

## Original Research Reports

# The Effectiveness of the Bringing in the Bystander™ Program Among First-Year Students at a Religiously-Affiliated Liberal Arts College

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## Abstract

To address sexual assault, many universities are implementing Bringing in the Bystander™ (BitB) training, a prevention program that aims to improve participants' bystander self-efficacy and reduce rape myth acceptance. Although growing evidence supports the efficacy of BitB, data primarily have been amassed at one large public university, the University of New Hampshire, limiting the generalizability of intervention effectiveness. To address this gap, we made modifications to training structure and assessed BitB effectiveness among first-year students at a private Jesuit Catholic liberal arts college in Massachusetts. Using a within-subjects pre-/post-test survey design, we found that students' (N = 164) bystander self-efficacy significantly increased and rape myth acceptance significantly decreased following training. Results indicate that BitB implementation is feasible and effective on a new campus despite modest modifications to training delivery and despite differences in religious affiliation, median income, and class size between the two campuses.

**Keywords:** sexual assault, bystander training, bystander self-efficacy, rape myth acceptance, American colleges, Bringing in the Bystander™

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Approximately 20% of women and 6% of men have experienced a completed or attempted sexual assault by the end of their college experiences (Krebs, Lindquist, Warner, Fisher, & Martin, 2007). Sexual assault can be conceptualized as unwanted completed or attempted sexual contact by force, pressure, or promise of reward, as well as unwanted, completed, or attempted sexual contact on an incapacitated person (Fisher, Cullen, & Turner, 2000). By this definition, sexual assault captures a wider range of experiences than rape, which can be defined as unwanted sexual penetration (Fisher et al., 2000). In the United States, legal definitions of rape and sexual assault vary widely across states, and often fail to capture the diverse array of sexually victimizing acts considered in this study (Rape, Abuse, and Incest National Network [RAINN], 2018). In the aftermath of a sexual assault, victims<sup>i</sup> may face anxiety, depression, and post-traumatic stress disorder, especially if they encounter negative social re-

actions, lack of social support, or feelings of self-blame (Cleere & Lynn, 2013). In a recent study, women assaulted during their first semester of college had lower average grades than their peers, with the severity of the assault linked to the severity of the academic fallout (Jordan, Combs, & Smith, 2014). Sexual victimization detracts from the educational experience for all students, and racial and sexual minority students in particular believe sexual assault is a problem on campus and support robust sexual assault education programs (Worthen & Wallace, 2017).

Experiences of and responses to sexual victimization vary by gender, race/ethnicity, and sexual orientation. Percentages of survey respondents reporting sexual violence are particularly high among indigenous (American Indian/Alaska Native) women and Multiracial women (45.6% and 49.5% respectively) (Black et al., 2011). Similarly, sexual minority respondents report higher levels of lifetime sexual violence compared to their heterosexual peers, with almost half of lesbian women, gay men, and bisexual men and three-quarters of bisexual women reporting previous sexual victimization (Walters, Chen, & Breiding, 2013). Additionally, erroneous beliefs about sexual agency and violence in racial and sexual minority communities, such as stereotypes that portray Black men and women as sexually aggressive, can create barriers to victims' access to help after a sexual violence incident (Donovan, 2007). On college campuses in particular, prevalence surveys and evaluations of anti-sexual violence programs are typically conducted with samples that are primarily Caucasian and heterosexual, thereby limiting the generalizability of results to a more socially privileged and protected group (Porter & Williams, 2011). Evaluations of anti-sexual violence policies and programs should be interpreted with these disparities in mind.

In an effort to prevent sexual assault on campus, psychologists have developed programs capable of increasing bystander intervention behaviors and reducing rape-supportive attitudes of large groups of students. These include the Bringing in the Bystander™ program (Banyard, Plante, & Moynihan, 2004), InterACT (Ahrens, Rich, & Ullman, 2011), the Mentors in Violence Program (MVP) (Katz, Heisterkamp, & Fleming, 2011), the Green Dot program (Coker et al., 2011), and the Men's Project (Stewart, 2014). The goal of bystander programs is to use statistics and vignettes to educate students about sexual assault and model prosocial bystander behaviors to intervene in potential assault scenarios (Katz & Moore, 2013). These activities are designed to reduce participant acceptance of common assault-related stereotypes and frame bystander intervention as a community responsibility. Participating in bystander training has been associated with reductions in the belief that women are individually responsible for their own safety and in the belief that there are significant barriers to bystander intervention, such as physical harm or ostracism (Exner & Cummings, 2011; Koelsch, Brown, & Boisen, 2012).

