

## Romantic Experience and Psychosocial Adjustment in Middle Adolescence

Wyndol Furman, Sabina Low, and Martin J. Ho

*Department of Psychology, University of Denver*

Concurrent and longitudinal relations between the amount of romantic experience and psychosocial adjustment were examined in a 1-year study of a community based sample of 200 tenth graders. Adolescents, parents, and friends completed measures of psychosocial adjustment. The amount of romantic experience was associated with higher reports of social acceptance, friendship competence, and romantic competence; at the same time, romantic experience also was associated with greater substance use, more delinquent behavior, and more frequent genital sexual behavior. The amount of romantic experience predicted increased substance use and genital sexual behavior over a 1-year period, whereas social acceptance predicted increased romantic experience. These relations with romantic experience were significant even when genital sexual behavior and social acceptance were taken into account, underscoring the unique contribution of romantic experiences.

Dating and the acquisition of romantic experience typically begin in adolescence in Western cultures. In early adolescence, youth begin to interact more frequently with other-gender peers, often in a group context (Connolly, Craig, Goldberg, & Pepler, 2004). Eventually some begin dating as part of the group activity or perhaps as a dyad. By middle adolescence, most have begun dating. For example, in one study of 15-year-olds, 88% reported having started dating (Feiring, 1996). Many middle adolescents also have boyfriends or girlfriends. For example, 56% of girls and 49% of boys who are 15 years old report having had a “special” romantic

relationship in the last 18 months (Carver, Joyner, & Udry, 2003). The estimates are even higher when more casual romantic relationships are included (see Furman & Hand, 2006). Although dating and romantic experiences appear to be less formal and planned than in the past, going places and doing things with a romantic partner are very salient features of adolescents’ social worlds. In fact, high school students report interacting more frequently with their romantic partners than they do with parents, siblings, or friends (Laursen & Williams, 1997).

The existing literature and theory present a mixed picture of the potential benefits and risks of dating or romantic experience. On the one hand, adolescents commonly report that romantic partners provide support, companionship, and intimacy (Feiring, 1996; Furman & Buhrmester, 1992; Hand & Furman, 2007). Such support could help adolescents cope with day-to-day challenges and promote adjustment. Furthermore, romantic experience is associated with social competence with friends and in the general peer group (Neeman, Hubbard, & Masten, 1995).

On the other hand, some research suggests that romantic experiences may be linked to negative outcomes. Adolescents have more negative interactions with romantic partners than with close friends (Furman

---

Sabina Low is now at Wichita State University, Wichita, Kansas, and Martin Ho is now at User Centric, Chicago, Illinois. Preparation of this article was supported by Grant 50106 from the National Institute of Mental Health (W. Furman, P.I.) and Grant HD049080 from the National Institute of Child Health and Human Development (W. Furman, P.I.). Appreciation is expressed to the Project Star staff for their contribution to the data collection and to Candice Feiring, Brett Laursen, Jessica Winkles, Meredith Jones, Christine McDunn, Pallavi Visvanathan, Hana Vujeva, Brennan Young, and the Adolescent Reading Group for their suggestions regarding the article. Thanks also go to the adolescents, families, and schools who are participating in Project STAR.

Correspondence should be addressed to Wyndol Furman, Department of Psychology, University of Denver, Denver, CO 80208. E-mail: wfurman@nova.psy.du.edu

& Shomaker, 2008; Kuttler & La Greca, 2004). Some investigators have found that having a romantic relationship is predictive of increases in depression (Joyner & Udry, 2000). Having a romantic relationship is also the strongest predictor of sexual intercourse and its concomitant risks, such as pregnancy and sexually transmitted diseases (Blum, Beuhring, & Rinehart, 2000). Sexual victimization is also common, with estimates for girls ranging from 14% to 43% (Hickman, Jaycox, & Aronoff, 2004). Moreover, more than 25% of adolescents are victims of dating violence or aggression (see Wolfe & Feiring, 2000). Dating is associated with alcohol use, drug use, and adverse consequences of substance use (Aro & Taipale, 1987; Thomas & Hsiu, 1993). Finally, marked romantic experience, such as frequent dating or having many partners, is associated with poor academic performance, externalizing and internalizing symptoms, poor emotional health, and poor job competence (Grinder, 1966; Neeman et al., 1995; Zimmer-Gembeck, Siebenbruner, & Collins, 2001).

Given the centrality of romantic experiences in adolescence, it is very important to understand the benefits and risks associated with such experiences. Unfortunately, the precise effects of romantic experience are not very clear because the existing research is limited in several important respects. With few exceptions (e.g., Davies & Windle, 2000; Joyner & Udry, 2000; Neeman et al., 1995), the existing work is cross-sectional in nature. Any relation between romantic experiences and adjustment could reflect the individual characteristics of those who are dating and those who are not dating, rather than the effects of dating *per se*. In other words, adolescents' psychosocial adjustment could affect their romantic experience, rather than romantic experiences affecting adjustment. Alternatively, a third variable may be responsible for any associations.

In fact, it is unclear from past work whether romantic experience *per se* is linked to psychosocial adjustment or if the associations between romantic experience and psychosocial adjustment are spurious. For example, romantic experiences and sexual activity are related to each other (Abma, Chandra, Mosher, Peterson, & Piccinino, 1997; Blum et al., 2000; Longmore, Manning, & Giordano, 2001), as romantic relationships are the primary context for adolescent sexuality (Miller & Moore, 1990). Furthermore, sexual activity is associated with delinquency and substance use (Elliott & Morse, 1989; Jessor & Jessor, 1977; Zabin, Hardy, Smith, & Hirsch, 1986). Thus, it is possible that the links between romantic experience and risky/problem behaviors are spurious ones, which may stem from their common association with sexual activity. Unfortunately, prior research on romantic experience and adjustment has not simultaneously examined the role of sexual behavior, and prior research on sexual behavior and

other risky/problem behaviors has not examined the role of romantic experience.

Similarly, because romantic experiences are rooted in the peer social world, effects attributed to romantic experience could reflect the effects of other aspects of peer relations, such as peer social acceptance. For example, adolescent popularity has been simultaneously linked to friendship competence, substance use, and minor delinquency (Allen, Porter, McFarland, Marsh, & McElhaney, 2005)—a pattern similar to that found for romantic experience. To date, research has not simultaneously examined romantic experience and peer acceptance, which is required if we are to understand the unique contributions they make to adolescent psychosocial adjustment.

In addition, most of the existing literature has focused on the difference between daters and nondaters, but this distinction has both methodological and conceptual limitations. Methodologically, the simple differentiation between daters and nondaters has the inherent limitation of being a dichotomous variable (MacCallum, Zhang, Preacher, & Rucker, 2002). Specifically, adolescents who have dated once or twice are treated as identical to those who have substantially more experience. The dichotomization is particularly problematic in studies of middle adolescence, when the vast majority has begun dating. Conceptually, the focus on dating provides a limited picture of the acquisition of romantic experience in adolescence, which entails more than simply the onset of dating. Romantic experiences typically occur in a fluid or soft-stage development sequence of activities from mixed-gender interactions to dating to having romantic relationships (Connolly et al., 2004). It is important to examine the broad range of romantic activities and experiences to understand the role that the amount of romantic experience may play.

Moreover, most investigators have only examined a few facets of adjustment in any particular study. As a consequence, it is hard to determine precisely what is and is not affected by romantic experience. In addition, the variability of measures across studies has made it difficult to obtain a coherent picture of the links between psychosocial adjustment and romantic experience. Finally, much of the literature has relied on self-report measures which, like any single method, have their limitations.

## THIS STUDY

The general purpose of our study was to further our understanding of the benefits and risks of romantic experience by addressing a number of the limitations of prior research. In particular, our first specific aim was to examine the longitudinal, as well as concurrent,

links between romantic experience and psychosocial adjustment while taking into account sexual activity. Our second specific aim was to examine the links between romantic experience and psychosocial adjustment while taking into account social acceptance.

We used a continuous (vs. dichotomous) measure of romantic experience and examined a range of indices of psychosocial adjustment. We examined both indices of positive psychosocial competence and indices of risky/problem behavior. The selection of the specific indices of positive psychosocial competence and risky/problem behaviors was guided by the idea that romantic relationships and experiences are not isolated dyadic phenomena in adolescence but instead are rooted in the broader peer world. The nature of adolescent romantic experiences is shaped by and shapes the peer context (see Furman & Collins, 2008). Accordingly, we selected indices that we expected to be linked to peer experiences. Our indices of positive psychosocial competence included friendship competence, romantic competence, and social acceptance. Our indices of risky/problem behavior included delinquent behavior, substance use, and genital sexual activity.

Middle adolescents often meet potential romantic partners through their friends. In fact, the number of other-sex friends in one's network is predictive of whether one develops a romantic relationship subsequently (Connolly, Furman, & Konarski, 2000). Those who are liked by many of their peers date more frequently (Franzoi, Davis, & Vasquez-Suson, 1994), and romantic experiences may serve as a means of promoting one's peer status (Brown, 1999; Roscoe, Diana, & Brooks, 1987). Accordingly, we hypothesized that bidirectional links would occur between the degree of romantic experiences and our three indices of positive psychosocial competence: social acceptance, friendship competence, and romantic competence.

