



Diverse aspects of dating: associations with psychosocial functioning from early to middle adolescence

MELANIE J. ZIMMER-GEMBECK, JESSICA SIEBENBRUNER AND W. ANDREW COLLINS

Theories imply that some aspects of adolescent dating behavior will be associated with individuals' positive psychosocial functioning, while other aspects will be associated with problems. This study addressed associations between diverse aspects of dating at age 16 and: (1) individual and social functioning at age 12 and at age 16; and (2) change in psychosocial functioning from age 12 to age 16. Controlling for physical maturity, overinvolvement in dating at age 16 was associated with poorer psychosocial functioning in early and middle adolescence and also predicted declines in functioning between the two ages. Level of dating experience and quality of romantic relationships were associated with social adaptation at age 16, especially in the friendship and dating domains.

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Introduction

The development of romantic interests has been identified as a hallmark of adolescence (Havighurst, 1972; Hartup, 1993). Most theoretical views regard adolescent romance as a subset of peer relationships, perhaps because from early to middle adolescence young people spend increasing time within mixed-sex peer groups (e.g. Dunphy, 1963; Furman *et al.*, 1999). Indeed, the formation of dyadic relationships with romantic partners becomes increasingly important during these periods (Douvain and Adelson, 1966; Sharabany *et al.*, 1981; Furman, 1993). Potential links between adolescent romantic relationships and other aspects of psychosocial functioning and development have been studied only rarely, however, despite extensive attention to the significance of peer relationships generally (e.g. Parker and Asher, 1987; Morison and Masten, 1991; Newcomb *et al.*, 1993).

The present study addresses this gap by examining the association between involvement in dating during middle adolescence (age 16) and the psychosocial functioning of adolescents, including emotional health, social competence, externalizing behavior, and academic motivation and performance. We also consider multiple domains of self-concept and self-worth that are characteristic of adolescent development, but have not been previously examined in connection with romantic experience (Collins and Sroufe, 1999).

Theorists have discussed the significance of close, emotion-laden relationships during adolescence more often with respect to friendships than dating relationships. For the most part, these formulations have emphasized positive developmental functions of friendships. Some proposals (e.g. Sullivan, 1953; Erikson, 1959) emphasize that close relationships with peers provide opportunities for social comparisons that can validate and enrich adolescents' perceptions, resulting in stronger and more consistent identities and increased behavioral and emotional autonomy (see also Harter, 1990; Collins and Repinski, 1994). Others (e.g.

Reprint requests and correspondence should be addressed to Melanie Zimmer-Gembeck, University of Minnesota, Institute of Child Development, 51 E River Rd, Minneapolis, MN 55455-0345, U.S.A. (E-mail: zimm0225@tc.umn.edu).

Youniss and Smollar, 1985) emphasize friendships as a distinctive context for acquiring social skills and affording practice in adult-like roles and behaviors (Stattin *et al.*, 1989; Buhrmester, 1990; Collins and Repinski, 1994).

Dating as an instance of friendship experience has been associated with the development of intimacy in most theories. Sullivan (1953) and Erikson (1959) both speculated that individuals who do not venture into dating in early and middle adolescence would not be sufficiently prepared for the developmental task of forming intimate relationships during late adolescence and early adulthood. Erikson (1959), however, also viewed the development of identity versus identity diffusion as utmost in importance during early and middle adolescence, expecting intimacy to be most salient during late adolescence and young adulthood. Consequently, preoccupation with dating and romance before consolidating identity could precipitate problems in adaptation and functioning.

Empirical findings, though sparse, are consistent with hypotheses that dating and romantic involvement are both normative in middle adolescence and related to varied indices of adaptation and functioning (Neemann *et al.*, 1995). Adolescents themselves typically report that romantic partners, like friends, are sources of intimacy, companionship, and support during adolescence (Youniss and Smollar, 1985; Hartup, 1989; Lempers and Clark-Lempers, 1993). These functions, however, are similar to the functions of other close associates. For example, early and middle adolescents identify the primary purposes of dating and romantic involvement as status, recreation, identity formation, and the establishment of autonomy from parents (Brown, 1999). The functions of dating and romantic relationships, however, change with age. Shulman and Kipnis (2001) suggest that facets of romantic relationships, such as care and commitment, become more important as adolescents grow older, while other aspects, such as companionship, become less important.

The likelihood of negative consequences for adolescent development and functioning may be greatest if adolescents begin to date very early or are overinvolved in dating. Young people who began dating early (e.g. before age 14) or who dated more frequently were more likely to use alcohol and drugs, and to participate in delinquent behavior (Wright, 1982; Thomas and Hsiu, 1993). In a prospective study, Neemann and colleagues (1995) found converging evidence that higher levels of romantic involvement in middle adolescence is linked to both earlier and concurrent problem behaviors: a positive relation with rule/law breaking behavior in both late childhood and middle adolescence; and a negative relation with academic competence in middle adolescence. By contrast, these authors found little evidence of links between romantic involvement in middle adolescence and individual competence in late adolescence. Indeed, measures of individual competencies remained fairly stable from middle to late adolescence (path coefficients ranged from 0.51 to 0.63). These findings raise the possibility that romantic involvement may have especially pronounced effects on psychosocial functioning by middle adolescence. Other longitudinal findings offered evidence that the nature and extent of the link between romantic involvement and psychosocial functioning may depend on the degree and kind of involvement in romantic activities. In a one-year study of middle adolescents, problem behaviors increased with increasing levels of casual dating, but problem behaviors and emotional distress declined as dating resolved toward steady relationships (Davies and Windle, 2000).

Merging theoretical perspectives and empirical findings on the positive and negative implications of dating during adolescence raises questions about possible links between psychosocial functioning in early and middle adolescence and different aspects of involvement in dating in middle adolescence, and associations of different aspects of dating

involvement and changes in psychosocial functioning from early to middle adolescence. In this study, we addressed these questions by examining concurrent and longitudinal relations between various aspects of dating involvement at age 16 and measures of individual and social functioning at age 16 and four years earlier. We also examined whether aspects of dating involvement were associated with *changes* in psychosocial functioning from age 12 to age 16. We adjusted our analyses for physical maturity, because patterns of adolescent dating have been found to exhibit individual differences that are partly influenced by pubertal maturation (androgens and the age of onset of menstruation; Udry, 1988; Phinney *et al.*, 1990).

