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Measurement and Correlates of Prosocial Bystander Behavior: The Case of Interpersonal Violence

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The field of social psychology has long investigated the role of prosocial bystanders in assisting crime victims and helping in emergency situations. This research has usually been experimental and has established important principles about the conditions under which individuals will choose to engage in prosocial bystander behaviors. More recently, interest has grown in applying this work to the important practical problem of preventing interpersonal violence in communities. Yet, to date, there has been little research on the role of bystanders in cases of interpersonal violence. The current study is thus exploratory. Using a sample of 389 undergraduates, the study discusses key issues in the development of measures to investigate these questions and presents preliminary analyses of correlates of bystander behavior in the context of sexual and intimate partner violence.

Keywords: sexual violence; prevention; bystanders; informal helpers

Darley and Latane's (1968) study created a model for understanding the conditions under which individuals as bystanders to an emergency are more or less likely to intervene to help another. Bystander behavior is an important component to understanding crime and has more recently been applied to the field of interpersonal violence (e.g., Banyard, Plante, & Moynihan, 2004; Berkowitz, 2002; Katz, 2007). The current study describes first steps in the development of measures and exploration of correlates of prosocial bystander behavior in the specific context of preventing domestic and sexual violence.

UNDERSTANDING BYSTANDER BEHAVIOR MORE BROADLY

Many situational factors predict helping behavior (Carlo & Randall, 2001; Tice & Baumeister, 1985). The most consistent and well-researched is the size of the group, with larger groups inhibiting helping, what Darley and Latane described as "diffusion of responsibility" (e.g., Darley & Latane, 1968; Morgan, 1978). Interactions between individuals and situation are also important, including how the event is interpreted (e.g., Harada, 1985; Latane & Rodin, 1969; Shotland & Straw, 1976), or whether one has witnessed others providing help in other situations (e.g., Bryan & Test, 1967; Rushton & Campbell, 1977; see Carlo & Randall, 2001, for a review). Darley and Latane (1968) also discussed key steps in the process of deciding to be a prosocial bystander, including noticing what is happening and labeling it as a problem where help is needed, taking

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responsibility, deciding what actions to take, and feeling one has the skills to take action and can do so safely. An important part of this process is weighing of positive and negative factors across these steps (e.g., Bar-Tal, 1976; Dozier & Miceli, 1985; Sheleff & Shichor, 1980). Finally, Carlo and Randall's (2001) socioecological developmental model of prosocial behaviors, defined more broadly, highlights the role of family, peer, and wider social context factors in the development of prosocial behaviors across the lifespan (e.g., Wyatt & Carlo, 2002).

Research has also focused on characteristics of the individual that may promote or hinder helpful bystander behaviors. Eisenberg et al. (2002) have garnered some evidence for aspects of a prosocial personality and prosocial moral judgment. Research also shows the importance of motivation (e.g., Michelini, Wilson, & Messe, 1975) and religious faith (e.g. Hardy & Carlo, 2005). People are more likely to help those who seem similar to them (e.g., Levine, Cassidy, Brazier, & Reicher, 2002). A meta-analysis by Eagly and Crowley (1986) found men more likely to help in situations involving an emergency or danger and women more likely to help in more safe situations, such as volunteering for organizations or needy groups or helping friends (e.g., George, Carroll, Kersnick, & Calderon, 1998).

APPLICATIONS TO INTERPERSONAL VIOLENCE

Such research has begun to be applied to the field of interpersonal violence. For example, Christy and Voigt (1994) conducted studies on bystander responses to child abuse and found that "bystanders intervened in situations where others also intervened" (p. 841). They found that intervention was associated with the characteristics of the bystander, the abusive situation, the victim, and the perpetrator. For example, people who had intervened in a case of observed child abuse were more likely than noninterveners to say they knew how to intervene and felt responsible for stopping abuse. They were also more likely to have been abused themselves as a child. In terms of the situation, they were more likely to say that other witnesses did not intervene. While women may be more likely to elicit help from strangers (see Laner, Benin, & Ventrone, 2001, for review), Shotland and Straw (1976) showed that men are less likely to intervene when a man attacks a woman than they are to intercede in other fights. If respondents know that the abuser and victim are related, they are less likely to intend to intervene (Laner, Benin, & Ventrone, 2001; Levine et al., 2002; Shotland & Straw, 1976). A study by Harari, Harari, and White (1985) used a simulated stranger rape and found high rates of intervention by male bystanders, but much less is known about interventions in situations of sexual assault by an acquaintance in a social setting such as a party.

