order effects, I randomly sequenced the different scales within the individual surveys.

Treatment

The experimental group participated in a 1-hour program during the beginning of the fall semester in their respective fraternity houses. Four male peer educators presented the program titled "How to help a sexual assault survivor: What men can do" to each audience. The program opened by setting a nonconfrontational tone, indicating that participants would be taken through a workshop designed to help them assist women in recovering from a rape experience.

After a disclaimer, an overview, and a basic review of rape definitions, presenters told the audience that they would be viewing a videotape that described a rape situation. This tape, produced by the Seattle Police Department, described a male police officer being raped by two men. At the conclusion of the video, peer educators processed the video as an act of violence (not sex) and drew parallels from the male police officer's experiences to common experiences of female rape survivors. Participants were then taught basic skills on how to help a woman recover from rape.

Next, the men were encouraged to communicate openly in sexual encounters and to help change societal norms that condone rape. After the presenters responded to questions, they noted that if the 1 hour in which the program took place was an average hour in the United States, 99 women would have experienced rape, attempted rape, or sexual assault.[18] I have described the program fully elsewhere.[19]

I performed a two-way multivariant analysis of variance (MANOVA) to assess the effects of treatment, pretesting, and Treatment × Pretesting Interaction on follow-up scores for sexual coercion, likelihood of raping, and rape myth acceptance. All 145 participants were included in this analysis. I performed a one-way, within-subjects MANOVA on only pretested experimental participants (n = 43) with occasion-of-measurement as the independent variable and posttest scores for rape myth acceptance and for likelihood of raping as the dependent measures.

Then I performed an identical one-way, within-subjects MANOVA, using only pretested control participants (n = 46). Finally, I performed a one-way analysis of variance, using all 145 participants, with treatment as the independent variable and sexual coercion score at follow-up as the dependent variable. I used a p level of .05 for all analyses.

TABLE 2
Rape Myth Acceptance, Likelihood of Raping, and Sexual Coercion for Program and Control Group Participants at Pretest, Posttest, and Follow-up

Dependent measure	Time measured: Pretest	Posttest	Follow-up
Program group			
Rape myth acceptance[a]			
M	46.05	36.55	39.87
SD	15.30	14.63	11.66
Likelihood of raping[b]			
M	1.50	1.24	1.21
SD	1.13	.69	.65
Sexual coercion			
M			.44
SD			1.61
Control group			
Rape myth acceptance			
M	42.45		42.77
SD	16.31		12.74
Likelihood of raping			
M	1.26		1.31
SD	.89		.90
Sexual coercion			
M			.35
SD			1.53

Program group multivariate analysis, $F(4, 38) = 9.24$, $p < .001$.
Program group univariate rape myth acceptance, $F(2, 82) = 14.83$, $p < .001$.
Program group univariate likelihood of raping, $F(2, 82) = 4.21$, $p < .01$.
[a]Pairwise comparisons showed differences between the pretest and posttest ($p < .001$) and the pretest and follow-up ($p < .01$).
[b]Pairwise comparisons showed differences between the pretest and posttest ($p < .05$) and the pretest and follow-up ($p < .05$).
Control group, $F(2, 33) = .32$, $p > .05$.

RESULTS

The two-way MANOVA revealed significant effects for treatment, $F(3, 139) = 4.32$, $p < .01$; for pretesting, $F(3,$

139) = 2.75, $p < .05$; but not for the Treatment × Pretesting Interaction, $F(3, 139) = 1.87$, $p > .05$. Subsequent univariate tests indicated that the experimental group differed from the control group on one of the three dependent measures, displaying a lower level of endorsement of rape myths at follow-up, $F(1, 141) = 10.06$, $p = .001$.

Pretesting had a significant effect only on sexual coercion, $F(1, 141) = 6.61$, $p < .05$, with the pretested experimental group less coercive than the control group at follow-up. Means, standard deviations, and other details of this analysis are displayed in Table 2.