We examined three closely related predictions. Predictions were derived from the theoretical contention that initiating dating too early and being overinvolved in dating and romance limits the exploration and commitment processes of identity formation (Marcia, 1966; Erikson, 1968). Because the significance of romantic relationships appears to depend on the kind and degree of activity involved, we chose three indicators of age 16 romantic relationships: overinvolvement in dating (the number of individuals dated in the last year), level of dating experience (ranging from having opposite sex friends and no dating to having at least one steady romantic relationship lasting 2 months or more), and quality of romantic relationship.

First, we predicted that lower emotional functioning, social competence, academic motivation and performance, and higher levels of externalizing behavior in early adolescence (age 12) would be associated with overinvolvement in dating during middle adolescence (age 16), but not the level of dating experience or quality of romantic relationships. A second, related prediction was that higher levels of overinvolvement in dating would be associated with declining psychosocial functioning from age 12 and age 16 including declining emotional health, increases in externalizing behaviors and internalizing symptoms, and decreasing school motivation and performance. Third, in contrast to overinvolvement with dating, we predicted that the level of dating experience in middle adolescence would be related positively to emotional and social functioning in early and middle adolescence, such as greater social competence and more positive self-concept. Finally, we expected that quality of romantic relationships at age 16 would not be reliably related to psychosocial functioning. Romantic relationships in early and middle adolescence are not yet a primary source of support and intimacy for most adolescents, so we did not expect the quality of these relationships to have significant associations with adolescents' individual and social functioning (Furman and Buhrmester, 1992; Gray and Steinberg, 1999).

Because gender differences pervade social relationships (e.g. Feiring, 1996; Shulman and Scharf, 2000), we examined both gender differences in romantic involvement and gender differences in associations between the three aspects of dating and psychosocial functioning. We expected that our findings would be qualified by patterns showing females more advanced than males in dating involvement and by stronger relations between dating and psychosocial functioning among females as compared to males.

Method

Participants

Participants were drawn from a 23-year longitudinal study of firstborn children of mothers living in poverty (original $n = 267$; see Egeland and Brunnuell, 1979). Women were receiving prenatal care in the Minneapolis Health Department between 1975–1977 and were

recruited for the study during their third trimesters of pregnancy. When the children were 2 years old, the retention rate was 79 per cent ($n = 212$). The primary reason for participant attrition was residential mobility. The mother's age at delivery ranged from 12 to 34 ($M = 20.5$, $S.D. = 3.6$). Sixty-two per cent of the mothers were unwed, and 40 per cent had not completed high school. Seventy-nine per cent of the mothers were Caucasian, 15 per cent African-American, and 7 per cent Latino-American, Native-American or Asian. Fifty-eight per cent of children had two white parents.

The current study included 167 adolescents (54% male). There were no differences between the longitudinal sample and those who were absent from one or more assessments when comparing age of mother at delivery; $F(1,265) = 0.01$, $p = 0.93$, prenatal socioeconomic status; $F(1,262) = 0.00$, $p = 0.96$, and mothers' prenatal education level; $F(1,256) = 0.25$, $p = 0.62$. A larger proportion of mothers in the longitudinal sample were white; $\chi^2 = 6.9$, $p < 0.01$. Overall, 84 per cent of participants in the longitudinal sample had white mothers; 69 per cent had two white parents.

Measures

Measures used in the current study were obtained when adolescent-participants were ages 12 to 16 years. No participants reported involvement with same-sex romantic partners at this time; consequently, all references to dating and romantic relationships refer to heterosexual relationships.

Dating and romantic involvement at age 16

Participants completed a dating interview during home visits at age 16. The semi-structured interview consisted of a series of questions regarding adolescents' attitudes, perceptions, and behaviors regarding dating and their current and/or previous steady romantic relationships. Three measures pertaining to romantic involvement at age 16 were derived from interview responses.

Overinvolvement with dating. Participants reported how many different people they had dated during the past year. The number of each participant's dating partners became the measure of overinvolvement with dating. The maximum number of different people dated was limited to 35 to reduce the effect of one outlier participant (a male who reported that he had dated 70 people in the last year). Scores ranged from 0 to 35.

Level of dating experience. A coding system was developed to assess adolescents' level of dating experience. Coding options included "no opposite sex friends and no dating," "opposite-sex friend and no dating," "dating casually," "short-term dating (dating someone for 2 months or less)," and "long-term dating (dating someone for more than 2 months)."

Quality of romantic relationship. Adolescents with romantic partners within the past year ($n = 131$, 78%) were asked three questions about the quality of their most recent relationship. These three items assessed satisfaction, closeness, and ease of sharing with the romantic partner ($\alpha = 0.77$). These items were averaged to form a quality of romantic relationship score for each participant. Scores ranged from 1 to 5.

Psychosocial functioning at age 12 and age 16

Emotional health. The measure of emotional health was a teacher nomination procedure developed by staff of the longitudinal study. When participants were 12 and again when they were 16, teachers were asked to rank order the students in their classes relative to written hypothetical descriptions of emotional health, with the student most closely resembling the description to be ranked at the top. Emotional health was defined as “she/he is not incapacitated by over-dependency, lack of self-control, distractibility, inhibition, anxiety, or an asocial orientation. She/he is confident, curious, self-assured, and engaging; enjoys new experiences and new challenges; and becomes involved in whatever she/he does.” Each student’s score on this measure was recorded as the ratio of the inverse of the student’s rank divided by the number of students in the class (i.e., if the student was ranked 11th in a class of 30, the student received a score of $0.66 = (30 - 11 + 1)/30$). A higher score indicated better emotional health.

Because a single teacher completed the rank orders, reliability figures are not available for the scales with this sample. In a separate study, however, counselors at a 4-week summer camp rank-ordered children’s emotional health. In this case, reliability coefficients ranged from 0.63 to 0.81 (Elicker *et al.*, 1992), and teacher rankings have shown significant stability from year to year (Hiester *et al.*, 1993).

Social competence with peers. The measure of peer competence involved a teacher nomination procedure developed by staff of the longitudinal study. The procedure is the same as that described for emotional health. Social competence with peers was defined as a “student being well liked by others and having clearly identifiable, mutual friends. Additionally, others respect her/him, and follow her/his ideas.” A higher score indicated better social competence with peers in the classroom.

Internalizing symptoms and externalizing behavior. When participants were in grade 6 (age 12), their teachers completed the Teacher’s Report Form (TRF) of the Child Behavior Checklist (CBCL) (Achenbach and Edelbrock, 1986). At age 16, participants’ English teachers completed similar ratings at the end of the school year. The measure was presented to teachers as part of a battery of measures of classroom adjustment. The measure asks teachers to assess each child using 113 items describing behavioral problems associated with early and middle adolescence.