In January 2014, the White House Task Force to Protect Students from Sexual Assault recommended the Bringing in the Bystander™ (BitB) program, in particular, as a best practice for preventing sexual assault on U.S. college campuses (Not Alone, 2014). While there is a considerable amount of evidence to support BitB efficacy (see Banyard et al., 2004; Banyard, Moynihan, & Plante, 2007; Moynihan et al., 2015) the preponderance of data have been amassed among students at a large public university (i.e., University of New Hampshire) and under tightly controlled conditions thereby potentially limiting the generalizability of intervention effectiveness. In order to disseminate this evidence-based sexual assault prevention program more widely, however, effectiveness trials are needed to show that salubrious intervention effects persist even when the program is adapted to fit the needs of a new campus culture and tested under 'real world' conditions (Glasgow, Lichtenstein, & Marcus, 2003). Given the heterogeneity in campus cultures across the U.S., some college communities may face more prevention barriers than others, such as differing cultural expectations for responding to an assault, or lack of community-based services to aid victims (Payne, Ekhomu, & Carmody, 2009), potentially rendering BitB less effective in those envi-

ronments. The purpose of the present study was to adapt, replicate, and test the generalizability of the BitB program at a private Jesuit Catholic liberal arts college in Massachusetts.

### Bringing in the Bystander™

Developed at the University of New Hampshire (UNH), the BitB program uses a combination of educational information, role-playing, and empathy-building exercises to teach students how to act as prosocial bystanders (Banyard et al., 2004). In its original format, peer facilitators present the training to students in either a one-session or multi-session program, in same-sex groups. During the BitB program, students learn about the bystander effect (which suggests that individuals are less likely to help someone when others are present; see Latané & Darley, 1970) and crimes that could have been interrupted with the help of an active bystander. They then learn about rape culture, the concept that dominant cultural attitudes blame victims for their assault and excuse the actions of perpetrators, especially perpetrators who possess gender, racial, or economic privilege (Armstrong & Mahone, 2017; Maxwell, 2014). The program also contrasts rape myths (e.g. only women can be raped) with empirical evidence (e.g. 6% of men experience attempted or completed assault during college; Krebs et al., 2007). During the second half of the session, students brainstorm solutions to intervene in potential instances of sexual assault and sign pledges indicating their commitments to being active bystanders.

BitB is rooted in two behavioral theories. The transtheoretical model of change hypothesizes that individuals advance through a series of distinct stages when changing their behavior, moving from contemplation, to preparation, to behavior change, to behavior maintenance (Prochaska, DiClemente, & Norcross, 1992). The program attempts to move students forward in their individual trajectories of behavior change as students develop awareness of sexual assault, identify specific bystander behaviors to diffuse potential sexual violence situations, make commitments to implement bystander behaviors, and then act as bystanders when necessary (Banyard et al., 2004). The community readiness model posits that behavior change is contextualized within broader community norms, which can either facilitate or constrain these changes (Edwards, Jumper-Thurman, Plested, Oetting, & Swanson, 2000). BitB was developed as a shift away from individualistic models of sexual violence prevention to a more community-centered model (Banyard et al., 2004). That is, whereas previous prevention efforts typically framed all women as potential victims and all men as potential perpetrators, bystander-focused prevention frames all students as potential agents capable of preventing an assault.

Empirical evaluations of the BitB program have focused on two particular outcome measures: bystander self-efficacy and rape myth acceptance. Bystander self-efficacy is a measure of confidence in performing bystander behaviors (Banyard et al., 2007). In the first experimental evaluation of the program among students at UNH, students in either a one-session or three-session version of the program showed greater knowledge about sexual assault and greater bystander self-efficacy, compared to students in a control group (Banyard et al., 2007). Replicating these effects, sorority members at UNH who participated in the BitB program showed improved bystander self-efficacy, voiced greater intentions to help, and reported feelings of responsibility to act when witnessing potential instances of sexual assault, compared to a control group (Moynihan, Banyard, Arnold, Eckstein, & Stapleton, 2011). Student athletes, considered to be a particularly socially visible group, completed the program and also exhibited greater bystander self-efficacy compared to a control group of student athletes at UNH (Moynihan, Banyard, Arnold, Eckstein, & Stapleton, 2010). These evaluations did not demonstrate a significant difference in self-efficacy scores between genders; however, subsequent evaluations on other campuses (i.e. Clark University and the University of Massachusetts Lowell) have found significantly higher bystander self-efficacy scores among