Within-group Changes in Rape Myth Acceptance and Likelihood of Raping

Hypothesis 1 was that program participants would experience a significant decline in the likelihood of raping and in rape myth acceptance on the postprogram test (immediately after the program) relative to the pretest. Hypothesis 2 was that program participants would experience a significant decline in likelihood of raping and rape myth acceptance on the follow-up (7 months later) relative to pretest scores. Hypotheses 1 and 2 were both confirmed.

Using testing occasion (pretest, posttest, and follow-up) as within-participant independent variables and rape myth acceptance and likelihood of raping as dependent variables, I found that program participants' scores on the dependent measures significantly differed over the three testing occasions, $F(4, 38) = 9.24$, $p < .001$. Effects were significant for both rape myth acceptance, $F(2, 82) = 14.83$, $p < .001$, and for likelihood of raping, $F(2, 82) = 4.21$, $p < .01$.

Program participants had significantly higher levels of rape myth acceptance ($p < .001$) and likelihood of raping ($p < .05$) before the program than they did immediately afterward. These lower postprogram levels remained statistically unchanged over the 7-month academic year. Thus, when pretested rape myth acceptance ($p < .01$) and likelihood of raping ($p < .05$) were compared with follow-up scores, significant declines remained. Dependent measures in the control group did not change significantly across the three testing occasions, $F(2, 33) = .32$, $p = .73$.

Sexual Coercion Comparison on Follow-up

Hypothesis 3, that levels of sexual coercion would be lower in the experimental group than in the control group at the follow-up, was not confirmed. The one-way analysis of variance of treatment effects on sexual coercion at follow-up found no significant difference, $F(1, 141) = .16$, $p = .69$. Levels of sexually coercive behavior reported by the men who saw the program were statistically equivalent to those of nonparticipants ($M = .46$, $SD = 1.6$ for participants, compared with $M = .35$, $SD = 1.5$ for those who did not see the program).

COMMENT

My primary objective in conducting this study was to determine how an all-male sexual assault prevention peer education program affected fraternity men. Results showed that the program significantly lowered the men's reported likelihood of raping for an academic year of 7 months. Furthermore, I saw definitive evidence that the program decreased the men's belief in rape myths over a 7-month academic year. However, the results of this study did not show that those who saw the program behaved differently.

During the past 2 decades, researchers have had little success in identifying programs that lower men's acceptance of rape myths and their likelihood of raping.[3] Fewer still have been able to produce lasting declines in these areas.[3] Previously, two studies described programs in which significant declines in rape myth acceptance remained for up to 2 months.[10,15] The present study extended that interval to 7 months. In addition, only two previous studies were ever successful at changing men's intentions of committing rape. In each case, lack of follow-up precluded confirmation of the changes beyond the day of the program.[4,14] My present study showed that the program I used led to significantly lower likelihood of raping immediately after program participation as well as 7 months later.

The likelihood of raping did not differ significantly for the two treatment groups at follow-up. At least three factors may account for this. First, the control group began with a statistically equivalent, yet lower, level of likelihood of raping than the experimental group. Thus, the experimental group would have needed a much stronger decline in likelihood of raping to drop significantly below the unchanged control group. Second, this lack of a significant difference between groups could result from the analyses computing within-subjects effects being more statistically powerful than analyses comparing between-subjects effects.[20] Third, it could also be that the number of participants in each condition was too small to show a significant difference.

When studying the impact of the program evaluated in the present study, Foubert and Marriott[10] suggested that an improvement in rape myth acceptance of a pretested, untreated control group might have been a result of pretest effects from taking the Burt Rape Myth Acceptance Scale. A similar pretest effect was shown by Fonow et al.[15] The present study clarified this issue by pretesting only half of both the program and the control groups. Contrary to my expectations, statistically equivalent levels of rape myth acceptance were reported on the posttest and the follow-up, regardless of whether participants were pretested.