In addition to teachers’ reports, participants’ primary caregivers (usually the mother) completed the Child Behavior Checklist/4-18: Parent Form (CBC; Achenbach, 1991a) during interviews conducted when the participants were 16-years-old. In addition, participants themselves completed the Child Behavior Checklist: Youth Self Report (YSR; Achenbach, 1991b) during home interviews when they were 16 years old. Primary caregivers rated 118 items based on their children’s behavior for the CBC. Adolescents rated 119 items based on their own behavior for the YSR. Eight subscale scores, an internalizing symptom, an externalizing behavior, and a total problem score were derived from the TRF, CBC and the YSR. All internalizing symptom and externalizing behavior scores were converted to normalized *t*-scores. TRF *t*-scores of internalizing and externalizing were used at age 12; the averages of the internalizing and externalizing *t*-scores from the three informants were used at age 16. Internalizing and externalizing were correlated at age 12, $r = 0.44$, $p < 0.001$, and at age 16, $r = 0.49$, $p < 0.001$.

Academic performance and motivation. At ages 12 and 16, teachers rated participants' academic performance and motivation using an 11-item scale created for this project. Scale items included enthusiasm for learning, persistence in completing work, ability to work independently and in groups, ability to express self verbally and in written work, concentration, attitude toward school, motivation, use of time, and response to criticism/limit setting. Teachers rated adolescent participants from very poor to excellent (range 1–5 rating at age 12, 1–7 rating at age 16). Internal reliabilities were high ($\alpha = 0.94$ at age 12; $\alpha = 0.96$ at age 16). Academic performance and motivation scores were computed by standardizing and averaging items.

Self-Perception Profile (age 16 only). Adolescent-participants completed the Self-Perception Profile for Adolescents when they were 16-years-old (Harter, 1986). This profile includes nine subscales. Eight subscales assess self-perceptions of competence in specific domains. An additional subscale assesses global self-worth. The eight domains include scholastic competence, social acceptance, athletic competence, physical appearance, job competence, romantic appeal, behavioral conduct and close friendships. Athletic competence was not examined in the current study. Correlations among the eight remaining scores ranged from 0.05 to 0.63. The lowest correlation was between scholastic competence and competence in close friendships. The highest correlations were between global self-worth and physical appearance, and between romantic appeal and physical appearance.

Appearance of physical maturity (age 13 only)

Adolescent-participants were videotaped interacting with their parents when they were 13 years old. Seven independent coders (3 males, 4 females) rated the adolescents on physical maturity after viewing segments of videotapes. Coders attended two training meetings to become familiar with the rating criteria, view videotapes, rate mature appearance, and discuss ratings to come to consensus. Coders then rated all available videotaped images of adolescent-participants. The ordering of videotapes was randomly determined for each coder.

The rating of physical maturity assessed an adolescent's observable level of physical development. Ratings of mature appearance ranged from "very immature appearance" (1) to "very mature appearance" (6). Voice and physical characteristics, including fat to muscle ratio, adult features, breast development and body proportions, were considered. Most adolescents were observed standing and sitting. The intraclass correlation between scores ($n = 7$ raters) was 0.64, $p < 0.01$. Mature appearance scores were calculated by averaging the ratings of all coders. Mature appearance was significantly negatively correlated with age of first menstruation ($r = -0.40$, $n = 70$).

Results

Data analyses began with an examination of descriptive statistics, zero-order correlations among variables, and gender differences in dating. Next, associations between dating in middle adolescence and change in psychosocial functioning between age 12 and 16, and gender differences in associations between dating and psychosocial functioning were

examined. Finally, we examined associations between dating and self-perceptions during middle adolescence.

Descriptive information and zero-order correlations

Table 1 shows means and standard deviations for all variables, as well as correlations between the three aspects of dating and other constructs. No correlation between aspects of dating was greater than 0.25. That is, the three measures of dating behavior appeared to reflect divergent aspects of involvement with the other sex.

Appearance of physical maturity was positively associated with level of dating experience, but was not associated with overinvolvement in dating or quality of romantic relationship. Adolescents who appeared more mature at age 13 had a higher level of dating experience at age 16.

Overinvolvement in dating at age 16 was related to a number of psychosocial problems in early and middle adolescence. Participants who had higher levels of overinvolvement in dating in middle adolescence had, at age 12, scored lower on measures of emotional health, lower in academic performance and motivation and higher on externalizing behavior. Participants with higher overinvolvement scores also had more problems at age 16, including lower emotional health, reduced social competence, more internalizing symptoms and externalizing behavior, lower academic performance and motivation, and lower self-perception of their behavioral conduct.

Level of dating experience was associated with some positive self-perceptions, as well as externalizing problems. On the positive side, participants with higher levels of dating involvement at age 16 had more positive self-perceptions of social acceptance, physical appearance and romantic appeal. However, those participants who had the highest levels of dating involvement also manifested more externalizing behavior. Finally, quality of romantic relationship was associated with more positive self-perceptions of social acceptance and romantic appeal, and was not associated with any psychosocial difficulties.

Gender differences in dating behavior

Four one-way analysis of variance models were used to compare the dating behaviors of males and females. In addition, the proportions of males and females involved in romantic relationships when interviewed at age 16 were compared using Pearson χ^2 . Few gender differences emerged. Mean levels of overinvolvement in dating were similar for males and females, $F(1,165) = 1.76, p > 0.05$. Scores for males and females also had similar levels of dating involvement, $F(1,160) = 1.71, p > 0.05$. Likewise, similar proportions of males and females had been involved in romantic relationships within in the past year when interviewed at age 16, 76 per cent of males and 82 per cent of females, $\chi^2 = 0.37, p > 0.05$, and reported similar positive qualities in their current/most recent romantic relationships, $F(1,129) = 0.08, p > 0.05$.