At the same time, we predicted that romantic experiences would be associated with risky/problem behaviors, such as sexual intercourse, delinquency, and substance use. Adolescents are thought to value and engage in these risky/problem behaviors because they serve as a means of acting older and obtaining status in the peer group (Jessor & Jessor, 1977; Moffitt, 1993). Peer pressure to engage in risky/problem behaviors has been found to be associated with engaging in such behaviors (Brown, Clasen, & Eicher, 1986). Although dating or romantic experiences are not risky or problem behaviors per se, they too are means of seeming mature in the eyes of peers and acquiring status in the peer group (Brown, 1999). Given the similarities in some of the functions they serve in the peer world, romantic experience and risky/problem behaviors were hypothesized to be associated with and predictive of each other.

We also hypothesized that the links between romantic experience and psychosocial adjustment would occur, even after taking into account genital sexual behavior. Romantic experience and sexual activity are not identical. Half of middle adolescents have not had sexual intercourse (Santelli, Lindberg, Abma, McNeely, & Resnick, 2000), and romantic experiences have other characteristics and serve other functions than just sexual activity (Collins, 2003; Furman & Shaffer, 2003). The functions that romantic experience may serve in the peer social world were expected to occur, regardless of the adolescents' sexual behavior. Similarly, we expected that romantic experience would be associated with and predict psychosocial adjustment, even after taking account of social acceptance. Romantic relationships emerge later in development and differ from other forms of peer relationships (Feiring, 1996). Thus, the links romantic experience has with psychosocial competence and risky/problem behaviors were expected to be distinct from those of psychosocial acceptance.

## METHOD

### Participants

The participants were part of a longitudinal study investigating the role of relationships with parents, peers, and romantic partners on adolescent psychosocial adjustment. Two hundred 10th-grade high school students (100 boys, 100 girls; *M* age = 15.27 years, range = 14–16 years old) were recruited from a diverse range of neighborhoods and schools in a large Western metropolitan area by distributing brochures and sending letters to families residing in various zip codes and to students enrolled in various schools in ethnically diverse neighborhoods. We were unable to determine the ascertainment rate because we used brochures and because the letters were sent to many families who did not have a 10th grader. To ensure maximal response, we paid families \$25 to hear a description of the project in their home. Of the families that heard the description, 85.5% expressed interest and carried through with the Wave 1 assessment.

Designed to be relatively representative of the ethnicity of the United States, the sample consisted of 11.5% African American, 12.5% Hispanic, 1.5% Native American, 1% Asian American, 4% biracial, and 69.5% White non-Hispanics. With regard to family structure, 57.5% were residing with two biological or adoptive parents, 11.5% were residing with a biological or adoptive parent and a stepparent or partner, and the remaining 31% were residing with a single parent or relative. The sample was of average intelligence (Wechsler Intelligence Scale for Children–III vocabulary score *M* = 9.8, *SD* = 2.44); 55.4% of mothers had a college degree, as

would be expected from an ethnically representative sample from this particular Metropolitan area.

Eighty-four percent of the participants in Wave 1 said they had gone on dates. With regard to sexual orientation, 94% said they were heterosexual/straight, whereas the remaining 6% said they were bisexual, gay, lesbian, or questioning. We chose to retain the sexual minorities in the sample both to be inclusive and because the majority of them reported that they were either bisexual or questioning their sexual identity. Most of the romantic experience items appeared to be appropriate for individuals of any sexual orientation. When we repeated analyses limiting them to only heterosexual youth, we obtained the same pattern of results.

To determine how representative the sample was, we located comparable national norms of representative samples for trait anxiety scores on the State-Trait Anxiety Inventory (Spielberger, 1983), maternal report of externalizing symptoms on the Child Behavior Checklist (Achenbach, 1991), participant reports of internalizing and externalizing symptoms on the Youth Self-Report, and eight indices of substance use from the Monitoring the Future survey (Johnston, O'Malley, & Bachman, 2002). The sample was more likely to have tried marijuana (54% vs. 40%,  $z = 2.23$ ,  $p < .05$ ). However, sample scores did not differ significantly from the national scores on the other 11 measures, including frequency of marijuana usage.

### Procedure

For the purposes of our study, the data were drawn from the first and second waves of yearly data collection. All 200 adolescents participated in both waves of assessment. The mother figure and a close friend nominated by the participant also completed questionnaires about the participant's psychosocial competence and risky/problem behaviors (Mothers: Wave 1  $N = 200$ , Wave 2  $N = 191$ ; Friends: Wave 1  $N = 191$ , Wave 2  $N = 162$ ). Written informed consent or assent was obtained from the participant, mother, friend, and friends' parents. Participants, mothers, and friends were compensated financially for completing the questionnaires. The study was approved by the University of Denver's Institutional Review Board.

### Measures

Measures were selected such that we typically had three indices for each of the latent constructs of interest. When appropriate, data from multiple reporters were included.

**Romantic experience.** The Dating History Questionnaire (Furman & Wehner, 1992a) assessed the

TABLE 1  
Proportion of Participants Endorsing Different Romantic Experiences

Item	%
Became romantically interested in boys/girls	94
Had a "crush" on someone	98
Felt at the time that you were "in love" with someone you were dating	55
Hung around with both boys and girls	99
Went to movies, concerts, sports, activities, and places with both boys and girls (but not as a date)	97
Met or went out with a group of boys and girls at night	91
Went to dances or parties where there were both boys and girls	96
Had close friends of the opposite sex whom you were <i>not</i> romantically involved with	92
Dated or went out with someone, but with a group of friends	80
Dated or went out with someone, just the two of you	74
Dated or saw a few different people over the year	72
Dated or went out with one person on a fairly regular basis for at least one month	76
Had a boy/girlfriend	82
Had a serious relationship	53
Had a committed relationship in which you were planning to get engaged, married, or live together	9
Got engaged, married, or lived with someone	1

degree of romantic experience by asking participants whether they had engaged in each of 16 different types of romantic activities or experiences, from having a romantic interest to having a serious committed relationship. Because we were interested in assessing the degree to which participants had experienced romantic events that were normative at this age, we selected the 14 items that had been experienced by the majority of the participants (see Table 1). The *romantic experience* score was comprised of the proportion of the 14 items endorsed as having experienced (Waves 1 and 2  $\alpha s = .86$  and  $.86$ , respectively).

**Social acceptance, friendship competence, and romantic competence.** Participants, friends, and mothers completed abbreviated forms of Harter's (1988) Adolescent Self-Perception Profile about the participant. For the purposes of our study, we examined three domains of the Adolescent Self-Perception Profile: (a) social acceptance, (b) friendship competence, and (c) romantic competence. The participants', mothers', and friends' reports served as three measures for each of the three domains. The social acceptance domain is concerned with competence in the overall peer group (e.g., "Some teens are popular with others their age BUT other teens are not very popular"), whereas the friendship competence domain focuses on skills in friendships (e.g., "Some teens are able to make really close friends BUT other teens find it hard to make really close friends"). Similarly, romantic competence is concerned

with skills in romantic relationships (e.g., "Some teens feel that people their age will be romantically attracted to them BUT other teens feel worry about whether people their age will be attracted to them"). All measures consisted of four or five items using a 4-point structured alternative format ( $M \alpha = .82$ , range = .69–.86).

**Delinquency.** Participants, friends, and mothers each completed delinquency measures. In particular, participants completed the delinquency subscale of the Youth Self-Report (Achenbach, 1991). At each wave of data collection, participants rated how often they engaged in each of 11 behaviors using a 3-point scale (Waves 1 and 2  $\alpha$ s = .72 and .66, respectively). Friends and mothers completed the delinquency subscale of the Child Behavior Checklist (Achenbach, 1991). Each of the 13 items is rated on a 3-point scale and then averaged to obtain delinquency scores for each wave ( $M\alpha = .78$ , range = .75–.80). The delinquency syndrome scales were used instead of the general externalizing symptom scales, because we expected stronger relations between romantic experience and delinquency than externalizing symptoms in general.

**Substance use.** Participants completed the Drug Involvement Scale for Adolescence (Eggert, Herting, & Thompson, 1996). For the present purposes, we examined use of beer and wine, liquor, and other drugs (marijuana, cocaine, opiate, depressants, tranquilizers, hallucinogens, inhalants, stimulants, over-the-counter drugs, club drugs) over the last 30 days. Frequency of each substance use was scored on a 7-point scale ranging from *never* to *every day*. In addition, they completed a 15-item measure assessing negative consequences arising from substance use and a 6-item measure assessing difficulties in controlling substance use ( $M\alpha$  of problem measures = .95, range = .94–.97). Questionnaires on substance use were administered by computer assisted self-interviewing techniques to increase the candor of responses.

Friends were asked four questions about the participant's substance use as part of their version of the Adolescent Self-Perception Profile. Each question was asked using Harter's (1988) structured alternative format. One item assessed the participant's alcohol use, one item assessed drug use, and two items assessed problems resulting from substance use.

The friend's report of the participant's alcohol use, the participant's report of beer and wine drinking, and the participant's report of drinking liquor were all standardized and averaged to derive a measure of alcohol use. Similarly the friend's report of the participant's drug use, the participant's report of marijuana use,

and the participant's report of other drug use were all standardized and averaged to derive a measure of drug use. Finally, the friend's two-item report of the participant's problems arising from substance use, the participant's report of consequences, and the participant's report of control problems were all standardized and averaged to derive a measure of problem usage.

