

# An Evaluation of Safe Dates, an Adolescent Dating Violence Prevention Program

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## ABSTRACT

**Objectives.** This study assessed the effects of the Safe Dates program on the primary and secondary prevention of adolescent dating violence.

**Methods.** Fourteen schools were randomly allocated to treatment conditions. Eighty percent ( $n = 1886$ ) of the eighth and ninth graders in a rural county completed baseline questionnaires, and 1700 (90%) completed follow-up questionnaires.

**Results.** Treatment and control groups were comparable at baseline. In the full sample at follow-up, less psychological abuse, sexual violence, and violence perpetrated against the current dating partner were reported in treatment than in control schools. In a subsample of adolescents reporting no dating violence at baseline (a primary prevention subsample), there was less initiation of psychological abuse in treatment than in control schools. In a subsample of adolescents reporting dating violence at baseline (a secondary prevention subsample), there was less psychological abuse and sexual violence perpetration reported at follow-up in treatment than in control schools. Most program effects were explained by changes in dating violence norms, gender stereotyping, and awareness of services.

**Conclusions.** The Safe Dates program shows promise for preventing dating violence among adolescents. (*Am J Public Health*. 1998;88:45-50)

## Introduction

Partner violence burdens the health care system and the physical and mental health of individuals and family members, and it is considered a major public health problem in the United States.<sup>1</sup> Although partner violence often begins during adolescence,<sup>2</sup> no prior study has evaluated the effectiveness of a partner violence prevention program for adolescents.

In this paper, we first assess the effects of the Safe Dates program on the primary and secondary prevention of dating violence. Primary prevention is achieved when the first perpetration of dating violence is precluded. Secondary prevention occurs when victims stop being victimized or perpetrators stop being violent. Second, we assess the effects of the program on theoretically based mediating variables. Finally, we determine whether the Safe Dates program prevents dating violence through the mediating variables.

Safe Dates consists of school and community activities. School activities promote primary prevention, while school and community activities promote secondary prevention. School activities include (1) a theater production performed by peers, (2) a 10-session curriculum, and (3) a poster contest. Community activities include special services for adolescents in abusive relationships (i.e., a crisis line, support groups, materials for parents) and community service provider training. All program components target theoretically based mediators and, hence, the behavioral outcomes (see Figure 1). School activities lead to the primary prevention of dating violence perpetration by (1) changing norms associated with partner violence, (2) decreasing gender stereotyping, and (3) improving conflict management skills. School activities lead to

secondary prevention by changing those same variables and by also changing beliefs about the need for help, awareness of services for victims and perpetrators of partner violence, and help-seeking behavior. Community activities enhance the availability of dating violence services from which adolescents can seek help. Studies indicate that both males and females are victims and perpetrators of dating violence;<sup>2-4</sup> thus, Safe Dates victimization and perpetration prevention activities target both genders. For details on program development, content, and theoretical base, see Foshee et al.<sup>5</sup>

## Methods

The study was conducted in a predominantly rural county in eastern North Carolina. The 14 public schools in the county with students in the eighth or ninth grade were stratified by grade and matched on school size. One member of each matched pair was then randomly assigned to a treatment or control condition. Treatment adolescents were exposed to school and community activities, whereas control adolescents were exposed to community activities only. Thus, we assessed the effects of the school activities over and