female students, possibly due to predominantly male populations on those campuses (Cares et al., 2015; Palm Reed, Hines, Armstrong, & Cameron, 2015). Longitudinal research conducted by follow up surveys suggests that improvements in bystander self-efficacy found at UNH may endure up to 12 months after program completion (Banyard et al., 2007; Moynihan et al., 2010; Potter & Moynihan, 2011).

Rape myth acceptance is a measure of agreement with common myths surrounding sexual assault. At UNH, students exhibited decreased levels of rape myth acceptance after completing BitB training (Banyard et al., 2007). While the program reduces both men's and women's rape myth acceptance scores, there exists a gender disparity in scores before and after training (Banyard et al., 2007; Palm Reed et al., 2015). Previous work has shown that men are significantly more likely than women to endorse rape myths (Suarez & Gadalla, 2010; Vance, Sutter, Perrin, & Heesacker, 2015). Although rape myth acceptance decreases for both men and women after completing BitB, men continue to be more likely to endorse erroneous beliefs about the causes of sexual assault than women (Banyard et al., 2007; Palm Reed et al., 2015).

In sum, considerable evidence indicates that BitB increases students' abilities to diffuse situations where sexual violence might occur and to lessen rape myth-supportive attitudes. In the present study, we assessed these two key outcome measures of behavioral self-efficacy and rape myth acceptance to test if the intervention remained effective despite adapting the program and translating it for use at a private Jesuit Catholic liberal arts college in Massachusetts.

## Adapting Bystander Training for a New Campus

In the original iteration of the program, students completed bystander training in single-sex groups led by both one male and one female peer facilitator (Banyard et al., 2004; Banyard et al., 2007; Palm Reed et al., 2015). However, in the present study, we modified the delivery strategy so that students completed the training in mixed-sex groups led by two peer facilitators in both mixed-sex and same-sex pairings. We grouped students according to first-year dormitory assignment, rather than gender, to foster connections between students in the same living-learning communities and thereby reinforce bystander intervention as a community norm. We also expected this decision would better accommodate gender diverse students, creating a more inclusive, rather than binary, training space. Finally, we hoped that mixed-sex training groups would further emphasize bystander intervention as a community responsibility, moving farther away from traditional assault prevention models that frame women as potential victims and men as potential perpetrators. To our knowledge, no studies exist comparing the effects of BitB training when conducted in same-sex versus mixed-sex groups.

Peer facilitators were volunteer peer relationship counselors or student leaders in their sophomore, junior, or senior years. They were trained to deliver BitB by college administrators and were compensated \$50 for each training session that they facilitated. We did not assign strictly male-female facilitator pairs primarily for logistical reasons: the majority of students serving as peer relationship counselors were female, and male-female pairs would have required inequitable workloads for the male facilitators. Considering program longevity, BitB delivery is part of the peer relationship counselors' training and responsibilities, and we expect drawing from veteran facilitators within the peer counselor group will be more sustainable than recruiting and training a new group of male facilitators each year in order to achieve gender parity. Additionally, first-year students were already familiar with the relationship peer counselors, who were present during first-year orientation. To our knowledge, no studies exist comparing the effects of BitB training when conducted with same-sex versus mixed-sex facilitators.

Despite the adaptations made to the training structure to accommodate campus norms, other cultural factors remained that could have hindered the generalizability of BitB training on a new campus. The Jesuit Catholic identity at the present college may pose barriers to intervention implementation and feasibility not encountered on a secular campus such as UNH. Although the program is designed to reduce rape myth acceptance, religious norms within some Catholic traditions implicitly support rape myths. A socio-historical analysis implicates several biblical stories that support common rape myths, such as ‘husbands cannot rape their wives’ and ‘women lie about rape’ (Edwards, Turchik, Dardis, Reynolds, & Gidycz, 2011). In a previous study of assault-related attitudes among Catholic college students, male participants exhibited higher rape myth acceptance than female participants, with rape myth acceptance mediating the relationship between participant gender and blame attributions in a mock assault scenario (Hammond, Berry, & Rodriguez, 2011). Higher rape myth acceptance rates among male students, coupled with norms that discourage sexual relationships before marriage among male and female students, could create barriers to BitB implementation within a religiously-identified community, particularly among male students.