**Genital sexual behavior.** The frequencies of intercourse, oral sex, and risky sex were each used as measures of genital sexual behavior. Participants completed the Sexual Attitudes and Behavior Survey (Furman & Wehner, 1992b), which asked how frequently they had engaged in intercourse and oral sex in the last year, using 5-point scales. Participants also completed the Scale of Sexual Risk-Taking (Metzler, Noell, & Biglan, 1992), a 13-item scale assessing sexual risk-taking and risk for AIDS. The internal consistency of the scale at the two waves was satisfactory (Wave 1 and 2  $\alpha$ s = .65 and .75, respectively). Questionnaires on sexual behavior were administered by computer assisted self-interviewing techniques.

## RESULTS

### Descriptive Information and Plan of Analysis

Tables of the pattern of correlations, means, and standard deviations of the variables are available from the first author. All variables were examined to determine if the assumptions of univariate and multivariate analyses were met (Behrens, 1997). All variables had acceptable levels of skew and kurtosis. Outliers were adjusted to fall 1.5 times the interquartile range below the 25th percentile or above the 75th percentile (e.g., to the whiskers in Tukey's, 1977, boxplot).

The primary analyses entailed a series of structural equation models, which are depicted in Figures 1 to 7. To ensure factorial invariance, paths between latent variables and manifest variables were constrained to be the same for corresponding variables at Wave 1 and Wave 2. To model shared method variance, covariance paths between the specific variances of the corresponding manifest variables at the two waves were included (Kenny & Kashy, 1992). An average of 6.2% of the data was missing; missing scores were estimated using full information maximum likelihood estimates as this approach yields less biased results than either pairwise or listwise deletion (Schafer & Graham, 2002). Finally, goodness of fit for each model was assessed by examining the comparative fit index (CFI) and root mean square error of approximation (RMSEA); according to conventional guidelines, a CFI of .95 and an RMSEA of .08 or less are considered

to be a reasonable fit (Browne & Cudeck, 1993; Hu & Bentler, 1999).

### Preliminary Analyses

In a series of preliminary analyses, we examined whether the models were invariant for different levels of maternal education by conducting multiple group structural equation modeling analyses comparing models for mothers with a college degree and models for mothers without a degree. We compared models in which factor loadings, regression paths, and covariances were constrained to be equal for the two groups with corresponding models in which they were not constrained to be equal. The differences in chi-square values were nonsignificant, suggesting maternal education did not moderate the effects.

A similar set of multiple group structural equation modeling analyses were done to determine if models were invariant for boys and girls. The differences in chi-square values were significant in four of the seven cases. Examination of the loadings revealed that the paths between oral sex and the latent genital sex factor were positive and significant for both genders, but the magnitude of the paths were greater for boys. When the paths between oral sex and the latent genital sex factors were not constrained to be equal for boys and girls, all differences in chi-square values were nonsignificant. Given the absence of differences in the maternal education models and the small difference in the models for boys and girls, we chose to use a single group model for ensuing analyses.

### Romantic Experience, Genital Sexual Behavior, and Psychosocial Adjustment

Next, bivariate autoregressive cross-lagged models were used to examine the relations of romantic experience and genital sexual behavior with each of the other five indices of psychosocial adjustment (social acceptance, friendship competence, romantic competence, delinquency, and substance use). We did not examine models that simultaneously included genital sexual behavior and social acceptance, as well as romantic experience, as predictors of psychosocial adjustment because the sample size was insufficient for this number of parameters. In addition, it would not have been possible to examine such models for two adjustment outcomes because the models for social acceptance did not provide satisfactory fits (see next section).

In all five models, all manifest variables loaded significantly on the hypothesized latent factors. The stability paths of romantic experience, genital sexual behavior, and the remaining indices of psychosocial adjustment were moderate to high and statistically significant. In addition, romantic experience and genital

sex covaried at Wave 1 in all models. Romantic experience predicted increases in genital sexual behavior in three of the five models, and genital sexual experience predicted increases in romantic experience in three of the five models. The subsequent descriptions focus on the paths specific to particular models.

Figure 1 depicts the model with romantic experience, social acceptance, and genital sexual behavior and social acceptance. This model provided a good fit to the data,  $\chi^2(65, N=200)=85.6, p=.04$  (CFI=.99, RMSEA=.04). Romantic experience covaried with social acceptance at Wave 1 but did not predict increases in social acceptance at Wave 2. Instead social acceptance at Wave 1 predicted increases in romantic experience at Wave 2. Genital sexual behavior and social acceptance did not significantly covary at Wave 1, but genital sexual behavior at Wave 1 predicted decreases in social acceptance at Wave 2.

Figure 2 depicts the model with friendship competence, romantic experience, and genital sexual behavior. The model provided a good fit to the data,  $\chi^2(65, N=200)=80.6, p=.04$  (CFI=.99, RMSEA=.04). Romantic experience and friendship competence covaried at Wave 1, but neither predicted longitudinal changes in the other. Friendship competence and genital sexual behavior were unrelated, concurrently and longitudinally.

Figure 3 depicts the model with romantic competence, romantic experience, and genital sexual behavior. This model provided a good fit to the data,  $\chi^2(65, N=200)=82.4, p=.07$  (CFI=.99, RMSEA=.04). Romantic experience covaried with romantic competence at Wave 1 but did not predict increases in romantic competence at Wave 2. Instead, romantic competence predicted increases in romantic experience at Wave 2. Similarly, genital sexual behavior and romantic competence covaried at Wave 1, and romantic competence predicted increases in genital sexual behavior at Wave 2, but not the reverse.

Figure 4 depicts the model with delinquent behavior, romantic experience, and genital sexual behavior, which also yielded a reasonable fit to the data,  $\chi^2(65, N=200)=80.6, p=.001$  (CFI=.97, RMSEA=.06). Romantic experience and delinquency covaried in Wave 1, but neither predicted changes in the other at Wave 2. Delinquency also covaried with genital sexual behavior and predicted increased genital sexual behavior at Wave 2.

The model with substance use, romantic experience, and genital experience also yielded a reasonably good fit to the data,  $\chi^2(65, N=200)=133.0, p<.001$  (CFI=.96, RMSEA=.07; see Figure 5). Romantic experience and substance use covaried at Wave 1, and romantic experience at Wave 1 predicted subsequent increases in substance use at Wave 2. The covariation between substance use and sexual behavior at Wave 1 approached

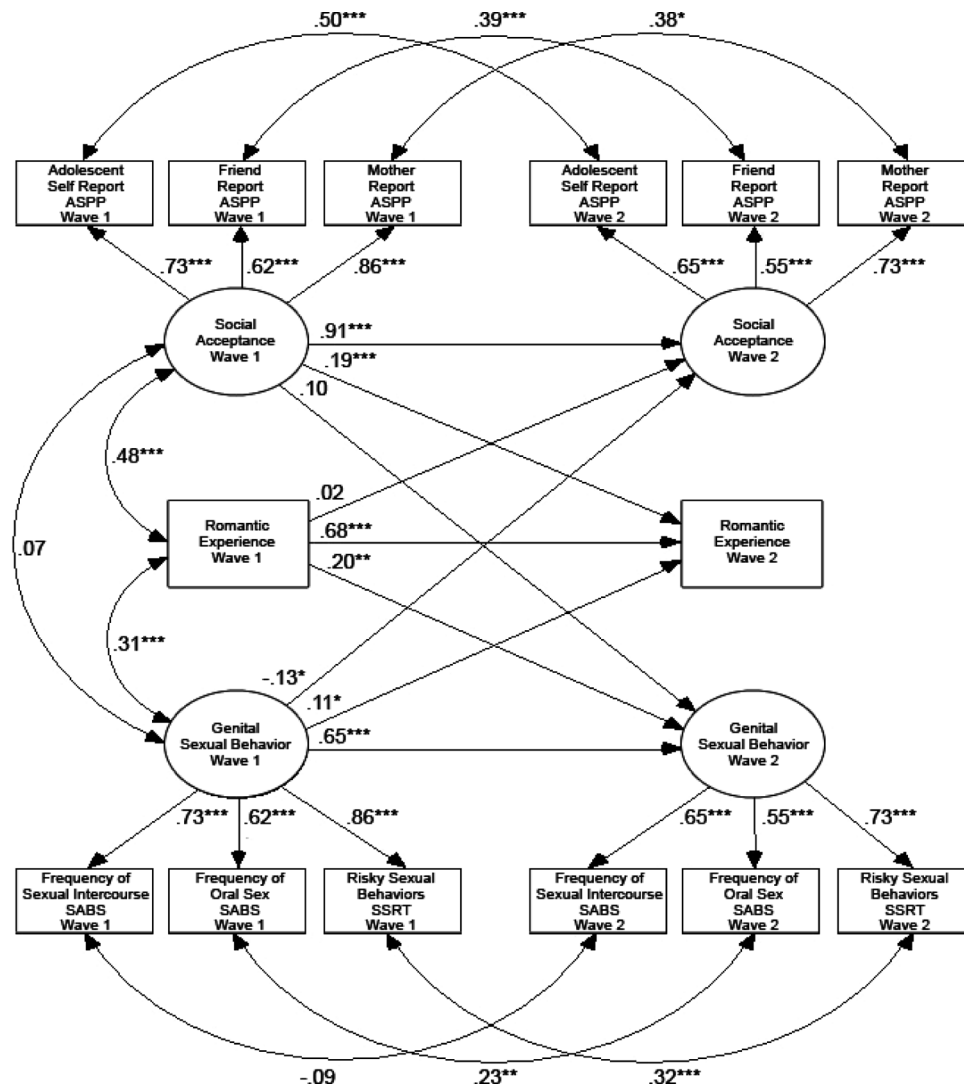


FIGURE 1 Structural equation model examining links among social acceptance, romantic experience and genital sexual behavior. Numbers are standardized regression weights. ASPP = Adolescent Self-Perception Profile; SABS = Sexual Attitudes and Behavior Survey; SSRT = Scale of Sexual Risk-Taking. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

statistical significance ( $p = .052$ ); each predicted increases in the other over time.

