What Adolescents Bring to and Learn from Relationship Education Classes: Does Social Address Matter?

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The current study examined the effectiveness of a youth-focused relationship education curriculum in a sample of 1,430 adolescents attending health classes across 39 public high schools. The evaluation consisted of pre, post, and 1-year follow-up data collections for intervention and control samples. Growth curve models were fit to test the general effects of the curriculum and to examine the influence of social address indicators. Results indicated that the intervention group, but not the control group, changed in the desired direction in terms of the faulty relationship beliefs and the relationship skills that were the focus of this study. Desired improvements on the faulty relationship beliefs occurred independent of social address, but desired improvements in conflict management skills appeared only for the less socially or economically advantaged groups (e.g., lower socioeconomic status and minority status). Participants living in stepfamilies also significantly improved their perceived skills. Adolescents living in single-parent family structures appeared to benefit least from the program. Implications for practice and future research are discussed.

KEYWORDS   youth-focused relationship education, adolescents, growth curve model, family structure, low-income families

During the past decade, recognition of the importance and implications of adolescent romantic relationships has increased dramatically (Collins, 2003; Furman & Hand, 2006; Giordano, Longmore, & Manning, 2006; Laursen & Mooney, 2007). Adolescent dating relationships have been termed a double-edged sword, in some instances associated with positive developmental outcomes such as desirable influences on academic performance (Giordano, Phelps, Manning, & Longmore, 2008), development of interpersonal skills (Barber & Eccles, 2003; Haugen, Welsh, & McNulty, 2008), support of identity formation and future aspirations (Bouchey & Furman, 2003; Furman & Shaffer, 2003; Markstrom & Kalmanir, 2001; Montgomery, 2005), and resilience in at-risk youth (Scott, Steward, & Wolfe, 2005), but in other instances associated with negative outcomes, including adolescent depression (Joyner & Udry, 2000), dating partner abuse (O'Leary & Slep, 2003), unintended pregnancies, and sexually transmitted infections (Bouchey & Furman, 2003; Furman, 2002). In their large-scale studies of dating and adjustment that examined the benefits and risks of adolescent dating, Furman, Ho, and Low (2007) demonstrated that both risks and benefits were occurring simultaneously.

Recently published studies have been weighted heavily toward aggression and violence in adolescent romantic relationships (e.g., Champion, Wagoner, Song, Wolfson, & Brown, 2008; Ellis, Crooks, & Wolfe, 2009; Knox, Lomonaco, & Alpert, 2009; O'Leary, Slep, Avery-Leaf, & Cascardi, 2008; Sears, Byers, Whelan, & Saint-Pierre, 2008). These studies illustrate the critical need to educate adolescents about healthy relationships, dispelling faulty beliefs and bolstering interpersonal skills, given the sizable minority of adolescents who are experiencing physical and emotional abuse in their dating relationships.

Limited empirical work indicates that school-based relationships education is effective in reducing negative beliefs and attitudes and in increasing positive beliefs, skills, and behaviors associated with adolescents' romantic relationships (Adler-Baeder, Kerpelman, Schramm, Higginbotham, & Paulk, 2007; Gardner, Giese, & Parrot, 2004; Kerpelman, Pittman, & Adler-Baeder, 2008). There is a lack of research, however, that extends beyond the immediate post program assessment (for exceptions, see Gardner & Boellaard, 2007; Kerpelman, Pittman, Adler-Baeder, Eryigit, & Paulk, 2009). Across these evaluation studies, very little attention has been given to youth diversity and its effects on adolescent responsiveness to relationships education programs. The goal of the current study is to address this issue.

Prior research suggests that social address factors, such as minority/majority ethnic status, parental education, family economic status, and family structure, affect the experiences youth bring to a relationships education class and, thus, the extent to which they benefit from such classes (Crissey, 2005; Foshee, Ennett, Bauman, Benefield, & Suchindran, 2005; Foshee et al., 2008; Milbrath, Ohlson, & Eyre, 2009; Whitbeck, Simons, &

Kao, 1994). Further, these studies suggest that the models adolescents observe in their families and the beliefs they form about relationship dynamics may vary considerably according to demographic factors.

For example, Foshee et al. (2008), in their study of adolescent dating violence, found that ethnic minority adolescents, ages 13 to 19, reported perpetration of more serious physical violence (moderate to severe) in their dating relationships than did nonminority adolescents and that higher parental education was associated with lower amounts of moderate physical violence in adolescents' dating relationships. In addition, adolescents growing up in single-parent households reported that they perpetrated more physical violence toward their dating partners than did adolescents living in two-parent households.

In an earlier study, Whitbeck et al. (1994) found that divorced mothers' dating behaviors influenced the sexual behaviors and attitudes of their children. Specifically, a mother's dating behaviors were found to influence her son's early sexual behaviors and her daughter's attitudes about sexual permissiveness. Attitudes about relationships also were influenced by ethnic background. In a national study of over 12,000 adolescents, Crissey (2005) found that white adolescents were more likely to date than were adolescents of other ethnic backgrounds, and they were more likely than African American youth to experience serious romantic relationships. These differences in romantic relationship experiences explained a small, but meaningful, portion of the ethnic differences in marital expectations.