Surprisingly, female participants in the Hammond et al. (2011) study reported more conservative sexual attitudes than male participants, but lower rape myth acceptance levels. The authors suggest that Catholic education played a unique role in participants’ rape myth acceptance, in that Catholic education may impart conservative-leaning beliefs about sexuality, but liberal-leaning beliefs regarding social justice. Therefore, some norms within Jesuit Catholicism may bolster BitB effectiveness, and it is possible that students who choose to attend the college under consideration may have lower rape myth acceptance levels than peers at other religious institutions. Jesuit education emphasizes care of the whole person (*cura personalis*), commitment to service and social justice, and an inquisitive learning style through which students grow in faith by actively questioning their own assumptions and beliefs (Geger, 2014). These values have been linked to the emergence of progressive social movements on other Jesuit campuses (Maher, Sever, & Pichler, 2008; Sabbaghi & Cavanagh, 2015). Such commitments to self-care and social justice may place students further along the behavioral change continuum, where they would be more willing to absorb and act upon the teachings of the BitB program.

Additionally, demographic variables differentiate the UNH student population from the student population in the present study and may affect program generalizability. The median family income is \$52,000 higher at the campus under consideration than at UNH (Chetty, Friedman, Saez, Turner, & Yagan, 2017). Given the correlation between income and conservative political beliefs in the United States (Pew Research Center for the People & the Press, 2009), wealthier students may identify with more traditional social values, including conservative sexual beliefs, which are correlated with higher rape myth acceptance and therefore may pose a barrier to BitB effectiveness (Hammond et al., 2011). Further, there exists a substantial difference in size between the campuses: the 2017 undergraduate student population numbered 12,871 at UNH, versus 2,941 at the current campus (U.S. News and World Report, 2017). There is an inverse relationship between campus size and psychological sense of community, or feelings of belongingness in a campus environment (Lounsbury & DeNeui, 1996). As previously noted, BitB grounds sexual assault as a community concern and therefore the program’s effects could be bolstered by the stronger sense of community expected on a smaller campus. These considerable differences in religion, median income and campus size, coupled with the college’s Jesuit Catholic identity, could contribute to differences across student attitudes and community norms that may influence BitB effectiveness and create barriers to program generalizability.

## Present Study

The current study uses a pre/post-test design to analyze the adaptability and generalizability of the BitB program among a novel student population. Despite the changes to training delivery and the differences between campuses in religious affiliation, median income, and campus size, we based the present hypotheses on the prior efficacy studies. Therefore, we hypothesized that bystander self-efficacy will be significantly higher and rape myth acceptance scores will be significantly lower after completing the BitB program (Hypothesis 1). Moreover, we also examine the effect of gender, as previous studies have shown that male students typically have lower bystander self-efficacy and higher rape myth acceptance than female students (Banyard, 2008; McMahon, 2010). Therefore, we hypothesized that male students will report lower bystander self-efficacy but higher rape myth acceptance than female students at both pre- and post-test (Hypothesis 2).

## Method

### Participants

All participants were recruited from the first-year class (772 enrolled students) at a private Jesuit Catholic liberal arts college in Massachusetts. Three hundred and twenty-five students completed the pre-test survey and 164 of those participants completed the post-test survey (21% response rate, 50% attrition). The majority of participants were female (56.7%), heterosexual (95.1%), and Caucasian (75.3%), with an average age of 18.2 years old ( $SD = 0.40$ ). Most (83.9%) participants belonged to an organized religion, the majority (66.1%) to Catholicism. This study was approved by the Institutional Review Board at the college.

