

Emotional and Behavioral Effects of Romantic Relationships in Chinese Adolescents

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Received: 20 January 2009 / Accepted: 11 March 2009 / Published online: 28 March 2009
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Abstract Adolescents' romantic relationships have been associated with higher levels of depression, although their links with externalizing behavioral problems remain unclear. The present study examined the impact of adolescent romantic relationships on depression and externalizing behaviors in a large sample of 10,509 Chinese secondary school students (ages 12–19, 54.5% female). The results showed that romantic involvement in adolescence, especially in early adolescence, was associated with more depressive symptoms and behavior problems. Breakups in romantic relationships were an important factor in producing the negative emotional and behavioral consequences. Romantically involved girls experienced higher levels of depressive symptoms, while romantically involved boys had higher levels of externalizing behaviors, compared to their non-dating peers. The results also indicated that the adverse impact was stronger for those involved in romantic relationships at younger ages.

Keywords Adolescent romantic relationships · Depression · Externalizing problems · Gender and age differences

Introduction

Romantic relationships have a considerable impact on a person's well-being (Collins 1997, 2003). Romantic involvement (RI) typically starts and increases in adolescence (Furman and Shaffer 1999). Although adolescent romantic relationships are perhaps the most frequent subject of fictitious novels, scientific investigation of this phenomenon had remained rare until fairly recently (Furman 2002). Researchers increasingly noted the important and long-lasting emotional and behavioral impact exerted by adolescent romantic relationships (Collins 2003). Classic theories of interpersonal relationships hold a positive view of romantic relationships in adolescence (Erikson 1968; Sullivan 1953). These theorists proposed that forming a romantic relationship during adolescence was essential for adolescents' identity formation. More recently, Collins (1997) suggests that participation in dating and other forms of romantic involvement is a welcomed developmental milestone. Indeed, romantic partners were found to be an important source of social support (Seiffge-Krenke 2003). Romantic involvement has been found to increase feelings of self-worth (Connolly and Konarski 1994; Kuttler et al. 1999). By late adolescence, self-perceived competence in romantic relationships emerges as a reliable component of general competence (Masten et al. 1995).

Recently, however, researchers have been increasingly aware that the influence of romantic relationships in adolescence is considerably more complex than a uniformly positive picture painted by classic theorists (Collins 2003; Furman 2002; Joyner and Udry 2000). A growing body of evidence has shown a negative impact of romantic relationships on adolescents' emotional experience and behavioral problems (Compian et al. 2004; Joyner and Udry 2000; Neemann et al. 1995; Simmons et al. 1979).

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Joyner and Udry (2000), for example, drawing on data from the National Longitudinal Study of Adolescent Health (Add Health), found that adolescents who had begun romantic relationships in the past year manifested more symptoms of depression and delinquency than those not in a romantic relationship during the same period. Other researchers also have reported that dating in early adolescence was associated with poorer psychosocial adjustment, including escalated mood swings, poorer self-esteem, lower academic achievement, more alcohol and substance abuse, earlier involvement in sexual activity, and behavior problems in American adolescents (Davila et al. 2004; Haynie 2003; Larson et al. 1980; Neemann et al. 1995).

Several explanations are offered as to why adolescent romantic involvement exerts such a negative impact on adolescent development. For instance, adolescent romantic relationships may produce high stress (Nieder and Seiffge-Krenke 2001; Laursen 1995), including interpersonal conflicts, challenges of coping with sexual feelings, and hassles associated with management of romantic and other social relationships at the same time (Zimmer-Gembeck 2002). It may also come from heightened tensions in their friend networks. Early dating adolescents may experience more guilt and other negative emotions with their friends (Clark-Lempers et al. 1991; Larson and Richards 1991). Romantic involvement may also change the way adolescents perceive themselves: early dating girls may have deflated body image and elevated depressive symptoms (Compian et al. 2004; Smolak et al. 1993), partly because they are more concerned about their attractiveness. Less noted, however, is an important and stressful event, breakup (BK), which most frequently accompanies adolescent romantic relationships. Involvement in romantic relationships, after all, is the basis for a breakup. Indeed, breakups of romantic relationships are the most common trigger of the first episode of major depressive disorder (Monroe et al. 1999). Joyner and Udry (2000) found that adding breakups into their regression model knocks the main effects of involvement variables out of significance in explaining the elevated depressive symptoms.

Gender Differences

The negative effect of adolescent romantic relationships, as noted above, is not at all uniform but varied by gender, age, and culture. Perhaps due to their greater emotional engagement to romance (Shulman and Scharf 2000), girls appeared to be more *emotionally* vulnerable to the negative impact of romantic relationships (Joyner and Udry 2000; Natsuaki et al. 2009). For example, in a longitudinal research on 228 German adolescents, Beyers and Seiffge-Krenke (2007) found that negativity in relationships with friends and romantic partners contributed more strongly to

internalizing symptoms in females than in males. Interestingly, however, Joyner and Udry (2000) found that romantically involved boys and girls were equally vulnerable to *behavioral* problems such as alcohol use and delinquency. Similarly, other studies also found the negative effect of dating on boys' behavioral problems (Beyers and Seiffge-Krenke 2007; Vitaro et al. 1997; Zimmer-Gembeck et al. 2001). It is possible, then, that girls and boys may manifest vulnerability to the negative impact of early romantic involvement differentially; girls may express it through their internalizing symptoms while boys through externalizing symptoms. The present study was set out to examine this gender difference.

