

The Safe Dates Program: 1-Year Follow-Up Results

ABSTRACT

Vangie A. Foshee, PhD, Karl E. Bauman, PhD, Wendy F. Greene, MS,
Gary G. Koch, PhD, George Fletcher Linder, PhD, and James E. MacDougall, PhD

Objectives. An earlier report described desirable 1-month follow-up effects of the Safe Dates program on psychological, physical, and sexual dating violence. Mediators of the program-behavior relationship also were identified. The present report describes the 1-year follow-up effects of the Safe Dates program.

Methods. Fourteen schools were in the randomized experiment. Data were gathered by questionnaires in schools before program activities and 1 year after the program ended.

Results. The short-term behavioral effects had disappeared at 1 year, but effects on mediating variables such as dating violence norms, conflict management skills, and awareness of community services for dating violence were maintained.

Conclusions. The findings are considered in the context of why program effects might have decayed and the possible role of boosters for effect maintenance. (*Am J Public Health.* 2000;90:1619-1622)

Violence among adolescent dating partners is prevalent and has negative consequences.¹⁻⁵ The Safe Dates project was a randomized controlled trial for testing the effects of an intervention on the primary and secondary prevention of dating violence among adolescents. The intervention included school activities (a theater production performed by peers, a curriculum of ten 45-minute sessions taught by health and physical education teachers, and a poster contest) and community activities (services for adolescents in abusive relationships and service provider training). Details on the development, content, and theoretical base of the program have been published elsewhere.⁶

The short-term effects (1 month postintervention) of the program were reported in the *Journal*.⁷ The findings suggested that the Safe Dates program was effective in preventing psychological, physical, and sexual abuse perpetration against dating partners and in changing mediating variables that were based on program content, such as dating violence norms, gender stereotyping, conflict resolution skills, and awareness of community services for dating violence.

In this study, we examined 1-year follow-up data to determine whether the positive short-term effects of the Safe Dates program were maintained. As in the earlier study, we first assessed the effects of the program on the prevention of psychological, physical, and sexual abuse victimization and perpetration. We then assessed the effects of the program on the theoretically based mediating variables that the program was designed to influence. The proposed mediating variables for primary prevention were dating violence norms, gender stereotyping, and conflict management skills. Those variables, as well as beliefs about the need for help, awareness of community services, and help-seeking behaviors, were the proposed mediating variables for secondary prevention.

Methods

Data Collection

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 treatment or control. 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 above the effects of the community activities.

Adolescents were eligible for study if they were enrolled in the eighth or ninth grade on September 10, 1994. In October 1994, baseline data were collected from adolescents in school through self-administered questionnaires. Of the 2344 eligible adolescents, 1886 (80.5%) completed questionnaires. Adolescents were not allowed to complete questionnaires without their assent and their parents' consent.

Program activities occurred from November 1994 through March 1995. The play, curriculum, and poster contest occurred in the 7 treatment schools; 97% of the students enrolled in treatment schools were present for the play, and classroom attendance in the 10 Safe Dates sessions ranged from 95% to 97%. Although not all students in the treatment schools created posters about preventing dating violence, all were exposed to the messages in the posters—each student was required to vote for the best 3 in his or her school. Approximately 63% of the service providers in the community received training on how to be helpful to adolescents involved in dating violence.

Of the 1886 adolescents completing baseline questionnaires, 1700 (90%) completed questionnaires again in May 1995, about 1 month after program activities ended, and 1603 (85%) completed questionnaires again in May 1996, about 1 year after program activities ended. Questionnaires were completed primarily in school, but we mailed questionnaires to students who were absent for school data collection.

The authors are with the School of Public Health, University of North Carolina at Chapel Hill. Vangie A. Foshee, Karl E. Bauman, and George Fletcher Linder are with the Department of Health Behavior and Health Education, and Wendy F. Greene, Gary G. Koch, and James E. MacDougall are with the Department of Biostatistics.

