

Contents lists available at [ScienceDirect](#)

Journal of Adolescence

journal homepage: www.elsevier.com/locate/jado

Evaluation of a statewide youth-focused relationships education curriculum ☆,☆☆

Jennifer L. Kerpelman^{a,*}, Joe F. Pittman^a, Francesca Adler-Baeder^a, Suna Eryigit^a, Amber Paulk^b

^a Department of Human Development and Family Studies, Auburn University, United States

^b Department of Family and Consumer Sciences, Central Washington University, United States

A B S T R A C T

Keywords:

Romantic relationships
Relationships education
Evaluation
Latent growth curve
Relationship beliefs and attitudes

Romantic relationships matter for adolescents. Experiences in romantic relationships facilitate key areas of personal and interpersonal development, however, problems in romantic relationships and lack of positive role models can lead to increased risk of developing unhealthy relationship patterns that can persist into adulthood. The goals of this applied research project were to examine the effectiveness of a youth-focused relationships education curriculum, and to use the knowledge gained to inform practices in relationships education for adolescents. Findings from pre and post-intervention assessments and from two follow-up surveys provide evidence of program success and offer key insights for the development of an effective model of relationships education tailored for adolescents.

© 2009 The Association for Professionals in Services for Adolescents. Published by Elsevier Ltd. All rights reserved.

Research indicates that adolescents' romantic relationships have a developmental purpose in their lives (Collins, 2003; Furman & Shaffer, 2003; Joyner & Campa, 2006), and such relationships serve as an important context for adolescent development in areas of positive growth, such as experimenting with possible selves and future aspirations (Bouchey & Furman, 2003; Furman & Shaffer, 2003), developing interpersonal skills (Barber & Eccles, 2003), and increasing understanding of what it means to be a romantic partner (Collins, 2003; Montgomery, 2005). Most importantly, romantic relationships play an important role in shaping the formation of identity and the capacity for intimacy. Research indicates that identity and intimacy are closely linked processes (e.g., Beyers & Seiffge-Krenke, 2008; Dyk & Adams, 1987; Markstrom & Kalmanir, 2001; Montgomery, 2005) that have far reaching implications for social and emotional adjustment.

Romantic relationships during adolescence also can introduce risks to healthy development such as adolescents experiencing physical, emotional and verbal abuse from dating partners (O'Leary & Slep, 2003; Roberts & Klein, 2003). Relationship break ups and unhealthy dating relationships are associated with adolescent depression (Joyner & Udry, 2000), which in turn is associated with adolescent obesity and suicidal thoughts (Richardson, Garrison, Drangsholt, Mancini, & LeResche, 2006; Whetstone, Morrissey, & Cummings, 2007). Adolescent dating also is related to unwanted teen pregnancy and sexually

☆ Earlier drafts of this paper were presented at biennial meeting of the European Association for Research on Adolescence (May, 2008, Torino, Italy), and as part of a symposium, "The Effects of Relationship/Marriage Education on Youth and Nonmarried Adults," held at the 70th National Council on Family Relations Annual Conference (November 2008, Little Rock Arkansas).

☆☆ This study was supported through grants from the U. S. Department of Health and Human Services, Office of Prevention Research and Evaluation (900J2017) and the Alabama Department of Child Abuse and Neglect Prevention/Children's Trust Fund (CFFS 2006-301).

* Corresponding author. Department of Human Development and Family Studies, 203 Spidle Hall, Auburn University, AL 36849-5604, United States. Tel.: +1 334 844 4149; fax: +1 334 844 4515.

E-mail address: jkerpelman@auburn.edu (J.L. Kerpelman).

transmitted infections (Bouchey & Furman, 2003; Furman, 2002). Conflict within peer and dating relationships is a particularly important area of risk to address, as many adolescents do not have good strategies for managing interpersonal conflict (Shulman, 2003). Because adolescents tend to be idealistic about romantic relationships (Montgomery, 2005) they typically do not use the most effective strategies to address relationship problems.

Although many adolescents have knowledge about and experiences in healthy relationships, many others do not. Lack of positive role models (and exposure to negative role models) increases the risk that adolescents will develop unhealthy patterns in their own romantic relationships. Developmentally appropriate relationships education for adolescents can promote their understanding of what healthy and unhealthy relationships are like, and can build communication, negotiation and problem solving skills that help them create and maintain healthy dating relationship patterns that benefit them in the present and in the future. Helping adolescents understand the nature of healthy/unhealthy relationships and to establish healthy relationship patterns early in their dating experiences is important since such relationships are now believed to influence important developmental processes and outcomes with long-lasting effects (Collins, 2003). In fact, research indicates that some behaviors, beliefs, and emotional characteristics that have been shown to predict marital outcomes are present in romantic relationships prior to marriage (Huston & Houts, 1998; Leonard & Roberts, 1998; Noller & Feeney, 1998).

Given the risks for negative outcomes, and the potential to facilitate healthy adolescent development and increase the likelihood of positive outcomes associated with adolescents' current and future relationship experiences, it is critical that adolescents receive education about romantic relationships and support for forming and maintaining healthy relationships. Regularly scheduled high school classes offer a primary setting for providing this education. One advantage of this setting is the ability to reach a wide and diverse group of adolescents. A school-based approach is more likely to reach adolescents in clear need of intervention, as well as adolescents who do not show signs of needing help but could benefit from intervention. Furthermore, any threat of stigma is reduced when the program is offered as an educational prevention program for all students. Finally, school-based programs can be offered by teachers who are well trained and prepared to educate youth, and have ongoing and sustained relationships with their students.

Although scholars have suggested that these interventions and educational programs will benefit adolescents (e.g., Brotherson & Duncan, 2004; Hawkins, Carroll, Doherty, & Willoughby, 2004), there is limited empirical evidence of short-term and sustained effects. The few existing published studies show benefits for adolescents in relational skills and knowledge immediately after participation (Adler-Baeder, Kerpelman, Schramm, Higginbotham, & Paulk, 2007), and only one (Gardner & Boellaard, 2007) examined sustained effects for a small sample of youth from predominantly European American, middle class families. No published studies have examined sustained effects of relationships education for a larger more diverse sample of adolescents.

The healthy couples, healthy children: targeting youth project

The Healthy Couples, Healthy Children: Targeting Youth (HCHCTY) project was a five year study designed to evaluate and improve youth-focused relationships education. HCHCTY was funded by the U. S. Department of Health and Human Services, Office of Planning Research and Evaluation and by the Alabama Department of Child Abuse and Neglect Prevention. This first of its kind project involved testing the effectiveness of a youth-focused relationships education curriculum with a total of 4000–5000 students during the first four years of the project. In years 1 and 2 the curriculum was presented in family and consumer science classes; the focus shifted to health classes in years 3 and 4; and during years 2 through 5, online follow-up surveys were used to assess how long knowledge gains and attitude changes were sustained after the course. Classes similar in make-up to the test-classes also provided control participants each year who completed the same pre/post surveys, and follow-up surveys that the test classes completed. The current study focused on the sample that participated in the first year of the study (students in Family and Consumer Science test and control classes in high schools across the state of Alabama) and who responded to follow-up surveys conducted in 2007 and 2008.