Clearly, research supports the conclusion that adolescent dating behaviors differ according to personal and family background variables. However, studies have not explicitly tested how social address indicators explain differences in youth outcomes associated with relationships education programs. Overall, the aim of universal youth-focused relationships education classes is to influence adolescents' beliefs about what makes relationships healthy and unhealthy and to enhance their skills for promoting healthy relationship patterns. Content believed to be relevant to adolescents from diverse backgrounds is the focus of these classes. It is meaningful to determine whether such programs offer adolescents useful information regardless of their past experiences and current circumstances.

Using data from the larger Healthy Couples, Healthy Children: Targeting Youth (HCHCTY) project (Kerpelman et al., 2009), the current study is a short-term longitudinal examination of the effectiveness of a high school-based relationships education program for adolescents of varying social address backgrounds. The curriculum was delivered in public high school health classes. Of the many content areas targeted in the curriculum, this study focused on its effectiveness in reducing the faulty relationship belief, "Love is enough to sustain a healthy relationship," and strengthening the conflict management skills necessary for fostering positive outcomes when couples experience disagreements. As faulty beliefs are dispelled and realistic

understanding of relationships is clarified, adolescents need to learn the skills, such as effective conflict management, that will help them in forming and maintaining healthy relationships.

We explore whether adolescents' social address influenced the knowledge and skills they brought to the relationship classes or the extent to which they benefitted from the classes (i.e., showed sustained improvements in the intended direction). If social address is associated with different beliefs or skills prior to program participation, it suggests that the curriculum may need to be tailored to anticipate different biases or skill deficits in some groups relative to others. Similarly, if social address indicators are related to different degrees of change following program participation, this could indicate that adolescents from different backgrounds may not benefit similarly from a program intended to be universal. Program tailoring may again be required to better meet the disparate needs. However, where social address shows no relation to preprogram beliefs and skills or rates of change after the program and at a 1-year follow-up, the universal relationships education program was effective for diverse youth.

METHOD

Participants and Procedures

Participants in the current study were public high school students enrolled in health classes that either received the Relationship Smarts Plus (RS+; Pearson, 2007) curriculum or participated as control classes during the same time period. High school health teachers indicating they were interested in participating in the HCHCTY project were assigned randomly to either the intervention or control condition. Care was taken to ensure that intervention and control teachers were located in different schools.

The sample consisted initially of 2427 students (52.6% females; mean age = 16.22 [SD = 1.07 years]). However, not all cases could be used for the current study. Cases were excluded if they did not have complete data for the social address variables assessed in the study, if they were identified as problem cases due to use of obvious response set, or if they did not participate in at least two of the three waves of data collection. Exclusion of these cases resulted in a sample of 1430—55% female of 54% European American, 35% African American, and 11% other ethnicities. Fifty-two percent were eligible for free or reduced price lunch, 57% had at least one parent with more than a high school education, 42% lived in original intact families, 32% lived in stepfamilies, and 26% lived in single-parent families.

Prior to teaching the RS+ course, the intervention teachers participated in a 2-day training on the curriculum lessons and on the implementation of the evaluation procedures. The curriculum consisted of 12 lessons that addressed areas such as self-knowledge, values, accurate knowledge about the

nature of romantic relationships, understanding love and intimacy, decision making, managing conflict, recognizing dating abuse, and effective communication strategies. Compared with the limited number of other relationships education curricula designed for high school–aged youth, RS+ incorporates many hands-on, engaging activities to help adolescents learn about healthy (and unhealthy) relationships and to practice interpersonal skills. It also uses a developmental approach to educating adolescents about healthy relationships, starting with self-development, concentrating heavily on a range of dating issues (e.g., guidelines for making smart relationship choices, steps for developing a relationship slowly, distinguishing between healthy and unhealthy relationships, identifying and addressing relationship aggression), and then concluding with skills practice and supporting both present and future oriented thinking about the key relationship concepts being taught. The overall aim of the curriculum is to help adolescents obtain the core knowledge and skills needed to promote healthy relationship patterns that facilitate positive experiences and outcomes in their current and future close relationships.

Data were collected from intervention and control participants at three points in time: immediately prior to (pre-test) and immediately following (post-test) the implementation of the curriculum for the intervention group (or, in the case of the control sample, 6.5 weeks after the pre-test) and 1 year later (follow-up). At pre-test and post-test, teachers supervised the collection of evaluation data during class time. At follow-up, data were collected in the same schools but the logistics of this data collection could not be uniform from school to school. Students had to be contacted individually by a teacher or counselor at their school and given a researcher-provided information card encouraging participation in the follow-up and containing logon information for those who agreed to participate. Students interested in participating had to have time in their schedule to go to the school computer lab, and their participation in the follow-up survey was voluntary. Although the survey was short and students who completed the survey received a $5 gift certificate through Amazon.com, only about 16% of the students participated.