Drawing from the broader bystander literature, we may conclude that in a situation in which a person is being attacked or at risk for assault, people who have the appropriate capacity and beliefs will have an intention to intervene. Laner et al. (2001), for example, found that participant reports of experience dealing with fights was a predictor of bystander intervention in a case of physical violence, though training in things like self-defense or lifesaving did not make significant contributions to willingness to intervene. This suggests that training bystanders is important but that this training needs to be specific to the type of situation in which they may be called upon to act. Interpersonal violence prevention programs that empower prosocial bystanders are appearing in the literature (e.g., Banyard et al., 2004; Banyard, Moynihan, & Plante, 2007; Berkowitz, 2002;

Foubert, 2000; Foubert & Marriott, 1997; Katz, 1995, 2007; O'Brien, 2001; Schwartz, DeKeseredy, Tait, & Alvi, 2001). Such efforts, however, must be grounded in further research examining correlates of bystander behavior in the specific case of physical and sexual violence in intimate relationships.

To date, there are few measures of prosocial bystander behavior in the specific context of interpersonal violence. Such tools are needed both to better examine patterns of correlates of bystander behavior in this context and as program evaluation tools for bystander-focused prevention programs. The broader literature on prosocial behavior is instructive in this regard. For example, the work of Carlo and Randall (2002) distinguishes between broad general measures of prosocial behaviors and those that are context or situation specific. They note that most measures are of the more global variety and have important limitations. They assert that there are different types or dimensions of prosocial behaviors, which appear to have different patterns of correlates (e.g., Carlo, Hausmann, Christiansen, & Randall, 2003; Carlo & Randall, 2002), and the development of these more specific measures is an important direction for further research. An interesting question for further research concerns the utility of more domain-specific measures of bystander behaviors—in the current study, measures that more specifically assess a range of behaviors related to intervening before, during, or after an incident of sexual or physical intimate partner violence.

CURRENT STUDY

The current study was exploratory. It first focused on the development of measures of bystander attitudes and behavior in the context of interpersonal violence. Next it examined correlates of these bystander behaviors. Using Carlo and Randall's (2001) socioecological developmental theory as a framework, it focused on a range of correlates, including the demographic of gender, whether the person knew a victim of sexual violence, personality characteristics (e.g., perceptions of control, extroversion), cognitive variables such as efficacy, and social norms-related attitudes (e.g., rape myth acceptance).

METHOD

Participants

For this study, 389 undergraduates (271 women and 172 men) filled out questionnaires and were paid for their time. Their mean age was 19.3 years (SD = 1.20), they were about 90% White, and distributed across year in college (38.2% first year, 29.4% sophomores, 19.8% juniors, and 12.4% seniors). Participants were part of a larger longitudinal evaluation of the effectiveness of a rape prevention program (Banyard et al., 2007). All participants were given a packet of questionnaires including demographics, personality, attitude, and bystander behavior measures before any prevention programs were provided. These pretest data serve as the sample for most of the current analyses.

Of this sample, 115 were randomly assigned to the control group. They were also followed over time but without being given the prevention program. Of these 115, 94

completed questionnaires about bystander behavior related to sexual violence 2 months after initial questionnaires were completed. They serve as the subsample for the longitudinal analyses presented. They did not differ on demographics from the pretest sample.