Age Differences

We expected the negative impact of romantic involvement to decrease with age, as romantic involvement becomes increasingly normative with age (Carver et al. 2003) and short-term infatuation is increasingly replaced by more stable and longer-term commitment (Seiffge-Krenke 2003). This expectation is also based on the fact that older adolescents place more emphasis on intimate, mutual support, communality, interdependence, and compatibility rather than on superficial features and approval by others (Zani 1995). As older adolescents gain more mature conflict resolution skills and accumulate more inner strength for coping with stress resulted from breakups (Feldman and Gowen 1998), the negative impact of romantic involvement is expected to decrease with age. Indeed, existing studies indicate that the negative effect of romantic relationships is particularly pronounced during early adolescence (Neemann et al. 1995; Simmons et al. 1979). Studies conducted by Neemann et al. (1995) and Natsuaki et al. (2009) showed that the damaging effects of romantic involvement disappeared as adolescents became older.

Cultural Influence

The impact of romantic involvement evidently varies by culture, as each culture prescribes its "expected timing" and "appropriate characteristics" of romantic relationships differently (East 1998; Feldman et al. 1999). In China, parents traditionally hold an unfavorable view towards adolescent dating. The so-called "precocious love" (*Zao Lian*) is often viewed as an inappropriate behavior by parents and teachers and is subject to parental discipline. Early dating adolescents are faced with significant pressure from parents and society at large (Wu 1996). Thus, studying the impact of romantic relationships on Chinese adolescents presents an important case for examining cultural influences. Among Chinese adolescents, romantic involvement appears less prevalent compared to those in

Western cultures. Since it is less normative, the influence of adolescent romantic involvement may be more negative. However, most published research on adolescent romantic relationships were carried out in Western cultures. No empirical research we are aware of has been conducted in Chinese culture. This study was, therefore, designed to fill the gap in our knowledge about the impact of romantic involvement on adolescents in Chinese culture.

The Present Study

To examine the effect of romantic relationships on Chinese adolescents' emotional and behavioral problems, we structured the present study around the following hypotheses. First, we expected to find a significant negative effect of adolescent romantic relationships in a large Chinese sample (Hypothesis 1). Second, we expected the negative impact to be largely derived from breakups in romantic relationships. That is, we hypothesized that breaking up with one's romantic partner would be especially important in increasing adolescents' emotional and behavioral problems and should explain a significant part of the variance in the negative effect (Hypothesis 2). Third, we hypothesized that romantically involved adolescent girls should be more emotionally vulnerable than boys, whereas romantically involved boys to be more behaviorally vulnerable than girls. That is, girls' vulnerability to romantic involvement was expected to be expressed in heightened depressive symptoms, while boys' vulnerability was expected to be expressed in escalated externalizing behaviors (Hypothesis 3). Fourth, we hypothesized that the negative effect of romantic involvement should vary by age (Hypothesis 4). That is, the negative effects should be more pronounced among those who were engaged in dating at an earlier age.

Methods

Participants

Data for the present study was derived from a school-based survey of adolescent mental health in Beijing, conducted in 2006–2007. The survey used a multistage, stratified, cluster sampling procedure to recruit a sample of students in Grades 7–12. Secondary schools in Beijing were first classified into four different types then randomly selected from each of the 18 districts in Beijing (8 inner city districts, 10 rural area districts). The study covered a total of 94 schools, 11.3% of the entire 829 secondary schools in Beijing. In each school, one class was randomly selected from each grade. In each class, ~20 students were randomly selected. Taken together, 11,555 students were

surveyed, representing 1.57% of the entire 735,412 students at Beijing secondary schools in 2006.

Permission to conduct the research was obtained from school administrators and/or principals. The administration took place in the classroom. Confidentiality and anonymity of the participants' responses to the questionnaire were ensured. In the 11,555 questionnaires administered, 10,931 questionnaires were completed and valid. The response rate was 94.6%. Adolescents from inner city district consist 53% of the sample, and adolescents from rural district consist the remaining 47%. Age ranged from 12 to 19 years, with a mean of 15.71 and standard deviation of 1.78. Female students were a little bit over-represented in the sample (45.5% male, 54.5% female). The percent of students from Grades 7 to 12 is 17.0, 15.2, 14.5, 21.8, 18.7, and 12.8%, respectively.

Measures

Background Information

Participants reported their gender (male = 1 and female = 2) and chronological age, as well as their parents' education level, perceived family economic status, parents' marital relationship, and their own academic achievement. Respondents reported their parents' education level by choosing from five levels: (1) elementary school or lower, (2) junior high school, (3) senior high school, (4) college, (5) post-graduate. The descriptive statistics indicate that 6.3% of fathers and 8.2% of mothers had educational background no more than elementary school, 39.0% of fathers and 39.2% of mothers completed junior high school, 34.1% of fathers and 33.7% mothers completed high school, 17.5% fathers and 16.9% mothers graduated from college, and 3.1% of fathers and 2.0% mothers attained postgraduate education. The correlation between fathers' and mothers' education was fairly high ($r = .66$). In the subsequent analyses, only father's education level was used as a control variable.