The relationship smarts curriculum

There are a limited number of curricula available for educating adolescents about romantic relationships. These curricula typically were developed through modifications to curricula designed to educate adults about healthy dating and marital relationships (see Gardner, Geise, & Parrot, 2004 for a list of other curricula used with adolescents). Our goal was to select among the available curricula, one that we assessed to be developmentally appropriate and engaging for adolescents. Relationship Smarts (Pearson, 2004/2007) was judged to cover appropriate topics for adolescents and included a number of engaging activities. In addition, the author of Relationship Smarts was willing to revise her curriculum based on feedback received from our evaluation. Our early pilot work with the Relationship Smarts curriculum indicated that it showed promise for enhancing adolescents' relationship knowledge and behavior (Adler-Baeder, et al., 2007). Based on this pilot work, two lessons were added, one that addressed identity development, and another that focused on recognizing and responding to relationship aggression, control and abuse. We refer to all revised versions of the curriculum as Relationship Smarts Plus (RS+). RS+ addresses issues of self-development, and a wide range of beliefs and behaviors associated with romantic relationships. Specific topics include: possible selves and future plans, pressure situations, values, intimacy, love versus infatuation, smart and not-so-smart dating beliefs and behaviors, wise decision making versus impulsive actions, recognizing healthy versus unhealthy relationships, dating aggression and abuse, effective and ineffective communication, the

Table 1

The relationship smarts plus lessons (Pearson, 2007; www.Dibbleinstitute.org).

Part 1: Foundation for Understanding Romantic Relationships

Lesson 1: “*Who am I and Where am I Going?*” helps adolescents get in touch with their sense of identity and possible selves. Identity formation is a central task of adolescence that influences and is influenced by experiences in romantic relationships. Emphasis is placed on who the adolescent is within their family, friendship, and dating relationship contexts. The adolescents create a possible selves tree in order to visualize their future self-goals and ways to attain them. The lesson concludes with adolescents addressing ways to stay true to themselves when faced with peer pressure.

Lesson 2: “*Maturity Issues and What I Value*” explores the concept of maturity. It identifies four aspects of maturity—physical, emotional, mental and social—and points out how the latter three don’t happen on their own, but take conscious effort. The lesson then moves on to an activity, “a values auction,” that helps participants identify the values that are important to them.

Lesson 3: “*Attractions and Infatuation*” begins with a “relationship pyramid” schematic that assists teens in thinking about the building blocks of good relationships. Adolescents are helped to visualize the foundation of good relationships that include: common interests, having fun together, talking to each other, and developing a real friendship. In addition, the chemistry of attraction and the nature of infatuation are explored.

Lesson 4: “*Love and Intimacy*” gets teens thinking about the meaning of the words love and intimacy. First, teacher selected pictures from teen magazines are used to help adolescents learn about the differences and connections between love and lust. Next, the three important aspects of mature love—that is, passion, intimacy, and commitment are examined. The last part of the session builds an understanding of intimacy and how it develops.

Part 2: Knowledge about Dating Relationship Processes

Lesson 5: “*Principles of Smart Relationships*” provides practical guidance for developing positive relationships. The first part introduces seven principles for “smart” dating. Teens learn that they *can* fall in love with their brain turned on by paying attention to these seven principles. Activities, such as identifying Smart and Not-so-Smart relationship decisions, provide practice for applying these insights to real world teen relationships.

Lesson 6: “*The Low-risk Relationship Strategy: Decide, Don’t Slide!*” explores why people can easily get swept up and involved with poor relationship choices. Too often young people slide into situations instead of making clear decisions with good knowledge about the person they are attracted to. This lesson aims to build skills and awareness for how to take a “go-slow, go-smart” approach toward building relationships and avoiding the sometimes high-costs of sliding. Teens explore, through four different activities, steps to take to really get to know someone they are dating.

Lesson 7: “*Is It a Healthy Relationship?*” offers concrete and practical guidance about how to tell if a relationship is healthy or unhealthy. By trying to answer three essential questions the lesson explores what healthy and unhealthy relationships look like in the real world. A fun sculpting activity aids in visualizing the negative and positive answers to the questions.

Lesson 8: “*Breaking up and Dating Abuse*” increases teens’ awareness of what abuse looks like in relationships and stresses that abusive relationships are unhealthy and unsafe. Thought provoking activities and an educational video are used to help teens understand the forms abuse takes and ways to avoid or get out of abusive relationships. In addition, adolescents learn that even relationships that are not abusive may need to end, and guidelines are offered for knowing when it’s time to break up, better and worse ways to break up, and steps for moving on.

Part 3: Communication Skills for Healthy Relationships and Marriages.

Lesson 9: “*A Foundation for Good Communication*” is the first communication lesson and provides students with a strong foundation for effective communication in couple relationships. After considering the positive and negative communication patterns students have learned within their families, the basic elements of listening openly and speaking clearly are reviewed. Ways to engage in problem solving also are covered. The lesson concludes with opportunities to practice important skills for good communication.

Lesson 10: “*Communication Challenges*” is the second communication lesson and looks more extensively at challenges to good communication and ways to address negative communication patterns in a relationship. Students are introduced to patterns that damage relationships and how to recognize the warning signs of troubled communication. Next students have opportunities to practice different strategies to change negative communication patterns into positive ones.

Part 4: Marriage and Planning for the Future.

Lesson 11: “*Why Parents’ Relationships Really Matter to Children*” aims to build an awareness of how and why a *healthy* marriage matters. Specifically, teens learn how parents’ relationships matter to children. Activities are designed so that teens can vividly see things from a *child’s* eyes and heart.

Lesson 12: “*Increasing the Odds of Having a Healthy Marriage Someday*” helps teens learn about wise mate selection and reasons why some marriages succeed and others fail. Through activities, they learn why the choices they make in the present can take them down paths that will either lead them towards or away from the goal of a successful marriage.

