The Journal of Early Adolescence

Gender Differences in Early Adolescents' Relationship Qualities, Self-Efficacy, and Depression Symptoms

Sharon Rae Jenkins, Kelly Goodness and Duane Buhrmester The Journal of Early Adolescence 2002; 22; 277 DOI: 10.1177/02731602022003003

The online version of this article can be found at: http://jea.sagepub.com/cgi/content/abstract/22/3/277

Published by: SAGE Publications http://www.sagepublications.com

Additional services and information for The Journal of Early Adolescence can be found at:

Email Alerts: http://jea.sagepub.com/cgi/alerts

Subscriptions: http://jea.sagepub.com/subscriptions

Reprints: http://www.sagepub.com/journalsReprints.nav

Permissions: http://www.sagepub.com/journalsPermissions.nav

Citations (this article cites 32 articles hosted on the SAGE Journals Online and HighWire Press platforms): http://jea.sagepub.com/cgi/content/abstract/22/3/277#BIBL

Gender Differences in Early Adolescents' Relationship Qualities, Self-Efficacy, and Depression Symptoms

Sharon Rae Jenkins Kelly Goodness University of North Texas Duane Buhrmester University of Texas at Dallas

Relationship qualities and low perceived social self-efficacy might be associated with early adolescents' depression symptoms and with later gender differences in depression prevalence. Gender comparisons in the means, and associations with depression symptoms of self-rated intimate support, conflict, intimate support self-efficacy, and conflict management self-efficacy were examined for predominantly White community-recruited 12-year-olds (114 boys, 109 girls). Perceived low parental intimate support, high conflict with parents, and lower perceived self-efficacy (both types) were related to depression symptoms. Girls reported greater best friend intimate support and less conflict, greater self-efficacy (both types), and stronger conflict-depression associations than did boys. For boys, but not for girls, conflict management self-efficacy contributed unique variance to depression after intimate support and conflict were controlled. Incidentally, sons of fathers with more education reported more paternal intimate support than did sons of less educated fathers; daughters showed the opposite pattern, which generates questions for further research.

Although adulthood depression has received considerable research attention, adolescent depression has been studied much less. However, a review by Reynolds (1994) revealed that large-scale community or school-based screenings of adolescents typically identify 8% to 18% of youth as showing significant depression symptomology, with one in six adolescents who presented for psychiatric evaluation being diagnosed with a depression disorder.

Journal of Early Adolescence, Vol. 22 No. 3, August 2002 277-309 © 2002 Sage Publications

277

Data collection for this study was funded by a grant (HD29710-04) from the National Institute of Child Health and Development to Duane Buhrmester. This paper is based on a masters thesis by the second author under the supervision of the first author with additional analyses by the first author. We thank Lynn Piper for preparing the path analysis diagram.

278 JOURNAL OF EARLY ADOLESCENCE / August 2002

There is a voluminous literature that documents specific gender similarities and differences in the prevalence and etiology of adulthood depression (reviewed in McGrath, Keita, Strickland, & Russo, 1990) and a growing interest in the decrease of self-esteem of girls during adolescence (Greenberg-Lake: The Analysis Group, 1991; reviewed in Petersen, 1988). The gender differences in depression symptoms that are seen for adults might begin to appear in early adolescence. Hankin et al. (1998) found gender differences in clinical depression beginning at age 13 years and increasing most rapidly between 15 and 18 years of age. Both the incidence and the gender difference in rates of depression increase following puberty to the levels found in adults, with the prevalence of depression among girls being about twice that among boys (reviewed in Allgood-Merten, Lewinsohn, & Hops, 1990; Hankin et al., 1998; Lewinsohn, Duncan, Stanton, & Hautzinger, 1986; reviewed in Petersen et al., 1993).

Few empirical research studies have been done on possible etiological models of depression in adolescence (Ehrenberg, Cox, & Koopman, 1991). Researchers now question whether models of depression developed for adults can be applied to child and to adolescent depression symptomology (Connelly, Johnston, Brown, Mackay, & Blackstock, 1993). In particular, few studies have documented the possible etiology of this increased gender differentiation from childhood through adolescence. The present study was undertaken as a first step to address those questions by initiating a longitudinal study of the development of adolescent depression symptoms in children of both genders, beginning with a cross-sectional snapshot in early adolescence of the associations between sixth graders' perceptions of their closest relationships, their perceived social self-efficacy, and their depression symptoms, as those might or might not differ at this age, as yet, by gender.