Measures

Knowledge and Attitudes About Sexual Violence. *Knowledge Assessment (Banyard et al., 2007).* For use with this project 10 items were developed, including multiple-choice and short-answer items, and were modeled after Lonsway and Kothari (2000). Four of the items had multiple parts. For example, "According to the campus Student Code of Conduct, sexual misconduct includes any sexual activity as defined by ___ circle all that are correct." This was followed by a list of 13 statements. Participants obtained a score for each statement depending on whether they correctly identified it as part of the student code or not. Overall, there were 43 possible question items. Participants were scored with either "0" for an incorrect response or "1" for a correct response. The Cronbach's alpha was .84 (M = 17.04, SD = 6.12, with a range from 0 to 31). Nineteen participants had missing data on this scale.

In addition, for each of the 10 questions, participants could indicate that they "did not know" the answer. A separate calculation of how many items participants indicated they didn't know the answer to was also done. The Cronbach's alpha for the full sample at pretest was .68 (M = 4.74, SD = 2.14, with a range from 0 to 10). Twenty participants had missing data on this scale.

Illinois Rape Myth Acceptance Scale–Short Form (Payne, Lonsway, & Fitzgerald, 1999). This is a 20-item scale developed to assess participants' endorsement of a variety of common myths about sexual assault (3 items are filler items and not used in calculating scores). For example, "Women tend to exaggerate how much rape affects them." Higher scores indicate greater acceptance or endorsement of rape myths. The Cronbach's alpha was .83 (M = 32.90, SD = 11.36, with a range from 17 to 95). Twenty-three participants had missing data on this scale.

College Date Rape Attitude Survey (Lanier & Elliott, 1997). This measure consists of 20 items assessing attitudes related to date rape. The Cronbach's alpha for the full sample at pretest was .92 (M = 76.59, SD = 15.33, with a range from 26 to 98). Fourteen participants had missing data on this scale.

Bystander Attitudes and Behavior. *Bystander Attitudes (Banyard et al., 2007).* A list of 51 potential bystander helping behaviors was generated for this project. They came from examples in the literature, discussions with professionals working in the field, and a pilot study and formative evaluation with a sample of college students. Participants were asked to respond on a five-point scale how willing or likely they would be to engage in that bystander behavior. Scores were created by summing responses across the items. The Cronbach's alpha for the full sample at pretest was .94 (M = 198.17, SD = 27.77, with a range from 73 to 255). Forty-five participants had missing data on this scale.

Bystander Behaviors (Banyard et al., 2007). Using the same list of behaviors as in the attitude scale, a second scale was created. Participants were asked to answer *yes* or *no* to indicate behaviors they had actually done in the last two months. Again, scores were obtained by summing the number of behaviors they reported having done. The Cronbach's alpha for the full sample at pretest was .89 (M = 10.02, SD = 6.48, with a range from 0 to 45). Thirty-two participants had missing data on this scale.

Bystander Efficacy Scale (Banyard et al., 2007). This scale was also developed for this project. It was modeled on recent work by LaPlant (2002) in her development of academic and healthy eating self-efficacy scales and was grounded in measures used in the broader self-efficacy literature. Participants were asked to indicate their confidence, on a scale of 0 ("can't do") to 100 ("very certain can do"), in performing each of 14 bystander behaviors. Scores are created by subtracting the mean of these 14 items from 100 to create a scale of perceived ineffectiveness. The Cronbach's alpha for the full sample at pretest was .87 (M = 20.55, SD = 14.19, with a range from 0 to 92.86). None of the participants had missing data on this scale.

Slaby Bystander Efficacy Scale (Slaby, Wilson-Brewer, & DeVos, 1994). This is a nine-item scale designed to assess participants' beliefs about the efficacy of violence prevention. Participants indicate on a six-point scale how much they agree with each of the nine items such as "people's violent behavior can be prevented." Scores are created by summing responses across the nine items. The Cronbach's alpha for the full sample at pretest was .90 (M = 42.95, SD = 5.97, with a range from 24 to 54). One participant had missing data on this scale.

MVP Efficacy Scale (Ward, 2001). This 10-item scale was developed for use in the program evaluation of the Mentors in Violence Prevention Program (MVP; Katz, 1995, 2007). It consists of 10 items assessing self-efficacy related to gender violence prevention. For example, "I can help prevent violence against women in my community." Responses are given on a five-point scale (from "strongly disagree" to "strongly agree") for each statement. The Cronbach's alpha for the full sample at pretest was .75 (M = 34.15, SD = 6.13, with a range from 14 to 50). Fifteen participants had missing data on this scale.