Prospective, autocorrelational models: romantic involvement and psychosocial functioning

Tables 2, 3 and 4 summarize the results of hierarchical linear regressions (2 steps) used to examine associations between dating behavior (overinvolvement in dating, level of dating experience, or quality of romantic relationship) and change in psychosocial functioning from early to middle adolescence. In each multiple linear regression model, the dependent variable was a measure of psychosocial functioning at age 16 (emotional health, social competence,

Table 1 Descriptive statistics and correlations of dating with psychosocial functioning

	M (S.D.)	Overinvolve-	Level of dating	Quality of
		ment in dating	experience	romantic relationship
		<i>r</i>	<i>r</i>	<i>r</i>
Dating				
Overinvolvement with dating	5.0 (5.6)	1.0		
Level of dating experience	3.2 (1.1)	0.20*	1.0	
Quality of romantic relationship	3.9 (0.8)	-0.11	0.20*	1.0
Age 12				
Emotional health	51.8 (29.3)	-0.18*	0.02	0.06
Social competence with peers	54.6 (29.1)	-0.14	0.13	0.02
Internalizing symptoms ^a	54.9 (8.7)	0.12	-0.01	0.00
Externalizing behavior ^a	55.0 (9.7)	0.18*	0.09	0.05
Academic performance and motivation ^b	0.0 (0.8)	-0.22**	0.03	0.02
Appearance of physical maturity (age 13)	3.1 (1.0)	0.08	0.24**	0.02
Age 16				
Emotional health	49.8 (25.4)	-0.31***	-0.10	-0.01
Social competence with peers	51.3 (25.6)	-0.17*	0.04	-0.05
Internalizing symptoms ^c	56.2 (7.1)	0.18*	0.03	0.01
Externalizing behavior ^c	52.4 (6.4)	0.39***	0.22**	0.09
Academic performance and motivation ^b	0.0 (0.8)	-0.36***	-0.12	-0.04
Self-perceptions/Self-worth				
Scholastic competence	13.7 (3.2)	-0.10	0.08	-0.03
Social acceptance	16.2 (2.7)	0.04	0.22*	0.28**
Physical appearance	14.1 (3.7)	0.08	0.16*	0.12
Job competence	15.3 (2.8)	-0.08	0.15	0.07
Romantic appeal	14.5 (3.2)	0.11	0.35***	0.36***
Behavioral conduct	14.3 (2.6)	-0.30***	-0.16	-0.08
Close friendship	16.8 (2.9)	0.01	0.10	0.07
Global self-worth	15.6 (3.1)	-0.10	0.02	0.14

N ranged from 125 (when examining quality of romantic relationship) to 166.

^aTeacher report.

^bItems standardized.

^cAverage of teacher, mother, and youth reports. Results were similar when analyses were repeated with teacher report only.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

internalizing symptoms, externalizing behavior, or school motivation and performance). The first step in each hierarchical regression model entered three independent variables, the age 12 equivalent of the dependent variable, appearance of physical maturity, and a measure of dating behavior (overinvolvement, level of dating experience or quality of romantic relationship). In the second step, gender and the interaction between gender and a measure of dating involvement were entered into the model. We first summarize results of step 1 that examined associations between dating and change in psychosocial functioning. Next, we summarize results of step 2 that examined gender differences in associations between dating and psychosocial functioning.

Table 2 Hierarchical regressions examining associations between overinvolvement in dating and psychosocial functioning

Model results	Independent variables				
	Overinvolvement in dating (O)	DV equivalent (Age 12)	Physical maturity	Gender (G)	O × G
DV = Emotional health (n = 152)					
Step 1, R ² = 0.17:					
B (SE B)	-1.13 (0.34)	0.24 (0.07)	2.38 (1.95)	—	—
β	-0.25**	0.28***	0.09	—	—
Step 2, R ² = 0.22:					
B (SE B)	1.11 (1.01)	0.20 (0.07)	0.93 (2.05)	16.81 (5.49)	-1.74 (0.76)
β	0.25**	0.23**	0.04	0.33**	-0.53*
DV = Social competence with peers (n = 152)					
Step 1, R ² = 0.15:					
B (SE B)	-0.52 (0.35)	0.31 (0.07)	-0.42 (2.00)	—	—
β	-0.11	0.35***	-0.02	—	—
Step 2, R ² = 0.17:					
B (SE B)	0.66 (1.05)	0.28 (0.07)	-1.59 (2.12)	7.20 (4.30)	xx
β	0.15	0.32***	-0.06	0.14	xx
DV = Internalizing symptoms (n = 155)					
Step 1, R ² = 0.11:					
B (SE B)	0.18 (0.09)	0.20 (0.06)	0.30 (0.50)	—	—
β	0.16*	0.26**	0.05	—	—
Step 2, R ² = 0.13:					
B (SE B)	0.20 (0.09)	0.21 (0.06)	0.05 (0.54)	1.77 (1.09)	xx
β	0.17*	0.28**	-0.01	0.14	xx

Table 2 (Continued)

Model results	Independent variables				
	Overinvolvement in dating (O)	DV equivalent (Age 12)	Physical maturity	Gender (G)	O × G
DV = Externalizing behavior (n = 155)					
Step 1, R ² = 0.30:					
B (SE B)	0.43 (0.09)	0.26 (0.05)	0.71 (0.49)	—	—
β	0.34***	0.36***	0.10	—	—
Step 2, R ² = 0.34:					
B (SE B)	-0.17 (0.26)	0.27 (0.05)	0.40 (0.52)	-0.76 (1.38)	0.50 (0.20)
β	-0.14	0.36***	0.06	-0.05	0.53*
DV = Academic performance and motivation (n = 152)					
Step 1, R ² = 0.26:					
B (SE B)	-0.04 (0.01)	0.39 (0.08)	-0.02 (0.06)	—	—
β	-0.27***	0.37***	-0.02	—	—
Step 2, R ² = 0.28:					
B (SE B)	0.02 (0.03)	0.36 (0.09)	-0.04 (0.07)	0.36 (0.18)	-0.05 (0.02)
β	0.16	0.34***	-0.05	0.22*	-0.46*

Note. The interaction (O × G) between overinvolvement in dating and gender was removed from the model if it was not significant ($p > 0.05$; indicated by xx).
 —Not included in the step. DV = Dependent variable. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 3 Hierarchical regressions examining associations between level of dating experience and psychosocial functioning