### Procedure

Participants received an initial recruitment email inviting them to participate in the pre-test online survey and explaining the raffle opportunities. Participants who completed either survey within 72 hours were entered into a raffle for one of 25 \$20 gift cards to the campus bookstore. Participants who completed both surveys within 72 hours were entered into an additional raffle to win one of ten \$50 bookstore gift cards. They received three reminder emails, one every 72 hours after the initial email. The recruitment and reminder emails explained the connection between the surveys and the bystander training but emphasized that, while the training was mandatory for first-year students, the surveys were voluntary. We sent out the first online survey five days before training began and it remained accessible until the first day of the program. Three weeks after the completion of BitB training, students received the online post-test survey. Students received three reminder emails, one every 72 hours, after which we closed the surveys for analysis. Post-test reminder emails also emphasized the difference between the mandatory training and the voluntary surveys.

During BitB training, small groups (averaging 20 to 30 students) of first-year students congregated in the social spaces of their respective residence halls and completed the one-hour program with two peer facilitators. Again, we made two major adaptations to the original BitB program: students attended the training in mixed-sex groups instead of same-sex groups, and the peer facilitators did not present in male-female pairs. Initially, participants were asked to brainstorm a definition for 'bystander' and to consider whether the concept of a bystander is a negative or positive one. Next, they explored the definition of a bystander and how this related to behavior expectations on campus. The peer facilitators presented case studies of sexual assault on college campuses and the

story of Kitty Genovese<sup>ii</sup>, whose rape and murder sparked a psychosocial interest in the bystander effect. Then, students were presented with examples of positive bystander interventions and with degrees of sexually violent behaviors, from degrading posters to sexist remarks to sexual assault.

After these examples were presented, students completed two activities. In the first activity, facilitators used an empathy building exercise to mimic the way victims of sexual assault may feel unsafe, alienated, and embarrassed. In the second activity, students worked in smaller groups to brainstorm interventions for various scenarios and then presented their ideas to the larger group. Finally, students contrasted common rape myths (e.g. the rapist as the stranger in bushes) with empirical evidence (about 50% of male and female victims identify an intimate partner as the perpetrator; Walters et al., 2013). At the end of the session, each participant read and signed a 'bystander pledge' in which they pledged to support victims and act as prosocial bystanders.

The pre- and post-test online surveys collected information about the main study variables: bystander self-efficacy and rape myth acceptance. Other variables collected but not analyzed here included the percentage of students who know another student at the college who had experienced sexual assault, and the level of involvement in campus activities, such as service groups, special interest organizations, and athletic teams. Participants were debriefed after each survey through an online debriefing form attached to each survey. Raffle winners received their gift cards through the campus counseling center one week after the surveys were closed.

## Materials

The online surveys included several scales regarding student attitudes toward sexual assault and bystander intervention, as well as demographic information and training satisfaction questions on the post-test survey. In addition, the post-test survey included one item intended to assess the degree to which students perceived the BitB program to be consistent with the college's efforts to pursue the Jesuit Catholic value of *cura personalis*, or 'care for the whole person': "To what extent do you think the Bringing in the Bystander program helps our community to care for the whole person?" Participants rated this item on a scale of 1 (*not at all helpful*) to 4 (*very helpful*).

### Bystander Self-Efficacy

In order to assess students' beliefs that they are capable of performing typical bystander behaviors, they completed the Bystander Self-Efficacy Scale, a list of 11 behaviors performed by prosocial bystanders. The Bystander Self-Efficacy scale was developed by the authors of the BitB program and has been used in previous evaluations of BitB (e.g. Moynihan et al., 2010; Cares et al., 2015). Example items include "Make sure my friends leave the party with the same people they came with" and "Obtain help or resources for a friend who tells me s/he has had an unwanted sexual experience" (Banyard et al., 2007; Banyard, 2008). Participants rated the degree to which they felt they were capable of performing each behavior on a scale of 1 (*Not at all confident*) to 7 (*Extremely confident*). Items were averaged such that higher numbers represent greater bystander self-efficacy (range: 2.45-7.00). These ratings were reliable at the pre-test ( $\alpha = .88$ ) and post-test ( $\alpha = .90$ ) phases, and consistent with reliability demonstrated in previous work ( $\alpha = .87$ ; Banyard et al., 2007).