#### Romantic Experience, Social Acceptance, and Psychosocial Adjustment

Our final specific aim was to assess the relations among romantic experience, social acceptance, and adjustment over time. Because social acceptance was highly related to friendship competence and romantic competence, the models for these two adjustment indices yielded unsatisfactory fits. Accordingly, these models were not interpreted.

The models depicting the relations among romantic experience, social acceptance, and the risky/problem behavior indices all provided reasonable fits,  $\chi^2(65, N = 200) < .88$ ,  $ps > .04$  (CFIs  $\geq .98$ , RMSEAs  $< .05$ ).

Romantic experience and social acceptance covaried at Wave 1 in all models; in addition, social acceptance predicted increases in romantic experience at Wave 2 in all models. The model examining the links among romantic experience, social acceptance, and genital sexual activity was already discussed in the prior section (Figure 1).

The model examining the links among romantic experience, social acceptance, and delinquent behavior is depicted in Figure 6. Romantic experience and delinquent behavior covaried at Wave 1, but neither predicted longitudinal changes in the other. These findings were the same as those that included sexual experience instead of social acceptance (see Figure 4). Social acceptance at Wave 1 did not predict changes in delinquency at Wave 2, but delinquency at Wave 1 did predict decreases in social acceptance at Wave 2.

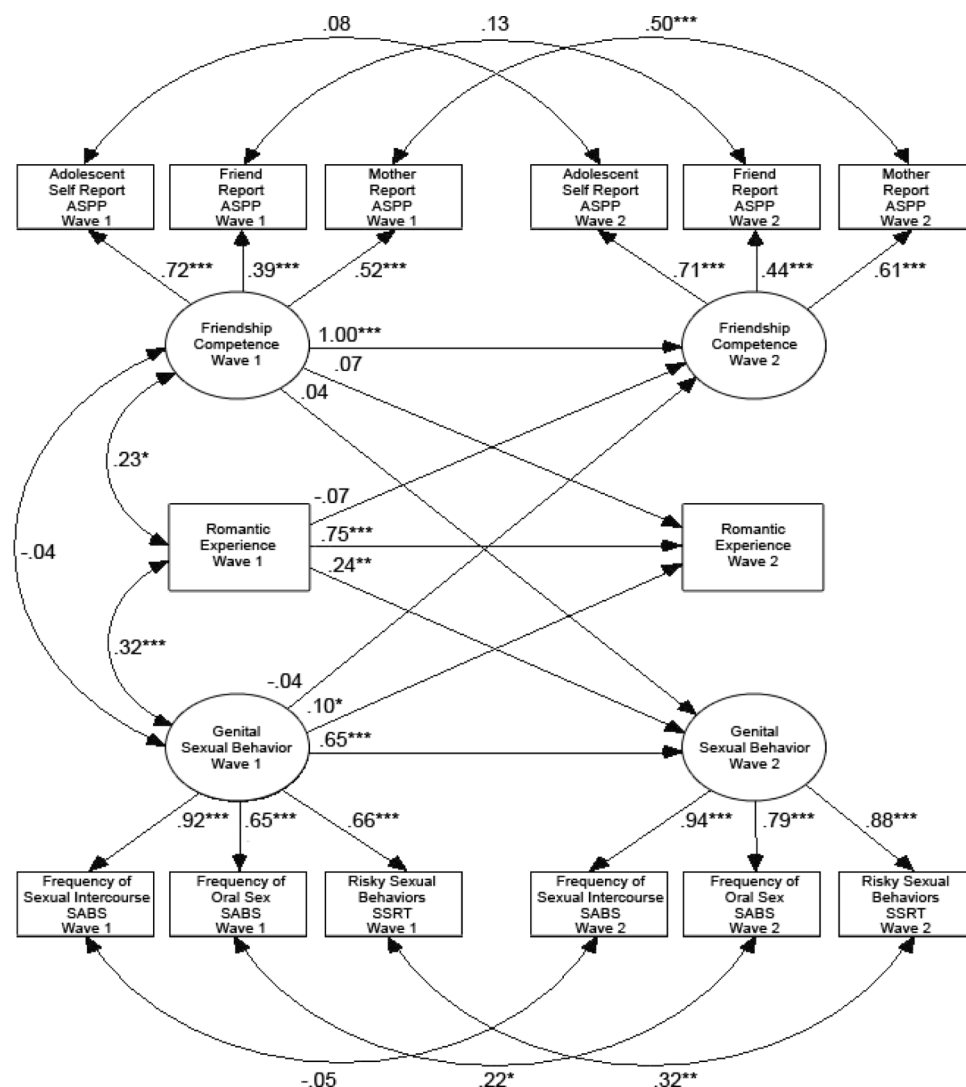


FIGURE 2 Structural equation model examining links among friendship competence, romantic experience and genital sexual behavior. Numbers are standardized regression weights. ASPP = Adolescent Self-Perception Profile; SABS = Sexual Attitudes and Behavior Survey; SSRT = Scale of Sexual Risk-Taking. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

The final model examining the links among romantic experience, social acceptance, and substance use is depicted in Figure 7. Romantic experience at Wave 1 covaried with substance use at Wave 1 and predicted increases in substance use at Wave 2, just as it had been in the model which included sexual experience instead of social acceptance (see Figure 5). Social acceptance covaried with substance use, but neither predicted longitudinal changes in the other.

## DISCUSSION

Research has suggested a mixed picture of positive and negative correlates of romantic involvement. The past work, however, has been characterized by

methodological shortcomings which have made it difficult to isolate the role of romantic involvement on adjustment. The general purpose of our study was to clarify the links between romantic experience and psychosocial adjustment utilizing longitudinal data to address these limitations.

As expected, concurrent associations were found with our indices of both positive psychosocial competence and risky/problem behaviors. These cross-sectional findings are generally consistent with past work finding associations with both psychosocial competence and risky/problem behaviors (e.g., Neeman et al., 1995) but contribute by using latent variables based on multiple reporters' perceptions and by assessing romantic experiences more broadly. More important, our study helped clarify the nature of these relations by