Model results	Independent variables				
	Level of dating experience (L)	DV equivalent (Age 12)	Physical maturity	Gender (G)	L × G
DV = Emotional health (n = 147)					
Step 1, R ² = 0.11:					
B (SE B)	-2.48 (1.86)	0.28 (0.07)	2.10 (2.11)	—	—
β	-0.11	0.32***	0.08	—	—
Step 2, R ² = 0.14:					
B (SE B)	-2.43 (1.83)	0.21 (0.08)	0.40 (2.22)	10.10 (4.57)	xx
β	-0.11	0.24**	0.02	0.20*	xx
DV = Social competence (n = 147)					
Step 1, R ² = 0.11:					
B (SE B)	-0.44 (1.88)	0.30 (0.07)	-0.88 (2.11)	—	—
β	-0.02	0.34***	-0.03	—	—
Step 2, R ² = 0.13:					
B (SE B)	-0.34 (1.87)	0.26 (0.07)	-2.13 (2.20)	7.79 (4.38)	xx
β	-0.02	0.30***	-0.08	0.15	xx
DV = Internalizing symptoms (n = 151)					
Step 1, R ² = 0.09:					
B (SE B)	0.14 (0.48)	0.21 (0.06)	0.46 (0.54)	—	—
β	0.02	0.28**	0.07	—	—
Step 2, R ² = 0.10:					
B (SE B)	0.12 (0.48)	0.22 (0.06)	0.19 (0.57)	1.56 (1.11)	xx
β	0.02	0.29***	0.03	0.12	xx

Table 3 (Continued)

Model results	Independent variables				
	Level of dating experience (L)	DV equivalent (Age 12)	Physical maturity	Gender (G)	L × G
DV = Externalizing behavior (n = 151)					
Step 1, R ² = 0.22:					
B (SE B)	0.94 (0.49)	0.31 (0.05)	0.67 (0.54)	—	—
β	0.15	0.42***	0.09	—	—
Step 2, R ² = 0.22:					
B (SE B)	0.92 (0.49)	0.32 (0.06)	0.49 (0.57)	1.01 (1.14)	xx
β	0.14	0.43***	0.07	0.07	xx
DV = Academic performance and motivation (n = 147)					
Step 1, R ² = 0.20:					
B (SE B)	-0.09 (0.06)	0.44 (0.08)	-0.03 (0.07)	—	—
β	-0.12	0.43***	-0.03	—	—
Step 2, R ² = 0.20:					
B (SE B)	-0.09 (0.06)	0.40 (0.09)	-0.05 (0.07)	0.15 (0.15)	xx
β	-0.12	0.39***	-0.06	0.09	xx

Note. The interaction (L × G) between level of dating experience and gender was removed from the model if it was not significant ($p > 0.05$; indicated by xx). —Not included in the step. DV = Dependent variable. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 4 Hierarchical regressions examining associations between quality of romantic relationship and psychosocial functioning

Model results	Independent variables				
	Quality of romantic relationship (Q)	DV equivalent (Age 12)	Physical maturity	Gender (G)	Q × G
DV = Emotional health (n = 122)					
Step 1, R ² = 0.09:					
B (SE B)	0.09 (2.81)	0.25 (0.08)	2.48 (2.36)	—	—
β	0.00	0.28**	0.09	—	—
Step 2, R ² = 0.11:					
B (SE B)	0.01 (2.79)	0.20 (0.08)	0.83 (2.57)	8.15 (5.11)	xx
β	0.00	0.22*	0.03	0.16	xx
DV = Social competence (n = 122)					
Step 1, R ² = 0.11:					
B (SE B)	-1.08 (2.80)	0.29 (0.08)	-0.12 (2.36)	—	—
β	-0.03	0.33***	-0.01	—	—
Step 2, R ² = 0.12:					
B (SE B)	-1.23 (2.80)	0.27 (0.08)	-1.43 (2.58)	6.21 (4.91)	xx
β	-0.04	0.31**	-0.05	0.12	xx
DV = Internalizing symptoms (n = 124)					
Step 1, R ² = 0.04:					
B (SE B)	0.14 (0.70)	0.14 (0.07)	0.48 (0.58)	—	—
β	0.02	0.19*	0.07	—	—
Step 2, R ² = 0.05:					
B (SE B)	0.12 (0.71)	0.14 (0.07)	0.33 (0.64)	0.68 (1.24)	xx
β	0.02	0.20*	0.05	0.06	xx

Table 4 (Continued)

Model results	Independent variables				
	Quality of romantic relationship (Q)	DV equivalent (Age 12)	Physical maturity	Gender (G)	Q × G
DV = Externalizing behavior (n = 124)					
Step 1, R ² = 0.18:					
B (SE B)	0.55 (0.75)	0.31 (0.06)	0.81 (0.62)	—	—
β	0.06	0.41***	0.11	—	—
Step 2, R ² = 0.18:					
B (SE B)	0.51 (0.75)	0.32 (0.06)	0.54 (0.68)	1.20 (1.33)	xx
β	0.06	0.42***	0.07	0.08	xx
DV = Academic performance and motivation (n = 122)					
Step 1, R ² = 0.17:					
B (SE B)	-0.06 (0.09)	0.42 (0.09)	-0.03 (0.08)	—	—
β	-0.06	0.41***	-0.03	—	—
Step 2, R ² = 0.17:					
B (SE B)	-0.07 (0.09)	0.38 (0.10)	-0.07 (0.08)	0.17 (0.17)	xx
β	-0.06	0.37***	-0.07	0.10	xx

Note. The interaction (Q × G) between quality of romantic relationship and gender was removed from the model if it was not significant ($p > 0.05$; indicated by xx). —Not included in the step. DV = Dependent variable. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Step 1: dating and psychosocial functioning

Overinvolvement in dating was significantly associated with emotional health, internalizing symptoms, externalizing behavior, and academic performance and motivation at age 16 after adjustment for the equivalent measures of psychosocial functioning at age 12, but overinvolvement was not associated with change in social competence (Table 2). Therefore, individuals who had higher levels of overinvolvement in dating at age 16 also had greater declines in emotional health between early and middle adolescence. In addition, they had greater increases in internalizing symptoms and externalizing behavior, and greater declines in academic performance and motivation between age 12 and age 16. In contrast, level of dating experience (Table 3) and quality of romantic relationship (Table 4) were not associated with emotional health, social competence, internalizing symptoms, externalizing behavior or academic performance and motivation at age 16 after accounting for equivalent measures of psychosocial functioning at age 12.