Decisional Balance Scale (Banyard et al., 2007). This is a 10-item scale reflecting both positive benefits and negative consequences for intervening "in a situation where you thought someone might be being hurt or was at risk of being hurt." Responses were given on a five-point scale ranging from "not at all important" to "extremely important" in deciding whether or not to intervene. It was developed for this research and based on Prochaska and DiClemente's transtheoretical model of health behavior change (Grimley, Prochaska, Velicer, Blais, & DiClemente, 1994). Three scores were calculated. The first was a subscale score for positive or pro attitudes (e.g., "If I intervene regularly I can prevent someone from being hurt"). The Cronbach's alpha for the full sample at pretest was .72 (M = 17.96, SD = 3.67, with a range from 6 to 25). One participant had missing data on this scale. The second score was the cons subscale, consisting of 6 statements about negative consequences of bystander intervention. The Cronbach's alpha for the full sample at pretest was .76 (M = 16.92, SD = 4.61, with a range from 6 to 30). Two participants had missing data on this scale. Finally, a total decisional balance score was obtained by subtracting the "cons" score from the "pros" score. The Cronbach's alpha for the full sample at pretest was .69 (M = 1.04, SD = 5.79, with a range from –20 to 19). Three participants had missing data on this scale.

Person-Level Correlates. *Sense of Community (Unger & Wandersman, 1982).* Participants completed a modified version of Unger and Wandersman's (1982) Sense of Community Scale, which has been used in prior studies with college students (Banyard & LaPlant, 2002). This is a brief, three-item measure consisting of the following items: "Do you feel a sense of community with other people on campus?"; "How important is it to you to feel a sense of community with people on this campus?"; and "Some people care a lot about the kind of campus they live on. For others, the campus is not important. How important

is what the campus is like to you?" Responses are given on a five-point scale and summed to create a total sense of community score. The Cronbach's alpha for the full sample at pretest was .71 (M = 12.18, SD = 2.10, with a range from 4 to 15). One participant had missing data on this scale.

Demographics. Participants were asked a number of demographic questions including age, sex, year in school, whether they were a member of an athletic team or a fraternity/sorority, if they ever knew anyone who was a victim of sexual violence, and whether they had attended a course that discussed sexual violence.

Perceived Control (Paulhaus, 1983). Three subscales make up a 30-item measure of the perception of control in a number of arenas. The subscales of interpersonal control (e.g., "even when I'm feeling self-confident about most things, I still seem to lack the ability to control social situations") and sociopolitical control (e.g., "By taking an active part in political and social affairs we, the people, can control world events at the larger social level") were used. Each is a 10-item scale where items are summed to create total scores. For the interpersonal control scale, the Cronbach's alpha for the full sample at pretest was .77 (M = 48.19, SD = 8.38, with a range from 23 to 70). One participant had missing data on this scale. For the sociopolitical scale, the Cronbach's alpha for the full sample at pretest was .75 (M = 40.79, SD = 8.75, with a range from 11 to 67). One participant had missing data on this scale.

Extroversion (John & Srivastava, 1999). A brief assessment of the personality trait extroversion was also included. Participants indicate how much they exhibit each of eight adjectives. The Cronbach's alpha for the full sample at pretest was .85 (M = 27.40, SD = 5.48, with a range from 14 to 40). One participant had missing data on this scale.

RESULTS

Measurement

The first aim of the current study was to develop measures to assess bystander attitudes and behaviors. Reliability was investigated using two tests, Cronbach's alpha to assess internal consistency and test-retest correlations as recommended by Carmines & Zeller (1979). Information provided in this article shows that three bystander measures—efficacy, attitudes, and behavior—showed good internal consistency, with Cronbach's alphas above .80. The decisional balance scale had a lower alpha of .69, and further research on this measure, including the development of additional items, seems warranted. Test–retest reliability was examined by computing correlations between the four measures at pretest and at posttest several weeks later for the control group subsample. Again, the decisional balance scale was one of the lowest, with a correlation of .67. Bystander efficacy had a pretest to posttest correlation of .81, and the measure of bystander attitudes had a correlation of .86. The test–retest correlation for the bystander behavior scale was only .38. This is not surprising, however, because it is a behavioral measure that one might expect to change over time depending on circumstances and opportunities to intervene.

