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Participation in Prevention Programs for Dating Violence Beliefs About Relationship Violence and Intention to Participate

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This study utilizes the Health Belief Model (HBM) to examine the factors related to the intention to participate in prevention programming for dating violence. Perceptions of susceptibility to future violence and the benefits of prevention programming appear to be the strongest predictors of participation in prevention programs. Perceptions of the severity of dating violence do not appear to be related to intentions to participate. There were no differences in intention between those reporting psychological or physical violence in their dating relationship, although some of the HBM factors were associated with a history of violence. Contrary to hypotheses, psychological and physical violence did not moderate the impact of the HBM factors on intention. Implications of these findings are discussed and recommendations for recruiting participants for primary and secondary prevention programs are offered.

Keywords: *dating violence; partner abuse; prevention*

Many studies have indicated that people engage in prevention behaviors based on their beliefs about the potential problem and the prevention approach (Eisen & Zellman, 1986; Hyman & Baker, 1992; Ronis & Harel, 1989; Strecher, Champion, & Rosenstock, 1997). Specifically, people are more likely to engage in prevention efforts when they believe that they are susceptible to the potential problem, that the potential problem

is serious, and that the prevention behavior will cost them little and benefit them much. The purpose of the present study is to determine whether beliefs, as outlined in the Health Belief Model (HBM; Rosenstock, 1966), predict the intention to participate in prevention programs for dating violence and, if so, whether the relationship between beliefs and intention is moderated by the presence of psychological or physical violence in dating relationships.

Dating Violence

The prevalence and impact of intimate partner violence in dating couples has been documented by numerous studies (e.g., Lane & Gwartney-Gibbs, 1985; Lewis & Fremouw, 2001; Marshall & Rose, 1990; O'Keeffe, Brockopp, & Chew, 1986). Research in this area consistently suggests that approximately 20% to 37% of dating couples have experienced some form of physical violence in their relationship (Cate, Henton, Koval, Christopher, & Lloyd, 1982; Magdol et al., 1997; Straus, 2004; White & Koss, 1991). In addition, several studies suggest that rates of psychological aggression may be as high as 70% to 88% (Lo & Sporakowski, 1989; Neufeld, McNamara, & Ertl, 1999; White & Koss, 1991). Aggression and violence that occurs in the context of dating relationships of adolescents and young adults is associated with a variety of deleterious effects on each of the individual partners in the relationship, including lower self-esteem, reduced self-worth, increased self-blame, anger, hurt, and anxiety (Jackson, Cram, & Seymour, 2000; Jezl, Molitor, & Wright, 1996; Makepeace, 1986; Nightingale & Morrisette, 1993; Smith & Donnelly, 2001; Truman-Schram, Cann, Calhoun, & Vanwallendael, 2000). In addition, some researchers have suggested that these early patterns may provide a potential trajectory toward more violence (Frieze, 2000; O'Leary et al., 1989; Prospero, 2006; Smith & Donnelly, 2001). Thus, primary and secondary intervention to prevent violence in these early relationships appears to be critical for current and future relationships.

Participation in Programs Designed to Prevent Dating Violence

Several programs have been designed to address physical violence in dating relationships, both prior to the development of violent behavior (primary prevention) and to reverse patterns of physical violence already

occurring in dating relationships (secondary prevention). These programs have been moderately successful at altering cognitive factors believed to be related to violent behavior, including dating violence norms, gender role beliefs, conflict management skills, and awareness of services for dating violence both immediately (Avery-Leaf, Cascardi, O'Leary, & Cano, 1997; Foshee et al., 1998) and at follow-up (Foshee et al., 2000). Some research also reports changes in behavioral intentions of participants, with individuals participating in prevention programs intending to reduce or prevent violence in future relationships (Foshee et al., 2005).