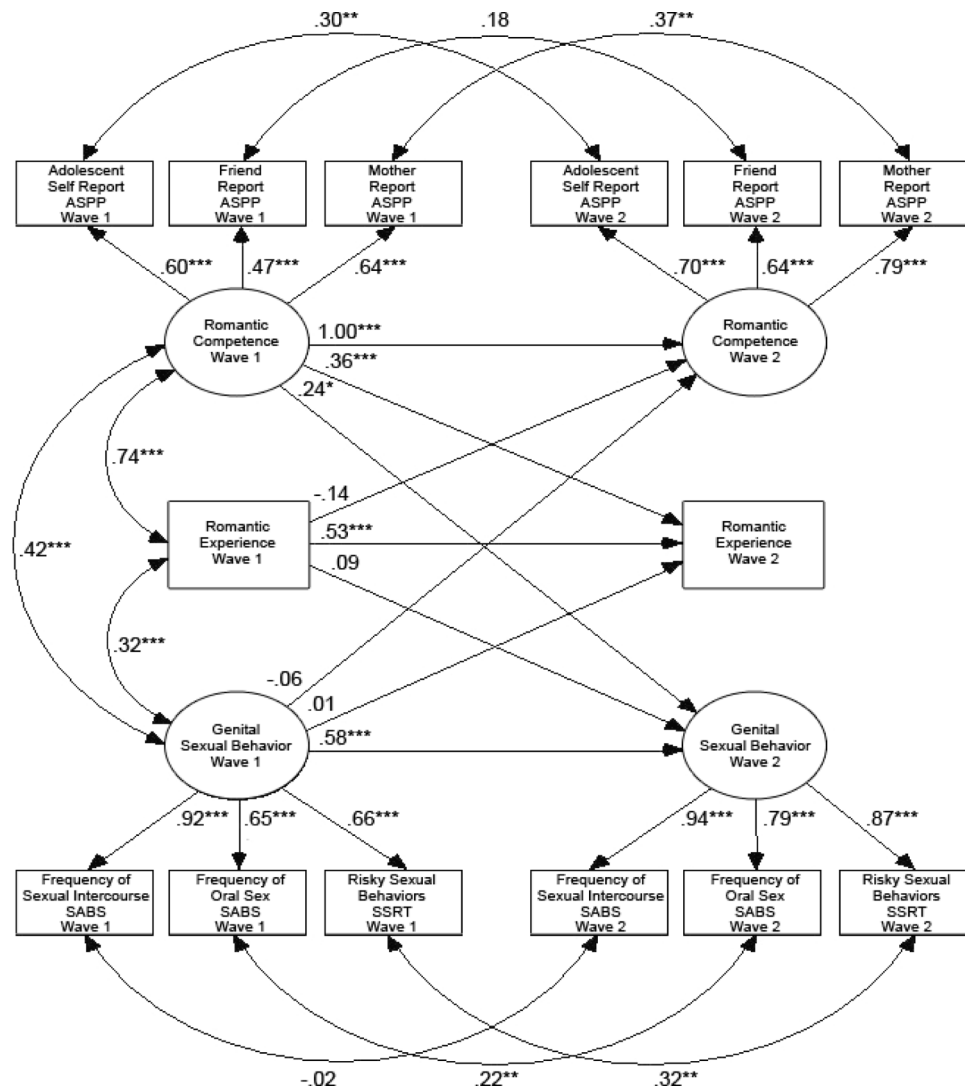


FIGURE 3 Structural equation model examining links among romantic competence, romantic experience and genital sexual behavior. Numbers are standardized regression weights. ASPP = Adolescent Self-Perception Profile; SABS = Sexual Attitudes and Behavior Survey; SSRT = Scale of Sexual Risk-Taking. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

examining them longitudinally and by controlling for the overlapping constructs of genital sexual behavior and social acceptance. In some cases, romantic experiences predicted increases in risky/problem behaviors (e.g., substance use and genital sexual activity). In other instances, the indices of psychosocial adjustment predicted increases in romantic experience (e.g., social acceptance and romantic competence).

Moreover, no longitudinal links were obtained in some instances, such as between romantic experience and friendship competence or delinquency. In these cases, it is possible that the concurrent covariation may reflect the influence of a third factor. For example, social skills may affect both friendship competence

and romantic experience. The links between delinquency and romantic experiences may stem from peer pressures to engage in experimentation and problem behaviors. Both of these types of behaviors could also stem from efforts to seem older in the eyes of peers or from efforts to establish autonomy from parents (Moffitt, 1993). Alternatively, any influence one of these variables has on the other could have occurred earlier in development, such that changes are no longer occurring. For example, delinquent youth may become prematurely involved in romantic activities at an early age as a way of acting out, but such behavior may not continue to foster further romantic experience when they have reached high school.

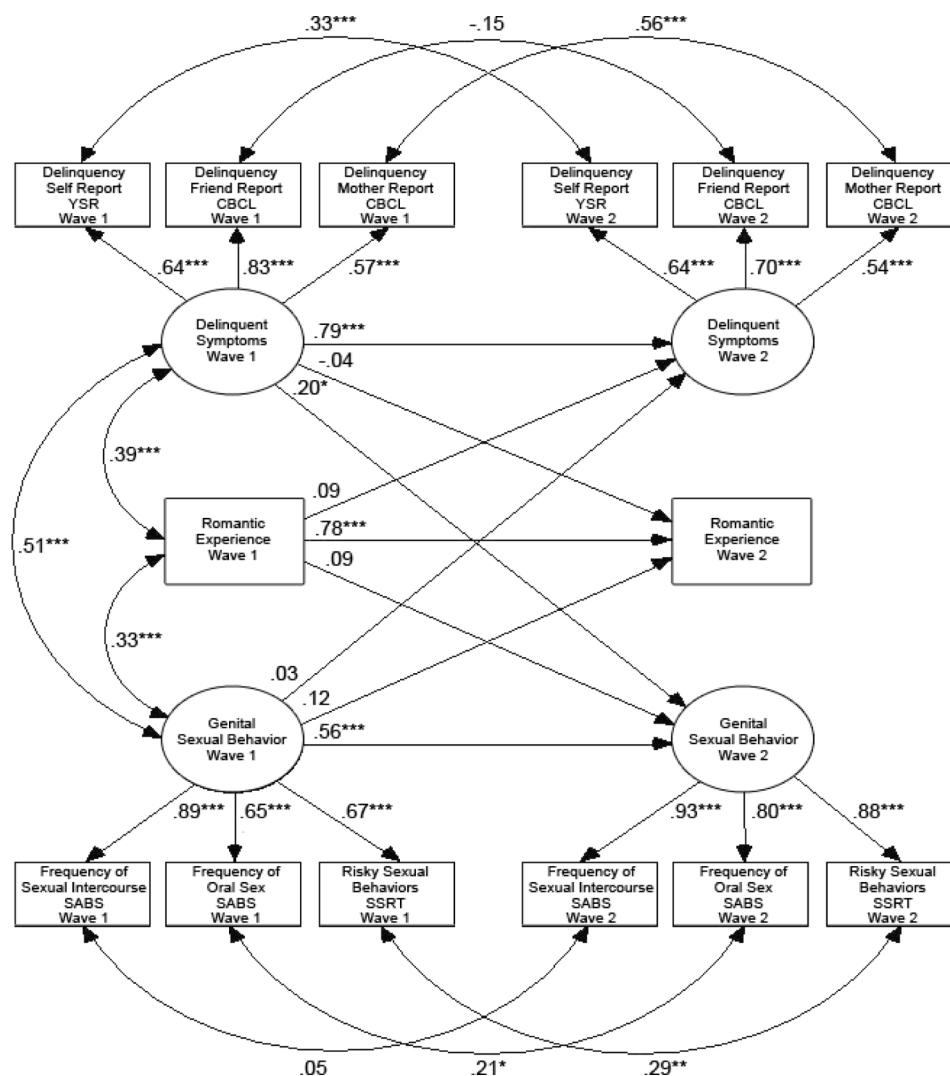


FIGURE 4 Structural equation model examining links among delinquency, romantic experience and genital sexual behavior. Numbers are standardized regression weights. YSR = Youth Self-Report; CBCL = Child Behavior Checklist; SABS = Sexual Attitudes and Behavior Survey; SSRT = Scale of Sexual Risk-Taking. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

### Romantic Experience, Sexual Behavior, and Psychosocial Adjustment

Research on sexuality and romantic experiences have remained relatively separate from each other, which has limited our knowledge of the distinct roles each may play. One of our specific aims was to examine the links among romantic experience, sexual behavior, and psychosocial adjustment. As expected, romantic experience and genital sexual behavior were related to each other, but only moderately so. Moreover, the pattern of concurrent relations was not identical; genital sexual behavior covaried with the same risky/problem behaviors that romantic experience did but with fewer of the indices of positive psychosocial competence.

The associations between genital sexual behavior and problem behaviors are consistent with prior work (Elliot & Morse, 1989; Jessor & Jessor, 1977). It is not, however, appropriate to conclude that genital sexual behavior is more predictive of adverse outcomes than romantic experience. Genital sexual behavior predicted subsequent substance use, but otherwise the longitudinal paths between genital sexual behavior and subsequent psychosocial adjustment were nonsignificant. Rather, it seems that genital sexual behavior at this age may simply be associated with other risky/problem behaviors (Donovan & Jessor, 1985). The covariation may reflect a selection effect, wherein certain adolescents are likely to engage in risky/problem behaviors. Consistent with this idea, Bingham and Crockett (1996) found that early