A number of validity checks were made on the current data again as outlined by Carmines and Zeller (1979). To ensure content validity, construction of each measure was done through careful review of the empirical literature on bystander behavior, helping behavior, and interpersonal violence. Items were developed in collaboration with

TABLE 1. Correlations Between Bystander Outcome Measures ($N = 389$)

	1	2	3	4
1. Bystander efficacy	—	–.70***	–.30***	–.41***
2. Bystander attitudes		—	.37***	.41***
3. Bystander behavior			—	.91***
4. Decisional balance				—

***$p < .001$.

professionals working in the field on issues of prevention and intervention related to domestic and sexual violence. Pilot testing of each measure was conducted with students to obtain feedback about items and also to generate new items. For example, students were given a series of vignettes and were asked to describe what someone might do to help in that situation, and these open-ended responses were used as a check to make sure our scales reflected the full range of options people considered. Finally, given discussions about key aspects of intervening, including relationship to the victim and the continuum of behaviors that might constitute interpersonal violence (e.g., sexist jokes and remarks that are harassing all the way to physical threats and actual assaults), items were constructed across this continuum of possible observed behaviors, across types of victims (e.g., friend, acquaintance, stranger), and for situations before an incident (at a party), during an incident (e.g., hearing someone screaming in another room), and afterward (e.g., someone discloses to you that they are a survivor).

Criterion validity was examined by correlating three of the outcome measures (efficacy, attitudes, and decisional balance) with the measure of actual bystander behavior (the criterion). Table 1 shows these results. All correlations were significant at the .001 level. Construct validity was established by computing correlations between the outcomes and measures of rape myth acceptance, as prior research posits key relationships between attitudes about interpersonal violence and behavior (e.g., O'Donohue, Yeater, & Fanetti, 2003). Lower rape myth acceptance was related to lesser ineffectiveness on the efficacy measure ($r = .24$, $p < .001$), more positive bystander attitudes ($r = –.32$, $p < .001$), and greater bystander behavior ($r = –.12$, $p < .05$) as well as decisional balance scores with positives outweighing negatives ($r = –.21$, $p < .001$). A similar pattern was obtained for correlations between bystander outcomes and knowledge about sexual violence. Finally, because other research studies had created measures of bystander efficacy perceptions, we were able in the current study to compute correlations between our specific measure of bystander efficacy and broader violence-efficacy measures. It was not possible to do this with other measures because we could not find measures that already existed specific to the case of interpersonal violence, though future research should work to correlate our domain-specific measure with broader measures of prosocial behaviors (e.g., Carlo & Randall, 2002). Our efficacy measure was significantly correlated with Slaby's ($r = –.35$, $p < .001$) and that of the MVP project ($r = –.58$, $p < .001$).

Describing Bystander Behavior

Given that there are few studies of bystander behavior in this specific context and the increasing interest in putting discussions of bystander behavior at the center of prevention efforts, we first describe the actual bystander behavior of students in this sample as they

TABLE 2. Most Commonly Reported Bystander Behaviors

Item	Percentage of Sample
Ask a friend who seems upset if he or she is okay or needs help	85.1%
Ask an acquaintance who seems upset if he or she is okay or needs help	67.3%
Make sure I leave the party with the same people I came with	66.3%
Walk a friend who has had too much to drink home from a party	62.6%
Watch my drinks and my friends' drinks at parties	59.4%
Talk to the friends of a drunk person to make sure they don't leave their drunk friend behind at a party	55.5%
I obtain verbal consent before engaging in sexual behavior	47.9%
I speak up against racist jokes	47.2%
When I hear a sexist comment, I indicate my displeasure	45.3%
If I see someone at a party who has had too much to drink, I ask him or her if her or she needs to be walked home so he or she can go to sleep	42.2%

related to the continuum of sexual violence. The lowest frequency items were, not surprisingly, those related to more serious emergencies such as calling 911 because of concerns about date rape drugs and calling the rape crisis center for information after a friend disclosed that they had been assaulted. The highest frequency items are in Table 2.