Lesson 13: “*Follow Your North Star*” provides a final lesson where teens will first review core concepts and then work together to produce a mural summarizing the key insights and information they have learned in this unit. Then, they will begin to work individually on their own “success plans” in session. They will continue and finish these plans outside of class.

importance of adults relationships with each other for child well-being, and examples of what increases (and decreases) the likelihood of healthy relationships/marriages in adulthood (see Table 1 for a description of the lessons and example activities). These topics are presented through creative activities and small group and large group discussions with the students. Students also were given opportunities through brief take-home activities to discuss what they are learning in the class with a parent or trusted adult. More recently, a self-reflection work book was developed to help adolescents personalize the material being learned in the course. Based on yearly evaluation outcomes of the HCHCTY project, the RS+ curriculum has been revised several times. This project used an iterative process that incorporated quantitative and qualitative data to revise and test versions of the curriculum with the ultimate result being an evidence-based, developmentally appropriate, engaging curriculum that addresses the most important issues for youth relationships education in the most effective ways.

The goal of this paper is to present outcomes for the students who participated during the first year of the HCHCTY project in 2006, where classes were randomly assigned to treatment (test) or control conditions, the treatment condition received the full curriculum as part of their family and consumer science classes. Computer-based follow up surveys were administered one and two years after the post-test data were collected. The goals of the intervention were to reduce problem beliefs and behaviors and enhance skills and attitudes known to facilitate healthy relationship functioning. In our evaluation analyses, we tested the effectiveness of the RS+ curriculum immediately after all lessons were presented to students, and we examined whether and how long the effects of the curriculum were sustained during the two years following the program.

Method

Participants

In the Spring Semester of 2006, high school students in Family and Consumer Science (FCS) classes attending 61 public high schools in Alabama, USA, participated in an evaluation study of the RS+ curriculum. Participants completed pre and post surveys, respectively, immediately preceding and following the weeks during which the test classes received the RS+ lessons. FCS classes are elective courses that address topics such as making consumer decisions, developing satisfying interpersonal relationships, food and nutrition, understanding and caring for children, family resource management, and preparing for a career in the family and consumer sciences field; the majority of students selecting these classes are female. Useable data were provided by 1824 participants (1045 test participants and 788 controls). In the Spring Semesters of 2007 and 2008, the original participants were recontacted at school and invited to complete a brief follow-up survey online. The reduced participation rates in 2007 ($n = 467$) and 2008 ($n = 249$) were due primarily to random causes largely connected to the voluntary nature of the request, but also because many participants “aged out” of the sample. In 2006, 405 participants (22.2%) were seniors and 402 (22.0%) were juniors. Seniors graduated before either follow-up, while juniors graduated before the second follow-up. In 2007, 32.9% of the eligible sample completed the follow-up and in 2008, the comparable figure was 24.5%.

In 2006 the sample was 75% female, 28% African American and 65% European American. Participants had an average age of 16.1 years ($SD = 1.25$). Most came from low-to-middle income families. Approximately 40% had experienced their parents' divorce, and about 16% had experienced multiple parental divorces. In the follow-up waves, females (71% and 82%), and European American participants (77% and 80%) continued to dominate the sample.

Procedure

Schools were randomly assigned to test or control conditions, however, approximately two schools were assigned to the test condition for every control school. This maximized exposure to the intervention while assuring adequate numbers for the control condition. Test teachers received a 2-day orientation to the curriculum and evaluation procedures, and were monitored and supported by the HCHCTY project staff throughout the semester. Regular communication through telephone and e-mail contacts ensured that the teachers understood the lesson content and the evaluation process. In the test classes, RS+ lessons were offered across a six week period during regularly scheduled class periods that lasted 50–90 min depending on the school's schedule system. All teachers, test and control, received packets with all pre- and post-test materials contained in individualized envelopes labeled with their students' names. All contents of each student's envelope were identified only by the student's unique identification number. Pre-tests were given in class on the day before starting the curriculum (Test condition) or at the beginning of Spring semester 2006 (Control condition). Post-tests were completed in class the first class day after the curriculum was complete (Test condition) or 6-weeks after the pre-test (Control condition). When pre and post data collections were completed, the paper booklets were mailed in a pre-addressed, postage-paid envelop to the researchers. Focus groups were held with eight test classes ($N = 176$ students) and interviews were conducted with all the participating teachers in order to gather qualitative feedback about their impressions of the RS+ lessons. A summary of student and teacher comments will follow the presentation of our quantitative results.

Follow-up data collections began with a contact from the researchers to participating schools in the Spring semesters of 2007 and 2008. Names of students who had participated in 2006 either as test or control subjects were provided. School staff members were asked to contact the students while at school and during a free period when they could go to the school's computer lab to complete a brief web-based follow up survey. The students who participated were strictly volunteers who received no incentive for their cooperation.

Measures

The measures tap topics the RS+ curriculum was expected to influence, including faulty relationship beliefs, conflict management, openness to participating in relationship education/counseling in the future, perceived importance of a supportive partner, and verbal aggression. Each of these measures is described below. Because the follow-up surveys had to be so abbreviated, all constructs were evaluated at both follow-up waves with single items derived by factor analysis of the pre-test data in the Year 1 high school sample. For each construct, the highest loading item was selected. Although single items are not ideal assessments, confidence in the construct validity is supported by part-whole correlations between the single items and the pre-test set of items that ranged between 0.77 and 0.92 (Mean $r = 0.83$). The items selected for use in the follow-up waves are given below as the sample item for each construct.

Faulty relationship beliefs

Cobb, Larson, and Watson (2003) described several faulty relationship beliefs, three of which were examined in the current study. For the pre-test and post-test, the beliefs were measured with four items per subscale. At the two follow-ups, the single items used follow: *One and only* assessed the notion that only one ideal mate exists for each person (e.g., “There is only one *true* love out there who is right for me to marry”). *Love is enough* tapped the idea that love should “trump” all other factors in the decision to marry (e.g., “In the end, our feelings of love should be enough to sustain a happy marriage”). Finally,

cohabitation examined the unsubstantiated belief that cohabitation enhances the likelihood of a happy, stable marriage (e.g., “Living together before marriage will improve our chances of remaining happily married”). All items were answered on a scale ranging from “1 = Strongly Disagree” to “5 = Strongly Agree.” Higher scores represented more faulty beliefs.

Conflict management

The conflict management subscale of the [Buhrmester, Furman, Wittenberg, and Reis \(1988\)](#) interpersonal competence scales assessed changes in 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.” This construct was developed as an 8 item assessment, but we reduced this number to 5 items using a factor analysis in an independent sample of college students attending a public university in the same state as our data collection. The 5 items selected produced a single-factor solution, a coefficient- $\alpha = 0.74$ (compare 0.79 for the 8-items) and $r = 0.92$ between the full and reduced item sets. Higher scores reflect greater perceived ability to manage conflict.

Future relationship education

Openness to participating in future relationship education/counseling was assessed with four items drawn from the evaluation of the Connections Curriculum with adolescents ([Gardner et al., 2004](#)). A sample item (and our only follow-up item) follows: “I will take a marriage preparation course with my fiancé before I get married.” Items were assessed on a 5-point agreement scale where higher scores indicated greater agreement.