Studies of early adolescents, beginning at the age before gender differences in depression symptoms typically appear, might illuminate the onset of depressogenic processes because early adolescence represents a unique juncture in social development. At those ages, peer relationships begin to increase in importance, and the process of individuation from the family can begin (Buhrmester, 1990b; reviewed in Inderbitzen, 1994). Although adolescents are struggling for autonomy from parents, they also are struggling to remain connected (Cooper, Grotevant, & Condon, 1983; Grotevant & Cooper, 1986; Steinberg, 1990). Adolescent depressed affect might be related to a failure to balance autonomy and connectedness with parents (Allen, Hauser, Eickholt, Bell, & O'Connor, 1994). Because rather wide age ranges within adolescence have been used in most studies, existing reports lack the age precision to identify accurately the transitional age range wherein gender differences appear, as well as the age range within which the average adolescents' peers become more central supports than are parents.

Role of Relationship Qualities: Social Support

There is evidence from longitudinal studies that more general social stresses and deficits of social resources are related to depression symptoms among youth (Armsden, McCauley, Greenberg, Burke, & Mitchell, 1990; Lewinsohn et al., 1994). For example, poor parental relationships have been shown to be implicated in adolescent depression (Forehand et al., 1988).

Despite the importance of examining family and peer relationships separately, few studies of adolescents have distinguished among sources of social support. That omission might be important because studies of adults have shown that differing sources of support might not be interchangeable (e.g., Monroe, Bromet, Connell, & Steiner, 1986). The importance of peer support in adolescents' lives rises dramatically as they mature and as increasingly sophisticated interpersonal transactions are required to form and to maintain their friendships (Berndt, 1982; Selman, 1980). Those transaction processes include more intimacy, self-disclosure, compassion, and emotional support (Buhrmester, 1990b; Buhrmester & Furman, 1987). Adolescents, in general, rate the companionship, emotional support, and approval of their friends as being more important to them than their parents' approval (reviewed in Inderbitzen, 1994), and poor relationships with peers can be related to depression (reviewed in Petersen et al., 1993). However, early adolescents, who are just beginning to individuate from the family, still might need family support and approval more than that of friends to feel secure in their quest for autonomy. It is unclear whether there might be gender differences in those needs; although such differences have been theorized for adults (Miller, 1976), there have been few studies done to compare boys and girls in the relative importance of family and peers during early adolescence.

One particularly substantial body of literature on gender differences in adult depression is not reflected in studies for younger ages. Research with adults has found gender differences in social support in close relationships (e.g., Belle, 1982; Brown & Harris, 1978, 1989). For adults, there is evidence that although marriage might help men avoid depression, it might present a depressing situation for some women; happily married women are on average less depressed than single women, but unhappily married women are more depressed than are single women (Klerman & Weissman, 1980; Weissman, 1987; reviewed in Aneshensel, 1986, and Vanfossen, 1986). That difference might be related to gender differences in the distribution of

nurturant support between spouses (Bernard, 1972). It is unclear whether those gender differences in social support from specific relationships appear only after marriage or whether their precursors can be identified in adolescence, for example in parent/child, child/sibling, or child/peer relationships.

Relationships might provide both support and stress (both positive and negative), and gender differences in those qualities might be related to gender differences in depression. Leadbeater, Blatt, and Quinlan (1995) suggested that gender differences in adolescent depression might be explained by adolescent girls', as compared with boys', greater vulnerability to interpersonal events that are negative, including reacting more strongly to stressful events that involve other people. In a seventh-grade sample, Plancherel and Bolognini (1995) found that girls used peer relationships for coping more than did boys. Thus, girls might transmit more stress vicariously to each other than do boys to other boys. Nolen-Hoeksema (1994) argued that gender differences might be due, in part, to stronger expectations from other people for girls to conform to gender-role stereotypes. To understand better the possible social and developmental gender discrepancies that might be precursors of differential rates of clinical depression diagnoses in adulthood, comparisons were made in the present study between the associations of sixth grade boys' and girls' perceived relationship qualities and social self-efficacy with their depression symptomology. McGrath et al. (1990) called for research to study adolescent girls' conflicts between relationships and autonomy as a notable factor in their depression. Also examined in the present study were those conflicts for adolescent boys.

Conflict

The role of interpersonal conflict in depression has been studied much less than that of support, both for adolescents and adults. Some theorists such as Erikson (1968) and Kaplan, Klein, and Gleason (1991) have maintained that relationship conflict is not detrimental necessarily and might be essential for relationships to maintain a healthy balance, depending on the ways in which conflicts are managed. Tesser, Forehand, Brody, and Long (1989) found that, in a sample of sixty-nine 11- to 14-year-olds, adjustment was related positively to conflicts between adolescents and parents that resulted in calm discussions and related negatively to angry discussions. However, there is evidence that excessive or poorly managed conflict can be associated with depression both of adults and adolescents (Forehand et al., 1988). Increased family conflict has been associated with high levels of depression of children 7 through 14 years of age (Dadds, Sanders, Morrison, & Rebgetz, 1992), and depressed adolescents describe their families as less supportive and more conflictual than do their nondepressed peers (e.g., Cole & McPherson, 1993; Forehand et al., 1988). Moreover, conflict with parents predicted later depression in a large sample of adolescents (Lewinsohn et al., 1994).