Requests for reprints should be sent to Vangie A. Foshee, PhD, Department of Health Behavior and Health Education, 317 Rosenau Hall, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-7400 (e-mail: vfoshee@sph.unc.edu).

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The panel of adolescents completing baseline and 1-year follow-up questionnaires (n=1603) was included in our analyses. This panel was 51.2% female and 19.9% African American. At baseline, 69.5% of the adolescents reported dating, and at 1-year follow-up, 74.8% reported dating. At baseline, 34.3% of the dating females and 37.2% of the dating males reported being a victim of dating violence at least once.

Measures

The measures were the same as those used in the 1-month follow-up analyses.⁷ Four victimization and 4 perpetration outcome variables were measured. Psychological abuse victimization was measured by asking the adolescent, "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 recoded so that 0 indicated no psychological abuse victimization, 1 (a summed score of 1–5) indicated mild victimization, 2 (a summed score of 6–9) indicated moderate victimization, and 3 (a summed score of 10 or greater) indicated severe psychological abuse victimization.

Sexual violence and nonsexual physical violence victimization were measured by asking adolescents, "How many times has anyone that you have ever been on a date with done the following things to you?" The acts measuring sexual violence victimization were "forced me to have sex" and "forced me to do other sexual things I did not want to do." Sixteen acts, including "slapped me," "kicked me," "and hit me with a fist," measured nonsexual physical violence victimization. Responses were coded so that 0 indicated no victimization, 1 indicated victimization 1 time, and 2 indicated victimization more than 1 time. Physical violence victimization in the current dating relationship also was measured. Parallel items were used to measure the 4 perpetration variables.

The mediating variables included (1) 3 dating violence norms variables (acceptance of dating violence [8 items; range 0–3; $\alpha=.81$], perceived positive sanctions for using dating violence [3 items; range 0–3; $\alpha=.76$], and perceived negative sanctions for using dating violence [3 items; range 0–3; $\alpha=.65$]); (2) 4 conflict management variables (constructive communication skills [7 items; range 0–3; $\alpha=.90$], destructive communication skills [5 items; range 0–3; $\alpha=.75$], constructive responses to anger [4 items; range 0–3; $\alpha=.81$], and destructive responses to anger [6 items; range 0–3; $\alpha=.81$]); (3) gender stereotyping (11

TABLE 1—Treatment and Control Group Comparisons on Outcome Variables at Baseline and 1-Year Follow-Up in 4 Samples: North Carolina, 1994/1996

	Baseline		1-Year Follow-Up	
	Control	Treatment	Control	Treatment
Full sample				
Psychologic abuse victimization	0.86	0.85	1.03	1.07
Physical violence victimization	0.39	0.40	0.53	0.53
Sexual violence victimization	0.11	0.11	0.20	0.17
Victim in current relationship	0.05	0.06	0.09	0.07
Psychologic abuse perpetration	0.56	0.57	0.74	0.68
Physical violence perpetration	0.21	0.24	0.38	0.32
Sexual violence perpetration	0.03	0.03	0.07	0.06
Perpetrator in current relationship	0.03	0.05	0.07	0.06
Primary prevention sample				
Psychologic abuse victimization	...	...	1.19	1.20
Physical violence victimization	...	...	0.53	0.49
Sexual violence victimization	...	...	0.19	0.13
Victim in current relationship	...	...	0.09	0.05
Psychologic abuse perpetration	...	...	0.82	0.76
Physical violence perpetration	...	...	0.35	0.32
Sexual violence perpetration	...	...	0.07	0.05
Perpetrator in current relationship	...	...	0.08	0.05
Secondary prevention (victims)				
Psychologic abuse victimization	2.10	2.08	1.67	1.78
Physical violence victimization	1.67	1.72	1.05	1.09
Sexual violence victimization	0.57	0.53	0.52	0.44
Victim in current relationship	0.20	0.22	0.13	0.18
Secondary prevention (perpetrators)				
Psychologic abuse perpetration	1.65	1.71	1.65	1.24
Physical violence perpetration	1.61	1.66	0.97	0.78
Sexual violence perpetration	0.23	0.22	0.12	0.15
Perpetrator in current relationship	0.20	0.31	0.12	0.15