Adolescents' perceptions of family economic status was assessed through this question: "How would you rank your family's economic condition?" Participants responded on a four-point scale: (1) relatively difficult, (2) below average, (3) average, and (4) well-off. As this study did not collect detailed information on household income, we used this perceived social economic status as a control variable in the subsequent analyses. Parents' marital relationship was measured through this question: "How is your parents' relationship?" Participants responded on a five-point scale: (1) in discord, (2) somewhat in discord, (3) average, (4) somewhat in harmony, (5) in good harmony.

Adolescents' academic achievement was assessed through this question: "How do you rank your grades in

your class?” The response format was based on a three-point scale ranging from “(1) the bottom 10”, to “(2) in the middle”, to “(3) the top 10”.

Measuring Romantic Relationships

Participants answered two questions about romantic relationships: “Have you ever involved in a romantic relationship?” and “Have you ever experienced a breakup?” For each question, the adolescents chose from three different categories: “(1) never”, “(2) yes, it happened more than a year ago”, and “(3) yes, it happened within the past year”.

Depressive Symptoms

The Center for Epidemiological Studies-Depression Scale (CES-D; Radloff 1977) was used. This 20-item scale was designed to measure depressive symptoms in the previous week in community surveys, and also used extensively with adolescents (Roberts et al. 1990). The Chinese version has been widely used in Chinese samples, including Chinese adolescents (Yang et al. 2004). The measure was internally consistent with alpha of .87.

Externalizing Behaviors

The aggressive and delinquent subscales of the Youth Self-Report Inventory (YSR; Achenbach and Rescorla 2001) were used to assess participants’ externalizing behaviors. On a three-point scale from “(0) not true” to “(1) somewhat or sometimes true”, to “(2) very true or often true”, adolescents indicated the extent to which they have committed 32 behaviors in the past 6 months. This measure has been translated into Chinese and used widely in previous research (Leung et al. 2006). For the present data, the Cronbach alpha of the externalizing scale was .91. Since there was no norm established for the Chinese version of the YSR, the raw total score was used.

Plan of Analysis

The analyses reported here were conducted in the following steps. We first examined the prevalence of romantic involvement in each grade. We then conducted a series of multiple regressions to test the hypotheses. For all the regression models, background variables (gender, age, father’s education level, perceived family economic status, parents’ marital relationship, and student’s academic achievement) were included as control variables. To test Hypothesis 1, the effects of romantic involvement (RI: 0 = no romantic involvement in the past year, 1 = romantically involved the past year) was regressed on depressive symptoms and externalizing behaviors, separately. To test

Hypothesis 2, breakup (BK: 0 = did not have a breakup the past year, 1 = had a breakup the past year) was added into the models. A significant coefficients for BK would support the contribution of breakups to depression or externalizing behaviors. To test hypotheses 3 and 4, statistical interactions of RI and BK with gender (male = 1, female = 2) and age were added to the equation. The coefficients for these statistical interactions indicate the significance of the moderating effect of gender and age.

Results

Descriptive Analysis

Our descriptive analysis showed that 14% of Chinese secondary school students reported having a romantic relationship in the past 12 months, and 27% of them reported ever having a romantic relationship. The percentage of boys in a romantic relationship was slightly higher than that of girls. Sixteen percent of boys reported having involved in a recent romantic relationship in the past year while 30% reported having ever had a romantic relationship. Twelve percent of girls reported having a recent relationship and 25% reported having ever had a romantic relationship. As expected, the percentage of adolescents who reported having a recent romantic relationship increased with grade, from 7% in Grade 7 to 16% in Grade 12 (see Fig. 1). The same tendency was found in the percentage of adolescents who reported ever having a romantic relationship: 12% (Grade 7), 20% (Grade 8), 23% (Grade 9), 34% (Grade 10), 36% (Grade 11), and 36% (Grade 12). We also explored whether there was any difference in prevalence across different SES groups. We found that the prevalence rate of adolescent romantic involvements did not vary by fathers’ education or by

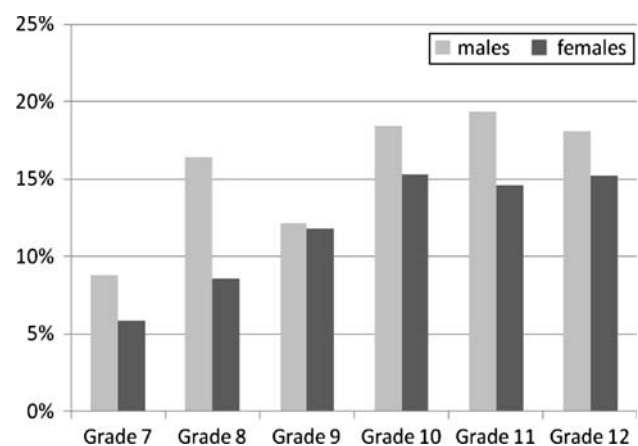


Fig. 1 Percent of Chinese adolescents reporting a romantic relationship in the past 12 months