Attrition analysis was conducted to test for systematic differences in the attributes of those participating in the follow-up compared with the full set of participants who completed the pre- and post-tests. The following attributes were compared using χ^2 analysis: treatment condition (test versus control), sex, free lunch recipient (yes versus no), majority racial status (white versus other), highest parental-education level (more versus less than high school), and family structure (original intact, stepfamily, single parent). Of these six comparisons, only one was significant. Free lunch recipients were slightly more likely to participate in the follow-up ($\chi^2 = 4.01$ and 6.03, both $p < .05$, respectively, for "love is enough" and "conflict management" analyses). Because the follow-up took place in the school setting a year after the post-test, students who graduated would not be available to participate at

follow-up. Consequently, it is not surprising that follow-up participants were younger on average than those lost to attrition ($t = 2.75$ and 2.78, $p < .01$, respectively in the two comparisons, Δ*Mean* in both comparisons $= 0.2$ years). Pre- and post-test scores were also compared by attrition status. No differences were found for "conflict management" scores or the pre-test for "love is enough". On the post-test for "love is enough," however, individuals lost to attrition at follow-up had slightly lower scores, indicating slightly greater improvement, than those who participated at follow-up ($t = 2.35$, $p < .05$). These few differences by attrition status support the conclusion that attrition was a random process.

Measures

Although a broad range of assessments was collected to assess curriculum effects, the current study focused narrowly and extensively on two outcome variables. The first was the faulty relationship belief "love is enough." "Love is enough" was selected given the abundance of faulty societal messages that suggest love cures or overcomes all. Holding this belief carries the implication that work is not required to maintain and enhance relationships. Research indicates the opposite, that effort and intentionality in relationships predict both quality and stability (Dainton, 2000). In addition, research on relationships indicates that well-functioning romantic relationships require other ingredients such as shared values, common interests, feelings of friendship, and mutual respect (Gottman & Notarius, 2000). The second outcome selected was the healthy relationship skill "conflict management." Research shows that it is how couples handle disagreements that distinguish happy and unhappy couple relationships (Gottman & Notarius, 2000). RS+ material extensively addresses the selected outcome areas.

For each of these outcomes we examined not only the effect of intervention on the students' trajectories but also the potential impacts of social address factors on the efficacy of the curriculum in terms of these two outcomes. The demographic indicators of social address included eligibility for free or reduced price lunch at school, majority versus minority ethnic group status, parental education, and family structure.

FAULTY RELATIONSHIP BELIEFS: LOVE IS ENOUGH

Cobb, Larson, and Watson (2003) described several faulty relationship beliefs that are thought to lead to destructive expectations for healthy relationships, including the belief "love is enough." This construct was measured with the four items of the "love is enough" subscale (e.g., "In the end, our feelings of love should be enough to sustain a happy marriage"). Items were answered on a scale ranging from 1 = strongly disagree" to 5 = strongly agree. Higher scores represented more faulty beliefs. For the current sample, reliability

TABLE 1 Means, Standard Deviations, and Sample Size for "Love Is Enough" and "Conflict Management" by Test versus Control Group at Each Wave of Data Collection

	Love Is Enough					
	Test Group			Control Group		
	M	*SD*	*n*	*Mean*	*SD*	*n*
Pre-test	3.89	0.84	778	3.89	0.80	635
Post-test	3.50	0.91	762	3.72	0.90	632
Follow-up	3.30	0.87	149	3.46	0.76	139
	Conflict Management					
	Test Group			Control Group		
	M	*SD*	*n*	*M*	*SD*	*n*
Pre-test	3.54	0.82	788	3.53	0.76	640
Post-test	3.57	0.84	771	3.52	0.85	638
Follow-up	3.53	0.65	149	3.33	0.76	142

coefficients for the three waves of data were, respectively for pre-test, post-test, and follow-up, $\alpha = .70$, .77, and .74.

HEALTHY RELATIONSHIP SKILLS: CONFLICT MANAGEMENT

The interpersonal competence area of perceived conflict management skill was measured with the Buhrmester, Furman, Wittenberg, and Reis (1988) conflict management subscale. At each wave of data collection, this subscale assessed perceived ability to manage conflict effectively in close relationships (e.g., "Being able to take a close companion's perspective in a fight and really understand his/her point"). Respondents evaluated each item using a scale ranging from 1 = "I am poor at this" to 5 = "I am extremely good at this." Although the Buhrmester et al. measure used eight items, we reduced this number to five items in the interest of minimizing burden on participants. The items were chosen based on a factor analysis in an independent sample of college students attending a public university in the same state. The five items selected produced a single-factor solution and the part-whole correlation between the five and eight items was $r = 0.92$. Higher scores reflect greater perceived ability to manage conflict. For the current sample, reliability coefficients for the 5-item subscale, respectively for the pre-test, post-test and follow-up, were $\alpha = .76$, .83, and .78. (See Table 1 for descriptive statistics for both outcome variables at pre-test, post-test, and follow-up.)