Note. N = 14 schools. The means for each school were calculated and then averaged across all schools in each condition.

items; range 0–3; $\alpha=.77$); (4) beliefs in need for help (2 items; range 0–3; $\alpha=.79$); (5) awareness of services (1 item for awareness of [yes or no] victim services and 1 item for awareness of [yes or no] perpetrator services); and (6) help-seeking (1 item for help-seeking for victimization [yes or no] and 1 item for help-seeking for perpetration [yes or no]).

Analysis Strategy

We used multivariate logistic regression to conduct attrition analyses. No significant interactions were seen between treatment condition and baseline characteristics when predicting dropout status by 1-year follow-up. The same 3 baseline variables—age, psychologic abuse victimization, and physical violence victimization—were associated with dropout status ($P<.05$) in treatment and control groups. Older students were more likely to drop out of the study (odds ratio [OR]=2.25 per unit, 95% confidence interval [CI]=1.92, 2.63), and the odds of dropping out increased with increased psychologic abuse victimization (OR=1.31 per unit, 95% CI=1.01, 1.70) and increased

physical violence victimization (OR=1.40 per unit, 95% CI=1.00, 1.97). As can be seen from the confidence intervals, the latter 2 variables were barely statistically significant.

The 1603 subjects were divided into 3 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 a perpetrator of dating violence (n=816), the victims secondary prevention subsample included dating adolescents who reported at baseline that they had been a victim of dating violence (n=398), and the perpetrators secondary prevention subsample included dating adolescents who reported at baseline that they had been a perpetrator of dating violence (n=225). Consistent with other studies of dating violence,^{2–5} most of the adolescents in this study who reported 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, we compared treatment and control groups

at baseline and follow-up on demographic, mediating, and outcome variables. We conducted these analyses with the 14 schools as the unit of analysis, 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 with the nonparametric Wilcoxon signed rank test for differences between matched pairs.

Results

We found no significant ($P < .05$) baseline differences between treatment and control groups on outcome, mediating, or demographic variables in any of the samples. There were no significant interactions between gender and treatment and between race and treatment when predicting outcomes at follow-up.

We also found no significant ($P < .05$) differences at 1-year follow-up between the treatment and control groups in any of the behavioral outcomes in any of the samples (Table 1).

Several of the proposed mediating variables varied by treatment condition at follow-up (Table 2). In the full sample, adolescents in the treatment group, compared with those in the control group, were less accepting of dating violence ($P = .05$), perceived more negative consequences from engaging in dating violence ($P = .05$), reported using less destructive responses to anger ($P = .08$), and were more aware of victim ($P = .02$) and perpetrator services ($P = .02$). The differences between the treatment and control groups on those scores ranged from 8% to 52%.

In the primary prevention subsample, no significant differences were found in any of the mediating variables between treatment and control groups at follow-up. Treatment group adolescents in the victims subsample, compared with the control group adolescents, were less accepting of dating violence ($P = .03$), perceived more negative consequences from engaging in dating violence ($P = .02$), reported using less destructive responses to anger ($P = .08$), reported less gender stereotyping ($P = .08$), and were more aware of victim services ($P = .05$). The differences between the treatment and control groups on those scores ranged from 15% to 35%. Treatment group adolescents in the perpetrators subsample, compared with the control group adolescents, reported using less destructive responses to anger ($P = .02$) and were more aware of perpetrator services ($P = .06$). The differences between the treatment and control groups on those scores were 21% and 32%, respectively.