Although it is important to note the theoretical and methodological problems with these outcome studies (e.g., use of self-report measures with unknown psychometric properties and limited follow-up data), the initial findings are encouraging. The promise of these programs, however, will not be realized unless the programs reach those who would benefit from them. Research from related literatures suggests that the individuals at highest risk for problem behaviors are often the least likely to seek out prevention programs. Sullivan and Bradbury (1997) found that most engaged couples who participated in programs to prevent future marital distress were at low risk for marital discord, and that high risk individuals were not as likely to participate in such programs. For example, younger couples with less income and education were less likely to participate in premarital counseling compared to older couples with more income and education. Assuming that the same holds true for individuals likely to engage in violent behaviors in their dating relationships, it is critical to understand what motivates individuals to participate in violence prevention programs and whether motivation varies across risk status.

To identify factors that motivate individuals to participate in programs designed to prevent dating violence, the HBM (Rosenstock, 1966) was used. The HBM is a value-expectancy theory that provides a useful framework for examining factors related to participation in preventive behaviors. The HBM posits that a variety of factors in combination affect a person's self-reported likelihood to participate in prevention efforts. As described above, individuals are more likely to engage in preventive behaviors if they perceive that they are susceptible to the potential problem, they believe the problem to have serious consequences, they perceive few barriers to engaging in the preventive behaviors, and they perceive the preventive behaviors to be beneficial. The factor structure of the HBM has been examined and suggests that the dimensions are discrete enough to be considered different beliefs (Jette, Cummings, Brock, Phelps, & Naessens, 1981), and have been found to predict preventive behavior in a variety of domains, including

contraceptive use, mammograms, medication compliance, and breast self-examination, to name a few (Eisen & Zellman, 1986; Hyman & Baker, 1992; Ronis & Harel, 1989; Strecher et al., 1997).

There is evidence that the beliefs outlined by the HBM predict participation in programs designed to prevent future marital distress and divorce. Sullivan, Pasch, Cornelius, and Cirigliano (2004) examined the HBM in combination with knowledge and social norm data in predicting engaged couple's intention to participate and actual participation in premarital counseling. Perceived susceptibility to future distress, perceived barriers to participation in premarital counseling, and perceived benefits of participation were related to participation even after controlling for important demographic variables. Based on these findings, we expect that the HBM will provide a useful framework for understanding individuals' willingness to participate in prevention programming for dating violence.

Knowledge of the factors that predict participation will enable researchers and practitioners to more effectively recruit couples who will benefit from prevention programs. This is particularly important because prevention programs are often initiated without regard to the particular population that should be targeted. In a recent review of the primary prevention literature, only 1 of the 11 studies reviewed targeted a population for participation based on specific risk factors (Whitaker et al., 2006). In fact, circumscribed interventions based on factors related to risk for violence was one of the recommendations that was developed from this review (Whitaker et al., 2006).

Primary and Secondary Recruitment Strategies

Using the definitions of primary and secondary prevention posited by Foshee et al. (1996), the identification of potential participants for secondary prevention programs is relatively straightforward; any individual who has experienced physical violence in his or her dating relationships is a potential participant. Identifying individuals for primary prevention is more complex and involves the identification of risk factors that make future physical violence more likely. Although it is extremely difficult to predict future violence, one variable, psychological aggression, has emerged as a potential marker for future relationship violence. Although it is clear that not all individuals who engage in psychological aggression also manifest physical violence, virtually all who engage in physical violence evidence psychological aggression (Stets, 1990). Therefore, psychological aggression can be considered a

necessary, though not sufficient, condition for physical violence. In addition, psychological aggression often precedes physical violence (Harper, Austin, Cercone, & Arias, 2005; O'Leary, 1999; Ronfeldt, Kimerling, & Arias, 1998; Ryan, 1995) and may provide a potential gateway to physical violence (Hamby & Sugarman, 1999; Murphy & O'Leary, 1989; O'Leary, Malone, & Tyree, 1994). For the purposes of the present study, therefore, participants who reported psychological aggression in their relationships were conceptualized as potential participants for primary prevention.

Beliefs and Violence

Because this is the first study to evaluate the HBM in the context of preventing dating violence, it is unknown whether beliefs about dating violence and prevention costs and benefits vary across primary and secondary samples. Rationally, it seems likely that there might be a correlation between beliefs and the presence of psychological and physical violence in a relationship. For example, individuals who have already experienced physical or even psychological aggression in their dating relationship might be more likely to report that they believe they are susceptible to future dating violence compared to individuals with no history of dating violence. It is also possible that beliefs may interact with the presence or absence of violence in predicting individuals' intention to participate in a prevention program. For example, perceived barriers to participation such as cost and inconvenience may significantly lower intention for individuals with no history of dating violence, but may not have the same effect for those who have experienced violence in their dating relationship.