### Rape Myth Acceptance

To assess participants' attitudes toward victims of sexual assault, they completed the nine-item Illinois Rape Myth Acceptance Scale (abbreviated version), which was edited to neutralize the gender of the perpetrator and victim. This scale includes common rape myths, such as "If a person initiates kissing or hooking up, s/he should not be

surprised if the other person assumes s/he wants to have sex,” or “People don’t usually intend to force sex on another person, but sometimes they get too sexually carried away” (Payne, Lonsway, & Fitzgerald, 1999; McMahon & Farmer, 2011). Participants rated their agreement with the statements on a scale of 1 (*Strongly disagree*) to 5 (*Strongly agree*). Items were averaged such that higher numbers represent a greater adherence to rape myths (range: 1.00–4.11). These ratings were reliable at the pre-test ( $\alpha = .84$ ) and post-test ( $\alpha = .89$ ) phases and consistent with previous measures of reliability in the context of evaluating the BitB program ( $\alpha = .83$ ; Banyard et al., 2007).

## Results

### Descriptive Statistics

At the pre-test phase, participants reported fairly high levels of bystander self-efficacy ( $M = 5.21$ ,  $SD = 0.97$ ) and moderately low levels of rape myth acceptance ( $M = 2.13$ ,  $SD = 0.70$ ) (see Table 1 for full information). Given our relatively high rate of attrition, we examined whether participants who completed the post-test survey were different on baseline measures compared to participants who were lost to follow-up. There were no significant differences between participants who completed the post-test survey and those that did not on pre-test bystander self-efficacy,  $t(317) = .045$ ,  $p = .96$ , or rape myth acceptance,  $t(315) = -0.34$ ,  $p = .73$ . Moreover, there were no demographic differences in age,  $t(290) = 1.29$ ,  $p = .20$ , gender,  $\chi^2(1, N = 312) = 0.36$ ,  $p = .55$ , or race,  $\chi^2(1, N = 317) = 0.21$ ,  $p = .65$ , between participants who completed the post-test survey and those who did not. We examined student perceptions of the degree to which the BitB program helped pursue the Jesuit Catholic value of *cura personalis*. The overwhelming majority of students viewed the program as “somewhat helpful” (35.4%) or “very helpful” (49.3%) in pursuing care for the whole person.

Table 1

Means and Standard Deviations of Study Measures

Measure	Pre-test		Post-test		Correlation		Effect size
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>r</i>	<i>p</i>	<i>d</i>
Bystander Self-Efficacy	5.21	0.97	5.52	0.90	.64	< .01	-0.39
Rape Myth Acceptance	2.13	0.70	1.95	0.73	.74	< .01	0.35

### Inferential Statistics

In order to investigate the main study hypotheses, mixed analyses of variance were used to examine the effect of time (within-subjects factor), gender (between-subjects factor) and time by gender interaction on bystander self-efficacy and rape myth acceptance. Effects were considered statistically significant if they reached conventional statistical thresholds (i.e.,  $p < .05$ )

For bystander self-efficacy, there was a main effect of time,  $F(1,167) = 32.06$ ,  $p < .001$ ,  $\eta_p^2 = .16$ , such that post-test scores ( $M = 5.57$ ,  $SE = 0.07$ ) were significantly higher than the pre-test scores ( $M = 5.23$ ,  $SE = 0.07$ ). There was no main effect of gender  $F(1,167) = 0.05$ ,  $p = .82$ ,  $\eta_p^2 = .00$ , nor was there a time X gender interaction,  $F(1,167) = 0.63$ ,  $p = .43$ ,  $\eta_p^2 = .004$ , on bystander self-efficacy. Thus, students reported greater bystander self-efficacy after



completing the BitB program, supporting Hypothesis 1 [increased bystander self-efficacy scores after completing the program] but not Hypothesis 2 [male students will report lower bystander self-efficacy than female students at both pre- and post-test].

For rape myth acceptance scores, there was again a main effect of time,  $F(1,167) = 14.34$ ,  $p < .001$ ,  $\eta_p^2 = .079$ , such that post-test rape myth acceptance scores ( $M = 1.97$ ,  $SE = 0.06$ ) were significantly lower than pre-test scores ( $M = 2.13$ ,  $SE = 0.05$ ). There was also a main effect of gender on rape myth acceptance scores  $F(1, 167) = 8.60$ ,  $p = .004$ ,  $\eta_p^2 = .049$ , such that male students, on average, had higher scores ( $M = 2.20$ ,  $SE = 0.08$ ) than female students ( $M = 1.89$ ,  $SE = 0.07$ ). There was no time X gender interaction effect,  $F(1,167) = 2.06$ ,  $p = .15$ ,  $\eta_p^2 = .012$ . Thus, students reported lower rape myth acceptance after completing the BitB program, supporting Hypothesis 1 [reduced rape myth acceptance scores after completing the program]. Male students reported higher rape myth acceptance scores than women both before and after the training, supporting Hypothesis 2 [male students will report higher rape myth acceptance scores at both pre- and post-test].