Step 2: gender differences

Overinvolvement in dating was related to psychosocial functioning differently for males and females (Table 2). The interaction of gender and overinvolvement with dating was significantly related to changes in emotional health, externalizing behavior, and academic performance and motivation. These interactions are illustrated in Figures 1, 2 and 3. In all cases, overinvolvement in dating was significantly associated with changes in psychosocial functioning among both males and females, but overinvolvement in dating was associated with greater declines in psychosocial functioning among females than males. For example, Figure 1 shows the change in emotional health ranking from age 12 to age 16 at different levels of overinvolvement in dating among females as compared to males.¹ On average, the emotional health ranking increased more than 10 points from age 12 to age 16 among females who, at age 16, had dated a low number (2) of people in the past year, but declined more than 20 points among females who had dated a high number (15) of people ($\beta = -0.37, p < 0.01$). Among males who reported dating a low number of people in the past year at age 16, emotional health ranking decreased by about 2 points from age 12 to age 16, but declined by about 10 points among males who had dated a large number of people in the past year ($\beta = -0.19, p = 0.08$). Similarly, compared to males, females with higher levels of overinvolvement in dating at age 16 had a greater increase in externalizing behavior from early to middle adolescence (Figure 2) as well as a steeper decline in academic performance and motivation (Figure 3).

Dating and self-concept at age 16

Table 5 shows partial correlations (controlling for appearance of physical maturity) of the three measures of dating involvement and domain-specific self-perceptions at age 16. In general, those individuals who were more overinvolved in dating at age 16 also had more negative self-perceptions of their behavioral conduct. Although individuals with higher scores on level of dating experience also reported more negative self-perceptions of their behavioral conduct, their self-perceptions of social acceptance, romantic appeal, and physical appearance were more positive than those with lower levels of dating involvement. Finally,

¹Because emotional health scores at age 12 and physical maturity at age 13 were effects in the multiple regression models, the three figures assume an average level of psychosocial functioning at age 12 (emotional health = 50, externalizing behavior = 50, academic performance and motivation = 0) and an average possible rating of appearance of physical maturity at age 13 (3) (see Jaccard *et al.*, 1990).

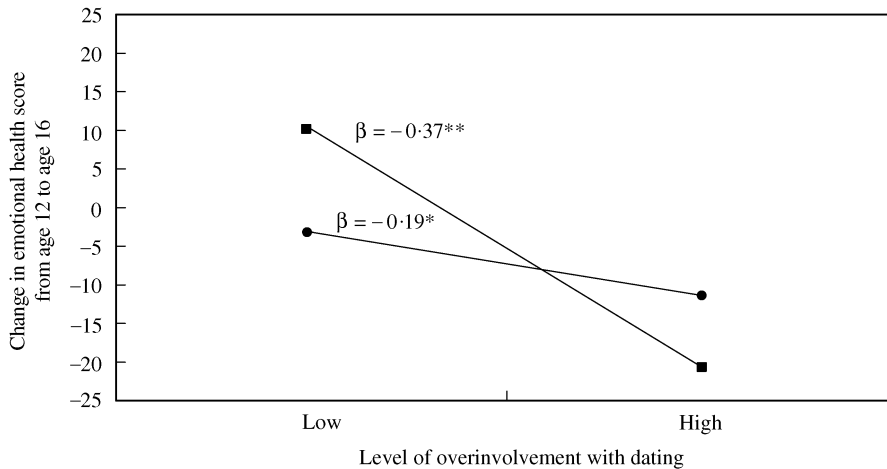


Figure 1. Expected change (from a score of 50) in emotional health ranking from age 12 to 16 among males (●) and females (■) who had low or high levels of overinvolvement in dating in the past year.

Note. The following regression equation was used to calculate values: $18.48 + 0.20E + 0.93M + 1.11O + 16.81S - 1.74O \times S$ where E = average possible emotional health ranking at age 12 (50); M = average possible appearance of maturity score (3); O = overinvolvement in dating (2 or 15); S = sex (1 or 2). * $p < 0.10$, ** $p < 0.01$.

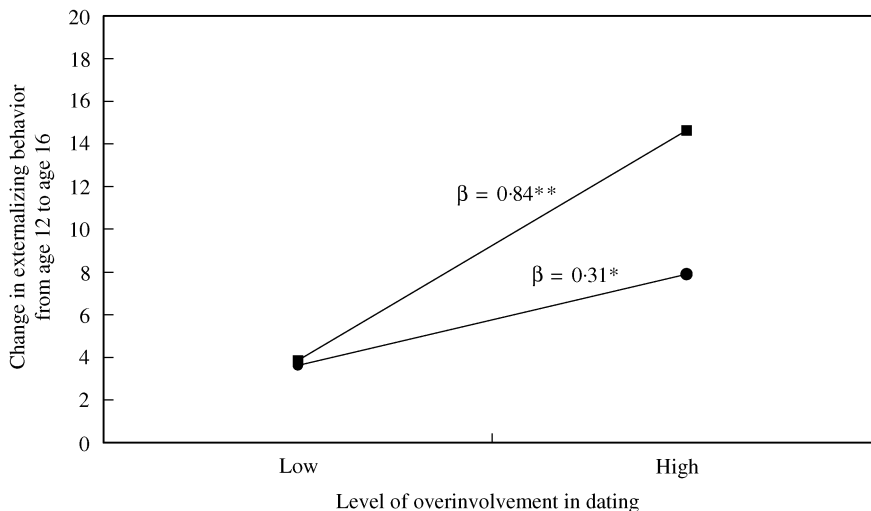


Figure 2. Expected change (from a score of 50) in externalizing behavior from age 12 to 16 among males (●) and females (■) who had low or high levels of overinvolvement in dating in the past year.

Note. The following regression equation was used to calculate values: $39.02 + 0.27X + 0.40M - 0.17O - 0.76S - 0.50O \times S$ where X = average possible externalizing score at age 12 (50); M = average possible appearance of maturity score (3); O = overinvolvement in dating (2 or 15); S = sex (1 or 2). * $p < 0.01$, ** $p < 0.001$.

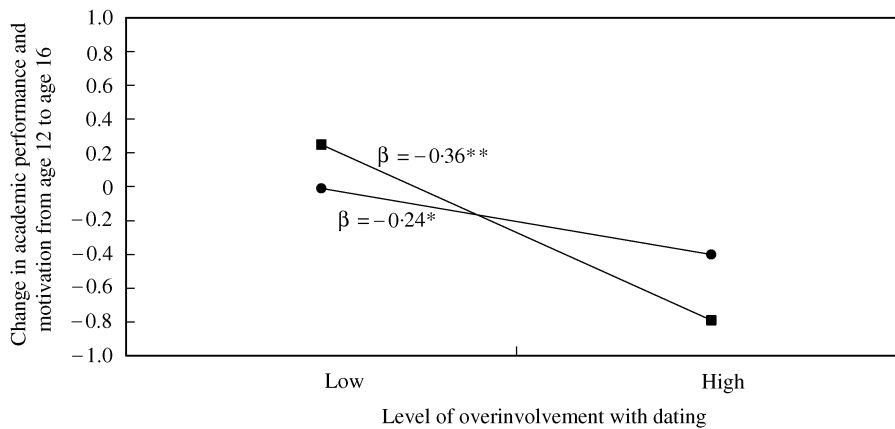


Figure 3. Expected change (from a score of 0) in academic performance and motivation from age 12 to 16 among males (●) and females (■) who had low or high levels of overinvolvement in dating in the past year.