Despite the encouraging findings in attitude change and likelihood of raping, changes in sexually coercive behavior were not demonstrated. It is possible that sufficient information was provided and enough empathy with rape survivors was built for participants to change their attitudes and behavioral intent to rape, but the intervention was not enough to change behavior. Behavioral changes may also necessitate an intervention that is more comprehensive than the one-time program I used in this study. In addition, 7 months may not have been enough time to wait for sufficient sexually coercive behavior to occur for an evaluation of meaningful and significant differences between the control and experimental groups.

Another possible explanation is that the program itself influenced how participants answered the questionnaire at follow-up. Program participants learned how to define rape and how to determine whether they had a partner's consent during a sexual encounter. The control group did not have the benefit of learning this material. Therefore, the control group was less able to identify their behavior as sexually coercive because their understanding of how consent and coercion were defined was not clear. The experimental group was exposed to an educational program in which these concepts were taught.

The lack of a behavioral difference in the present study may have indicated different levels of knowledge of what rape, consent, and coercion are; what a woman means when she does not want to do something sexual; and what is meant by the use of physical force. The men who saw the program may have been more likely to identify their behavior as coercive or nonconsensual when it happened because they were better educated in knowing how such behavior is defined. The men who were in the control group may have been less likely to know that their behavior was nonconsensual. Thus, they may have been less likely to report it as such.

This study had several limitations, the first and most important of which is selection bias. Participants were members of a specific population on a campus (fraternities) and were members of chapters that volunteered to participate. Most fraternities did not participate; about one third of the campus fraternities volunteered. Student affairs staff members confirmed that the fraternities that volunteered were similar to the fraternity population at large in terms of policy violations and reputation, but the low rate of participation is a major concern.

In addition, not all members of individual chapters participated throughout the study. Differences between fraternity men and other men, fraternities that participated and those that did not, members of chapters who attended the program and those who did not, and members who completed the final follow-up and those who did not must be taken into consideration. These serious limitations must be noted when interpreting the results of the study. These findings, therefore, must be viewed as preliminary. Still, given the longitudinal nature of the study, it is noteworthy that 67% of the original participants completed it.

Sample size is another limitation. The number of participants I used provided enough statistical power for significant results to emerge on attitudes and behavioral intent. It is likely, however, that not enough participants were involved to detect meaningful differences in behavior. Also, given that only 9% of the participants in the present study were ethnically non-White, the results may not be relevant for non-White students.

These initial findings have several implications. First, this study suggests that educating men about rape in the context of an all-male, peer education "How to help a sexual assault survivor" program may be effective in changing men's beliefs in rape myths and their reported likelihood of raping. However, the program was not shown to change actual behavior. In view of the lack of effective means for eliciting changes in attitudes and behavioral intent to rape,[3] I believe that further study and use of this approach, perhaps combined with other approaches, may lead to future findings of behavior change.

Several implications for promising areas of future research are suggested by the results of this study. One area of inquiry would be an exploration of different ways of measuring the program's impact on sexually coercive behavior. A larger and more representative sample of program and control group participants assessed over a longer time interval might reveal a behavioral difference.

Additional research could also attempt to combine programmatic approaches to determine whether interactive effects occur. For example, participants might be exposed to a victim-empathy program, as in the present study, and to a program focusing on defining consent in a sexual encounter, such as the one evaluated by Earle[12] and designed by Berkowitz.[8]

CONCLUSION

This study suggested that the program I evaluated elicited the longest change in attitudes and the longest change in the likelihood of raping found in an evaluation study of a rape-prevention program for men. Although the findings are preliminary and the conclusions are tentative, they suggest that the programmatic approach I used in the present study is worthy of future research. It could also be used by educators who are seeking to work toward the goal of creating campus environments where no more rape occurs. The research literature awaits proof of behavioral changes resulting from a rape-prevention program.

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