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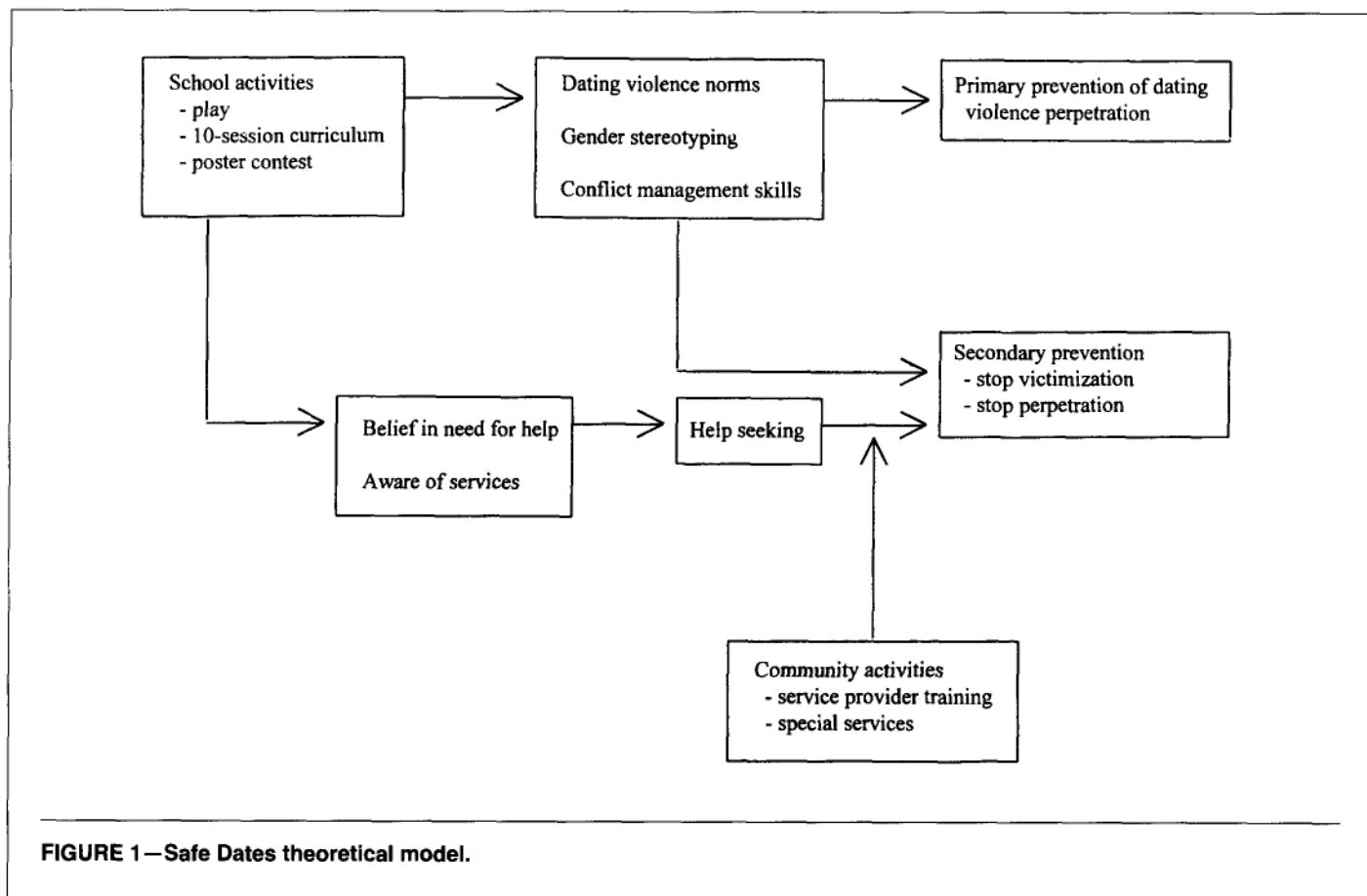


FIGURE 1—Safe Dates theoretical model.

above the effects of the community activities. Eighth and ninth graders were studied because we assumed that the topic would be salient for these children, many of whom were beginning to date. We also assumed that most of these children would not be involved in dating violence when they entered the study (and thus would be appropriate targets for primary prevention) but that many would become involved during the study.

Adolescents were eligible for the study if they were enrolled in the eighth or ninth grade on September 10, 1994. In October 1994, baseline data were collected from adolescents during 50-minute in-school sessions through self-administered questionnaires. Questionnaires were completed by 81% (n = 1886) of the 2344 eligible adolescents.