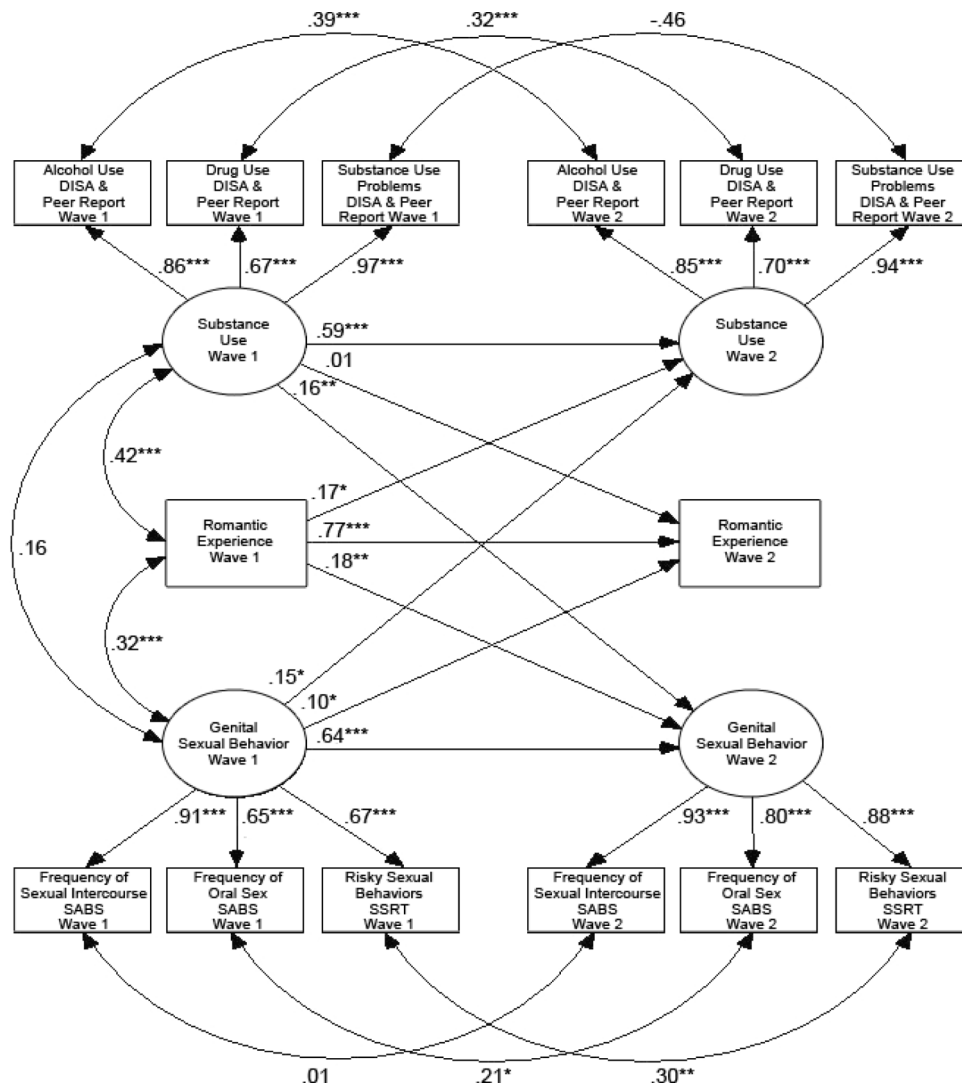


FIGURE 5 Structural equation model examining links among substance use, romantic experience and genital sexual behavior. Numbers are standardized regression weights. DISA = Drug Involvement Scale for Adolescence; SABS = Sexual Attitudes and Behavior Survey; SSRT = Scale of Sexual Risk-Taking. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

onset of intercourse was associated with other risky/problem behaviors but did not predict subsequent increases in risky/problem behavior.

Romantic experience and genital sexual behavior also differed in the variables they predict and the variables that predict them. These findings suggest that the influence of romantic experience cannot be solely attributed to its covariation with genital sexual behavior. At the same time, it does not appear that the effects that have been attributed to genital sexual behavior stem from its covariation with romantic experience. These patterns suggest that romantic experience and sexual behavior are distinct, and each make unique contributions to the prediction of adjustment. Romantic experiences can provide support, companionship, and intimacy (Feiring, 1996; Hand & Furman, in press). The fact that

romantic experience was related to social acceptance and friendship competence, but genital sexual activity was not, suggests that some of these positive features of romantic experiences may be responsible for some of the unique contributions of romantic experience. With regard to the links with risky/problem behaviors, both may provide separate means of establishing autonomy or acting like an adult, or the processes underlying their impacts may differ in some respects. For example, the desire to engage in sexual behavior may cause one to drink when opportunities for sexual activity are seen (Cooper, 2006). Substance use is commonly perceived as making it easier to engage in sex (Cooper, 2002). On the other hand, parties and other social activities associated with romantic experiences may be particularly likely contexts for substance use. Many individuals also

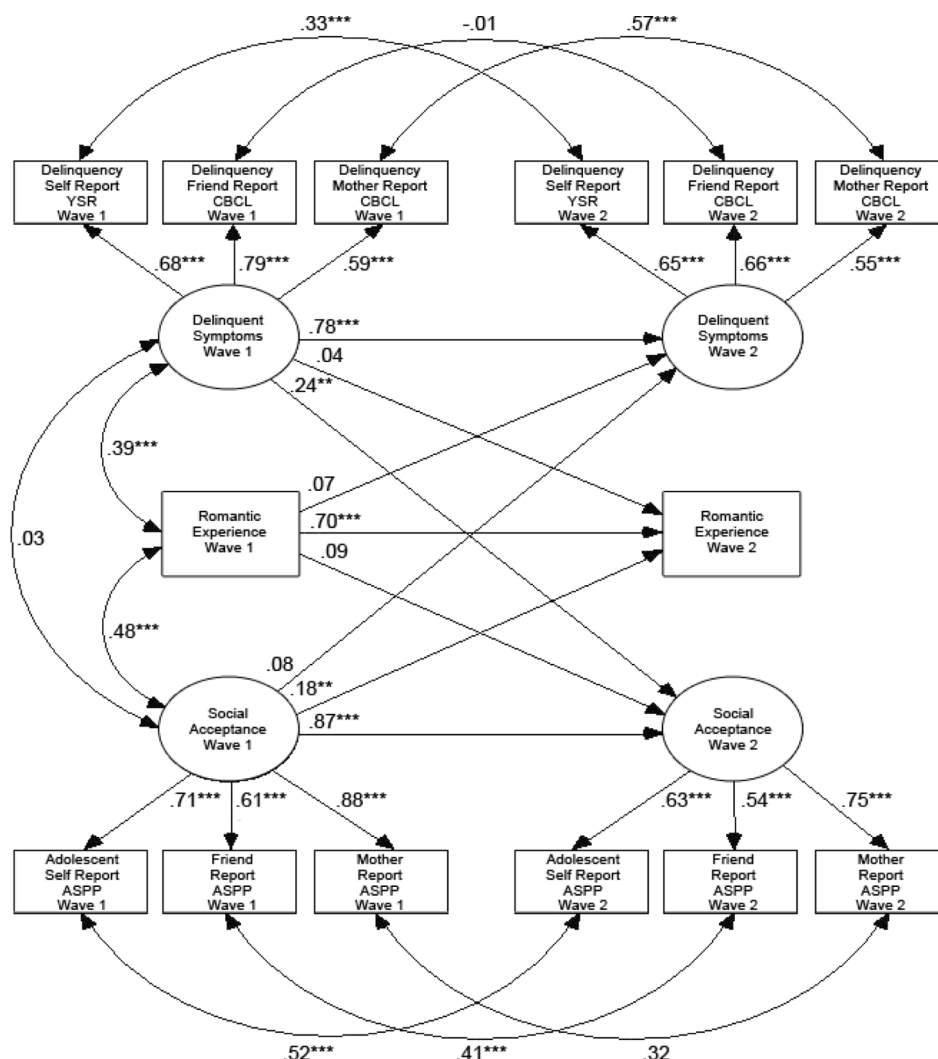


FIGURE 6 Structural equation model examining links among delinquency, romantic experience and social acceptance. Numbers are standardized regression weights. YSR = Youth Self-Report; CBCL = Child Behavior Checklist; ASPP = Adolescent Self-Perception Profile. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

find it difficult to refuse offers of substance use from a romantic partner (Trost, Langan, & Kellar-Guenther, 1999).

#### Romantic Experience, Social Acceptance, and Psychosocial Adjustment

Our second specific aim was to examine the links among romantic experience and psychosocial adjustment while controlling for social acceptance. Consistent with prior research (Franzoi et al., 1994), we found concurrent relations between romantic experience and social acceptance but found little support for the idea that romantic experience may enhance one's peer status. Rather, the findings suggest that the direction of effects may be from popularity to romantic experience. Those who are popular may be either more socially competent or seen as

more desirable romantic partners. Alternatively, they may be in social contexts more often that lead to romantic opportunities. The link between popularity and subsequent romantic experience is consistent with prior research (Connolly et al., 2000), but this is the first study to examine whether romantic experience was associated with subsequent peer status. The lack of a significant relation in our study may stem from that fact that social acceptance was rather stable over the course of the year. It may be atypical or difficult for peer status to change during middle adolescence or over the course of just a year. The high school peer culture is characterized by a number of crowds, which are reputation-based collectives of adolescents who are seen to be similar (Brown, Mory, & Kinney, 1994). Adolescents may be most likely to date individuals from the same crowd, making it unlikely that their status changes as a consequence.