Hypotheses

Based on previous findings, we hypothesize that the HBM factors will significantly predict intention to participate in prevention programs for dating violence over and above demographic variables that have been shown to be related to dating violence (i.e., age, income, gender; Banyard, Cross, & Modecki, 2006; Hines & Saudino, 2003; Roberts, Auinger, & Klein, 2006; Rohini & Gidycz, 2006; Sigelman, Berry, & Wiles, 1984). We further hypothesize that self-reported aggression will be related to the HBM factors, and that the relationship between beliefs and intention may vary based on aggression. These hypotheses are exploratory in nature, but we think it

likely that physical and psychological aggression¹ will be positively related to perceived susceptibility and perceived benefits, and negatively related to perceived barriers. Further, we tentatively hypothesize that aggression will moderate the impact of beliefs on intention, such that the relationship between perceived susceptibility, perceived severity, and perceived benefits and intention will be stronger for individuals with a history of relationship violence than those without such a history.

Method

Participants

Participants were recruited through the introductory psychology research pool at a large, public, Midwestern university. Participants qualified for the study if they indicated a current or previous dating relationship, defined as planned, social, romantic, or intimate activity with another individual. Due to low response rates for homosexual relationships ($n = 3$) these cases were excluded from the present analyses. This resulted in a sample of 180 undergraduate psychology students. The majority of the sample were female (79%) and non-Hispanic White (87%), which are consistent with the enrollment patterns of introductory psychology classes and the ethnic makeup of the university. The average age of the participants was 18.53, the modal academic standing was freshman, and the mean number of months dating their partner was 15.8 ($SD = 15.5$; $Mdn = 12.0$).

Materials

Several self-report measures were administered to the participants. A brief demographic measure assessed age, gender, and race, as well as the gender of their partner and the length of their current or most recent relationship.

The Conflict Tactics Scale-II (CTS-II; Straus, Hamby, Boney-McCoy, & Sugarman, 1996) was used to assess rates of physical and psychological aggression that occurred in an intimate relationship, including both perpetration and victimization. Participants were asked to rate on a 6-point scale (1 = *once*, 6 = *more than 20 times*) the number of times a particular conflict tactic was used by both the participant and his/her partner in the previous year. The CTS-II has demonstrated good construct and discriminant validity and good reliability, with internal consistency ranging from .79 to .95 (Straus et al., 1996).

The Relationship Beliefs and Attitudes Questionnaire (RBA) was a 24-item self-report measure originally developed to assess beliefs about relationships distress, divorce, and the costs and benefits of premarital counseling. The measure has been shown to have adequate reliability and validity (Sullivan et al., 2004). Items were adapted to assess beliefs about dating violence and programs designed to prevent dating violence. For example, on the severity scale the item “How bad do you think it would be if you got divorced” was changed to “How bad do you think it would be if you were the victim of physical aggression by your partner?” This measure conceptualized participation in prevention programs as a health-related preventive behavior, using the HBM as a guide and assessed perceived susceptibility ($ns = 3$), perceived severity of dating violence ($ns = 8$), perceived barriers to participation ($ns = 6$), and perceived benefits ($ns = 7$). See Table 1 for a complete item list. Three additional items assessed the behavioral intention to participate in a prevention program for dating violence if one was offered (e.g., How likely is it that you will go to a program to prevent relationship aggression if it was offered?).

Procedure

Participants completed an assessment battery as part of their participation in psychology research to partially fulfill requirements for their introductory psychology course. The assessment battery was confidential, all materials were coded with a unique research number, and a research assistant was present during each administration to explain the general nature of the study and to answer any questions.