Table 1 Descriptive statistics for depression and externalizing behaviors

| | Gender | Romantic relationship | Age | | | | | | | Average |
|------------|--------|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | | 12 | 13 | 14 | 15 | 16 | 17 | 18 | |
| Depression | Male | Yes | 14.7 (12.6) | 21.8 (11.6) | 20.4 (12.3) | 18.4 (12.6) | 19.7 (13.2) | 19.2 (12.1) | 20.1 (11.9) | 19.7 (12.4) |
| | | No | 13.6 (10.9) | 13.9 (11.0) | 13.8 (10.2) | 15.8 (11.2) | 16.6 (11.3) | 17.0 (11.1) | 17.4 (11.1) | 15.5 (11.1) |
| | Female | Yes | 19.1 (14.5) | 21.5 (12.0) | 24.3 (13.8) | 23.2 (10.7) | 20.4 (10.7) | 20.4 (11.8) | 22.0 (12.1) | 21.6 (11.8) |
| | | No | 13.2 (10.5) | 14.3 (10.5) | 15.3 (11.5) | 16.3 (11.2) | 17.4 (11.2) | 17.9 (11.1) | 18.1 (11.1) | 16.3 (11.2) |
| Behavior | Male | Yes | 14.1 (8.6) | 19.3 (13.4) | 18.9 (13.9) | 16.9 (13.4) | 18.2 (12.7) | 16.9 (11.2) | 17.8 (12.0) | 17.8 (12.6) |
| | | No | 6.9 (7.2) | 8.1 (7.9) | 9.0 (8.7) | 9.8 (8.5) | 10.6 (8.8) | 11.7 (9.5) | 10.6 (8.6) | 9.7 (8.7) |
| | Female | Yes | 14.0 (11.4) | 19.8 (12.6) | 16.4 (10.8) | 14.7 (9.2) | 13.7 (8.4) | 13.2 (8.5) | 14.2 (9.1) | 14.6 (9.5) |
| | | No | 6.8 (7.2) | 7.6 (6.4) | 8.4 (6.9) | 9.1 (6.6) | 9.4 (7.1) | 9.1 (6.3) | 9.5 (7.3) | 8.7 (6.8) |

The standard deviations were given in parenthesis. Means for age 19 was omitted since there were only 17 males and 18 females in this age category and only five of them reported a recent romantic relationship

family economic status as perceived by the respondents. Adolescents from rural districts reported slightly lower prevalence of romantic involvement than adolescents from inner city districts. For recent romantic relationships, 13.5% of rural adolescents and 15.6% of inner city adolescents reported romantic involvement in past 12 months ($z = 2.98$, $p < .01$). Their reports of ever having a romantic relationship were also 24.9 and 27.1% ($z = 2.51$, $p < .05$), respectively.

Table 1 provides means of depressive symptoms and externalizing behaviors by gender and age. As shown in Table 1, the descriptive data showed that (a) overall, girls manifested more depressive symptoms than boys; (b) romantically involved girls and boys reported higher levels of depressive symptoms; (c) romantically involved girls reported higher levels of depressive symptoms than romantically involved boys, through all ages; and (d) the contrast between romantically involved adolescents and those who were not romantically involved was particularly pronounced between ages 12 and 15. These descriptive statistics provide preliminary support for our hypothesis about the negative effect of early romantic involvement.

Romantically involved male and female adolescents reported higher levels of externalizing behaviors in every age category. While romantically involved males had about the same levels of externalizing behaviors as romantically involved females in 12 and 13 years of age, romantically involved males outnumbered romantically involved females in externalizing behaviors from age 14 to 18, suggesting the possibility that male adolescents who were romantically involved were likely to express their vulnerability in externalizing behaviors.

Romantic Involvement and Breakups

To formally examine the effect of romantic involvement and breakups on adolescents' depressive symptoms and

externalizing problems, we performed a series of OLS regression analyses. To test Hypothesis 1, we examined the contribution of romantic relationships to depressive symptoms and externalizing behaviors. The control variables, romantic involvement and its interactions with gender and age were included in the model (see Model 1 in Table 2). RI was significantly and positively associated with both depressive symptoms ($\beta = .11$, $p < .01$) and externalizing behaviors ($\beta = .31$, $p < .01$), indicating that adolescents who had a romantic relationship—experienced breakups or not—during the past year experienced higher levels of depressive symptoms and externalizing behaviors.

To test Hypothesis 2, we added breakup into the model (see Model 2 in Table 2). For both depression and externalizing behaviors, the coefficients for BK were significant, suggesting a negative effect of breakups. Importantly, the effect of RI on depressive symptoms and externalizing behaviors were reduced after BK was entered (β s from .11 to .05 for depressive symptoms; from .31 to .24 for externalizing behaviors). However, the effect of RI in both models remained statistically significant, indicating that breakups only partially explained the detrimental effect of RI.

As for depressive symptoms and externalizing behaviors, the relative size of effect by RI and BK was different. For depression, $\beta_{RI} = .05$, $\beta_{BK} = .10$; for externalizing behaviors, $\beta_{RI} = .24$, $\beta_{BK} = .10$. The effects of breakups were of the same magnitude in the two models. The remaining effect of romantic relationships for externalizing behaviors was much bigger than that for depressive symptoms.