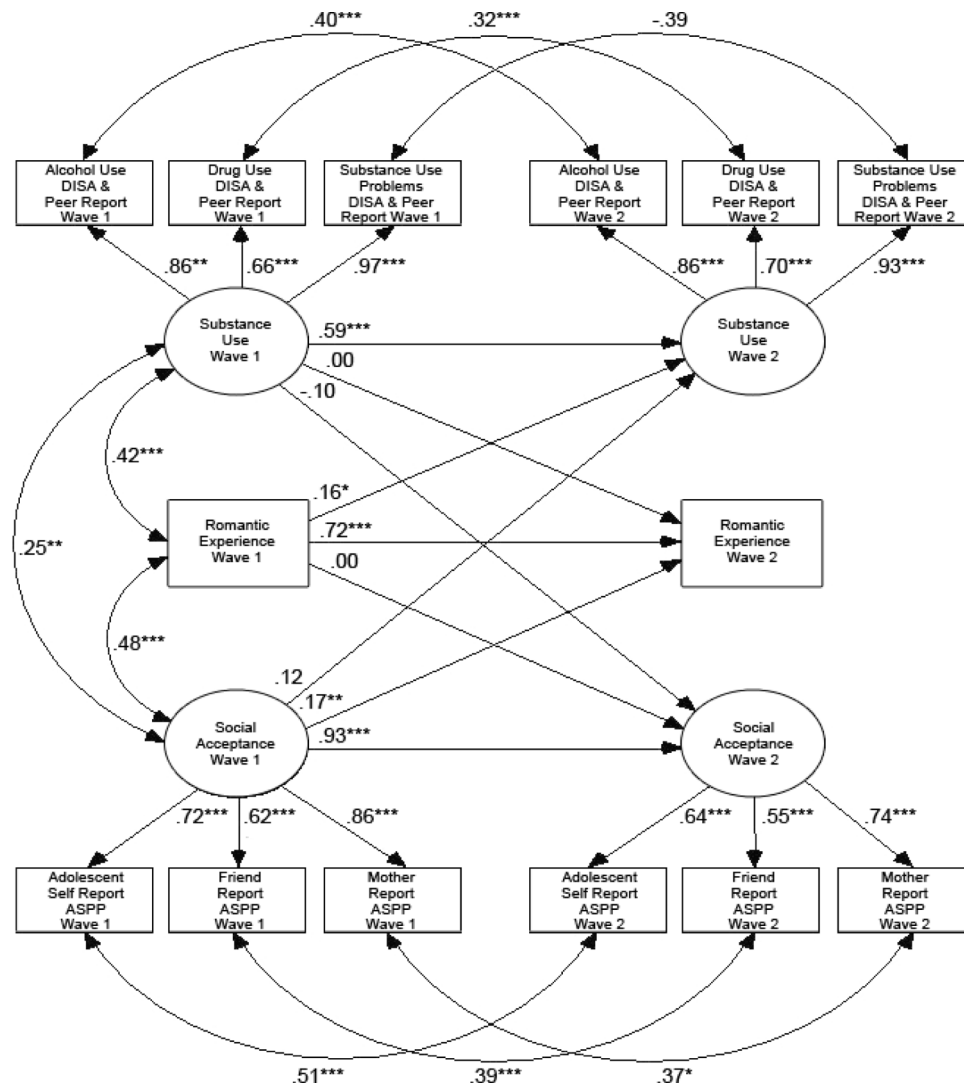


FIGURE 7 Structural equation model examining links among substance use, romantic experience and social acceptance. Numbers are standardized regression weights. DISA = Drug Involvement Scale for Adolescence; ASPP = Adolescent Self-Perception Profile. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Thus, being popular may provide opportunities to increase one's romantic experiences, whereas having romantic experiences may not provide many opportunities to increase one's popularity in high school. At the same time, one should not discount the potential impact romantic experiences may have on peer relations, as these experiences may affect other aspects of peer relations than popularity, such as self-disclosure between friends (Connolly et al., 2000).

Moreover, a sizable minority of romantic partners remains part of an adolescent's peer network even after the adolescent and partner have broken up (Connolly et al., 2000). Thus, the composition of the network can be changed as a consequence of romantic experiences.

As was the case for sexual behavior and romantic experience, romantic experience and social acceptance had somewhat distinct links with the other variables.

It is interesting, however, that these findings suggest that the links between romantic experience and risky/problem behaviors may be greater than those between social acceptance and risky/problem behaviors. On the other hand, the links between romantic experience and psychosocial competence seemed stronger than those between genital sexual activity and peer social competence. In effect, the depiction of romantic experiences and its links seems particularly mixed, even when examined in concert with genital sexual activity or social acceptance.

#### Limitations

In this article we focused only on the contributions of the amount of romantic experience. Although linked to the adjustment indices and romantic competence,

the amount of romantic experiences or any other single variable does not provide a complete picture of romantic experiences. Other aspects should be incorporated in subsequent work. Although limited to those who have a romantic relationship, the quality of a romantic relationship is a particularly important dimension. In addition, the characteristics of the partner, content of the interactions, and cognitive representations of romantic relationships have been hypothesized to be important elements (Collins, 2003; Furman, Ho, & Low, 2007). However, as yet, relatively little evidence exists on their role in adolescent romantic experiences and their links to psychosocial adjustment.

Similarly, our assessment of other aspects of the peer social world was limited in scope. Our measure of social acceptance consisted of ratings of social acceptance by friends, mothers, and participants. Because the different reporters' perceptions of the participant's social acceptance were related to one another, it seems likely that there is some veridicality in these reports. Nevertheless, it is important to supplement this initial work with standard measures of sociometric status and to examine perceived popularity as well as sociometric popularity (LaFontana & Cillessen, 1999). Moreover, it will be important to examine the role of friendships. In the same vein, future research will want to simultaneously examine how family process as well as peer and family processes shape psychosocial adjustment (Collins & van Dulmen, 2006).

### Implications for Research, Policy, and Practice

Although the sample included a representative proportion of ethnic minorities, the sample was not sufficiently large to permit analyses of particular subgroups. Similarly, we were not able to examine whether the pattern of relations are the same for sexual minorities and heterosexual youth. Also, our study examined only links in middle adolescence. Further work is required to delineate developmental changes in the links between romantic experience and adjustment. Longitudinal effects were found only for some variables. However, romantic experience was also concurrently related to all the positive psychosocial competence and risky/problem behavior indices in the 10th grade. Such findings suggest that romantic experience and the psychosocial measures may be related earlier in adolescence or perhaps may have even influenced each other earlier in adolescence. At the same time, the pattern of relations may very well be different in early adolescence, when romantic experience is less normative.

Similarly, it will be important to extend our present work upward to determine the links in adulthood. Romantic experiences are an *emerging* developmental task during adolescence. Although important in adolescence, they appear to have little long-term predictive

significance (Roisman, Masten, Coatsworth, & Tellegen, 2004). In adulthood, however, this task is an *established* salient one and as such may have more long-term significance.

The links with aspects of both positive psychosocial competence and risky/problem behaviors in the present and prior studies underscore the potential significance of such romantic experiences. Both the risky/problem behaviors and the positive psychosocial competence indices associated with romantic experiences are likely to stem from their common roots in the peer social world. At the same time, it is important for researchers to acknowledge and account for the distinct role romantic partners may play, particularly with regard to the prediction of substance use. That is, it is important to recognize romantic partners as a subtype of one's broader peer group, who share many common traits but also have unique qualities and characteristics.

Another important implication for both researchers and clinicians is the importance of differentiating between sexual and romantic experiences. As discussed in the prior sections, the two are related but differ in the variables they predict and the variables that predict them. Moreover, the pattern of relations suggests that the positive aspects of romantic experiences may have important links with psychosocial adjustment. Health education programs often focus on sexual behavior, but it seems important for such programs to discuss romantic relationships and experiences as well. For example, school-based programs to prevent dating violence appear to be promising (Jaffe, Wolfe, Crooks, Hughes, & Baker, 2004).

Finally, it is important to remember that the longitudinal relations of romantic experience were different from the concurrent ones. These differences underscore the importance of examining links longitudinally before researchers, policymakers, or clinicians draw conclusions about the short-term or long-term effects of romantic experiences.

### REFERENCES

- Abma, J., Chandra, A., Mosher, W., Peterson, L., & Piccinino, L. (1997). Fertility, family planning, and women's health: New data from the 1995 National Survey of Family Growth. *National Center for Health Statistics. Vital Health Statistics*, 23(19).
- Achenbach, T. M. (1991). *Integrative guide for the 1991 CBCL/4-18, YSR, and TRF Profiles*. Burlington: University of Vermont, Department of Psychiatry.
- Allen, J. P., Porter, M. R., McFarland, F. C., Marsh, P., & McElhaney, K. B. (2005). The two faces of adolescents' success with peers: Adolescent popularity, social adaptation, and deviant behavior. *Child Development*, 76, 747-760.
- Aro, H., & Taipale, V. (1987). The impact of timing of puberty on psychosomatic symptoms among fourteen- to sixteen-year-old Finnish girls. *Child Development*, 58, 261-269.