Scale Formation and Scoring

The RBA measure was designed to assess components of the HBM and how they may predict behavioral intention to participate in prevention programs for dating violence. Three items assessed perceived susceptibility to dating violence, including the individual's perception of skills already present in the relationship to prevent violence or the perceived ability to cope with relationship distress without using violence. Eight items assessed perceived severity of dating violence, including perceptions regarding how dating violence would affect the individual emotionally, physically, or cognitively. Six items measured perceived barriers to participation, including factors that would prevent a person from being willing to go, such as time and effort investments. Seven items assessed perceived benefits of participation

Table 1
Loadings of Health Belief Items on Health Belief Model (HBM)
Constructs and Correlations of Individual Items With Intention

HBM Item	Factor Loadings	Correlations With Intention
Susceptibility to relationship aggression		
Think you or your partner may use aggression	.75	.28***
Likelihood you or your partner will use aggression	.86	.21**
Severity of verbal aggression		
How much would verbal aggression disrupt		
Personal health and physical comfort	.89	.09
Emotional well-being	.86	.09
Self-esteem	.94	.09
Overall quality of life	.93	.09
Severity of physical aggression		
How much would physical aggression disrupt		
Personal health and physical comfort	.86	.18**
Emotional well-being	.80	.19**
Self-esteem	.82	.14*
Overall quality of life	.88	.08
Barriers		
Likelihood that you could get your partner to go	.73	.07
Could you speak to someone effectively about aggression	.77	.04
Participation means you have a relationship problem	.42	-.05
Benefits		
To what extent would participation help		
With current problems	.82	.25***
Identify future problems	.80	.29***
Avoid aggression	.64	.15*
Learn tools to help deal with problems nonviolently	.80	.29***
Communicate better	.88	.19**
Your current relationship	.46	.46***
Your future relationships	.58	.40***
Additional barrier items		
Inconvenient to attend program		-.29***
Reveal things you didn't want to know		.26**
Likelihood you could trust leader		-.05

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

in a prevention program, such as gaining important knowledge or assisting with current or future relationship problems. Three additional items assessed the intention to participate in a prevention program for dating violence, and indicated the self-reported likelihood of attending a prevention program if it was offered.

HBM scales. The extent to which the hypothesized 4-factor HBM model accounted for the 24 items was examined with a confirmatory factor analysis using the LISREL 8.8 program (Jöreskog & Sörbom, 1999). Items were permitted to load only on the construct they theoretically represented; loadings of each item on factors other than the theoretically appropriate factor were constrained to zero. Modeling was based on a covariance matrix of the 24 items. For the initial 4-factor model, the comparative fit index (CFI; Bentler, 1990) and the root mean square error of approximation (RMSEA; Browne & Cudeck, 1993) did not indicate a good fit, CFI = .73 (CFI \geq .90 is considered indicative of good fit) and RMSEA = .13 (RMSEA \geq .08 is considered a fair fit). Parameter estimates and standardized residuals indicated that items assessing perceptions about the severity of verbal aggression represented a different construct than items assessing perceptions about the severity of physical aggression. The model was therefore modified to include two severity scales (perceived severity of verbal aggression and perceived severity of physical aggression). The model was further modified by eliminating three items from the barriers scale and one item from the susceptibility scale, which did not load significantly on their respective scales. The susceptibility item was dropped, and the three barrier items were retained for individual analysis as they appeared to be potentially important, albeit conceptually different, barriers to intention to participate, thus the final number of items on the scale was 23. The modified 5-factor model, CFI = .94 and RMSEA = .075, indicated a good fit. See Table 1 for factor loadings. Among the factors, perceived severity of verbal aggression and perceived severity of physical aggression were correlated ($r = .64, p < .001$), and perceived susceptibility was correlated with barriers ($r = .24, p < .01$) and benefits ($r = .21, p < .01$). There were no additional significant correlations among the factors.