Gender Difference

Girls reported higher level of depressive symptoms than did boys ($\beta = .05$, $p < .01$) while boys reported a higher level of externalizing behaviors than did girls ($\beta = -.05$, $p < .01$). The results were consistent with previous research on gender differences in problem expression:

Table 2 Coefficients from the OLS regression of depression and externalizing behavior on romantic relationship involvement

| Variables | Depression (<i>N</i> = 9,848) | | | | Externalizing (<i>N</i> = 9,802) | | | |
|--|--------------------------------|----------|----------------|--------------------|-----------------------------------|----------|---------------|----------|
| | Model 1 | | Model 2 | | Model 1 | | Model 2 | |
| | B (SE B) | β | B (SE B) | β | B (SE B) | β | B (SE B) | β |
| <i>Control variables</i> | | | | | | | | |
| Gender (male = 1; female = 2) | 1.041 (.238) | .045*** | 1.038 (.237) | .045*** | -.930 (.177) | -.053*** | -.932 (.177) | -.053*** |
| Age | .728 (.066) | .114*** | .729 (.065) | .114*** | .494 (.049) | .100*** | .495 (.049) | .101*** |
| Father's education level | -.300 (.121) | -.024* | -.283 (.121) | -.023* | -.490 (.090) | -.052*** | -.478 (.090) | -.051*** |
| Perceived family economic status | -1.105 (.167) | -.066*** | -1.081 (.167) | -.065*** | -.096 (.125) | -.007 | -.079 (.124) | -.006 |
| Parents' marital relationship | -2.481 (.118) | -.206*** | -2.456 (.117) | -.204*** | -1.864 (.088) | -.201*** | -1.846 (.088) | -.199*** |
| Academic achievement | -1.506 (.127) | -.114*** | -1.502 (.127) | -.114*** | -1.096 (.095) | -.108*** | -1.094 (.095) | -.108*** |
| <i>Romantic involvement and its interactions</i> | | | | | | | | |
| Romantic involvement (RI) | 3.607 (.442) | .111*** | 1.601 (.556) | .049** | 7.645 (.330) | .306*** | 6.112 (.415) | .244*** |
| Gender \times romantic involvement | .845 (.624) | .019 | 1.823 (.779) | .041* | -2.033 (.466) | -.059*** | -1.146 (.581) | -.033* |
| Age \times romantic involvement | -.859 (.191) | -.047*** | -.881 (.237) | -.049*** | -.876 (.143) | -.063*** | -.875 (.177) | -.063*** |
| <i>Breakup and its interactions</i> | | | | | | | | |
| Breakup (BK) | | | 4.844 (.821) | .098*** | | | 3.703 (.613) | .097*** |
| Gender \times breakup | | | -2.133 (1.180) | -.030 [†] | | | -2.009 (.881) | -.036* |
| Age \times breakup | | | .214 (.371) | .007 | | | .099 (.277) | .004 |
| Adjusted <i>R</i> ² | | .106*** | | .110*** | | .161*** | | .165*** |
| ΔR^2 | | | | .004*** | | | | .004*** |

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

females tend to manifest their maladjustment problems more in the domain of internalizing problems while boys in the domain of externalizing problems.

We expected to see significant interaction between gender and romantic involvement in predicting both depressive symptoms and externalizing behaviors, which would confirm our Hypothesis 3 that boys and girls reacted differently to romantic involvement. In Model 1, we found a significant statistical interaction only for externalizing behaviors ($\beta = -.06, p < .01$), but not for depressive symptoms. That is, although both boys and girls' externalizing behaviors increased when romantically involved, boys' externalizing behaviors rose more than girls' did.

Unexpectedly, we did not find similar interaction significant for depression. But in Model 2, the interaction between gender and romantic involvement became significant ($\beta = .04, p < .05$) because the newly added interaction between gender and breakup was marginally significant and in the opposite direction ($\beta = -.03, p = .07$). The results suggest that boys' depressive symptoms were related more to breakups, while girls' depressive symptoms were related more to other elements of romantic relationships.

Figure 2 illustrates the statistical interactions based on Model 1. As shown in Fig. 2a, although the magnitude of gender difference is not as big, the trend for romantically involved girls to be most depressed is obvious. The

difference in the average values for externalizing behaviors between romantically involved and non-involved boys was 8.1, whereas the corresponding difference was 5.9 for girls. The difference in the mean scores of the CESD between romantically involved and non-involved girls was 5.3, while the corresponding difference was 4.2 for boys.

Age Difference

As shown in Table 2, the general level of depressive symptoms and externalizing behaviors both increased with age ($\beta_{age} = .11$ for depressive symptoms and $.10$ for externalizing behavior). The interaction between age and romantic involvement was significant for both depressive symptoms ($\beta = -.05, p < .01$) and externalizing behaviors ($\beta = -.06, p < .01$). Consistent with Hypothesis 4, these results suggested that younger adolescents experienced a greater increase in levels of depressive symptoms and externalizing behaviors when they were romantically involved. Whether the variable of breakups was considered or not, the coefficients of interaction between age and romantic involvement remained almost the same.