In sum, the present data suggest that students experienced increases in behavioral self-efficacy and reductions in rape myth acceptance three weeks after completing the BitB training. Moreover, the effect sizes obtained in the present study were similar in strength (i.e., medium effect sizes; Cohen, 1977) to those obtained in a previous study using a four-week follow-up (behavioral self-efficacy:  $d_{current} = 0.39$  vs.  $d_{Banyard} = 0.67$ ; rape myth acceptance:  $d_{current} = -0.35$  vs.  $d_{Banyard} = -0.44$ ; Banyard et al., 2007).

## Discussion

Sexual assault is one of the most pressing social issues facing American college campuses today (Not Alone, 2014). Bystander interventions, in which students are taught to identify and intervene in situations where sexual violence is likely to occur, have been championed as best practice programs poised to prevent sexual assault (Not Alone, 2014). Although prior evaluations have demonstrated that BitB training can increase bystander self-efficacy and decrease rape myth acceptance, the preponderance of existing evaluations have been conducted at the University of New Hampshire, a large public university. In order to further examine the adaptability and generalizability of this program, the purpose of the present study was to examine the effectiveness of BitB among students at a private Jesuit Catholic liberal arts college.

### Research Implications

Consistent with previous evaluations of BitB (e.g., Banyard et al., 2007; Cares et al., 2015; Moynihan et al., 2011), our pre/post-test evaluation showed that students' bystander self-efficacy increased and their rape myth acceptance decreased after completing the program, and our effect sizes demonstrate that the BitB program was similarly efficacious on a new campus. Also consistent with previous research (Banyard et al., 2007; Muir, Lonsway, & Payne, 1996), was that male students scored higher on rape myth acceptance at both the pre-test and the post-test survey. Thus, although the BitB training was similarly efficacious for both male and female students, male students continued to demonstrate higher rape myth acceptance than female students. These results indicate that evidenced-based sexual assault programming can certainly be efficacious in new campus settings, despite differences in religious affiliation, public vs. private ownership, median income, and campus size.

The present findings replicate and extend evidence supporting BitB intervention effectiveness even after modest adaptations of the program structure. The original UNH protocol specified that BitB trainings occur within same-sex groups, citing a literature review of rape prevention programs that indicated a tentative trend of more positive outcomes with single-sex versus mixed-sex programs (Breitenbecher, 2000). We modified the training to occur in mixed-sex groups within first-year dormitories to strengthen the BitB program's emphasis on community norms and responsibilities, and to accommodate gender diversity among students. The original UNH protocol also specified that peer facilitators present the program in male-female pairs. We did not dictate the gender of facilitator pairs in the present study, instead drawing from a predominantly female group of peer relationship counselors and student leaders already engaged in anti-assault work. The present data suggest that modest changes to the implementation structure did not compromise intervention effectiveness. Additional research is needed to determine whether modifying content of the intervention to better meet the needs of unique campus cultures (e.g., campus-specific vignettes) would have similar null or positive effects on intervention outcomes.

## Limitations

Although the present study provides critical new data regarding the effectiveness and generalizability of the BitB program, the findings should be contextualized with a number of limitations in mind. Because data were collected within the methodological constraints of an externally funded project (that is, the grant required all students to complete the training in the first few weeks of college), we were unable to randomly assign students to conditions. However, due to the pre-/post-test study design, participants acted as their own controls. The timing of the training is also a limitation, as the training was completed within the first six weeks of college. Although present findings are in line with those obtained in previous randomized controlled trials (e.g., Banyard et al., 2007; Moynihan et al., 2010; Moynihan et al., 2015; Palm Reed et al., 2015), we cannot rule out the possibility that students' bystander self-efficacy and rape myth acceptance scores were also influenced by other programs at the start of college (e.g., orientation programs; exposure to sexual assault-related course content). While this limitation would not be present among older students already enmeshed in the campus culture, waiting to deliver BitB training would risk leaving first-year students without important assault-related information, and that consideration (in addition to the stipulations in the grant) took precedence over the potential limitation of the timing. Additionally, because previous research has established a strong evidence base for the efficacy of BitB, the present study provides a critical new effectiveness trial designed to reduce the 'research to practice' gap in the implementation of this program (Glasgow et al., 2003).