Scale scores were calculated for each participant by summing the scores of the individual HBM items making up the scale for each factor. Cronbach's (1951) alpha was adequate for the perceived susceptibility to relationship aggression scale (.91, two items), the perceived severity of verbal aggression scale (.90, four items), the perceived severity of physical aggression scale (.94, four items), and the perceived benefits scale (.85, seven items). Cronbach's alpha was somewhat weak for the perceived barriers scale (.56, three items), therefore all analyses using the barrier scale were reconducted using the individual items that made up the scale. Use of the individual items did not yield different results, therefore only the analyses using the scale are reported below. An intention to participate scale score was

Table 2
Descriptive Statistics for Demographic Variables and
HBM Factors and Correlations With Intention

Variable	<i>M</i>	<i>SD</i>	Range	Correlations With Intention
Demographics				
Age	18.53	1.40	17–31	–0.07
Income	US\$3,694.52	US\$4,429.57	US\$0– US\$35,000	–0.20**
Months dating	15.80	15.50	1–32	–0.05
Gender ^a	n/a	n/a	n/a	–0.17*
HBM factors				
Perceived susceptibility	3.01	1.68	2.0–10.0	0.25***
Perceived severity verbal	15.31	3.81	4.0–20.0	–0.09
Perceived severity physical	17.91	3.46	4.0–20.0	–0.16*
Perceived barriers	7.76	2.57	3.0–14	0.03
Perceived benefits	22.42	5.43	7.0–35.0	0.40***
Individual barrier items				
Inconvenience	2.87	0.93	1.0–5.0	–0.29***
Reveal things	2.49	1.24	1.0–5.0	0.26***
Find leader I could trust	2.53	0.91	1.0–5.0	–0.05
Intentions	6.92	2.48	3–18	1.00

Note: HBM = Health Belief Model.

a. Spearman Rho was used to calculate the correlation between gender and intention.

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

calculated by summing the three individual intention items. The alpha for the intention scale was .86.

Results

Demographic Variables and Intention

Means, standard deviations, range of continuous demographic variables (age, income, and months dating), and the HBM factors can be seen in Table 2, along with the correlation of each of these variables with the intention to participate in a prevention program for dating violence. Income and gender were significantly related to intention. Participants with lower incomes and female participants were more likely to intend to participate in prevention programming. Age was not significantly related to intention.

Table 3
Prediction of Behavioral Intentions With HBM After
Controlling for Demographic Variables

Predictor	β	F	R^2	F Change	R^2 Change
Step 1		5.2**	.07		
Gender	.18*				
Income	-.16				
Step 2: HBM variables entered individually					
Perceived susceptibility	.23*			8.3**	.05
Perceived severity, verbal	-.02			0.1	0
Perceived severity, physical	.08			0.8	.01
Perceived barriers	-.05			0.3	0
Perceived benefits	.37**			23.1	.14
Barrier: Inconvenience	-.30***			14.7	.09
Barrier: Reveal things	.20*			6.0	.04
Barrier: Leader you can trust	-.12			2.0	.01
Step 2: HBM variables entered as a block	4.9***	.22			
Perceived susceptibility	.17*				
Perceived severity, verbal	-.13				
Perceived severity, physical	.10				
Perceived barriers	-.07				
Perceived benefits	.27**				
Barrier: Inconvenience	-.15				
Barrier: Reveal things	.06				
Barrier: Leader you can trust	-.09				

Note: HBM = Health Belief Model.

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Relationship of HBM Factors to Intention

To determine whether any of the HBM factors predicted intention after controlling for income and gender,² seven hierarchical linear regression analyses were conducted. For each analysis, income and a dummy variable representing gender were entered as a block in the first step. In the second step, one of the HBM variables was entered. See Table 3 for results. Together, the demographic variables were significant predictors of intention and accounted for 7% of the variance in intention. Individually, gender was a significant predictor of intention, but income was only marginally significant.

As hypothesized, perceived susceptibility and perceived benefits significantly predicted intention in the expected direction; that is, participants who perceived themselves as more susceptible to future dating violence and

participants who perceived greater benefits to participation were more likely to intend to participate in a program designed to prevent dating violence. Perceived benefits accounted for an additional 23% of the variance after controlling for income and gender, and perceived susceptibility accounted for an additional 5% of the variance after controlling for income and gender. The perceived severity and perceived barriers scales did not significantly predict intention; however, two of the barrier items that had not loaded on the barriers scale were significant predictors of intentions. The convenience of the program and concerns about learning something about the relationship that participants did not want to know accounted for an additional 14% and 6% of the variance, respectively, after controlling for income and gender.