Figure 3a, b shows that, for both boys and girls, respectively, the level of depressive symptoms and externalizing behaviors rose with age. As illustrated in Fig. 3a, the largest discrepancy between romantically involved and

Fig. 2 **a** Interaction effect between romantic involvement and gender on depressive symptoms. **b** Interaction effect between romantic involvement and gender on externalizing behaviors

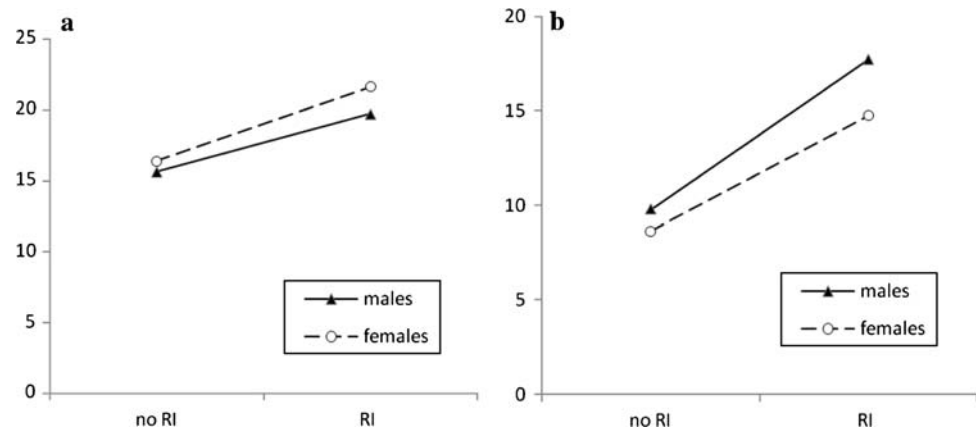
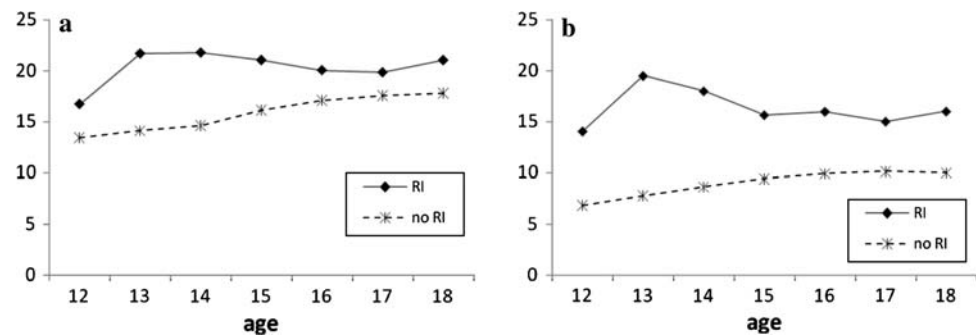


Fig. 3 **a** Interaction effect between romantic involvement and age on depressive symptoms. **b** Interaction effect between romantic involvement and age on externalizing behaviors



non-involved adolescents in means of depressive symptoms occurred between ages 12 and 14. The difference narrowed gradually but considerably after age 15. For example, the difference between romantically involved and non-involved adolescents in depressive symptoms was found to be 7.6 at age 13, while the difference narrowed to only 2.3 at age 17. A similar pattern is readily observable for externalizing behaviors (Fig. 3b). The largest discrepancy in the means of externalizing behaviors between romantically involved and non-involved adolescents occurred around age of 13. This difference narrowed considerably after age 15, again illustrating the pronounced effects for “early daters”. For instance, the difference was 11.7 at age 13, compared to a much smaller difference of 4.8 at age 17.

Discussion

This is, to our best knowledge, the first research on the effects of adolescent romantic relationships in a large city in China. Although there have been a number of studies on adolescent romantic relationships in the last decade (Carver et al. 2003; Joyner and Udry 2000), little was known whether the findings in Western cultures could be generalized to Eastern cultures. In the present study, we set out to provide a basic description of the current state of affairs of adolescent romantic relationships in China, and to explore the negative

impact of the relationships on youths’ emotional and behavioral well-being. Several important findings emerged from this study. In this large sample of 10,509 Chinese secondary school students in Grades 7–12, we found that the prevalence of romantic involvement was lower than what was reported for American secondary school students (Carver et al. 2003). With regard to the impact of romantic involvement on Chinese adolescents, we found its effect to be detrimental for both emotional and behavior problems. When exploring further, we found that breakups contributed significantly to both emotional and behavioral problems. Gender differences existed: Romantically involved girls were more likely to manifest emotional problems, whereas romantically involved boys were more likely to engage in behavioral problems. There was also an age trend: younger adolescents were affected more strongly by romantic involvement than older adolescents.