Correlates of Bystander Behavior

Pearson correlations were computed to examine the role of demographics, personality, and knowledge/attitude variables on five bystander variables. Results are presented in Table 3. More positive bystander outcomes (lesser perceived ineffectiveness, greater expressed willingness to engage in prosocial bystander behavior, more positive decisional balance, and greater actual bystander behaviors) were related to being female, having taken a previous class that discussed sexual violence, knowing a survivor of sexual violence, higher levels of extroversion, interpersonal and sociopolitical control, greater perceived sense of community, greater knowledge of information about sexual violence, and lesser rape myth acceptance (though rape myth acceptance was not related to bystander behavior two months later, perhaps in part because of a reduced sample size because only data from the control group that did not receive the prevention program could be used for those analyses). The more-specific measure of date rape attitudes was related only to greater willingness to help and not to bystander efficacy or behavior.

In addition, we refer again to Table 1, which presents correlations between bystander efficacy and attitudes with behavior cross-sectionally and over time. Lower perceived ineffectiveness and more positive attitudes toward helping were strongly related to higher levels of actual reported bystander behaviors. This was also true using the longitudinal

TABLE 3. Correlations Between Individual Characteristics and Bystander Outcomes (N = 382–389)

	Efficacy	Attitudes	Decisional Balance	Pretest Bystander Behaviors	Bystander Behaviors at 2-Mo. Follow-Up[a]
Demographics					
Age	−.11*	.03	.04	−.02	.03
Sex	−.00	.22***	−.13**	.23***	.13
Learned in class	−.11*	.15**	.00	.15**	.28**
Athlete	−.02	−.04	−.01	−.04	−.02
Greek member	.02	−.06	.07	.02	.05
Attend religious services	.04	.07	−.07	−.01	.04
Personality					
Extraversion	−.26***	.15**	.28***	.20***	.10
Interpersonal control	−.36***	.24***	.28***	.19***	.12
Sociopolitical control	−.26***	.26***	.18***	.12*	.29**
Sense of community	−.15**	.23***	.14**	.14**	.21*
Sexual violence					
Know victim	−.20***	.19***	.05	.16***	.02
Knowledge	−.11**	.21***	.12*	.23***	.09
Illinois Rape Myth Scale	.24***	−.32***	−.21***	−.12*	−.08
Date Rape Myth Scale	−.08	.22***	.05	.07	−.02

[a]N = 92–94.
*p < .05. **p < .01. ***p < .001.

measure of bystander behavior for the subsample comprising the control group. Lesser perceived ineffectiveness was related to greater behaviors 2 months later (r = −.36, p < .001). More positive attitudes was also related to greater reported behavior (r = .40, p < .001). Decisional balance scores were not significantly related (r = .20, p = .054).

In addition, exploratory analyses were used to examine differences in bystander outcomes based on the relationship to the person needing help. Five sets of items on the bystander attitude and bystander behavior scales were asked in parallel with regard to a friend or a stranger who needed help. The means were not different from each other for either behavior (mean of .22 for friend versus .21 for strangers) or attitudes (mean of 3.90 for friend and 3.98 for stranger).

Next, a series of regressions were run to examine the contribution of individual characteristics in combination to bystander outcomes. Tables 4 and 5 present these findings. The individual characteristics measured were stronger correlates of bystander attitudes (accounting for approximately 60% of the variance) than of actual behavior (22% of variance explained). Sex, extroversion, sense of community, knowledge, bystander efficacy, and decisional balance all remained significant in explaining variance in reported willingness to engage in bystander behaviors (the attitude measure). In terms of actual bystander behavior as measured at the pretest, only sex, knowledge, and bystander attitudes were

TABLE 4. Regression of Individual Characteristics on Bystander Attitudes and Behavior at Pretest