Supportive partner

Six items drawn from the Partner/Relationship Ideal Standard scale ([Fletcher, Simpson, & Thomas, 1999](#)) were used to assess adolescents’ beliefs about the importance of a supportive partner (e.g., “Thinking about your ideal partner, how important is the characteristic of ‘being supportive’ to that ideal”). Respondents rated the items on a scale ranging from 1 (very unimportant) to 5 (very important). Higher scores indicate higher value placed on having a supportive partner.

Verbal aggression

Four items from a revised form of the *Conflict Tactics Scales* (CTS2; [Straus, Hamby, Boney-McCoy, & Sugarman, 1996](#)) assessed frequency of verbal aggression in relationships (e.g., “How often do you insult or swear at your partner”). The items were answered only by subjects currently in a relationship lasting at least one month and rated behaviors that occurred only for the past month. The response scale ranged from 0 (never) to 3 (3 or more times). Higher scores reflect greater verbal aggression.

Analysis strategy

The dataset contained up to four observations for each individual (pre-test, post-test, follow-up 1 and follow-up 2). Our analysis used latent growth curve analysis (see [Singer & Willett, 2003](#)) and the M+ statistical program ([Muthén & Muthén, 1998–2008](#)) to model intra-individual changes across the four observations. Latent growth curve analysis is a powerful procedure for longitudinal analyses that is directly comparable to general covariance structure modeling ([Willett & Bub, 2004](#)). Our evaluation goals were to test the effectiveness of the RS+ curriculum and the durability of its effects on a variety of outcomes. These goals called for the documentation of the following patterns in the data. First, the test and control groups should not differ at pre-test. Second, the two groups should differ in the intended ways at post-test, with test groups showing improvements on the constructs measured. Third, the post-test difference should be maintained at one or both follow-ups. Fourth, although weakening of treatment effects should be expected with time, group differences should not completely erode after two years. We examine these patterns while accounting for three commonly controlled covariates: participant age, sex and race.

The analysis used the multiple observations nested within individuals to estimate three latent variables, (a) an intercept, (b) a linear slope and (c) a non-linear slope² (quadratic term). The intercept identified the average starting point for participants. The slope reflected any linear change for the sample. The slope² registered change in the rate of change. Our general model is illustrated in [Fig. 1](#). Growth curves of developmental phenomenon use true time units as loadings for the latent slope. Unlike the gradual change of time-linked development, however, interventions effect an immediate change. It is not expected to grow with time, but it may be maintained over time. Thus, we were not looking for developmental, time-dependent change, but rather an immediate post-program change that may or may not be sustained. The length of time between waves was not the important element in our analyses. Instead, we emphasized the waves of data collection themselves. Consequently, we set the pre-test wave as our intercept (zero loading for slope), and the post-test, follow-up 1 and follow-up 2 were weighted, respectively, one through three. The quadratic term squared these loading to estimate the non-linear component of the slope.

A strength of latent growth curve analysis is that randomly missing data are not problematic. Neither pairwise nor listwise deletion of missing data is implemented. Rather, the procedure “borrows” information from the data that are available ([Singer & Willett, 2003](#)). Consequently, substantial loss of statistical power does not result from sample attenuation. Although most of our missing cases appear to be due to simple attrition linked to the voluntary nature of the follow-up activities, some of our missing data was expected because participants “aged out” of the study. It is noteworthy that at follow-up 2, where sample

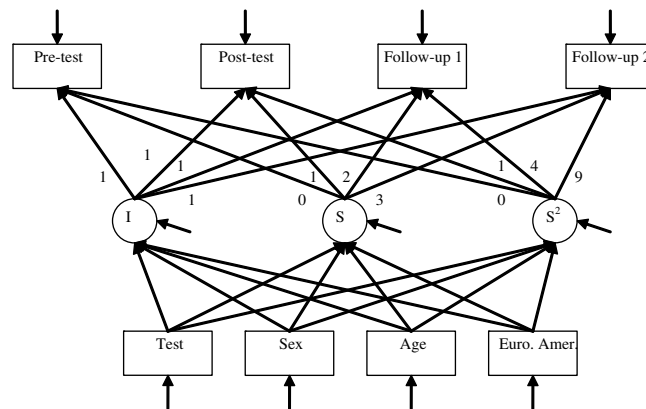


Fig. 1. Hypothesized latent growth curve model showing effects of test/control condition on intercept, slope and slope² controlling for sex, age and race.

attenuation is substantial, standard errors are somewhat inflated and this may affect our ability to detect significant differences. To minimize the number of missing data patterns, while maximizing our ability to evaluate the occurrence and continuity of curriculum-based change, we include in each analysis only those cases that provided at least two waves of data for the outcome of interest.

All models were fit with treatment coded so the test condition = 1 (control = 0). For the covariates, sex was coded female = 1, male = 0 and race was coded European American = 1, all other races = 0. Age was coded in years. Model fit was tested with three indices. The χ^2 statistic tested the null hypothesis that there was no difference between the model and the data (good fit was indicated by a non-significant χ^2). The Comparative Fit Index (CFI) indicated the fraction of variance in the data that could be accounted for by the model (CFI > .90 indicated acceptable fit, CFI > .95 indicated good fit). Finally, the Root Mean Square Error of Approximation (RMSEA) estimated error per degree of freedom (RMSEA < .05 indicated good fit).

Results

Table 2 presents the descriptive statistics at each wave of data collection for each of the outcome variables. In addition, the number of cases available to each model at each wave and the alpha coefficients for the pre and post-test measures in the current sample are shown. Table 3 presents results of the latent growth model for each outcome variable. To simplify the presentation of results, we give a detailed account of one model, the faulty relationship belief called “Love Is Enough.” Then we address similarities and dissimilarities across the remaining models.

The fit statistics for the model, “Love Is Enough,” show a non-significant $\chi^2 = 10.032$, a CFI of 0.992 and a RMSEA of 0.025, all supporting an interpretation of very good fit. The true intercept, slope and slope² (at the top of the column) were estimated controlling for treatment, and the covariates. Thus, the significant intercept of 4.785 was greater than zero and represented the mean score for “Love Is Enough” at the time of the pre-test while statistically controlling for treatment, and the covariates. Note that with treatment and covariates controlled, neither the general slope nor slope² were significant.