Prevalence of Romantic Involvement in Chinese Adolescents

The prevalence of romantic relationships reported by Chinese teenagers appeared much lower than the American teenagers. According to Carver et al. (2003), about 53% of males and 57% of females in the United States aged between 12 and 18 years reported having romantic relationships in the past 18 months. In the present Chinese sample of similar age range and sample size, only 16% of

males and 12% of females reported having romantic relationships in the past 12 months. Only 30% of males and 25% of females reported ever having romantic relationship. It seems that romantic involvement was by no means “normative” even in 12th grade in China, quite contrary to that observed in the United States. Lower rates of romantic involvement in Asian descendents have also been reported (Carver et al. 2003). The lower prevalence found in the present study could be explained by cultural difference and collectivistic nature of Chinese values. Dion and Dion (1996) pointed out that the ideology of romantic love tends to contradict with collectively oriented cultures. As the foundation of ideology of romantic love is rooted in the pursuit of individual fulfillment and unfettered personal wishes, it tends to be discouraged and thus constrained, implicitly or explicitly, in collectivistic as opposed to individualistic societies.

The Detrimental Effects of Romantic Relationships

As it is not as normative in China, romantic involvement is likely to have negative implications for Chinese adolescents. In the present study, the detrimental effect of adolescent romantic relationships was found in emotional and behavior problems, for both female and male adolescents, from ages of 12 through 18. Our finding is consistent with previous findings that romantic involvement is associated with increased levels of adolescent depressive symptoms (Compian et al. 2004; Joyner and Udry 2000; La Greca and Harrison 2005). In addition, our research found that detrimental effect was also manifested in adolescent behavior problems, which was infrequently documented in previous research.

To further the understanding of this detrimental effect, we explored the role of breakups. Consistent with previous research, breakups play a significant role in increasing adolescents’ emotional and behavioral problems (Joyner and Udry 2000). However, breakups alone did not account for all the variance. Breakups mediated a large part of the detrimental effect for depressive symptoms, but only a small part of the effect for externalizing behaviors. Breakups, therefore, are more pertinent to depressive symptoms. This is consistent with previous findings indicating that losing a close relationship is one of the most stressful life events that triggers the onset of major depression (Monroe et al. 1999).

Although the present study demonstrated that breakups partially explained the detrimental effect of romantic relationships, there are many other factors that need to be explored in the future to better understand the detrimental effect. In this study, we only measured breakups that already had happened. However, breakups are complex events with considerable individual variations. For

example, the perceived possibility of a breakup may also exert a negative impact on romantically involved individuals. More information about reasons for a breakup would help disentangle the complex phenomenon. Additionally, breaking up with one’s partner could be a result of poor interaction skills in the relationship, poor interpersonal understanding, dating violence, or simply an unwise selection of partners. All these factors are potential covariates of elevated levels of depressive symptoms and externalizing behaviors that this study did not measure. Nevertheless, this study contributes to the literature by documenting the negative emotional and behavioral effect of romantic involvement and highlighting the powerful role played by the negative events of breakups in the link between adolescent romantic relationships and psychological problems.

The effect of adolescent romantic relationships differed by genders. Our results are congruent with previous research with respect to depressive symptoms (Davila 2008; Natsuaki et al. 2009). When romantically involved, girls tended to show greater elevation in depressive symptoms than did boys. The heightened emotional vulnerability of romantically involved girls has been reported by several existing longitudinal studies (e.g., Joyner and Udry 2000; Natsuaki et al. 2009). Furthermore, the present study suggests that the negative emotional experience related to romantic relationships may stem from different elements of the relationship. Boys are slightly more depressed because of breakups, while girls are more depressed because of other elements of romantic relationships. This is in congruence with some previous findings on gender differences in divorce adjustment: males have a greater risk of a first-onset major depression when experiencing a divorce (Bruce and Kim 1992).

When it comes to externalizing behaviors, romantically involved boys showed more vulnerability than romantically involved girls. Interestingly, however, the gender difference only emerged after age 14. Before age 14, both genders had similar levels of externalizing behaviors whether they were romantically involved or not. After age 14, romantically involved boys had higher levels of externalizing problems than romantically involved girls. However, among individuals who were not involved in romantic relationships, boys had similar levels of externalizing behaviors as girls did. Consistent with Bongers et al. (2003), age 14 seems to be a critical point in the development of externalizing behaviors.

Additionally, this study hinted at an interesting pattern of gender similarities and differences in reactions to adolescent romance. We found that boys and girls were equally vulnerable to the negative effect of romantic involvement. Their vulnerabilities, however, were expressed in different domains. While boys manifest mainly in

problem behaviors, girls manifest mainly in negative emotion. The symmetrical vulnerability of both genders, but differential manifestations, challenges the conceptualization that girls are more vulnerable than boys in close relationships because girls are more intensely engaged in these relationships. Perhaps Chinese boys are engaged in close relationships at a similar intensity as Chinese girls. However, so far we have not seen any empirical research on how Chinese boys and girls are involved in relationships, thus are unable to evaluate this notion. The gender differential manifestation of the negative effect can also be understood in the larger context of gender differences in psychopathology. It is well documented that males have higher level of externalizing behaviors than females, while females have higher level of internalizing problems than males (Crick and Zahn-Waxler 2003). Different genders usually find different outlets for their disturbance. From this vantage point, studies on early romantic involvement may be contributive to understanding the gender differences in emotional and behavioral problems later in life.