Plan for Analyses

Our first goal for this analysis was to establish whether the relationship curriculum reduced reports of the faulty relationship belief, "love is enough,"

and increased the self-perception of competent conflict management. To test these questions, we fit a baseline growth model (see Singer & Willett, 2003) to each set of outcome data. Growth modeling is a powerful procedure for longitudinal analyses that is directly comparable to general covariance structure modeling (Willett & Bub, 2005). Three observations nested within individuals were treated as observed indicators of two latent constructs, an intercept (the average starting point for the sample) and a slope (the linear rate of change across the three waves). Growth models of developmental phenomenon use true time units as loadings for the latent slope to capture the gradual change of time-linked development. For our study, however, intervention effects were expected to be immediate and subsequently maintained, but not necessarily to grow continuously with time. Consequently, we centered the growth trajectory at pre-test by setting its slope loading to 0, and rather than using time-based loadings, we set the post-test loading to 1 and follow-up to 2 to emphasize the wave of data collection. Finally, both intercept and slope were regressed on treatment condition (intervention versus control).

Our second major question was whether social address factors affected the four parameters estimated in the baseline models (the mean intercept and slope, as well at the treatment effects associated with the intercept and slope). To answer this question a series of baseline models was fit with each social address factor treated as a grouping variable. Parameters were compared between the groups of each social address factor by examining model fit when a parameter was constrained to be equal in the groups or left unconstrained. If fit was significantly changed ($\Delta \chi^2 _{(df = 1)} > 3.84$), it was concluded that the parameter was significantly different in the two groups defined by the social address variable.

All models were fit with Mplus (Muthén & Muthén, 1998–2009). This program permits the use of cases with observations that are missing at random through the use of full information maximum likelihood (FIML) estimation, a procedure that "borrows" information from the data that are available (Singer & Willett, 2003). Pre- and post-tests were missing when students missed the data collection for a variety of random reasons. Follow-up data were missing at random because of logistical challenges that occurred at random in participating schools.

RESULTS

Our first research question was whether participation in the RS+ curriculum yielded the intended outcomes—specifically, lowered endorsement of the faulty relationship belief that love is enough and greater self-reported conflict management skill. To answer this question, the focus was on whether the slope varied by treatment condition. We hypothesized a significant negative

slope in the treatment group for "love is enough" and a significant positive slope for the treatment group on conflict management. It is desirable for treatment and control participants to have comparable scores at pre-test and this would be confirmed by a nonsignificant relation for treatment → intercept.

Tables 2 and 3 present the results for all models fit for this study. The first column of each table, labeled "Base Model," presents the results for our first hypotheses. At the bottom of both columns the fit statistics are shown. Although the χ^2 is statistically significant in each model (which often occurs with larger samples), the other three statistics suggest good fitting models. The estimated treatment → slope effect was significant and in the expected direction for each model, supporting the effectiveness of the curriculum. The R^2 value in each model indicated that 4% of the variance in each slope was accounted for, which suggests a modest but meaningful, sustained average effect for treatment over the course of a year. For the faulty relationship belief model, the treatment → intercept link was nonsignificant indicating that the treatment and control conditions were not different at pre-test. The conflict management model, however, revealed a statistically significant but vanishingly small deficit in self-reported conflict management skill in the treatment group at the pre-test compared with the control group ($R^2 = 0.005$ or 0.5% of the variance of the intercept).

The remaining columns of Tables 2 and 3 reveal whether and how the baseline models were affected when social address factors were taken into account. For these models, two parameters of the four presented are of greatest importance. The treatment → slope parameter for these models tested whether the growth parameter was significantly different between the subgroups of a social address variable. Group differences here indicated that the effectiveness of treatment varied for the two groups. The other parameter of interest was the mean intercept (not treatment → intercept). Group differences in the mean intercept indicated that the two groups defining a social address factor came to the study with different beliefs or skills. The mean slope was not of interest for this question because this parameter ignored the effect of treatment. Findings for this parameter are not discussed. Finally, although desirable for treatment → intercept parameters to be nonsignificant, because they then support the initial equality of treatment and control groups for each of the comparison groups, these parameters were less important because they did not reflect the rates of change that were the focus of this question.

Beginning with Table 2, we first review the set of model fit statistics. Although three of the six models had a significant χ^2, and one had a Root mean square error of approximation (RMSEA) value of >0.05, the Comparative fit index (CFI) and Tucker-Lewis Index (TLI) statistics were consistently greater than 0.90. Given that the χ^2 statistic is sensitive to large samples, these statistics are consistent with adequate to good fit.