Program activities took place from November 1994 through March 1995. The play was performed at each of the seven treatment schools, and 97% of the students were present for the performances. The 16 teachers (10 men and 6 women) who taught required health courses in the treatment schools received 20 hours of training on teen dating violence and the Safe Dates curriculum prior to delivering the curricu-

lum to their students in January and February 1995. The curriculum comprised ten, 45-minute sessions of interactive activities addressing each mediating variable in Figure 1. Based on monitoring data, 90.7% of the intended curriculum activities were covered by the teachers. Classroom attendance in Safe Dates sessions ranged from 95.0% to 97.0%. The poster contest encouraged treatment school students to create posters on the prevention of dating violence. Although not all students created a poster, all were exposed to the messages in the posters because each student was required to vote for the best three in his or her school.

Twenty workshops were offered to community service providers, including social service, emergency room, health department, mental health, crisis line, and health department staff, school counselors, sheriff's deputies, and officers from the nine police departments in the county. Approximately 63% of eligible service providers received the training. A weekly support group was offered to victims of partner violence.

Of the 1886 adolescents completing baseline questionnaires in October 1994, 90% (n = 1700) completed questionnaires

again in May 1995, 1 month after program activities ended. Of these 1700 adolescents, 51.1% were female, 19.1% were African American, and 77.1% were White. Ages ranged from 11 to 17 years, with a mean of 13.8. At both baseline and first follow-up, about 70% of the adolescents reported dating. Of the adolescents who were dating at baseline, 34.9% of the girls and 38.0% of the boys reported being a victim of dating violence at least once.

### Measures

**Outcome variables.** Four victimization and four perpetration variables were measured. Psychological abuse victimization was measured by asking "How often has anyone that you have ever been on a date with done the following things to you?" Fourteen acts were listed (e.g., "damaged something that belonged to me" and "insulted me in front of others"). Response options ranged from 0 for never to 3 for very often. Items were summed, and, as a means of normalizing the distribution, summed scores were recoded so that 0 indicated no victimization, 1 (a summed score of 1 to 5) indicated mild victimization, 2 (a summed score of 6 to 10) indicated moderate psychological abuse,

and 3 (a summed score of 10 or greater) indicated severe psychological abuse. Cronbach's alpha for the psychological abuse victimization variable was .91. A parallel scale was used to measure psychological abuse perpetration ( $\alpha = .88$ ).

Nonsexual violence victimization was measured by asking respondents "How many times has anyone that you have been on a date with done the following things to you? Only include when they did it to you first. In other words, don't count it if they did it to you in self-defense." Sixteen behaviors were listed (e.g., "slapped me," "kicked me," and "hit me with a fist"). Response options ranged from 0 for never to 3 for 10 or more times. The 16 items were summed and, as a means of normalizing the distribution, were recoded so that 0 indicated no nonsexual violence victimization, 1 indicated victimization 1 to 3 times, and 2 indicated victimization more than 3 times.

Sexual violence victimization was measured, via the same base question used for nonsexual violence, with the two behavioral items "forced me to have sex" and "forced me to do other sexual things that I did not want to do." These two items were summed and recoded in a manner parallel to the nonsexual items to create a sexual violence victimization variable. Nonsexual and sexual violence perpetration variables were created via parallel questions.

As a means of measuring violence in the current relationship, adolescents were first asked whether they were currently dating someone. If so, they were then asked how often this partner had used physical force against them (not in self-defense) and how often they had used physical force against this partner (not in self-defense). Response options ranged from 0 for never to 3 for 10 or more times.

*Mediating variables.* Four variables measuring dating violence norms were created: acceptance of prescribed norms (norms accepting dating violence under certain circumstances), acceptance of proscribed norms (norms considering dating violence unacceptable under all circumstances), perceived positive consequences of dating violence, and perceived negative consequences of dating violence. The same Likert scale format was used to measure all four constructs. Students were asked how strongly they agreed or disagreed with a series of statements measuring each construct. Response options ranged from 0 for strongly disagree to 3 for strongly agree. Items measuring each construct were averaged to create composite scores (prescribed norms: 8 items,  $\alpha = .71$ ; perceived positive

sanctions: 3 items,  $\alpha = .47$ ; perceived negative sanctions: 3 items,  $\alpha = .57$ ). One item was used to measure acceptance of proscribed norms: "hitting a dating partner is never OK."