To determine whether any of the HBM factors predicted intention after controlling for demographic variables and the other HBM factors, a final hierarchical regression was run. For this analysis, income and gender were entered as a block on the first step and the HBM variables were entered as a block on the second step (see Table 3). As a group, the HBM factors significantly predicted intention, accounting for an additional 22% of the variance in intention after controlling for income and gender. Perceived susceptibility and perceived benefits significantly predicted intention, after controlling for income, gender, and the other HBM variables. Perceived verbal and physical severity and perceived barriers did not significantly predict intention, nor did any of the individual barrier items.

Physical and Psychological Aggression

Eighty-three percent of the participants reported that they had experienced psychological aggression in their current relationships ($N = 149$) and 38% of the participants reported that they had experienced physical aggression in their relationships ($N = 69$). Only 2 of the 69 participants who reported experiencing physical aggression reported experiencing no psychological aggression. The mean psychological aggression score on the CTS-II among those who had experienced psychological aggression was 28.6 ($SD = 33.0$), and the mean physical aggression score among those who had experienced physical aggression was 12.7 ($SD = 23.4$). The distributions of psychological and physical aggression scores were significantly positively skewed, therefore these continuous variables were centered prior to analysis. Consistent with previous research, the rates of bidirectionality were very high for both types of violence. Among those reporting psychological aggression, 95% of participants reported both perpetration and victimization

Table 4
Zero Order Correlation of HBM Factors and Individual Barrier
Items With Physical and Psychological Aggression

HBM Factor	Psychological Aggression	Physical Aggression
Susceptibility to relationship aggression	.35***	.30***
Severity of verbal aggression	-.05	-.07
Severity of physical aggression	.05	-.05
Barriers	.20**	.14
Benefits	.09	.00
Barrier: Reveal things you didn't want to know	.29***	.17*
Barrier: Inconvenient to attend program	-.16*	-.17*
Barrier: Likelihood you could trust leader	.06	.07

Note: HBM = Health Belief Model.

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

of psychological aggression. Among those reporting physical violence, 70% reported both perpetration and victimization of physical violence. Thus, perpetration and victimization were analyzed simultaneously for this sample.

To evaluate whether physical and psychological aggression were related to HBM factors, zero-order correlations were conducted (see Table 4). Perceived susceptibility was positively correlated with psychological and physical violence, such that the more psychological or physical violence, the more participants perceived themselves as susceptible to future dating violence. The perceived barriers scale was positively correlated with psychological aggression, such that the more psychological aggression experienced, the more participants perceived barriers to attending prevention programming. The perceived barriers scale was not significantly correlated with physical violence. The individual barrier item, inconvenience of the program, was negatively related to psychological and physical violence, suggesting that the more violence one experiences, the less inconvenient participation seems. Finally, concerns about learning something about your relationship that you do not want to know was positively correlated with psychological and physical violence. Thus, it appears that relationship violence is related to increased concerns about prevention programs revealing unwanted information about the relationship.

To determine whether intentions to participate in prevention programming varied based on the history of psychological or physical violence, two independent-samples t tests were conducted. There were no significant differences in intention between participants who had experienced psychological

aggression ($M = 7.1$, $SD = 2.4$) and participants who had not ($M = 6.2$, $SD = 2.8$), $t(178) = 2.0$, $p > .05$. Similarly, there were no significant differences in intention between participants who had experienced physical violence ($M = 6.7$, $SD = 2.4$) and participants who had not ($M = 7.2$, $SD = 2.6$), $t(178) = 1.2$, $p > .05$.

Aggression as a Moderator of the HBM Factors

To determine whether psychological or physical aggression moderates the relationship between the HBM factors and intention to participate in prevention programs, a series of hierarchical linear regression analyses were conducted as outlined by Holmbeck (1997). A qualitative approach was used for the moderator such that participants were identified as either violent or nonviolent; this was done for ease of interpretation and because the CTS-II scales were significantly skewed. A regression approach was chosen because the sample sizes of the resulting subgroups were insufficient to use a structural equation modeling approach (Tabachnick & Fidell, 2007).³

For each of the HBM factors, the HBM factor and a dummy variable representing membership in the violent or nonviolent group were entered first, to test for main effects. Next, the interaction term, represented by the product of the two main effects, was entered. All variables were centered prior to these analyses to avoid multicollinearity effects. None of the interaction terms were significant for psychological or physical violence, indicating that neither psychological nor physical violence moderates the effect of any of the HBM factors on intention.