TABLE 2 Unstandardized Parameters and Fit Statistics for Base Model and Social Address Comparisons for Outcome Variable "Love Is Enough"

| | | Love Is Enough | | | | | | | | | | | | |
| | Base Model | Free/ Reduced Lunch | | Majority Racial Group | | Parent Education Exceeds High School | | Original Intact Family | | Stepfamily | | Single-Parent Family | |
		No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Intercept	3.89**	**3.831****	**4.003****	3.903**	3.886**	3.935**	3.860**	3.930**	3.865**	3.889**	3.892**	3.868**	3.983**
Slope	−0.195***	−0.216***	−0.173***	−0.157***	−0.209***	−0.222***	−0.175***	−0.200***	−0.192***	−0.205***	−0.165***	−0.184***	−0.243***
Treatment → intercept	−0.006	**0.085**	**−0.165***	−0.014	−0.007	0.038	−0.043	−0.051	0.034	−0.051	0.079	**0.060**	**−0.223***
Treatment → slope	−0.161**	−0.173**	−0.145*	−0.192**	−0.155**	−0.193**	−0.141**	−0.154**	−0.173**	−0.112*	−0.268**	**−0.212***	**−0.009**
χ^2	6.33*	14.04**		7.50		11.58*		9.87*		7.51		7.54	
df	2	4		4		4		4		4		4	
CFI	0.992	0.981		0.993		0.985		0.989		0.993		0.993	
TLI	0.975	0.944		0.980		0.956		0.966		0.980		0.980	
RMSEA	0.039	0.060		0.035		0.052		0.046		0.035		0.035	

Note. Use of bold indicates significant difference between the pair of bolded parameters.

*$p < .05$, **$p < .01$.

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TABLE 3 Unstandardized Parameters and Fit Statistics for Base Model and Social Address Factors for Outcome Variable: "Perceived Conflict Management Skill"

	Base Model	Free/Reduced Lunch		Majority Racial Group		Parent Education Exceeds High School		Original Intact Family		Stepfamily		Single-Parent Family	
		No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Intercept	3.450**	**3.514****	**3.359****	3.385**	3.478**	3.416**	3.477**	3.469**	3.434**	3.431**	3.498**	3.455**	3.428**
Slope	−0.040	−0.037	−0.040	−0.099*	−0.021	−0.053	−0.032	−0.018	−0.063*	−0.035	−0.048	−0.057*	0.031
Treatment → intercept	−0.102*	**0.061**	**−0.133***	**−0.140***	**0.064**	−0.135*	−0.043	−0.157**	−0.012	−0.093	−0.132	−0.063	−0.175*
Treatment → slope	0.093**	**0.005**	**0.146****	**0.206****	**−0.012**	**0.186****	**0.022**	0.106*	0.050	−0.063	0.152*	0.099**	0.041
χ^2	7.30*	11.80*		20.59**		9.31		7.99		7.61		8.55	
df	2	4		4		4		4		4		4	
CFI	0.988	0.983		0.965		0.988		0.991		0.992		0.990	
TLI	0.965	0.948		0.894		0.965		0.973		0.976		0.970	
RMSEA	0.043	0.053		0.076		0.044		0.038		0.036		0.040	

Note. Use of bold indicates significant difference between the pair of bolded parameters.

*$p < .05$, **$p < .01$.

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Next, we consider whether subgroups of each social address factor differed in their tendency to endorse the belief that love is enough prior to the implementation of the intervention. Across the six model comparisons, only one revealed a statistically significant discrepancy in the intercept. Participants eligible for free or reduced lunches at school endorsed the faulty relationship belief more strongly than those ineligible. Importantly, however, the treatment $\rightarrow$ slope parameter showed that the effect of the treatment did not differ by free-reduced lunch eligibility. Therefore, although they began with different views, both groups benefited equally from the intervention in terms of the reduction of this faulty relationship belief.

Looking at the treatment $\rightarrow$ slope parameters for the other models, only one revealed a significant difference linked to social address. The curriculum did not influence the faulty relationship belief for participants from single-parent families. For these participants, treatment and control groups revealed no change across one year. Participants from family structures with two parents (original intact families and stepfamilies), however, did show significant treatment effects. Overall, social address factors had few effects on the views participants brought to the study or to the rate at which they changed in terms of the faulty relationship belief, love is enough. Participants eligible for free lunch came to the study with more faulty beliefs but did not differ in their response to the curriculum and participants from single-parent families did not differ at the start of the curriculum but seemed not to benefit from it in the intended ways.

Turning to Table 3, the fit statistics appear to be consistent with good-fitting models in all except one case (majority ethnic status) where three of the four statistics suggest less than good, but still adequate, fit. Looking for evidence of social address related discrepancies preceding the intervention, it is again noted that only one discrepancy was seen and it was again found between those eligible for free or reduced lunch at school and those not eligible. The eligible group reported significantly lower conflict management skill.