The same Likert scale format was used to measure gender stereotyping (11 items,  $\alpha = .69$ ) and beliefs in need for help (2 items,  $\alpha = .67$ ). As a means of measuring awareness of services, subjects were asked whether they knew of county services for victims and perpetrators of dating violence. As a means of measuring help seeking, victims of dating violence were asked "Have you ever asked anyone what you should do about the violence in your dating relationships?" Perpetrators were asked "Have you ever asked anyone for help on how to stop using violence towards dates?"

Four conflict management variables were measured with Likert scale responses: constructive communication skills, destructive communication skills, constructive responses to anger, and destructive responses to anger. Communication skills were measured by asking "During the last 6 months, when you had a disagreement with someone, how much of the time did you do the following things?" Response options ranged from 0 for never to 3 for most of the time. Seven items ( $\alpha = .88$ ) measuring constructive communication skills and five items ( $\alpha = .69$ ) measuring destructive communication skills were averaged to create composite variables for each construct.

Responses to anger were measured by asking adolescents: "During the last 6 months, when you were angry at someone, how often did you do or feel the following things?" Response options ranged from 0 for never to 3 for very often. The four items ( $\alpha = .78$ ) measuring constructive responses to anger and the six items ( $\alpha = .76$ ) measuring destructive responses to anger were averaged to create composite variables for each construct.

### *Analysis Strategy*

We used logistic regression to evaluate the multivariate relationship of study variables to dropout status through odds ratios (ORs). Only three variables—White racial identity, gender stereotyping, and nonsexual violence victimization—were associated at the .05 level. White students were slightly less likely to drop out of the study (OR = 0.994) than other students. The odds of dropping out increased with gender stereotyping (OR = 1.8 per unit) and nonsexual violence (OR = 1.5 per unit). Accordingly, all three variables were controlled in multivariate analyses.

The 1700 subjects were divided into three subsamples based on dating violence experience. The primary prevention subsample included dating adolescents who reported at baseline that they had never been a victim or perpetrator of dating violence ( $n = 862$ ), the victim secondary prevention subsample included dating adolescents who reported at baseline that they had been a victim of dating violence ( $n = 438$ ), and the perpetrator secondary prevention subsample included dating adolescents who reported at baseline that they had been a perpetrator of dating violence ( $n = 247$ ). Consistent with other studies of dating violence,<sup>2-4,9</sup> most of the adolescents in this study reporting experience with dating violence reported being both a victim and a perpetrator. Thus, many of the same adolescents were in the victim and perpetrator subsamples. Sample sizes were too small to conduct analyses on subsamples of "pure perpetrators" and "pure victims."

In the full sample and each subsample, the treatment and control groups were compared at baseline and follow-up on demographic, mediating, and outcome variables. These analyses were conducted with school ( $n = 14$ ) as the unit of analysis while taking into consideration the matching design. Matching allowed consideration of each matched pair as a primary sampling unit. Schoolwide means for each outcome of interest were compared using the nonparametric Wilcoxon signed rank test for differences from matched pairs.

When identifying variables that mediated program effects, the focus was on assessing patterns of change in individuals rather than in schools. Thus, the mediation analyses were performed at the individual level. Mediation is indicated when the treatment condition beta value is attenuated by 20% or more after controlling for proposed mediators.

### *Results*

None of the study samples evidenced significant differences in outcome, mediating, or demographic variables at baseline between treatment and control groups. There were also no significant interactions between gender and treatment when predicting outcomes at follow-up. Therefore, Gender X Treatment interactions were dropped, and the main effects of treatment on outcomes at follow-up were assessed.

As indicated in Table 1, perpetration varied by treatment condition at follow-up. In the full sample, adolescents in the treatment condition reported significantly less