Discussion

The purpose of the present research was to examine the factors that motivate individuals to participate in prevention programs for dating violence using the HBM framework, and to examine how these factors may have differentially predicted intention depending on the individual's history of violence. The results from this study confirm the hypothesis that beliefs about dating violence and violence prevention programs predict intention beyond relevant demographic variables, accounting for an additional 22% of the variance in intention. Specifically, beliefs about one's susceptibility to dating violence and the benefits of prevention programs predicted intention to participate, as did beliefs about the inconvenience of participating and potentially learning something about one's relationship that one does

not want to know. The relationships were generally in the expected direction, that is, participants who perceived higher levels of susceptibility and benefits, and lower levels of inconvenience were more likely to intend to participate. Curiously, though, the more participants perceived that the program would reveal things about them that they did not want to know, the more likely they were to intend to participate. This is an unexpected finding, since we had conceptualized this as a potential barrier to participation. In combination with the correlation data demonstrating that this item was also positively related to physical and psychological aggression, it may be that individuals engaging in violent behaviors recognize the problematic nature of their behavior and understand that prevention programs are likely to reveal these problems, but they also recognize that participation in such programs is important and/or necessary for them.

Interestingly, no significant differences in intention were found between the violent and nonviolent groups. Participants were about equally likely to intend to participate in prevention programming whether or not they had been experiencing psychological and/or physical violence in their relationships. This appears to contradict earlier findings in the marital literature that at-risk individuals are less likely to participate in prevention programs than individuals who are not at risk (Halford, O'Donnell, Lizzio, & Wilson, 2006; Sullivan & Bradbury, 1997). This apparent contradiction may be explained, however, by considering the relationships between violence and beliefs. Psychological aggression was significantly correlated with increased perceived susceptibility, perceived barriers, increased belief that prevention programs would reveal things about one's relationship that they did not want to know, and decreased perceived inconvenience of the program. Those who had experienced physical violence in their relationships also perceived themselves to be more susceptible to violence in their relationship. Physical violence was also related to higher individual perceived barriers items. Thus it appears that at-risk individuals hold various beliefs that may differentially affect intention. On one hand, they perceive higher susceptibility to violence and more benefits to participation that increases their intention to participate. On the other hand, they perceive more barriers to participation that decreases their intention to participate. Thus any between-group differences in intentions may be washed out by these various beliefs.

Contrary to hypotheses, intention was not moderated by the presence of psychological or physical aggression. Thus, the beliefs of participants who are experiencing violence are no more or less motivating than the beliefs of participants who have not experienced violence. These data should be interpreted with caution, since it is plausible that this may be an artifact of the

relatively small sample and the nature of the data. First, the groups were very uneven; only 11% of the sample reported no psychological aggression in their relationships and only 38% of the sample reported physical violence in their relationships. It may be that with more symmetrical data or a larger sample such a moderating effect would be evident. Although we present these conclusions cautiously, it is possible that no moderating effect was evident for psychological aggression because individuals experiencing psychological aggression are not aware that such aggression may escalate into physical violence. That is, they may understand that psychological aggression is undesirable and maladaptive in relationships, but this understanding does not increase perceived susceptibility to physical violence or perceived benefits of prevention programming. If this is the case, educating individuals who are experiencing or likely to experience psychological aggression in their relationships about this possibility may be a fruitful direction for prevention efforts.

Implications and Recommendations

Although these findings are preliminary as it is based on only one sample of undergraduate participants, this research indicates that practitioners and researchers who wish to recruit particular types of individuals for violence prevention programs (e.g., at-risk individuals or individuals who are already experiencing physical violence) need not employ specific strategies to maximize recruitment. The suggestion below, based on the findings in the HBM framework, should work equally well for all potential participants.