The remaining results for “Love Is Enough” are the ones important to our evaluation goals. They show the effects of treatment on the latent intercept, slope and slope² controlling for the covariates as well as the specific effects of the control factors. The non-significant effect of treatment on the intercept indicates that the test and control groups did not differ at the pre-test. Age, however, was negatively related to the intercept, indicating that younger participants had more faulty beliefs. With each additional year of age, participants’ pre-test scores were 0.063 lower, reflecting less faulty beliefs. Although neither the slope nor slope² was significant for the sample overall (controlling for treatment and the covariates), the effect of treatment was significant on both latent change parameters. At each wave, the test group, compared to the control group, had an average linear decline of -0.370 units but also a non-linear weakening of the treatment effect (0.125 units). Fig. 2 presents a plot of the test and control conditions calculated for European American females of average age. (Note that, because the slopes and slope² latent variables were rarely affected by control variables, these plots are good representatives for the full sample.) We re-fit the model three times (results not shown) so that each wave could be treated as an intercept. By this procedure, the means for test and control groups were compared and tested for significance at each wave. These models revealed that the test and control groups were significantly different at the post-test and at the first follow-up, but by the second follow-up the two groups no longer were significantly different. Thus, in terms of our four points of evaluation, (a) the two treatment groups did not differ at pre-test; (b) the test group, compared to the control group, had the expected reduction in the faulty belief, “Love is Enough,” at post test; (c) the gain was sustained by the test group one year after the program; but (d) the differences between the groups diminished to non-significance by two years post program.

The other six models presented in Table 3 all reveal very good fit. Although one χ^2 is statistically significant, given the known sensitivity of χ^2 to sample size and the very good CFI and RMSEA indices, even this model fits the data well.

As a result of the intervention we expected reductions in faulty relationship beliefs and rates of verbal aggression, but enhancements in conflict management, the perceived value of supportive partners, and openness to future relationship

Table 2

Sample size, descriptive statistics, and reliabilities for outcome variables at each of their four observations.

	Observation	Representatives in sample	Mean	Standard deviation	Skewness	Alpha coefficient
Love is enough	Pre	1666	3.77	0.86	−0.74	0.69
	Post	1585	3.55	0.88	−0.44	0.76
	Follow Up1	446	3.37	1.22	−0.38	
	Follow Up2	242	3.43	1.16	−0.34	
One & only	Pre	1666	3.62	0.86	−0.28	0.64
	Post	1585	3.43	0.82	−0.13	0.55
	Follow Up 1	445	3.31	1.21	−0.28	
	Follow Up 2	242	3.43	1.20	−0.31	
Cohabitation	Pre	1663	2.99	1.20	−0.19	0.91
	Post	1583	2.75	1.19	−0.02	0.92
	Follow Up 1	445	2.54	1.27	0.28	
	Follow Up 2	242	2.62	1.30	0.17	
Conflict management	Pre	1583	3.38	0.77	−0.21	0.76
	Post	1488	3.47	0.76	−0.08	0.83
	Follow Up 1	436	3.49	0.85	−0.32	
	Follow Up 2	240	3.47	0.93	−0.59	
Marriage preparation	Pre	1560	2.91	0.93	0.49	0.80
	Post	1473	3.09	0.94	−0.16	0.83
	Follow Up 1	438	3.06	1.16	−0.06	
	Follow Up 2	241	3.16	1.07	−0.03	
Supportive partner	Pre	1598	4.46	0.82	−2.43	0.93
	Post	1514	4.43	0.81	−1.97	0.95
	Follow Up 1	437	4.35	0.96	−2.01	
	Follow Up 2	242	4.41	0.89	−2.07	
Verbal aggression	Pre	751	0.98	0.86	0.68	0.76
	Post	730	0.92	0.86	0.77	0.82
	Follow Up 1	177	0.92	1.11	0.79	
	Follow Up 2	103	1.00	1.17	0.71	

education or marriage preparation classes. Six of the seven models revealed a significant treatment effect in the expected direction suggesting the treatment effects were consistent with curriculum goals. (The p -level < 0.10 for conflict management was for a two-tailed test. Our directional expectations make a one-tail test appropriate). Interestingly, for conflict management, the general slope was significant independent of the intervention, suggesting that participants across

Table 3

Growth parameters, treatment effects and fit statistics for outcomes, controlling for race, age and sex of participants.

	Love is enough	One & only	Cohabitation	Conflict management	Marriage preparation	Supportive partner	Verbal aggression
Intercept	4.785***	3.506***	2.874***	2.804***	2.955***	4.097***	−0.269
Slope	−0.677	−0.621	−0.926†	0.928*	0.268	−0.398	−0.081
Slope ²	0.048	0.178	0.269	−0.272	−0.022	0.382	0.079
Intercept							
Treatment	−0.022	0.010	−0.024	−0.021	0.108*	−0.039	0.006
Euro. Amer.	−0.055	0.078†	−0.246***	0.045	−0.178***	0.158***	−0.296***
Age	−0.063***	−0.012	0.032	0.032*	−0.001	0.004	0.066*
Female	0.040	0.315***	−0.274***	0.075	0.042	0.270***	0.438***
Slope							
Treatment	−0.370***	−0.416***	−0.509***	0.114†	0.234***	0.384***	−0.082
Euro. Amer.	0.075	−0.090	0.086	0.021	0.051	−0.058	−0.013
Age	0.035	0.053†	0.050	−0.053†	−0.014	0.009	0.012
Female	−0.020	−0.201**	0.013	−0.078	0.010	0.090	−0.180
Slope ²							
Treatment	0.125***	0.122***	0.159***	−0.020	−0.078**	−0.141***	0.050
Euro. Amer.	−0.026	0.086**	−0.015	0.006	−0.019	0.014	0.006
Age	−0.002	−0.020	−0.016	0.016	−0.001	−0.019†	−0.009
Female	−0.009	0.062†	0.010	−0.002	−0.041	−0.037	0.102
Model Fit							
χ^2	10.032†	4.97	10.298†	4.313	4.590	6.376	11.870*
DF	5	5	5	5	5	5	5
CFI	0.992	1.000	0.995	1.000	1.000	0.996	0.981
RMSEA	0.025	0.000	0.025	0.000	0.000	0.013	0.042

† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

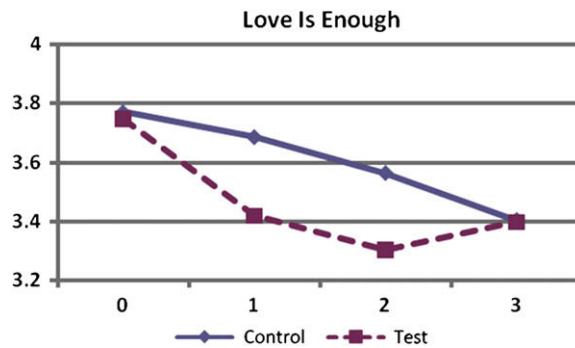


Fig. 2. Test and control means across four waves for the faulty relationship belief, "Love Is Enough".

treatment groups were gaining confidence in their conflict management skills. The intervention made a contribution beyond the general effect.