**TABLE 1—Treatment and Control Group Comparisons of Mean Perpetrator Outcome Variables at Baseline and Follow-Up in the Full Sample, Primary Prevention Subsample, and Perpetrator Subsample, North Carolina, 1994/95 (n = 14)**

|                                  | Full Sample |      |           |        | Primary Prevention (Follow-Up) |        | Perpetrators |      |           |       |
|----------------------------------|-------------|------|-----------|--------|--------------------------------|--------|--------------|------|-----------|-------|
|                                  | Baseline    |      | Follow-Up |        | C                              | T      | Baseline     |      | Follow-Up |       |
|                                  | C           | T    | C         | T      |                                |        | C            | T    | C         | T     |
| Psychological abuse              | 0.58        | 0.58 | 0.67      | 0.50** | 0.63                           | 0.45** | 1.75         | 1.64 | 1.56      | 1.14* |
| Nonsexual violence               | 0.22        | 0.26 | 0.26      | 0.22   | 0.18                           | 0.12   | 1.58         | 1.66 | 0.91      | 0.77  |
| Sexual violence                  | 0.03        | 0.04 | 0.05      | 0.02*  | 0.04                           | 0.01   | 0.21         | 0.25 | 0.18      | 0.07* |
| Violence in current relationship | 0.03        | 0.04 | 0.05      | 0.02** | 0.03                           | 0.01   | 0.20         | 0.31 | 0.16      | 0.17  |

Note. Asterisks indicate significance level obtained through Wilcoxon signed rank test. C = control group; T = treatment group.  
\* $P < .10$ ; \*\* $P < .05$ .

psychological abuse perpetration and significantly less perpetration of violence against a current dating partner than those in the control condition. In the primary prevention subsample, adolescents in the treatment condition, as compared with those in the control condition, reported initiating significantly less psychological abuse perpetration. In the perpetrator subsample, treatment and control group differences in psychological abuse perpetration and sexual violence perpetration exhibited suggestive trends in the predicted directions.

At follow-up, there were no significant differences in the victimization of psychological abuse, nonsexual violence, sexual violence, or violence in the current relationship between the treatment and control groups in any of the samples.

As indicated in Tables 2 and 3, many of the proposed mediating variables varied by treatment condition at follow-up. In the full sample (Table 2), adolescents in the treatment group, as compared with those in the control group, were less supportive of proscribed dating violence norms, were more supportive of proscribed dating violence norms, perceived fewer positive consequences from using dating violence, used more constructive communication skills and responses to anger, were less likely to engage in gender stereotyping, and were more aware of victim and perpetrator services. In the primary prevention subsample (Table 2), treatment adolescents were more supportive than controls of proscribed dating violence norms, perceived more negative consequences from using dating

violence, and engaged in less gender stereotyping. Treatment group adolescents in the victim subsample (Table 3), relative to the control group adolescents, were less accepting of proscribed dating violence norms, less accepting of traditional gender stereotypes, and more aware of victim services. Treatment group adolescents in the perpetrator subsample (Table 3), in comparison with the control group adolescents, perceived more negative consequences for using dating violence and were more aware of services for perpetrators.

Analyses for assessing mediation were conducted next. In the full sample (n = 1700), after gender, variables associated with attrition, and baseline values of the dependent variables had been controlled, treatment condition was signifi-

**TABLE 2—Treatment and Control Group Comparisons of Mediating Variables at Baseline and Follow-Up in the Full Sample and Primary Prevention Sample, North Carolina, 1994/95 (n = 14)**