These data tentatively suggest that recruitment efforts should focus on increasing perceived susceptibility and perceived benefits and not on the serious consequences of dating violence. Potential participants should be informed about the high prevalence of dating violence and about personal and relationship risk factors. The benefits of the prevention program should be emphasized as well, such as learning nonviolent communication, problem-solving skills, and increases in relationship satisfaction. There is also some evidence that making programs as convenient as possible and minimizing concerns about the revelation of sensitive material by marketing programs as education rather than counseling, for example, may also be fruitful recruitment strategies. Although future research with larger samples is necessary, these data suggest that marketing strategies that emphasize the seriousness of dating violence and the severity of the consequences of such violence may be relatively ineffective. Therefore, commonly used scare tactics designed to highlight the deleterious effects of dating violence, often employed

in encouraging participation in prevention programming, are not likely to be effective in recruitment for dating violence prevention programs.

Limitations and Future Directions

This research is among the first to examine factors related to recruitment for prevention programming for dating violence within an established theoretical framework of preventive behavior. Although this represents an important first step, this research is limited in several ways. First, the current sample of undergraduates were primarily female and non-Hispanic Whites. Therefore, these data may not be representative of other populations of differing backgrounds, and future research is necessary to confirm how these factors predict intention with more diverse samples. It should also be noted that the mean and median relationship length was relatively short, and because we often see violence escalate as a relationship becomes more serious, these data may be different than those reporting longer relationship duration. In addition, the method of assessment was self-report, which has well-known limitations and weaknesses. Finally, this study used the individual's intention to participate in a program to prevent dating violence as a proxy for actual participation, which is an imperfect measure. However, value expectancy models of human behavior, including the HBM, posit that the best predictor of behavior is the individual's intention to perform the behavior (Morrison, Baker, & Gillmore, 2000). Therefore, examination of an individual's intention to participate is a reasonable, albeit limited, proxy for their actual behavior.

This research provides an important first step in examining factors related to recruitment for prevention programs for dating violence, an area that has been relatively neglected to date by this literature. As practitioners and researchers move toward a prevention model of addressing interpersonal violence, empirically examining our methods for recruitment is increasingly important to ensure that those most likely to benefit are receiving the interventions. It is our hope that this line of research will inspire further inquiries into aspects of individual's beliefs that predict intention and participation in prevention programming. For example, some researchers have found that social norms and respected recommendations were important in predicting intention and participation in preventive behaviors (Sullivan et al., 2004), so it may be important to examine if these factors are important in dating violence prevention. Given that the peer group is often a very important source of influence at the developmental period in which individuals may begin dating or first experience dating violence, it may be that

this will be a powerful source of influence in recruiting participation. In addition, further research is necessary to examine factors that uniquely predict intention to participate for victims and perpetrators individually, in addition to those engaging in mutual violence. Given that research suggests that a significant proportion of individuals in relationships are both recipients and perpetrators of aggressive behavior (Bookwala, Frieze, Smith, & Ryan, 1992; Cate et al., 1982; Gray & Foshee, 1997), it may be that cases of mutual violence necessitate specialized recruitment and program design. As researchers develop and empirically examine theoretical models that comprehensively examine interpersonal violence in intimate relationships, it is our hope that researchers continue to develop programs that are appropriate and beneficial, and that future research on recruitment identifies optimal strategies to encourage participation in such programs.

Notes

1. The term *psychological aggression* is used rather than *psychological violence* to avoid implying causal links and to be consistent with the Conflict Tactics Scale-II (CTS-II; Straus, Hamby, Boney-McCoy, & Sugarman, 1996) Psychological Aggression subscale.

2. Relationship length was examined in response to a reviewer concern, and was not a significant predictor of intention and did not add to the variance accounted for in intention when included as a demographic variable in the regression analyses. Therefore, only income and gender were included in the hierarchical linear regression analyses.

3. The reliability coefficients for the HBM measure were similar across the violent and nonviolent subgroups, indicating that a regression approach is not inappropriate for this sample (Jaccard, Turissi, & Wan, 1990).

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