Note. The following regression equation was used to calculate values: $-0.19 + 0.36P - 0.04M + 0.02O + 0.36S - 0.05O \times S$ where P = average possible academic performance/motivation at age 12 (0); M = average possible appearance of maturity score (3); O = overinvolvement in dating (2 or 15); S = sex (1 or 2). * $p < 0.05$, ** $p < 0.01$.

quality of romantic relationships was associated with more positive self-perceptions of social acceptance and romantic appeal. Adolescents who reported being more satisfied and close with their current/recent romantic partners also perceived themselves as more socially accepted and romantically appealing.

Multiple linear regression analysis was used to examine gender differences in associations between self-perceptions and the three aspects of dating. In each model the dependent variable was a measure self-concept (e.g. self-perception of social acceptance). Independent variables included a measure of dating (e.g. overinvolvement), physical maturity, gender, and the interaction between gender and dating. All independent variables were entered simultaneously. No gender differences in associations between dating and self-perceptions were found (data not shown), all $ps > 0.10$. However, females had more negative perceptions of their physical appearance ($\beta = -0.28$, $p < 0.01$), romantic appeal ($\beta = -0.19$, $p < 0.05$), and global self-worth ($\beta = -0.19$, $p < 0.05$) when compared to males, whereas males' had more negative perceptions of their competence in close friendships than females ($\beta = 0.20$, $p < 0.05$).

Discussion

These results reveal diverse aspects of dating during middle adolescence, which together illuminate the complex nature of adolescents' emerging romantic interests. Consistent with theoretical implications, some aspects of dating appear to provide companionship, support, and intimacy, and indicate increasingly positive self-perceptions (Sharabany *et al.*, 1981; Furman and Buhrmester, 1992; Neemann *et al.*, 1995; Richards *et al.*, 1998). At the same time, the present data extend some earlier reports that overinvolvement in dating, especially at an early age, is associated with behavioral problems and lower psychosocial functioning.

Table 5 *Partial correlations (controlling for appearance of physical maturity) of dating and self-concept at age 16*

Self-concept/self-worth	Overinvolvement with dating	Level of dating experience	Quality of romantic relationship
Scholastic competence	-0.10	0.08	-0.03
Social acceptance	0.04	0.24**	0.29**
Physical appearance	0.06	0.24**	0.11
Job competence	-0.12	0.12	0.07
Romantic appeal	0.10	0.35***	0.36***
Behavioral conduct	-0.33***	-0.17*	-0.04
Close friendship	0.00	0.09	0.09
Global self-worth	-0.11	0.05	0.18*

N ranged from 125 (when examining quality of romantic relationships) to 166.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Overinvolvement with dating at age 16, as evinced by dating a larger number of people in the past year, is associated with more psychosocial and behavioral problems in early adolescence and with significant declines in functioning between early and middle adolescence. The strong association of overinvolvement in dating with earlier problems is the primary evidence that this manifestation of romantic interests represents continuity in maladaptation, or perhaps a compensatory process in which some individuals increase involvement in dating because of failures in other domains such as academics. Yet, most importantly, overinvolvement is associated with increasing problems during adolescence including increasing internalizing symptoms and externalizing behavior, and decreasing emotional health and school motivation and performance. In sum, it seems that overinvolvement in dating may exacerbate problems of early adolescence and/or escalating problems during adolescence (such as externalizing behavior or internalizing symptoms) may lead to overinvolvement in dating by middle adolescence.

These findings are consistent with several implications of theoretical views of adolescent peer relationships and psychosocial development. One possible explanation for the relation between overinvolvement in dating and increasing problems from early to middle adolescence is that male and female adolescents who have some earlier problems with psychosocial functioning have dating partners with similar behavioral and functional problems (Capaldi and Crosby, 1997; Quinton *et al.*, 1993). These new interactions may exacerbate the problems of both partners and provide a new context within which problem behaviors can arise and escalate. A second possible explanation is that overinvolvement requires high levels of emotion, energy, and motivation, displacing other domains such as academics. Adolescents who are managing a high number of different dating partners in one year must be quite busy meeting, phoning, talking, and interacting with potential and actual dating partners. These adolescents probably also experience a high number of break-ups, conflicts and, perhaps, rejections that can result in emotional turmoil and potentially affect emotional health (Larson *et al.*, 1999; Monroe *et al.*, 1999).

In contrast to the negative aspects of functioning associated with overinvolvement in dating during middle adolescence, level of dating experience, ranging from not dating and having no involvement with the other sex to dating someone for two months or more, and

quality of romantic relationship (satisfaction, closeness, and ease of sharing) at age 16 were associated with greater competence in peer social domains (friendship and dating). Most of the benefits of the level of dating experience appear to come from feelings of social acceptance and attractiveness to other sex peers. Brown (1999) recently proposed a developmental theory of dating that includes four phases: initiation, status, affection, and bonding. The average age of initiation of dating and the first romantic relationship is about age 14 (Zimmer-Gembeck, 1999). Hence, by age 16, most adolescents who are making some progress in their level of romantic involvement and those who have formed somewhat more positive romantic relationships are likely in the second, status phase. In this stage, the formation and maintenance of romantic relationships are strongly influenced by the peer group (as they were in the initiation phase), and are primarily engaged in to develop identity and self-concept, and increase belonging and status with peers. The present findings confirm that adolescents who had made some competent progress toward romantic commitment reported more feelings of "fitting in" with the peer group.

Similarly, adolescents who reported higher quality romantic relationships had more positive conceptions of their social acceptance and romantic appeal. Yet, as predicted, adolescent reports of the positive quality of their romantic relationships were not associated with earlier or concurrent psychosocial functioning. We propose that, at this age, young people continue to rely on friends and parents for more of their support at age 16, so the quality of their romantic relationships will have little association with their psychosocial functioning (Furman and Buhrmester, 1992). An alternative explanation, however, is that adolescents' self-reports of the general qualities of their romantic relationships are not always accurate representations of the day-to-day involvement with partners and the support they receive in these relationships. Adolescents who differ in experience will likely provide self-reports of their relationships that would differ systematically from the observed nature of their relationships or their more descriptive accounts of their relationships (Pawlby *et al.*, 1997). Discrepant accounts of the quality of romantic relationships also seem to be more common among individuals in high-risk groups. Comparing the romantic relationships of female adolescents who had been referred to social services to a comparison group, Pawlby and colleagues (1997) found that high risk girls' abstract descriptions of relationships with boyfriends often were not congruent with their descriptions of the actual events in their relationships.