|                                   | Full Sample |       |           |         | Primary Prevention |      |           |        |
|-----------------------------------|-------------|-------|-----------|---------|--------------------|------|-----------|--------|
|                                   | Baseline    |       | Follow-up |         | Baseline           |      | Follow-Up |        |
|                                   | C           | T     | C         | T       | C                  | T    | C         | T      |
| <b>Norms</b>                      |             |       |           |         |                    |      |           |        |
| Proscribed norms                  | 0.54        | 0.52  | 0.56      | 0.42**  | 0.46               | 0.43 | 0.49      | 0.38*  |
| Proscribed norms                  | 2.52        | 2.51  | 2.51      | 2.69**  | 2.60               | 2.57 | 2.58      | 2.75** |
| Positive consequences             | 0.29        | 0.28  | 0.29      | 0.24**  | 0.22               | 0.22 | 0.24      | 0.21   |
| Negative consequences             | 1.83        | 1.85  | 1.85      | 1.94*   | 1.90               | 1.92 | 1.93      | 2.00** |
| <b>Conflict management skills</b> |             |       |           |         |                    |      |           |        |
| Constructive communication        | 1.85        | 1.89  | 1.75      | 1.83**  | 1.90               | 1.99 | 1.78      | 1.88   |
| Destructive communication         | 1.03        | 0.99  | 1.12      | 1.07    | 0.94               | 0.96 | 1.08      | 1.01*  |
| Constructive anger response       | 1.54        | 1.58  | 1.49      | 1.58**  | 1.54               | 1.63 | 1.49      | 1.62   |
| Destructive anger response        | 0.89        | 0.88  | 0.95      | 0.86    | 0.76               | 0.81 | 0.84      | 0.78   |
| <b>Gender stereotyping</b>        | 0.72        | 0.73  | 0.73      | 0.61**  | 0.66               | 0.66 | 0.67      | 0.56** |
| <b>Belief in need for help</b>    | 2.63        | 2.68  | 2.54      | 2.68*   | ...                | ...  | ...       | ...    |
| Aware of victim services, %       | 18.94       | 20.87 | 28.24     | 80.18** | ...                | ...  | ...       | ...    |
| Aware of perpetrator services, %  | 20.75       | 21.71 | 24.71     | 70.88** | ...                | ...  | ...       | ...    |
| Victims seeking help, %           | 21.07       | 23.18 | 27.33     | 31.62   | ...                | ...  | ...       | ...    |
| Perpetrators seeking help, %      | 32.44       | 20.05 | 22.80     | 17.42   | ...                | ...  | ...       | ...    |

Note. Asterisks indicate significance level obtained through Wilcoxon signed rank test. C = control group; T = treatment group.  
\* $P < .10$ ; \*\* $P < .05$ .

**TABLE 3—Treatment and Control Group Comparisons of Mediating Variables at Baseline and Follow-Up in the Secondary Prevention Samples, North Carolina, 1994/95 (n = 14)**

|                                   | Victims  |       |           |         | Perpetrators |       |           |         |
|-----------------------------------|----------|-------|-----------|---------|--------------|-------|-----------|---------|
|                                   | Baseline |       | Follow-Up |         | Baseline     |       | Follow-Up |         |
|                                   | C        | T     | C         | T       | C            | T     | C         | T       |
| <b>Norms</b>                      |          |       |           |         |              |       |           |         |
| Prescribed norms                  | 0.78     | 0.72  | 0.80      | 0.51**  | 0.83         | 0.87  | 0.79      | 0.62    |
| Proscribed norms                  | 2.22     | 2.35  | 2.31      | 2.56*   | 2.13         | 2.18  | 2.29      | 2.54    |
| Positive consequences             | 0.44     | 0.39  | 0.47      | 0.32    | 0.47         | 0.51  | 0.50      | 0.36    |
| Negative consequences             | 1.64     | 1.67  | 1.64      | 1.81    | 1.42         | 1.62  | 1.37      | 1.73**  |
| <b>Conflict management skills</b> |          |       |           |         |              |       |           |         |
| Constructive communication        | 1.85     | 1.90  | 1.66      | 1.87    | 1.99         | 1.98  | 1.79      | 1.80    |
| Destructive communication         | 1.25     | 1.14  | 1.26      | 1.25    | 1.37         | 1.18  | 1.32      | 1.32    |
| Constructive anger response       | 1.55     | 1.66  | 1.55      | 1.61    | 1.66         | 1.68  | 1.66      | 1.61    |
| Destructive anger response        | 1.14     | 1.08  | 1.23      | 1.02    | 1.34         | 1.22  | 1.34      | 1.11    |
| <b>Gender stereotyping</b>        | 0.85     | 0.78  | 0.87      | 0.65**  | 0.75         | 0.84  | 0.80      | 0.70    |
| <b>Belief in need for help</b>    | 2.37     | 2.59  | 2.21      | 2.54    | 2.45         | 2.55  | 2.26      | 2.50    |
| Aware of victim services, %       | 21.65    | 20.58 | 30.38     | 76.82** | ...          | ...   | ...       | ...     |
| Aware of perpetrator services, %  | ...      | ...   | ...       | ...     | 29.81        | 18.54 | 30.41     | 67.90** |
| Victims seeking help, %           | 21.08    | 23.18 | 30.36     | 40.20   | ...          | ...   | ...       | ...     |
| Perpetrators seeking help, %      | ...      | ...   | ...       | ...     | 32.44        | 20.05 | 36.12     | 32.49   |