- Behrens, J. T. (1997). Principles and procedures of exploratory data analysis. *Psychological Methods*, 2, 131–160.
- Bingham, C. R., & Crockett, L. J. (1996). Longitudinal adjustment patterns of boys and girls experiencing early, middle, and late sexual intercourse. *Developmental Psychology*, 32, 647–658.
- Blum, R. W., Beuhring, T., & Rinehart, P. M. (2000). *Protecting teens: Beyond race, income, and family structure*. Minneapolis: Center for Adolescent Health, University of Minnesota.
- Brown, B. B. (1999). "You're going out with who?": Peer group influences on adolescent romantic relationships. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The development of romantic relationships in adolescence* (pp. 291–329). Cambridge, UK: Cambridge University Press.
- Brown, B. B., Clasen, D. R., & Eicher, S. A. (1986). Perceptions of peer pressure, peer conformity dispositions, and self-reported behavior among adolescents. *Developmental Psychology*, 22, 521–530.
- Brown, B. B., Mory, M. S., & Kinney, D. (1994). Casting adolescent crowds in a relational perspective: Caricature, channel, and context. In R. Montemayor, G. R. Adams, & T. P. Gullota (Eds.), *Advances in adolescent development: Personal relationships during adolescence, Vol. 6* (pp. 123–167). Thousand Oaks, CA: Sage.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Beverly Hills, CA: Sage.
- Carver, K., Joyner, K., & Udry, J. R. (2003). National estimates of adolescent romantic relationships. In P. Florsheim (Ed.), *Adolescent romantic relations and sexual behavior: Theory, research, and practical implications* (pp. 23–56). Mahwah, NJ: Erlbaum.
- Collins, W. A. (2003). More than myth: The developmental significance of romantic relationships during adolescence. *Journal of Research on Adolescence*, 13, 1–25.
- Collins, W. A., & van Dulman, M. (2006). "The course of true love (s)...": Origins and pathways in the development of romantic relationships. In A. Booth & A. C. Crouter (Eds.), *Romance and sex in adolescence and emerging adulthood: Risks and opportunities* (pp. 63–86). Mahwah, NJ: Erlbaum.
- Connolly, J., Craig, W., Goldberg, A., & Pepler, D. (2004). Mixed-gender groups, dating, and romantic relationships in early adolescence. *Journal of Research in Adolescence*, 14, 185–207.
- Connolly, J., Furman, W., & Konarski, R. (2000). The role of peers in the emergence of romantic relationships in adolescence. *Child Development*, 71, 1395–1408.
- Cooper, M. L. (2002). Alcohol use and risky sexual behavior among college students and youth. *Journal of Studies on Alcohol*, 14, 101–117.
- Cooper, M. L. (2006). Does drinking promote risky sexual behavior? A complex answer to a simple question. *Current Directions in Psychological Science*, 15, 19–23.
- Davies, P. T., & Windle, M. (2000). Middle adolescents' dating pathways and psychosocial adjustment. *Merrill-Palmer Quarterly*, 46, 90–118.
- Donovan, J. E., & Jessor, R. (1985). Structure of problem behavior in adolescence and young adulthood. *Journal of Consulting & Clinical Psychology*, 53, 890–904.
- Eggert, L. L., Herting, J. R., & Thompson, E. A. (1996). The drug involvement scale for adolescent (DISA). *Journal of Drug Education*, 26, 101–130.
- Elliott, D. S., & Morse, B. J. (1989). Delinquency and drug use as risk factors in teenage sexual activity. *Youth and Society*, 21, 32–60.
- Feiring, C. (1996). Concepts of romance in 15-year-old adolescents. *Journal of Research on Adolescence*, 6, 181–200.
- Franzoi, S. L., Davis, M. H., & Vasquez-Suson, K. A. (1994). Two social worlds: Social correlates and stability of adolescent status groups. *Journal of Personality and Social Psychology*, 67, 462–473.
- Furman, W., & Buhrmester, D. (1992). Age and sex differences in perceptions of networks of personal relationships. *Child Development*, 63, 103–115.
- Furman, W., & Collins, W. A. (2008). Adolescent romantic relationships and experiences. In K. H. Rubin, W. Bukowski, & B. Laursen (Eds.), *Peer interactions, relationships, and groups* (pp. 341–360). New York: Guilford.
- Furman, W., & Hand, L. S. (2006). The slippery nature of romantic relationships: Issues in definition and differentiation. In A. Booth & A. C. Crouter (Eds.), *Romance and sex in adolescence and emerging adulthood: Risks and opportunities* (pp. 171–178). Mahwah, NJ: Erlbaum.
- Furman, W., Ho, M. H., & Low, S. M. (2007). The rocky road of adolescent romantic experience: Dating and adjustment. In R. C. M. E. Engels, M. Kerr, & H. Stattin (Eds.), *Friends, lovers, and groups: Key relationships in adolescence* (pp. 61–80). New York: 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: Erlbaum.
- Furman, W., & Shomaker, L. B. (2008). Patterns of interaction in adolescent romantic relationships: Distinct features and links with other close relationships. *Journal of Adolescence*, 31, 771–778.
- Furman, W., & Wehner, E. A. (1992a). *Dating History Questionnaire*. Unpublished measure, University of Denver, Colorado.
- Furman, W., & Wehner, E. A. (1992b). *Sexual Attitudes and Behavior Questionnaire*. Unpublished measure, University of Denver, Colorado.
- Grinder, R. E. (1966). Relations of social dating attractions to academic orientation and peer relations. *Journal of Educational Psychology*, 57, 27–34.
- Hand, L. S., & Furman, W. (in press). Rewards and costs in adolescent other-sex friendships: Comparisons to same-sex friendships and romantic relationships. *Social Development*.
- Harter, S. (1988). *Manual for the self-perception profile for adolescents*. Unpublished manuscript, University of Denver, Colorado.
- Hickman, L. J., Jaycox, L. H., & Aronoff, J. (2004). Dating violence among adolescents: Prevalence, gender distribution, and prevention program effectiveness. *Trauma, Violence & Abuse*, 5, 123–142.
- Hu, L., & Bentler, P. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1–55.
- Jaffe, P., Wolfe, D., Crooks, C., Hughes, R., & Baker, L. (2004). The fourth R: Developing healthy relationships through school-based interventions. In R. D. Peters, B. Leadbetter, & R. McMahon (Eds.), *Protecting children from domestic violence: Strategies for community intervention* (pp. 200–218). New York: Guilford.
- Jessor, R., & Jessor, S. L. (1977). *Problem behavior and psychosocial development: A longitudinal study of youth*. New York: Academic Press.
- Johnston, L. D., O'Malley, P. M., & Bachman, J. G. (2002). *Monitoring the future national results on adolescent drug use: Overview of key findings, 2001* (NIH Publication No. 02–5105). Bethesda, MD: National Institute on Drug Abuse.
- 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.
- Kenny, D., & Kashy, D. (1992). Analysis of the multitrait-multimethod matrix by confirmatory factor analysis. *Psychological Bulletin*, 112, 165–172.
- Kuttler, A. F., & La Greca, A. M. (2004). Linkages among adolescent girls' romantic relationships, best friendships, and peer networks. *Journal of Adolescence*, 27, 395–414.
- LaFontana, K. M., & Cillessen, A. H. (1999). Children's interpersonal perceptions as a function of sociometric and peer-perceived popularity. *Journal of Genetic Psychology*, 160, 225–242.

- Laursen, B., & Williams, V. A. (1997). Perceptions of interdependence and closeness in family and peer relationships among adolescents with and without romantic partners. In S. Shulman & W. A. Collins (Eds.), *Romantic relationships in adolescence: Developmental perspectives* (pp. 3–20). San Francisco, CA: Jossey-Bass.
- Longmore, M. A., Manning, W. D., & Giordano, P. C. (2001). Preadolescent parenting strategies and teens' dating and sexual initiation: A longitudinal analysis. *Journal of Marriage and the Family*, 63, 322–335.
- MacCallum, R. C., Zhang, S., Preacher, K. J., & Rucker, D. D. (2002). On the practice of dichotomization of quantitative methods. *Psychological Methods*, 7, 19–40.
- Metzler, C. W., Noell, J., & Biglan, A. (1992). The validation of a construct of high-risk sexual behaviors in heterosexual adolescents. *Journal of Adolescent Research*, 7, 233–249.
- Miller, B., & Moore, K. (1990). Adolescent sexual behavior, pregnancy, parenting: Research through 1980s. *Journal of Marriage and the Family*, 52, 1025–1044.
- Moffitt, T. E. (1993). Adolescence-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review*, 100, 674–701.
- Neeman, J., Hubbard, J., & Masten, A. S. (1995). The changing importance of romantic relationship involvement to competence from late childhood to late adolescence. *Development and Psychopathology*, 7, 727–750.
- Roisman, G. I., Masten, A. S., Coatsworth, J. D., & Tellegen, A. (2004). Salient and emerging developmental tasks in the transition to adulthood. *Child Development*, 75, 123–134.
- Roscoe, B., Diana, M. S., & Brooks, R. H. (1987). Early, middle, and late adolescents' views on dating and factors influencing partner selection. *Adolescence*, 10, 157–174.
- Santelli, J., Lindberg, L., Abma, J., McNeely, C., & Resnick, M. (2000). Adolescent sexual behavior: Estimates and trends from four nationally representative surveys. *Family Planning Perspectives*, 32, 156–194.
- Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods*, 7, 147–177.
- Spielberger, C. D. (1983). *State-Trait Anxiety Inventory (Form y)*. Redwood City, CA: Mind Garden.
- Thomas, B. S., & Hsiu, L. T. (1993). The role of selected risk factors in predicting adolescent drug use and its adverse consequences. *International Journal of the Addictions*, 28, 1549.
- Trost, M., Langan, E. J., & Kellar-Guenther, Y. (1999). Not everyone listens when you “just say no”: Drug resistance in relational context. *Journal of Applied Communication Research*, 27, 120–138.
- Tukey, J. W. (1977). *Exploratory data analysis*. Boston: Addison-Wesley.
- Wolfe, D. A., & Feiring, C. (2000). Dating violence through the lens of adolescent romantic relationships. *Child Maltreatment*, 5, 360–363.
- Zabin, L. S., Hardy, J. B., Smith, E. A., & Hirsch, M. B. (1986). Substance use and its relation to sexual activity among inner-city adolescents. *Journal of Adolescent Health Care*, 7, 320–331.
- Zimmer-Gembeck, M. J., Siebenbruner, J., & Collins, W. A. (2001). Diverse aspects of dating: Associations with psycho-social functioning from early to middle adolescence. *Journal of Adolescence*, 24, 313–336.



Copyright of *Journal of Clinical Child & Adolescent Psychology* is the property of Lawrence Erlbaum Associates and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.