The non-linear effect for treatment was significant in five models. The plots shown in Figs. 3–7 and follow-up analyses (not shown) consistently indicated that, by the second follow-up two years after the curriculum, the treatment effect either had eroded (i.e., the curves weakened and approached the unchanged control group) or the control subjects had "caught up" with the treatment group through maturity or experience. However, this conclusion cannot be accepted uncritically. The substantial reduction in sample size at follow-up 2 may have inflated the standard errors and reduced the ability to detect differences in some of the models.

We found it noteworthy that the control variables only rarely were related to either the slope or slope². Although the covariates revealed a total of 11 significant effects on the intercepts of these models, only one significant effect was seen on slope and only one on slope². Both of these effects were in the model for the faulty belief, "One and only." Females revealed a sharper reduction in this faulty belief than males, and European American participants revealed greater drift in this faulty belief than other participants. Clearly, the covariates examined in this study played almost no part in shaping the rate of change or the rate of drift. Their influence was almost uniformly on participants' baselines (intercepts).

Student focus groups and teacher interviews

Focus groups were held at eight of the participating schools and involved a total of 176 students. The groups were designed to ascertain directly from students their attitudes about the content, the instructional methods employed, skills they believed they acquired and any recommendations for revising the curriculum. Positive assessments dominated as a theme: "Relationship Smarts gave me useful information about relationships and helped me learn new ideas about how to maintain my relationships now, as well as in the future." "It will help dating teenagers avoid abusive relationships." "I liked how in depth the program was – it was really informative about dating and what should and shouldn't happen." The focus groups indicated that the RS+ lessons were interesting, engaging, informative and useful. We noted another meaningful theme that reflected application of the material to the adolescents' day-to-day lives. Many students could identify specific skills they had learned and real circumstances in which they had applied material from RS+: "I tried avoiding negative starts – discussion did not turn into an argument." "I used my [RS+] notebook to improve my relationship by getting my boyfriend to read it." "I used some of the communication skills we learned—being aware of voice tone prevented arguments." "I stopped changing for others." "I used my knowledge of conditional vs. unconditional love for examining my current relationships." "I shared the information on family of origin patterns and how they affect me with my family."

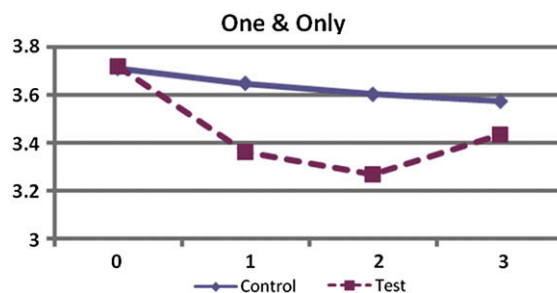


Fig. 3. Test and control means across four waves for the faulty relationship belief, "One and Only".

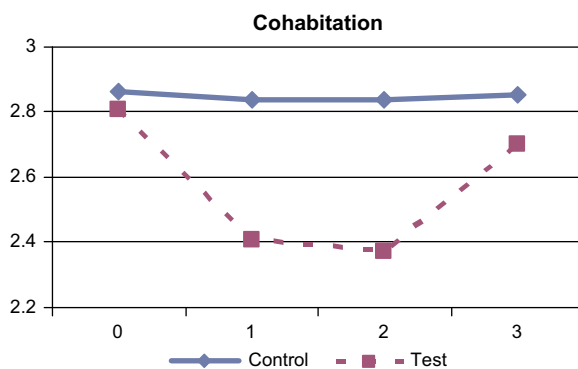


Fig. 4. Test and control means across four waves for faulty beliefs about cohabitation.

Primary themes for enhancement suggestions were: more interactive elements and earlier exposure to the curriculum. Although the curriculum was designed for active learning through activities, students felt some teachers did “*too much lecturing*.” Recommendations for improvement included “*more opportunities for class discussions about important relationship issues*.” Students felt that being able to talk freely about their concerns was important to learning about healthy relationships, which means that teachers of this curriculum must be comfortable in such discussions. Many students suggested that relationship education should begin in earlier school grades.

All of the teachers participated in telephone interviews after they completed their teaching of the RS+ course. Many of their comments validated the students’ impressions mentioned above. As a group, the teachers perceived their students to be receptive to the curriculum. Teachers noted that their students enjoyed the activities in which they could be creative and active. The students generally were not as engaged during the lecture portions of the curriculum. Teachers provided specific examples of positive reactions from students, such as students saying, “*I never thought of it that way*.” One teacher noted that some students used the information to come up with mottos such as, “*Don’t wait to be chosen*.”

Another common message coming from teachers was that students looked for ways to share the information. One teacher heard students reflecting on their own relationships after participating in the lessons, and students commented on wanting their partners to read some of the material being covered in the course. One student told her teacher that she read her booklet with the course information with her boyfriend. A number of students told their teachers that they shared the dating abuse information with friends.

Not all comments were positive. Some teachers recalled students saying, “*Are we going to have to talk about that again?*” or complaining that a lesson had too much material or was too long. During their interviews, teachers also offered specific feedback about each of the activities in each of the lessons. Although most activities worked well in all classes, some worked better for older or younger students, and some activities were less engaging for the male students in the class. Male students appeared to prefer the competitive or more active portions of the curriculum rather than portions that dealt with identifying and discussing feelings. Teachers perceived the curriculum as sensitive to different ethnicities, and to students who may be questioning their sexual orientations. Overall, teachers did not make any big adjustments to the curriculum. Some used past experience and materials that they thought would be helpful in supporting the curriculum’s content, such as magazine articles or other statistics. Although the teachers considered the curriculum well designed, some offered suggestions for improving the organization, content or length of the curriculum. Suggestions for revision, from both teachers and students, have been considered and built into our iterative curriculum revision process. Some lessons were tightened and others

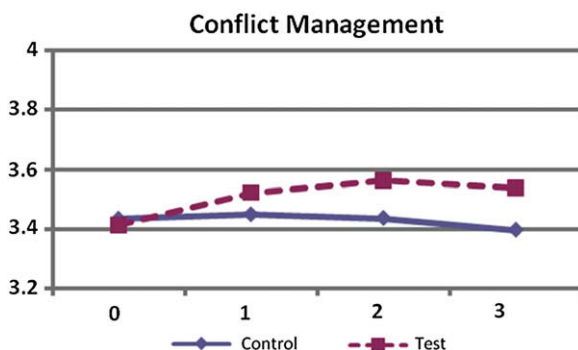


Fig. 5. Test and control means across four waves for self-reported competence in conflict management.