The curriculum almost never varied in its effectiveness due to social address factors for the faulty relationship belief. However, for perceived improvements in conflict management, differential effectiveness of the curriculum seemed ubiquitous. Three of the comparisons were statistically significant in their magnitude. The rest revealed differences that were not large enough to be significantly different from each other, but one group revealed a small significant treatment effect when the other did not. Across the comparisons, it appeared that the curriculum did not significantly improve perceived conflict management skill for those ineligible for free or reduced lunch, for those belonging to the majority ethnic group, for those with a parent educated beyond high school, and for those in original, intact families or in single-parent families. This pattern is interesting because it suggests that, with the possible exception of family structure, the youth most

positively affected through the curriculum were those belonging to the relatively disadvantaged side of the social address factors. Participants eligible for free and reduced lunch, those in minority ethnic groups, those with less well educated parents, and those from stepfamilies reported gains in their abilities to manage conflict. Like the baseline model for conflict management, test and control groups did not report the same skill levels at the pre-test. Although this is not ideal for testing the effectiveness for the intervention, the deficit was seen in almost every instance for the intervention group that subsequently changed significantly.

DISCUSSION

Consistent with findings of prior relationships education evaluation studies focusing on similar outcomes (Adler-Baeder et al., 2007; Gardner et al., 2004; Kerpelman et al., 2009), comparisons of the intervention and control groups indicated that the intervention participants showed greater decreases in their belief that love is enough to sustain a healthy relationship and greater increases in their perceived conflict management skills. Therefore, our hypotheses about the general effectiveness of the intervention were supported. The intervention and control groups differed little in their beliefs and skills prior to the intervention and the universal relationships education classes were effective for adolescents from diverse backgrounds. The results for our second research goal, however, qualified these conclusions somewhat.

Our second goal was to examine whether adolescents with varying social address indicators differed in their beliefs and skills prior to receiving relationships education classes and whether they changed those beliefs and skills post intervention at different rates. Some social address differences were observed. Adolescents who were eligible for free or reduced lunches had stronger faulty relationship beliefs prior to the intervention than did those who were not eligible for free or reduced lunch; however, both groups decreased their faulty relationship beliefs post program by the same amount. Thus, regardless of this social address factor, adolescents benefitted from the program similarly. One exception to the general finding of pre–to–post program improvement in faulty relationship beliefs was seen for adolescents from single-parent families. These adolescents did not change their belief after the intervention. Adolescents living in single-parent families may have less access to role models needed for reinforcing the concepts learned in the relationships education classes (Foshee et al., 2008). Although additional research is needed to determine why this is the case, it is an important exception to the overall pattern of findings and suggests that youth living in single-parent families may need greater assistance in dispelling faulty beliefs and in developing a more accurate understanding of healthy dating and marital relationships.

More variability due to social address was seen for change in conflict management skill. Most striking was the fact that adolescents with social address indicators suggesting fewer social or economic resources seemed to benefit the most. Thus, greater improvement in perceived conflict management skills was reported by adolescents with lower economic resources, less educated parents, adolescents of minority ethnic status, and adolescents living in stepfamilies. When social address mattered for responsiveness to the intervention, adolescents with greater needs were benefitted the most. This is not to say that those from more privileged or less stressed contexts received no benefits toward conflict management skills. It may be for these adolescents that their skills were reinforced, although not increased, by the curriculum.

Reducing faulty relationship beliefs and enhancing healthy relationship skills are critical for ensuring that adolescents are well prepared to navigate the growing complexity of interpersonal relationships in their lives. It is important to challenge adolescents' idealized notions about love in order to help them better understand the processes involved in maintaining and strengthening relationships over time. At the same time, it also is necessary to equip adolescents with the skills needed to engage in the processes that will support healthy relationship functioning in their lives. Such skills may be particularly important for adolescents experiencing economic and social stressors due to lower socioeconomic status and minority ethnic status (Crissey, 2005; Foshee et al., 2005).

IMPLICATIONS, LIMITATIONS, AND FUTURE DIRECTION

The implications of our study for practice are two-fold. First, the RS+ curriculum was shown to be effective with diverse youth in helping them to develop a more realistic understanding of romantic relationships and the skills needed to promote healthy outcomes. The findings also indicate that the curriculum was valuable for adolescents who may be in particular need of strengthening their relationship skills. Second, the findings suggest that adolescents from single-parent families, who did not show pre-post changes in their faulty relationship beliefs or perceived conflict management skills, may need additional tailoring of curriculum content to better fit their needs.

It is important to note the limitations of the current study. One limitation was that the follow-up sample was small and the data collection was limited to three time points. It will be important for future studies to develop strategies for increasing adolescent participation in follow-up data collections and to collect follow-up data across multiple years to better understand the effects of curricula over time. Increasing incentives for school staff to assist with notifying students about the follow-up opportunities and assisting students in their access to the school computer lab may increase follow-up participation.

Another limitation of the study was the fact that there were differences between the treatment and control groups on conflict management at pre-test. Such differences may have implications for the meaning of change trajectories for the groups. However, because the group differences were so small (accounting for one-half of 1% of the variance in the intercept), we do not believe they warrant concern.