Dependent Variable				
Independent Variables	*B*	SEB	β	*t*
Bystander attitudes	$R^2 = .59, p < .001$			
Sex	10.86	2.04	.20	5.33***
Learned in a course	.65	1.99	.01	.33
Know victim	2.33	1.91	.04	1.22
Sense of community	1.27	.46	.10	2.75**
Extroversion	−.47	.22	−.09	−2.19*
Interpersonal control	−.06	.14	−.02	−.43
Sociopolitical control	.19	.11	.06	1.75
Knowledge of sexual violence	.37	.15	.08	2.39*
Illinois Rape Myth Scale	−.11	.08	−.05	−1.30
Bystander efficacy	−1.16	.08	−.60	−15.02***
Decisional balance	.81	.18	.17	4.46***
Bystander behavior	$R^2 = .22, p < .001$			
Sex	2.36	.69	.18	3.40***
Learned in a course	.77	.65	.06	1.17
Know victim	1.16	.63	.09	1.84
Sense of community	.01	.15	.00	.05
Extroversion	.13	.07	.11	1.76
Interpersonal control	.01	.05	.01	.17
Sociopolitical control	.02	.04	.03	.54
Knowledge of sexual violence	.14	.05	.13	2.65**
Illinois Rape Myth Scale	.05	.03	.09	1.65
Bystander attitudes	.05	.02	.21	2.98**
Bystander efficacy	−.03	.03	−.07	−.94
Decisional balance	.07	.06	.06	1.11

*$p < .05$. **$p < .01$. ***$p < .001$.

significant. When explaining variance over time in actual reported bystander behaviors 2 months later, only bystander attitudes remained significant.

The Role of Gender

Given the attention to gender in the literature on bystander behavior and literature on attitudes and behavior related to interpersonal violence, gender was also a variable of interest in the current study. Table 6 presents the results of analyses of gender differences on individual characteristics. MANCOVA was then used to examine gender differences on bystander measures using the one demographic (having taken a course that discussed sexual violence) that differed by gender and was related to bystander outcomes as a covariate. Even with the covariate, the main effect for sex was significant $F(4,382) = 16.92$, $p < .001$, Wilks' Lambda = .85. Follow-up univariate tests showed that women had higher scores overall for all except the bystander efficacy scale.

TABLE 5. Regression to Predict Bystander Behavior 2 Months Later From Individual Characteristics

	B	SEB	β	*t*
Learned in course	1.01	.89	.07	1.14
Sociopolitical control	.06	.05	.07	1.18
Bystander attitudes	.08	.02	.30	3.62***
Bystander efficacy	.01	.04	.03	.32

*** $p < .001$.

TABLE 6. Univariate Tests of Gender Differences in Individual Characteristics

	Men	Women	
Variable	$n = 172$	$n = 217$	t or χ^2
Age (n = 167,215)	19.46 (1.24)	19.20 (1.15)	2.09*
Extroversion	27.28 (5.22)	27.55 (5.70)	–.48
Interpersonal control	47.75 (8.11)	48.58 (8.58)	–.97
Sociopolitical control	40.62 (8.83)	40.80 (8.76)	–.20
Sense of community (n = 172,216)	11.89 (2.20)	12.43 (1.99)	–2.52**
Knowledge	16.06 (6.46)	17.82 (5.74)	–2.85**
Illinois Rape Myth Scale	37.48 (13.52)	29.27 (9.62)	7.00***
Date Rape Myth Scale	73.08 (13.53)	79.45 (15.75)	–4.21***
Bystander attitudes	191.21 (29.45)	203.25 (24.68)	–4.38***
Pretest bystander behavior	8.42 (5.72)	11.37 (6.84)	–4.55***
Bystander efficacy	20.65 (15.04)	20.52 (13.50)	.09
Decisional balance	1.88 (6.00)	.36 (5.54)	2.60**
2-month bystander behavior (n = 121,163)	12.05 (8.24)	13.68 (6.67)	–1.83
Greek member	9.3%	4.2%	4.14*
Athlete	20.3%	19.9%	.01
Learned in course	25%	42.1%	12.43***
Know victim	56.4%	63%	1.72

DISCUSSION

The current measures demonstrated adequate reliability and validity as well as areas for improvement. In practice, discussions of interpersonal violence prevention using bystander models continue to grow, but there are as yet few measures that can be used to assess the effectiveness of such programs. It is hoped that the presentation of new measures will encourage more measurement development in this area.