Gender differences in the relation between conflict with parents and adolescents' depression indicate that gender-role aspects of social development following puberty might be implicated in the greater incidence of depression of girls than of boys. College women with depression symptoms reported more family conflict than did their less depressed peers (Schwarz & Zuroff, 1979). In contrast, for boys as compared with girls, externalizing symptoms are a more common expression of depression. Depression is related more often to externalizing or antisocial behavior for boys than for girls (Licitra-Kleckler & Waas, 1993; Rubin et al., 1992; Weiss & Weisz, 1988). Those kinds of behaviors might increase family conflict, and family conflict has been found to be predictive of later depression (Lewinsohn et al., 1994). Thus, causality might be bidirectional; conflict might increase depression (at least for girls), and depression might increase conflict (at least for boys). As is the case for social support, conflict also might have differing effects depending on the role relationship (parent, sibling, friend) involved, and there might be gender differences. In a sample of sixty-nine 11- to 14-year-olds, Tesser et al. (1989) found that for boys, self-reported conflict with fathers (but not with mothers) accounted for 54% of the variance in the boys' depression; associations for girls were nonsignificant.

Assessed in the present study were early adolescents' perceptions of intimate support and conflict separately with each parent, one sibling, and their best same-gender friend. A lack of family intimate support and presence of conflict (especially involving parents) was predicted to relate more strongly than would friend intimate support or conflict to 12-year-olds' depression symptomology.

Distinctions Between Parents

The need for further research on father/child interactions has been emphasized by many researchers (e.g., Forehand et al., 1991; Phares, 1992; Stoneman, Brody, & Burke, 1989). For example, several studies have linked closeness with father to lower depression and fewer externalizing problems. Petersen, Sarigiani, and Kennedy (1991) found that closeness with father, as compared to closeness with mother, in 8th grade buffered the emotional impact of early adolescent changes in depressed affect in the 12th grade. Cohesion and conflict with father explained more variance for high school students' depression than did those factors with mother (Cole & McPherson, 1993). In a large study of family influences on adolescent depression (Fore-

282 JOURNAL OF EARLY ADOLESCENCE / August 2002

hand et al., 1991), the adolescent's perceptions of the father/adolescent relationship were influential in behavioral areas (externalizing problems), whereas those of the mother/adolescent relationship were related to cognitive areas (academic GPA). Had those researchers not included data pertaining to the father, an important gender differentiation among parents would have been missed. Again in the area of parent/adolescent interactions, there are no published studies that have been focused on early adolescents or on the possible differing effects of fathers and of mothers on depression symptoms of young adolescent boys and girls.

Self-Efficacy

Self-efficacy and personal control have been major topics of interest in the study of adult depression, with increasing research attention now being given to adolescents. Two major theories have informed research on perceived lack of personal competence as a contributor to depression: the Bandura (1977) theory of self-efficacy and the Abramson, Seligman, and Teasdale (1978) reformulated learned-helplessness theory of depression. In addition to the relationship qualities of intimate support and conflict, an adolescent's sense of social self-efficacy and personal control over the development and maintenance of those relationship qualities might be important in depression. In a large-sample, school-based study by McFarlane, Bellissimo, and Norman (1995), self-perceptions of high social self-efficacy appeared to protect 10th graders against depression.

Adolescents' interpretations of supportive and conflictual interactions as feedback on their own social self-efficacy might be related to their beliefs about the ways in which relationships function. For example, Seligman et al. (1984) found that both cross-sectionally and longitudinally, children with higher Children's Depression Inventory (CDI) scores were more likely, than were low scorers, to attribute negative events to internal, stable, and global causes, and to see positive events as having external, unstable, and specific causes. Those results supported the Abramson et al. (1978) reformulated learned-helplessness theory. If children attribute positive relationship aspects, such as intimate support and the management of conflict, to causes that are internal, stable, and global, such as their own social self-efficacy, while attributing the causes of conflict to external, unstable, and specific influences, they might be less vulnerable to depression over time than if they made attributions in the opposite pattern.

Gender differences in the relations of self-efficacy to depression also have been reported. Ehrenberg et al. (1991) found that self-efficacy scores explained more variance in depression for early adolescent boys than for early adolescent girls; however, differing sources of self-efficacy were influential differentially. Academic self-efficacy was a strong correlate of depression for boys but a weak correlate for girls; the reverse was true for social selfefficacy. A review by Nolen-Hoeksema and Girgus (1994) revealed mixed support for hypotheses about the relations of gender differences in causal attributions and learned-helplessness with decreased performance. Because early adolescence is a time of increased socialization pressure toward behavior associated with traditional gender-roles, hypotheses that relate differing sources of self-efficacy to depression should be used to state the gender-role stereotypes and expectations associated with differing aspects of selfefficacy.