The available indicators of social address constitute another limitation. Better measures of socioeconomic status may yield more refined understanding of whether and how social address matters. Furthermore, greater representation of ethnic groups (the current sample was primarily European American and African American) and more detailed assessments of ethnic culture would permit more detailed comparisons of ethnic background influences on adolescents' benefits from relationship education classes. Our family structure categories are broad and do not capture variations within categories (e.g., single parent in a romantic relationship/single parent with no romantic relationship; married stepfamily; cohabiting stepfamily, etc.). More specific information about family structure, such as the marital history of single parents in the study and their current involvement in romantic relationships and more detail about stepfamily composition, could offer a deeper understanding of family structure effects on adolescent relationship knowledge, beliefs, and practices.

One final limitation of the study was that it relied on student self-reports for the social address variables. Richer understanding of adolescents' family contexts could be ascertained through parent reports of social address indicators and other family influences on adolescents' beliefs about relationships and their opportunities to develop relationship skills. Additional information about participating adolescents' community contexts and the information they receive about relationships outside of school and their families also would be beneficial.

Despite the limitations of the current investigation, its strengths include the large diverse, public school sample, the analysis strategy used, and the specific beliefs and skills targeted. This study illustrates a way to test an important question that evaluation research needs to be asking: Is a curriculum effective for different types of recipients? It also raises important questions for future program development and evaluation research as relationship educators and researchers move toward greater effectiveness in their efforts to understand and enhance what youth need for healthy relationships in the present and in the future.

REFERENCES

Adler-Baeder, F., Kerpelman, J. L., Schramm, D. G., Higginbotham, B., & Paulk, A. (2007). The impact of relationship education on adolescents of diverse backgrounds. *Family Relations*, *56*, 291–303.

Barber, B., & Eccles, J. (2003). The joy of romance: Healthy adolescent relationships as an educational agenda. In P. Florsheim (Ed.), *Adolescent romantic relations and sexual behavior: Theory, research, and practical implications* (pp. 355–370). Mahwah, NJ: Erlbaum.

Bouchey, H. A., & Furman, W. (2003). Dating and romantic experiences in adolescence. In G. R. Adams & M. Berzonsky (Eds.), *The Blackwell handbook of adolescence* (pp. 313–329). Oxford, UK: Blackwell Publishers.

Champion, H., Wagoner, K., Song, E., Wolfson, M., & Brown, V. K. (2008). Adolescent date fighting victimization and perpetration from a multi-community sample: Associations with substance use and other violent victimization and perpetration. *International Journal of Adolescent Medicine and Health*, *20*, 419–429.

Collins, A. (2003). More than myth: The developmental significance of romantic relationships during adolescence. *Journal of Research on Adolescence, 13*, 1–24.

Crissey, S. R. (2005). Race/ethnic differences in marital expectations of adolescents: The role of romantic relationships. *Journal of Marriage and Family, 67*, 697–709.

Dainton, M. (2000). Maintenance behaviors, expectations for maintenance, and satisfaction: Linking comparison levels to relational maintenance strategies. *Journal of Social & Personal Relationships, 17*(6), 827–842.

Ellis, W. E., Crooks, C. V., & Wolfe, D. A. (2009). Relational aggression in peer and dating relationships: Links to psychological and behavioral adjustment. *Social Development, 18*, 253–269.

Foshee, V. A., Ennett, S. T., Bauman, K. E., Benefield, T., & Suchindran, C. (2005). The association between family violence and adolescent dating violence onset: Does it vary by race, socioeconomic status, and family structure? *The Journal of Early Adolescence, 25*, 317–344.

Foshee, V. A., Karriker-Jaffe, K. J., Reyes, H. L. M., Ennett, S. T., Suchindran, C., Bauman, K. E., & Benefield, T. S. (2008). What accounts for demographic differences in trajectories of adolescent dating violence? An examination of intrapersonal and contextual mediators. *Journal of Adolescent Health, 42*, 596–604.

Furman, W. (2002). The emerging field of adolescent romantic relationships. *Current Directions in Psychological Science, 11*, 177–180.

Furman, W., Ho, M. J., & Low, S. M. (2007). The rocky road of adolescent romantic experiences: Dating and adjustment. In R. C. Engels, M. Kerr, & H. Stattin (Eds.), *Friends, lovers and groups: Key relationships in adolescence* (pp. 61–80), New York: John Wiley & Sons.

Furman, W., & Shaffer, L. (2003). The role of romantic relationships in adolescent development. In P. Florsheim (Ed.), *Adolescent romantic relations and sexual behavior: Theory, research, and practical implications* (pp. 3–22). Mahwah, NJ: Lawrence Erlbaum Associates.

Furman, W., & Hand, L. S. (2006). The slippery nature of romantic relationships: Issues in definition and differentiation. In A. C. Crouter, & A. Booth (Eds.), *Romance and sex in adolescence and emerging adulthood: Risks and opportunities* (pp. 171–178). Mahwah, NJ: Lawrence Erlbaum Associates.