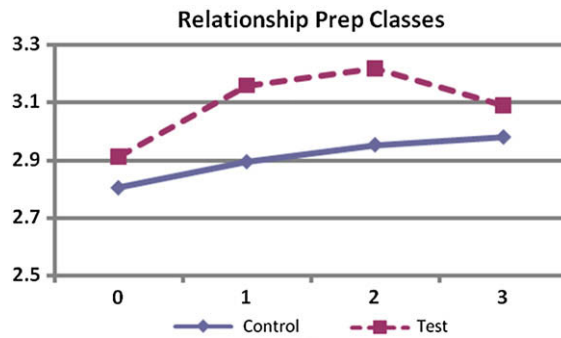


Fig. 6. Test and control means across four waves for openness to future use of relationship preparation classes.

expanded, new activities were developed to encourage even more student involvement across topics, and training has emphasized the importance of permitting students a forum for safe discussion about relationship issues.

Discussion

Both our quantitative and qualitative findings indicated that students receiving the RS+ program found the curriculum valuable and showed important changes in knowledge and attitudes from pre-to-post program. Changes supporting curriculum effectiveness were found for six of the seven quantitative areas examined. The groups did not differ at pre-test in five of the six significant tests, but the test group changed in the desired direction compared to the control group at post-test in all three faulty relationship beliefs, as well as in perceived conflict management ability, beliefs about the importance of a supportive partner, and interest in pursuing future relationships education/counseling.

Follow up data showed that the changes observed for these outcomes were maintained by those in the test group at the first follow-up (one year after the program), but differences between the test and control groups were diminished by the second follow-up (two years after the program). Few relationship education programs for adults (and almost none for youth) have been examined for effectiveness longitudinally, but the fading of educational program effects over time is common (see Gardner & Boellaard, 2007). Some reasons for non-significant differences between the test and control groups at the second follow-up may include maturation and experience gains of the control group, as well as regression to the mean (however, no tested parameters indicate statistically significant trends for control group change). In addition, some of the apparent non-significance at the second follow-up may be due to inflated standard errors due to sample attrition at the second follow-up. Our current interventions are in health classes where virtually all participants are in the 10th grade. Follow-up efforts with these students will still confront issues of random attrition, but aging out of the sample will be rarer. Thus, future research may be able to examine durability of treatment effects with greater confidence over longer periods.

Changes in verbal aggression in dating relationships were not found for the test group. It may be that the use of verbal aggression is not always viewed as a negative behavior. Possibly adolescents interpret the behaviors of verbal aggression as assertiveness, on one hand, or potentially even playfulness, on the other. Alternatively, since verbal aggression occurs in dyadic interactions, perhaps it should be understood as a dyadic behavior. Intervention may require a focus on the dating couple rather than just one partner. Ultimately, it may be necessary for educational interventions to target knowledge gains and attitude change before behavior change follows. Future research will need to examine how adolescents differentiate between verbal aggression and other apparently similar behaviors and how their verbally aggressive behavior is linked to understandings and attitudes about its value and uses. It is important to educate youth about relationship problems

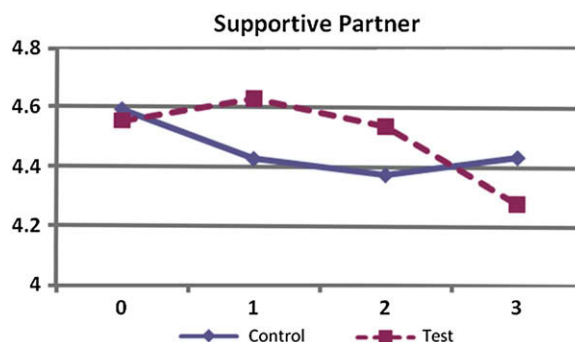


Fig. 7. Test and control means across four waves for importance of having a supportive partner.

associated with verbal aggression and alternatives to aggressive responses to conflict. Finding more opportunities for youth to practice skills, beyond that offered in the curriculum, for handling disagreements in their relationships effectively and to integrate new behaviors into their real life interactions with their dating partners will further extend the gains they make from relationships education lessons. The eagerness that high school aged students have for learning about aggression and control in relationships was very evident in student comments in the focus groups conducted by project staff after the curriculum was complete. Participants valued the lesson on verbal aggression and dating abuse. In fact a number felt that this was the most important lesson in the curriculum.

The overall patterns seen for the test and control groups suggest that relationships education is valuable for youth, and that classroom delivery of relationship lessons is a viable mechanism for reaching a wide range of youth at a time when they are receptive to such information. Our results indicated that program impact was sustained at one year post program but then had faded by two years post program. This is not surprising since many high school aged adolescents are actively exploring romantic-type relationships in this period and may be vulnerable to other contextual influences (e.g., peers, family interaction patterns) that can serve to override influences of the program over time. It also may be that effects are more sustainable when exposure to the curriculum is at a younger age, when relational patterns and attitudes are first being formed. What is encouraging is evidence that high school aged youth receiving the program did show improvements in their knowledge at post program and retained gains for a full year without receiving additional relationships education. Also encouraging was the fact that the rates of change (whether the improvements or the drifts) almost never varied in terms of the attributes of the participants.

The current study is not without limitations. The areas we assessed for change in our first year of the intervention evaluation were important but limited in scope. Broadening the areas tapped in the pre and post surveys may show other gains that result from relationships education. Other such areas that may be affected by relationships education include self-efficacy and confidence in maintaining healthy relationships, decision-making skills associated with relationships, interpersonal communication and problem solving skills, and attitudes and behaviors associated with sexual decision making in relationships. We have incorporated many of these constructs in our evaluation study as new test and control groups have been recruited in years 2 through 4 of the project.

The current sample is not balanced in terms of gender, it is comprised of adolescents taking elective FCS courses, and it undergoes substantial attrition at both of the follow-up data collections. All of these sample-linked issues are limitations to the current study. Confidence in the generalizability of our findings to a general high school population will depend upon replication in a more balanced, diverse sample. These limitations were addressed in years three and four of our five year project because the classes we included were required for all high school students in the State and virtually all students take that class in the 10th grade. Thus, our subsequent samples are more diverse and representative of high school 10th graders, and the participants will be not age-out of the sample at such high rates.

Implications for effective youth-focused relationships education programs

The HCHCTY project is helping to reveal the components needed for effective youth-focused relationships education. The research conducted with our first group of participating youth clearly indicates that these adolescents were interested in receiving relationships education and were retaining important information presented in the program. Feedback from the youth reinforce the notion that learning through activities and supportive discussions are desired and effective. Work continues in our evaluation with new groups of students and teachers who have received (and will receive) revised versions of RS+ during 2007, 2008, and 2009. The additional insights gained from these groups will add to our capacity to build and fine tune the model we are developing as a guide for effective relationships education delivery with adolescent audiences.