Note. Asterisks indicate significance level obtained through Wilcoxon signed rank test. C = control group; T = treatment group. \* $P < .10$ ; \*\* $P < .05$ .

cantly associated with changes in psychological abuse perpetration ( $b = -.08$ ,  $P = .001$ ), sexual violence perpetration ( $b = -.06$ ,  $P = .009$ ), and violence perpetrated in the current relationship ( $b = -.06$ ,  $P = .014$ ). The association between treatment condition and psychological abuse perpetration was mediated by changes in prescribed norms, gender stereotyping, and awareness of victim services. The association between treatment condition and sexual violence perpetration was mediated by changes in prescribed norms, gender stereotyping, awareness of victim services, and awareness of perpetrator services. The relationship between treatment condition and violence perpetrated in the current relationship was mediated only by changes in prescribed norms.

In the primary prevention subsample ( $n = 862$ ), the controlled analyses indicated that treatment condition was significantly associated with initiation of psychological abuse ( $b = -.11$ ,  $P = .001$ ). The relationship remained statistically significant when proposed mediators were controlled, indicating that this program effect occurred through mechanisms other than those proposed.

In the perpetrator subsample ( $n = 247$ ), treatment condition was associated with psychological abuse perpetration ( $b = -.12$ ,  $P = .048$ ) and with sexual violence perpetration ( $b = -.14$ ,  $P = .026$ ). The association between treatment condition and psychological abuse perpetration was mediated by

changes in awareness of perpetrator services, while the association between treatment condition and sexual violence perpetration was mediated by changes in perceived negative consequences for using dating violence and awareness of perpetrator services.

## Discussion

Changes occurring in the full sample described the public health impact of the school activities. At follow-up, there was 25% less psychological abuse perpetration, 60% less sexual violence perpetration, and 60% less violence perpetrated against the current dating partner in treatment schools than in control schools. In addition, school activities had effects on several proposed mediating variables, the largest differences being in dating violence norms, gender stereotyping, and awareness of services, the variables targeted most heavily by school activities. Mediation analyses suggest that effects of the school activities on partner violence perpetration occurred primarily through changes in these three variables.

Both primary and secondary prevention effects were observed. In the primary prevention sample, there was 28% less psychological abuse initiated in treatment than in control schools. Psychological abuse often precedes physical violence<sup>6</sup>; thus, preventing psychological abuse may be the first step toward preventing violent behav-

iors. There was 27% less psychological abuse perpetration and 61% less sexual violence perpetration reported at follow-up by dating violence perpetrators in treatment than in control schools. These effects were obtained by changes in the perceptions of negative consequences of dating violence and by an increase in perpetrators' awareness of services.

One goal of secondary prevention was to encourage victims and perpetrators to seek help. Although victims and perpetrators in the treatment group became significantly more aware of services than those in the control condition, there were no between-group differences in help seeking. Help seeking increased substantially from baseline to follow-up in both conditions (see Table 3). Still, a minority of victims (35%) and perpetrators (34%) reported seeking help from anyone, and these adolescents sought help from friends and parents rather than from community service providers.

Exposure to school activities did not increase the likelihood that victims would stop being victimized. One explanation for this is that many study adolescents were dating people who were not in the sample. For example, 75% of the girls were dating partners in older grades than the study sample, and 75% of the boys dated girls in younger grade than the study sample.<sup>7</sup> Therefore, it is likely that a significant portion of the victims were being victimized by partners who were not in the study and

therefore not exposed to the intervention. Another explanation is that the program failed in the area.

There are several explanations for the study findings. One is that the Safe Dates school activities caused the changes that were detected in the outcome and mediating variables. Another is that adolescents exposed to these activities were more likely to give socially desirable answers at follow-up than adolescents not exposed to them. The socially desirable response is apparent for outcome variables but less apparent for many of the mediating variables. For example, the socially desirable responses to norms items such as "Bad things happen to people who are violent to their dating partners," "Boys sometimes deserve to be hit by the girls they date," and "It is OK for a girl to hit a boy if he hit her first" are not particularly apparent. The same is true of responses to awareness of services items such as "Are there services in the county for helping victims of dating violence?" Yet, treatment effects were still observed in these variables.