Gardner, S. P., & Boellaard, R. (2007). Does youth relationship education continue to work after a high school class? A longitudinal study. *Family Relations, 56*, 490–500.

Gardner, S. P., Giese, K., & Parrot, S. M. (2004). Evaluation of the connections: Relationships and marriage curriculum. *Family Relations*, *53*, 521–527.

Giordano, C., Longmore, A., & Manning, D. (2006). Gender and the meanings of adolescent romantic relationships: A focus on boys. *American Sociological Review*, *71*, 260–287.

Giordano, P. C., Phelps, K. D., Manning, W. D., & Longmore, M. A. (2008). Adolescent academic achievement and romantic relationships. *Social Science Research*, *37*, 37–54.

Gottman, J. M., & Notarius, C. I. (2000). Decade review: Observing marital interaction. *Journal of Marriage and the Family*, *62*, 927–948.

Haugen, P. T., Welsh, D. P., & McNulty, J. K. (2008). Empathic accuracy and adolescent romantic relationships. *Journal of Adolescence*, *31*, 709–727.

Joyner, K., & Udry, J. R. (2000). You don't bring me anything but down: Adolescent romance and depression. *Journal of Health and Social Behavior*, *41*, 369–391.

Kerpelman, J. L., Pittman, J. F., & Adler-Baeder, F. (2008). Identity as a moderator of intervention-related change: Identity style and adolescents' responses to relationships education. *Identity*, *8*, 151–171.

Kerpelman, J. L., Pittman, J. F., Adler-Baeder, F., Eryigit, S., & Paulk, A. L. (2009). Evaluation of a statewide youth-focused relationships education curriculum. *Journal of Adolescence*, *32*, 1359–1370.

Knox, L., Lomonaco, C., & Alpert, E. (2009). Adolescent relationship violence. In C. Mitchell, & D. Anglin, (Eds.), (*Intimate partner violence: A health-based perspective* (pp. 511–530), New York: Oxford University Press.

Laursen, B., & Mooney, K. S. (2007). Individual differences in adolescent dating and adjustment. In R. Engels, M. Kerr, & H. Stattin (Eds.), *Friends, lovers and groups: Key relationships in adolescence* (pp. 81–91), New York: John Wiley & Sons.

Markstrom, C. A., & Kalmanir, H. M. (2001). Linkages between the psychosocial stages of identity and intimacy and the ego strengths of fidelity and love. *Identity*, *1*, 179–196.

Milbrath, C., Ohlson, B., & Eyre, S. L. (2009). Analyzing cultural models in adolescent accounts of romantic relationships. *Journal of Research on Adolescence*, *19*, 313–351.

Montgomery, M. J. (2005). Psychosocial intimacy and identity: From early adolescence to emerging adulthood. *Journal of Adolescent Research*, *20*, 346–374.

Muthén, L. K., & Muthén, B. O. (1998–2009). *Mplus user's guide*, 5th ed. Los Angeles: Muthén & Muthén.

O'Leary, K. D., & Slep, A. M. S. (2003). A dyadic longitudinal model of adolescent dating aggression. *Journal of Clinical Child and Adolescent Psychology*, *32*, 314–327.

O'Leary, K. D., Slep, A. M. S., Avery-Leaf, S., & Cascardi, M. (2008). Gender differences in dating aggression among multiethnic high school students. *Journal of Adolescent Health*, *42*, 473–479.

Pearson, M. (2007). *LoveU2: Getting smarter about relationships*. Berkeley, CA: The Dibble Institute for Marriage Education.

Scott, K., Stewart, L., & Wolfe, D. (2005). Dating relationships among at-risk adolescents: An opportunity for resilience. In R. D. Peters, B. Leadbeater, & R. J.

McMahon (Eds.), *Resilience in children, families, and communities: Linking context to practice and policy* (pp. 83–100). New York: Kluwer Academic/Plenum.

Sears, H. A., Byers, E. S., Whelan, J. J., & Saint-Pierre, M. (2006). 'If it hurts you, then it is not a joke': Adolescents' ideas about girls' and boys' use and experience of abusive behavior in dating relationships. *Journal of Interpersonal Violence*, *21*, 1191–1207.

Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. New York: Oxford University Press.

Whitbeck, L. B., Simons, R. L., & Kao, M. (1994). The effects of divorced mothers' dating behaviors and sexual attitudes on the sexual attitudes and behaviors of their adolescent children. *Journal of Marriage & the Family*, *56*, 615–621.

Willett, J. B., & Bub, K. L. (2005). Structural equation modeling: Latent growth curve analysis. In B. S. Everitt, D. C. Howell (Eds.), & D. Rindskopf (Section Ed.), *Encyclopedia of statistics in behavioral science* (Vol. 2, pp. 772–779). Chichester, UK: Wiley.