Comparisons of the pre- and post-survey data suggested that the topics addressed in the RS+ curriculum are those that are relevant to adolescents' dating relationships and provide important information that increases students' relational knowledge and skills. Furthermore, the teacher interviews and the student focus groups helped to identify additional areas that are relevant to the success of youth-focused relationships education programs. These areas include: a) well-trained teachers who are comfortable with the material, and have good rapport with their students; b) an engaging curriculum that includes activities and clear examples that represent the real experiences of youth; c) enough time for open discussion among the students that is facilitated by an effective teacher; d) a learning environment that includes students who vary in their family and relationship experiences, dating relationship history and relationship skills; and e) curriculum topics that are salient for adolescents, such as self-development within relationships, dating aggression, pressure situations, understanding intimacy, distinguishing love from infatuation, and learning new ways to cope with challenges in forming, maintaining, and ending romantic relationships. To enhance and extend relationships knowledge and skills, it may also be necessary periodically to provide additional lessons.

Future prevention and intervention efforts in the area of adolescent dating relationships should intentionally select curricula that are theory and research-based, and have been tested with adolescent audiences for effectiveness. In addition, indicators of program effectiveness, both quantitative and qualitative, should be carefully selected so that they are consistent with the areas the curriculum is designed to affect. It especially is important to gather information from the participating adolescents that offers insights into how well a given curriculum fits their needs and is sensitive to the issues they bring to the learning experience. As the diversity of adolescents receiving relationships education increases, researchers will need to

assess whether the measures they are using are appropriate for use with different ethnic/cultural groups and to make adjustments as indicated.

Providing opportunities for adolescent couples to participate together in relationships education classes will make it possible to facilitate improved dyadic interactions directly. Care also should be taken in training the facilitators to ensure that they are comfortable teaching about romantic relationships and are able to develop good rapport with the participating adolescents. Finally, offering relationships education in the form of classes and follow-up booster sessions across several time points, starting prior to the time that most adolescents begin dating and continuing through the high school years may provide adolescents with more of the information and skills they need to navigate the challenges of romantic relationships and to sustain gains they have made from participating in relationships education classes.

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.
- Beyers, W., & Seiffge-Krenke, I. (March 2008). Does identity precede intimacy? An Eriksonian approach to romantic development in emerging adulthood. In I. Seiffge-Krenke Why, how, and when? Factors predicting romantic involvement in emerging adulthood: An international perspective. Invited symposium at the 12th biennial meeting of the Society for Research on Adolescence, Chicago, IL, USA.
- 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.
- Brotherson, S. E., & Duncan, W. C. (2004). Rebinding the ties that bind: government efforts to preserve and promote marriage. *Family Relations*, *53*, 459–468.
- Buhrmester, D., Furman, W., Wittenberg, M. T., & Reis, H. T. (1988). Five domains of interpersonal competence in peer relationships. *Journal of Personality and Social Psychology*, *55*, 991–1008.
- Cobb, N. P., Larson, J. H., & Watson, W. L. (2003). Development of the attitudes about romance and mate selection scale. *Family Relations*, *52*, 222–231.
- Collins, A. (2003). More than myth: the developmental significance of romantic relationships during adolescence. *Journal of Research on Adolescence*, *13*, 1–24.
- Dyk, P. A., & Adams, G. R. (1987). The association between identity development and intimacy during adolescence: a theoretical treatise. *Journal of Adolescent Research*, *2*, 223–335.
- Fletcher, G. J. O., Simpson, J. A., & Thomas, G. (1999). Ideals in intimate relationships. *Journal of Personality and Social Psychology*, *76*, 72–89.
- Furman, W. (2002). The emerging field of adolescent romantic relationships. *Current Directions in Psychological Science*, *11*(5), 177–180.
- 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: Erlbaum.
- 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.
- Hawkins, A. J., Carroll, J. S., Doherty, W. J., & Willoughby, B. (2004). A comprehensive framework for marriage education. *Family Relations*, *53*, 547–558.
- Huston, T. L., & Houts, R. M. (1998). The psychological infrastructure of courtship and marriage: the role of personality and compatibility in personal relationships. In T. N. Bradbury (Ed.), *The developmental course of marital dysfunction* (pp. 114–151). NY: Cambridge.
- Joyner, K., & Campa, M. (2006). How do adolescent relationships influence the quality of romantic and sexual relationships in young adulthood? In A. C. Crouter, & A. Booth (Eds.), *Romance and sex in adolescence and emerging adulthood: Risks and opportunities* (pp. 93–101) Mahwah, NJ: Erlbaum.
- 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.
- Leonard, K. E., & Roberts, L. J. (1998). Marital aggression, quality and stability in the first year of marriage: findings from the Buffalo newlywed study. In T. N. Bradbury (Ed.), *The developmental course of marital dysfunction* (pp. 44–73). NY: Cambridge.
- 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.
- 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. (1998–2004). *Mplus user's guide* (3rd ed.). Los Angeles: Muthén & Muthén.
- Noller, P., & Feeney, J. A. (1998). Communication in early marriage: responses to conflict, nonverbal accuracy, and conversational patterns. In T. N. Bradbury (Ed.), *The developmental course of marital dysfunction* (pp. 11–43). NY: Cambridge.
- 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.
- Pearson, M. (2004/2007). *LoveU2: Getting smarter about relationships*. Berkeley, CA: The Dibble Institute for Marriage Education.
- Richardson, L. P., Garrison, M. M., Drangsholt, M., Mancini, L., & LeResche, L. (2006). Associations between depressive symptoms and obesity during puberty. *General Hospital Psychiatry*, *28*, 313–320.
- Roberts, T. A., & Klein, J. (2003). Intimate partner abuse and high-risk behavior in adolescents. *Archives of Pediatrics & Adolescent Medicine*, *157*, 375–380.
- Shulman, S. (2003). Conflict and negotiation in adolescent romantic relationships. In P. Florsheim (Ed.), *Adolescent romantic relations and sexual behavior: Theory, research, and practical implications* (pp. 185–211). Mahwah, NJ: Erlbaum.
- Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. NY: Oxford University Press.
- Straus, M., Hamby, S., Boney-McCoy, S., & Sugarman, D. (1996). The revised conflict tactics scales (CTS2): development and preliminary psychometric data. *Journal of Family Issues*, *17*, 283–316.
- Whetstone, Morrissey, & Cummings. (2007). Children at risk: the association between perceived weight status and suicidal thoughts and attempts in middle school youth. *Journal of School Health*, *77*, 59–66.
- Willett, J. B., & Bub, K. L. (2004). Latent growth curve analysis. In D. Rindskopf (Ed.), *Encyclopedia of statistics in the behavioral sciences*. Sussex, UK: John Wiley and Sons.