Adolescents exposed to school activities may have redefined abuse more narrowly, influencing their reporting of behaviors at follow-up but not their actual behaviors. For example, at baseline, when asked to report violence "ever" perpetrated, an adolescent may have included shoving a dating partner. At follow-up, when asked the same question, the adolescent may not have included that shove because it had been a playful gesture toward the partner, realizing, through program exposure, that this was not the type of behavior being assessed by the questionnaire. This explanation for program effects seems unlikely because both treatment and control group perpetrators reported less "ever" use of dating violence at follow-up than at baseline. The perpetrator subsample was defined according to extreme scores of dating violence. It appears that follow-up scores regressed to the mean in both the control and treatment groups.

Because of the timing of follow-up data collection and the way dating violence was measured, program effects were probably underestimated. Follow-up data were collected 1 month after program activities, and thus there was not much time for behavior change. Also, when adolescents answered follow-up questions about "lifetime" involvement in dating violence, they were reporting new violence occurring between baseline (October) and follow-up (May). Much of what was reported may have occurred before the program was completed. Therefore, our follow-up measure is not as pure as might be desired. As a means of addressing these limitations, 1-year follow-up data are being collected, and subjects are being asked to report violent and abusive behaviors experienced during the prior year.

Approximately 77%<sup>8</sup> of US counties are classified as rural, but geographic, ethnic, and cultural variations make it difficult to generalize these findings to all rural counties. However, the results can be generalized to similar rural counties. Relative to the United States as a whole, the study county has an overrepresentation of minority residents (20%), lower income households (40% with less than \$10 000 annual income), and individuals with limited education (53% of people more than 25 years of age have less than a high school education). Follow-up studies should determine the effects of the Safe Dates program in other areas.

Our prevalence estimates are comparable to those obtained in different settings. Twenty-five percent of the adolescents in our study reported being a victim of dating violence at baseline. In a community comprising suburban, urban, and rural areas, O'Keeffe and associates found that 20% of their sample of adolescents reported being victims.<sup>3</sup> Bergman, however, found that the prevalence of dating violence victimization was highest in suburban schools (43%), next highest in urban schools (21%), and least prevalent in rural schools (17%).<sup>9</sup>

Although the number of youth violence prevention programs offered in our communities has increased, most of these programs do not address the unique issues related to dating violence. Given that partner violence is one of our most significant public health problems and that it often begins during adolescence, youth violence prevention efforts should include activities for preventing this specific form of violence and be evaluated for effectiveness. Through evaluation, the Safe Dates school activities show promise for preventing adolescent dating violence and, therefore, potential for public health impact. □

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## References

1. Biden J. Violence against women, the congressional response. *Am Psychol.* 1993;48:1059-1061.
2. Henton J, Cate R, Koval J, Lloyd S, Christopher S. Romance and violence in dating relationships. *Fam Issues.* 1983;4:467-482.
3. O'Keeffe NK, Brockopp K, Chew E. Teen dating violence. *Soc Work.* 1986;31:465-468.
4. Plass MS, Gessner JC. Violence in courtship relations: a southern sample. *Free Inquiry Creative Social.* 1983;11:198-202.
5. Foshee V, Linder GF, Bauman KE, Langwick SA, Arriaga XB, et al. The Safe Dates project: theoretical basis, evaluation design, and selected baseline findings. *AM Prev Med.* 1996;12:39-47.
6. Stets JE. Verbal and physical aggression in marriage. *Marriage Fam.* 1990;52:501-514.
7. Foshee VA. Gender differences in adolescent dating abuse prevalence, types, and injuries. *Health Educ Res.* 1996;11:275-286.
8. Gesler WM, Ricketts TC. *Health in Rural North America.* New Brunswick, NJ: Rutgers University Press; 1992.
9. Bergman L. Dating violence among high school students. *Soc Work.* 1992;37:21-27.

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