Due to the optional nature of the surveys, selection bias may have occurred. The students who chose to respond to the surveys may care more about sexual assault, personally or politically, than those who did not, or may have been compelled by the raffle incentive for completing the surveys. Conversely, students who have had personal experiences with assault may have been less likely to engage with the survey than students who are more emotionally removed from the subject. Although there were no significant differences in demographic characteristics or bystander self-efficacy and rape myth acceptance scores between those who did and did not complete the post-test survey, the 50% attrition rate is a limitation and may reflect differing motivations to complete or disregard the post-test survey.

Moreover, although the present sample reflects the demographic characteristics of this particular campus, the sample is relatively homogenous with respect to racial/ethnic identity and sexual orientation. Survey studies demonstrate that male and female racial minorities in the U.S. report greater sexual victimization than their white

counterparts, and LGBTQ persons report higher rates of sexual violence than their heterosexual peers (Black et al., 2011; Walters et al., 2013). Future research with more diverse samples will help extend the evidence base for this program, or identify areas where modifications in content or training structure are necessary to increase effectiveness among marginalized populations. Finally, it is worth noting that, to date, no evaluations have examined the effect of the BitB program on actual prevalence rates of sexual assault. Future research that examines intervention efficacy and effectiveness for this important outcome is needed in order to further strengthen the evidence base of this and other bystander interventions (see Senn et al., 2015 for a related example).

## Policy Implications

Increasingly, colleges and universities are realizing the need to provide students with sexual assault education programming. The present study demonstrates that the BitB program elicits similar salubrious effects on bystander self-efficacy and rape myth acceptance in a new population, despite differences in religious affiliation, median income, and campus size and culture. Furthermore, a significant majority of students in the present study identified the BitB program as falling in line with the Jesuit Catholic value of *cura personalis* or caring for the whole person. Therefore, researchers and administrators at Catholic colleges can and should pursue assault prevention programming with the knowledge that their students are likely to benefit from the program's effects and may make connections between anti-violence work and their religious values. On a broader level, community-based programs like Bringing in the Bystander™ could be an important tool in non-academic contexts with a high prevalence of sexual assault. Future work should include adaptations to the program to make it suitable for local communities in the U.S. and internationally.

Our evaluation of BitB adds to the present body of research demonstrating that male students are consistently more likely to endorse rape myths than their female peers regardless of university context and previous training (e.g., Hayes, Abbott, & Cook, 2016) and regardless of participating in bystander training in same-sex or mixed-sex groups. With this in mind, administrators could choose to implement additional targeted education programs for male students (e.g. MVP; Katz et al., 2011) to specifically address the origins of rape myths, the effects of those myths on victimization, and/or the role rape myths may play in acts of sexual aggression against female and male victims.

Bringing in the Bystander™ has been identified as a program capable of helping to prevent sexual assault on U.S. college campuses, yet few studies have tested the feasibility and effectiveness of the program's effects in diverse settings. The present study adds to the growing body of evidence supporting the effectiveness of BitB (e.g., Banyard et al., 2004; Banyard et al., 2007; Cares et al., 2015) and suggests that bystander training is an effective method for preventing sexual assault even after adaptation and in a new campus environment.

## Notes

i) Both 'victim' and 'survivor' have been used to refer to someone who has experienced sexual violence. Prior work suggests that 'victim' has a more negative connotation but suggests blamelessness, while 'survivor' is viewed more positively, but may minimize the impact of sexual violence (Papendick & Bohner, 2017; Thompson, 2000). We use 'victim' throughout to align with the Bringing in the Bystander™ program materials.

ii) Catherine "Kitty" Genovese was raped and murdered in Queens, New York in 1964 (Gallo, 2015). Reports indicated that dozens of neighbors heard her cries for help but did not call police (Gallo, 2015). This story is frequently used as an example

of the bystander effect, which suggests that individuals are less likely to help someone when other people are present (Latané & Darley, 1970).

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## Competing Interests

The authors have declared that no competing interests exist.

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