Romantically involved early adolescents were found to be substantially more negatively affected than their older counterparts (Neemann et al. 1995; Natsuaki et al. 2009). Risks associated with early adolescents were found for both males and females and in both depressive symptoms and externalizing behaviors. Among romantically involved adolescents, levels of depressive symptoms and externalizing behaviors were higher than their peers across all ages. The differences between romantically involved and non-involved 13-year-old adolescents in depressive symptoms and externalizing behaviors more than doubled those between romantically involved and non-involved 17-year-old adolescents.

The findings about these so-called “early daters” are congruent with what Davila (2008) called normative trajectory model and the stress and coping model. The finding supports the normative trajectory model, particularly the notion of “off-time” influence (Davila 2008). That is, the more normative romantic involvement becomes, the less the negative impact was on romantically involved adolescents. These findings also pertain to Davila’s (2008) stress and coping model because it is well known that teenagers’ coping abilities increase with age. This change in coping capabilities also provides a good explanation for the decreasing negative impact. Our results showed that, in a culture where off-time or “precocious love” is negatively perceived, romantic involvements at young ages place early adolescents at risk for emotional and behavioral difficulties. Understanding these youths’ unique susceptibilities, therefore, provides a scientific basis for enhanced supports to this vulnerable group.

The current study has several limitations. First, it was based on self-report data. Use of self-reports appears

reasonable because we were interested in individuals’ own subjective experiences, namely depressive mood and private events such as romantic involvement. However, the quality of data would be enhanced if self-reports were aided by other source of information when assessing externalizing behaviors. Unfortunately, other sources of information are not available due to the large size of the sample. On the other hand, the anonymous design and guaranteed confidentiality may help alleviate the possibility of under-reporting. Nonetheless, caution needs to be exercised in interpreting the results.

Our measures in this study also are limited. Romantic involvement and breakups were each measured by only one question. Information yielded from the questions was thus limited. Moreover, participants may have had different understandings of what “romantically involved” or “breakup” meant. Furthermore, all the control variables were measured by subjective questions instead of objective ones. To a great extent, they assessed adolescents’ perception of their family environment, which might be influenced by their psychological states and not as accurate as objective information.

Second, the present study was based on cross-sectional data, limiting the ability to rule out some of the alternative interpretations. For instance, adolescents high in depressive moods might seek out relationships to cope with negative emotions (Davila et al. 2004), or delinquent adolescents might be more inclined to date because they did not attend to the negative view on dating discussed by teachers and parents. Nonetheless, the present results are consistent with longitudinal studies previously conducted, which increases our confidence in the current findings (Joyner and Udry 2000; Natsuaki et al. 2009). To be sure, additional longitudinal studies are needed in Chinese cultural contexts to explore how the negative impact develops and fades.

Third, the present sample was recruited in Beijing, one of the most modern cities in China. Although teenagers from rural counties and districts in the surrounding areas of this metropolis consist of a large part of the present sample, the sample is not national representative. What is happening in and around Beijing may well be different in other areas of China. We need to be cautious in generalizing the finding to other areas of China.

Additionally, the study should not be interpreted as implying that romantic involvement brings only negative outcomes for Chinese adolescents. We only measured negative outcomes in the current study because of the study foci and its scope of investigation. It would be empirically valuable to examine the effect of romantic relationships on positive emotions and other positive psychological characteristics in Chinese adolescents.

Cross-cultural comparisons represent another interesting future direction. While the current results are largely

consistent with those reported in Western countries, the detrimental effects on “early daters” appeared to be substantially larger in our sample than in Joyner and Udry (2000). We suspected that this could be due to the overall negative view about “precocious love” in Chinese culture. Direct comparisons and in-depth cross-culture investigations will deepen our understanding of how cultures exert influences on these issues. Finally of course, long-term follow-up study on romantic relationships from adolescence to adulthood is especially valuable in the future. The reasons for how the negative influences gradually dissipate over time can be best answered by longitudinal data. Such data will be valuable to provide answers to the question about exact time or age when the negative influences of romantic relationships change into a positive one in adulthood.

Conclusion

Research on the effects of adolescent romantic relationships has increased significantly in the past decade, yet almost all of the studies have been conducted in Western societies. Culturally diverse research is needed to further the understanding of the development and impact of romantic relationships in adolescence (Furman 2002). With a large sample of adolescents in a large city in China, this study examined the prevalence and impact of romantic involvement in Chinese adolescents. Romantic involvement in adolescence appeared not as normative in China as was found in the United States. We found a significant effect of romantic involvement, as it manifested in both emotional and behavioral problems. Romantically involved girls were more likely to experience depressive symptoms, whereas romantically involved boys were more likely to manifest externalizing behaviors. Younger adolescents were substantially more vulnerable than older adolescents to the detrimental effect of romantic involvement. This research suggests that it is important to consider the emotional and behavioral consequences of romantic relationships, particularly for those adolescents who are romantically involved at a young age. Further investigation of the effect of adolescent romantic relationships in China and other cultures would be valuable in providing more insight into this area.

Acknowledgments This study was funded by Chinese Academy of Sciences innovation program (KX05-066). The authors would like to thank Misaki N. Natsuaki and Curtis Hsia for their helpful comments on the manuscript.

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