In contrast to much previous research (Sharabany *et al.*, 1981; Lempers and Clark-Lempers, 1993; Connolly and Johnson, 1996; Richards *et al.*, 1998; Shulman and Scharf, 2000), the present findings showed few gender differences in dating in middle adolescence. Females did not differ from males when comparing overinvolvement in dating, level of dating experience or self-reported quality of relationships, and overinvolvement in dating at age 16 is associated with declines in emotional and behavioral functioning from age 12 to age 16 among males and females. Yet, females who are more overinvolved in dating at age 16 manifested steeper declines in functioning from early to middle adolescence than males. These findings accord with previous reports that dating among females, especially frequent dating, involvement with older males, and early sexual behavior, is associated with problems such as lower future goals (Gargiulo *et al.*, 1987), reduced academic achievement, more negative affect, more stress, and more problem behaviors (Magnusson *et al.*, 1985; Simmons and Blyth, 1987; Billy *et al.*, 1988). These findings together imply that the social processes associated with gender differences in this area may involve multiple interpersonal and individual elements.

Although the onset of dating is better predicted by age norms than physical maturity (Dornbusch *et al.*, 1981), previous research has found that physical maturation is related to norms of dating behavior. In a nationally representative survey of adolescent females, girls reported beginning to date about 2.5 years after menarche (Phinney *et al.*, 1990). In a longitudinal study of Finnish eighth grade girls, 70 per cent of girls that experienced menarche at age 12 or earlier were dating at age 16, while only 48 per cent of girls who experienced menarche at age 14 or later were dating at this age (Aro and Tiapale, 1987). In this study, appearance of physical maturity at age 13 was correlated with only one aspect of dating involvement at age 16, and physical maturity alone did not account for any of the associations between dating behavior and psychosocial functioning summarized here.

The findings of this study begin to distinguish divergent features of dating during adolescence that have differential associations with psychosocial functioning. The longitudinal design with a focus on the development of psychosocial difficulties and social relationships in a group of adolescents at high-risk because of poverty results in a sample in which many adolescents have been involved in romantic relationships and experienced problems. At the same time, it is likely that, on average, the participants in this study were more involved in dating at age 16, and probably initiated romantic involvement somewhat earlier in the life course, than the general population of 16-year-olds in the U.S. The present sample included a fairly small group of children born to poverty in the Midwestern U.S. Young people from lower socio-economic status groups tend to date and form romantic relationships earlier, and spend more time with their romantic partners earlier in the life course than adolescents from middle and upper status groups (Hendry *et al.*, 1993). This appears to be the case with the adolescents in the current longitudinal study. Whereas previous work has found that less than 60 per cent of adolescents have romantic relationships when they are about age 16 (Zimmer-Gembeck, 1999), almost 80 per cent of the participants at age 16 reported a romantic relationship in the last year. Moreover, previous researchers have reported racial/ethnic differences in sexual behavior during adolescence (Miller and Benson, 1999). Although the present sample is racially and ethnically mixed, small sample sizes prevented examination of differences in the impact of dating on psychosocial functioning among subgroups.

Nevertheless, findings now available point to several directions for further research. First, future researchers should investigate the challenges and motivations that different adolescents experience as they begin to date and establish romantic relationships (or do not develop romantic relationships) and also determine how adolescents manage these challenges. Adolescents with emotional health problems and externalizing behaviors in early adolescence may seek romantic relationships to increase their belonging and status with peers, but also may form relationships with others with similar problems. For some youth, the rejection and conflict that often accompany dating may be particularly detrimental to emotional health. For example, a break-up with a romantic partner has been linked to first episodes of major depressive disorder in adolescence (Monroe *et al.*, 1999). A challenge for researchers in conducting studies of relationship trajectories is that both age and dating experience are associated with the nature and meaning attached to romantic relationships (e.g. quality of romantic relationships and an understanding of the meaning of love; Shulman and Scharf, 2000), thus introducing a potential confound in differentiating among possible developmental pathways.

Second, more research is needed to examine recently proposed developmental theories of romantic relationships during adolescence (Furman *et al.*, 1999). Some of these theories

provide complementary or contradictory hypotheses that await empirical investigation. For example, some theories suggest that establishing self-perceptions, forming an identity, and establishing autonomy from parents and peers while “performing” in romantic relationships are most salient during middle adolescence (e.g. Brown, 1999). One implication of this view is that a particularly adaptive romantic context for psychosocial functioning in this period of development may be “pseudointimate” relationships that permit balanced roles between the partners, room to explore individuality (Orlofsky, 1976), and opportunities to explore relationships without pressures to make commitments before emotional maturity has been achieved (Neemann *et al.*, 1995). In this scenario, early adolescent romantic relationships would be most closely linked to the peer group and peer group status would be influential in the formation, maintenance, nature, and meaning of romantic relationships. Other theorists (Samet and Kelly, 1987; Feiring, 1996), however, note that superficial romantic relationships can involve a lack of trust and difficulties balancing changing needs for autonomy and intimacy. These experiences may challenge adolescents’ emotional maturity and the development of identity. Still other theorists (Collins and Sroufe, 1999) place less emphasis on peer group status and focus on the capacity for intimacy that is rooted in caregiver–child relationships and friendships, and differentiate dating (“transitory and/or opportunistic affiliation”, p. 135) from more committed relationships.

Although the examination of various aspects of dating at age 16 offers only a rudimentary view of the development of mature forms of intimacy, romantic interests at this age do indicate an expansion of adolescents’ social worlds to include a new form of relationship. In turn, this new form of relationship often affords the development of mature intimacy and new attachment relationships. Although problems appear for some adolescents, resulting in steep declines in psychosocial functioning and behavior, the transition to dating and romantic involvement are important turning points along a developmental pathway (Rutter, 1996). Further research is needed to refine our definitions and measures in order to better understand the psychosocial and behavioral outcomes associated with positive features, as well as the deviant and problem features, of romantic relationships between late childhood and early adulthood.

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