Overall, the findings fit with the broader literature on bystander behavior identified many years ago by Darley and Latane (1968) and recently researched by Carlo and Randall (2001) but examines them in the context of the specific problem of sexual violence. Prosocial bystander behaviors for the current sample were higher among those who had greater knowledge of sexual violence. Perhaps this knowledge made them more aware of the

problem of sexual violence and better able to identify the situation as risky or problematic, an important component of bystander engagement. The importance of empathy with victims was assessed indirectly by asking participants if they knew someone who was a victim, a variable that was important in cross-sectional prediction of bystander behavior. It was surprising that this variable did not remain significant when predicting bystander behavior over time, though this in part may be due to the reduced sample size in these analyses. When put together with the lack of difference in reported bystander behavior to help friends versus strangers, however, this suggests that perhaps relationship to the victim is less salient in this context. Much more research is needed to examine this issue, including studies that assess the role of empathy toward friends. Indeed, future work should expand the bystander behavior measure to include more items assessing helping friends, acquaintances, and strangers using similar contexts for each so that an expanded analysis of correlates of helping related to relationship to victim can be more carefully examined.

The bystander literature also identifies skills as an important aspect of engagement in behavior, and the current results are consistent with that finding. Participants who reported higher levels of perceived effectiveness as a bystander reported both more willingness to engage in prosocial behaviors, an attitude measure, and greater numbers of actual behaviors, whether assessed cross-sectionally or over time. Such associations are important as they provide an empirical basis for developing components of prevention work that may increase prosocial behaviors by strengthening and supporting its correlates.

The significant gender differences are consistent with broader research on attitudes about sexual violence, which shows a consistent pattern of women scoring lower than men on measures of rape myth acceptance (e.g., Payne et al., 1999). It is interesting that in the current study, women also reported higher levels of bystander behavior. This may be due in part to the nature of the measure used, whose content focused on friends and acquaintances and where there was a large representation of questions related to helping people in safe situations. Eagley and Crowley's (1986) meta-analysis found women more likely to engage in helping in such "safe" contexts and men more likely to intervene in dangerous emergency situations. Future research that separates different contexts for bystander intervention could explore this question in more detail. Such inquiry is important as it may have important implications for prevention programs that aim to teach skills to potential bystanders—men may need different skills and different bystander safety plans than women.

There are a number of limitations to the current study. First, the sample is not racially diverse. Given that context is important in a bystander's decision to intervene, it is important to examine perceptions of bystander behavior across a variety of groups. The decision process, available behavioral options, and consequences for the bystander will likely vary by the social context of the individual. Furthermore, to some extent the pattern of relationships among the measures assessed in this study likely reflects the use of a common method (self-report questionnaires) for all constructs. Future work exploring alternate ways to gather information about bystander behavior will be important. Additionally, the broader field of prosocial behavior has seen the recent development of interesting new measures of this construct (e.g., Carlo & Randall, 2002). Future work on the validity of the current measures should include an assessment of altruism or general prosocial behavior as an additional external criterion as well as measures of participants' history of volunteer and community service work. Finally, it seems clear

that scores on measures of actual bystander behavior will be influenced by individual differences in opportunities to intervene. Future measures should include this aspect of bystander behavior.

Nonetheless, the findings from this study represent an exploratory next step in bringing together the social psychological examination of bystander behavior and the particular problem of sexual and intimate partner violence. Research continues to document ways in which domestic and sexual violence are supported by community norms (e.g., DeKeseredy & Schwartz, 1998) and the importance of all community members playing a role in ending this social problem (Koss & Harvey, 1991). Next steps in prevention must be informed by a thorough understanding of influences on prosocial bystanders in the specific domain of interpersonal violence.

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