TABLE 2—Treatment and Control Group Comparisons on Significant Mediator Variables at Baseline and 1-Year Follow-Up in 4 Samples: North Carolina, 1994/1996

	Baseline		1-Year Follow-Up	
	Control	Treatment	Control	Treatment
Full sample				
Acceptance of dating violence	0.53	0.50	0.54	0.44**
Negative consequences	1.83	1.86	1.90	1.97**
Destructive anger responses	0.91	0.86	1.04	0.95*
% Aware of victim services	18.29	21.92	33.14	61.86**
% Aware of perpetrator services	20.19	22.38	27.22	56.16**
Secondary prevention (victims)				
Acceptance of dating violence	0.77	0.66	0.74	0.56**
Negative consequences	1.61	1.67	1.64	1.93**
Destructive anger responses	1.21	1.08	1.29	1.06*
Gender stereotyping	0.87	0.75	0.96	0.73*
% Aware of victim services	20.56	20.71	39.84	61.41**
Secondary prevention (perpetrators)				
Destructive anger responses	1.37	1.17	1.48	1.17**
% Aware of perpetrator services	31.97	18.05	33.70	49.58*

Note. N = 14 schools. The means for each school were calculated and then averaged across all schools in each condition.

* $P < .10$; ** $P < .05$.

Discussion

Our findings are consistent with those from other evaluations of adolescent problem behavior prevention programs, such as adolescent substance use prevention programs,⁸⁻¹¹ which indicate that behavioral effects fade but cognitive risk factor effects are maintained. The absence of behavioral effects has several explanations. First, by the 1-year follow-up, treatment and control adolescents from the original 14 schools were combined into 4 large high schools, thus providing opportunities for contamination across treatment and control adolescents. We have no way to assess this possibility.

Second, differential attrition across treatment and control conditions may have accounted for the results. This explanation is unlikely, however, because attrition rates were very similar for treatment (14.76%) and control (15.25%) groups and the same variables were predictive of dropout in both treatment and control conditions.

Third, the power to detect behavioral effects may have been inadequate. The Wilcoxon signed rank test is a conservative test of program effects because effects had to be in the hypothesized direction in at least 6 of the 7 pairs of schools for statistical significance at $P < .05$. A sample size such as ours of 7 pairs of schools with about 115 students per school has reasonably good power for detecting favorable directional trends unless the effect sizes for the pairs are very small. If the effect sizes are very small, then there is a question of clinical significance anyway.

Fourth, the program may have been based on faulty theoretical assumptions. The program

had positive effects on the cognitive risk factors, but changes in those risk factors did not lead to changes in dating violence. Finally, the Safe Dates program may not have been of sufficient intensity and duration to produce long-lasting effects. Perhaps the initial effects would have been prolonged or even increased with a booster intervention.

Several theoretical perspectives¹²⁻¹⁴ and our own empirical findings from studies of adolescent tobacco and alcohol use^{15,16} suggest that changes in attitudes precede changes in behavior. Perhaps behavioral changes will appear at a later follow-up. We have obtained funding from the Centers for Disease Control and Prevention to determine program effects at 2-year follow-up. Moreover, we will be testing the effects of a booster intervention that will be delivered to a random half of the original treatment group adolescents after the 2-year follow-up data collection. Studies of adolescent substance use prevention programs that included booster interventions reported program effects lasting as long as 6 years after exposure to the original program.^{17,18}

Contributors

V.A. Foshee was the principal investigator of the study. She planned the study, directed the study, and wrote the paper. K.E. Bauman was a coinvestigator on the study. He assisted with study design and methodology and contributed to the writing of the paper. W.F. Greene contributed to designing the analysis strategy and ran statistical analyses used in the paper. G.G. Koch designed the statistical analysis strategy and directed W.F. Greene and J.E. MacDougall in running the analyses. G.F. Linder was the project manager for

the study, and he contributed to the day-to-day operations of the study, including questionnaire design, data collection, and tracking subjects, and to the writing of the paper. J.E. MacDougall contributed to designing the statistical analysis strategy and ran statistical analyses used in the paper.

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