The Present Study

There were two purposes for the present study: (a) to compare 12-year-old girls' and boys' perceptions of relationship qualities (intimate support and conflict in their major relationships) and two kinds of perceived social self-efficacy (self-efficacy for obtaining intimate support and self-efficacy for managing conflict) and (b) to examine gender similarities and differences in the associations of perceived intimate support and conflict in family and friend relationships, intimate support self-efficacy, and conflict management self-efficacy, with sixth-grade early adolescents' depression symptomology.

The five hypotheses were guided by the results of previous research. The exploratory research questions were formulated to address less well-defined issues in the literature that could not support specific hypotheses. For example, gathering data about mothers and about fathers allowed for the exploration of possible gender differences between adolescents in the light of their perceptions of their relationships with each parent, separately. Finally, early adolescents were chosen for the first wave of this longitudinal study because previous research has not revealed gender differences in depression symptoms at that early age. Thus, a finding of no significant difference in this data set constituted a check on the success of the research design rather than a test of the null hypothesis. Similarly, difficult peer relationships have been related to depression symptoms among older adolescents but were not expected in this study. Few previous studies have supported predictions of gender differences in levels of intimate support or conflict, so no predictions were made.

Five hypotheses were tested:

1. Girls would rate their best-friend relationships higher than would boys in intimate support and lower in conflict.

284 JOURNAL OF EARLY ADOLESCENCE / August 2002

2. Girls would rate themselves higher than would boys in perceptions of both intimate support self-efficacy and conflict management self-efficacy.

3. Adolescents of both genders who reported greater parental intimate support would rate themselves lower in depression symptoms.

4. Adolescents who indicated greater parental conflict would score higher on depression symptoms.

5. Lower perceived self-efficacy for (a) obtaining intimate support and (b) managing conflict would be related to higher depression scores.

The first two hypotheses addressed the first purpose of the study. Regarding the first hypothesis, there is a small group of studies that have indicated that for girls as compared to boys, differing aspects of peer relationships matter in early adolescence. For example, girls might work harder than do boys to make their relationships more intimate and conflict free. Thus, girls would rate their best friendships as higher in intimate support and lower in conflict than would boys. Furthermore, girls would be higher in both perceived social self-efficacies than boys, because girls are likely to feel (and objectively be) more socially mature and skilled than boys in this age range.

Concerning the second purpose and the last three hypotheses, based on the literature about social support and relationship conflict, at this age parental intimate support would be expected to be related negatively to depression symptoms, and conflict with parents would be related positively to depression symptoms, for both genders of early adolescents (as are similar qualities of peer relationships for adults). It was expected that in this age group, in which adolescents still are connected with their parents more strongly than with their peers, parental intimate support and conflict would be the most important social influence on their depression symptoms. (This is likely to become less true as they mature.) Finally, the substantial literature with adults that links self-efficacy in general with lower levels of depression symptoms justified examination of the same association for early adolescents.

Regarding the possibility of gender differences in strength of support for the last three hypotheses, there is adequate research evidence for gender differences in correlations at later ages, but little information about the age at which such differences might emerge. Therefore, the first three research questions address the possible gender differences for sixth graders.

1. Would the association predicted in Hypothesis 4 be stronger for girls than for boys?

2. Would the association predicted in Hypothesis 5 be stronger for boys than for girls?

3. Would (a) intimate support and (b) conflict with friends be associated negatively, and more strongly, with both social self-efficacies for girls than for boys?

4. Would there be differences between variables for mothers and for fathers in the patterns of associations for boys and for girls?

The first three research questions are based on the assumption of increased peripubertal socialization pressure toward adult gender stereotypes, with girls expected to maintain conflict-free relationships and boys expected to be efficacious in general, but to eschew intimate support and to win, rather than manage, conflicts. First, gender role development brings increased emphasis on social skills; avoidance of conflict is expected of girls, and interpersonal conflicts that occur might be attributed to internal and stable causes, which girls might construe as failure on their part. Because an increase in interpersonal conflicts seems inherent in adolescent social development, girls seem likely to "fail" at the traditional gender-role stereotype if their socialization emphasizes conflict minimization more than self-efficacy in conflict management. Girls who have been socialized to unrealistic gender-role expectations might not be protected from depression either by their actual social maturity or by their self-perceived social efficacy. Therefore, beginning at puberty, conflict with parents (but not necessarily self-efficacy for obtaining support or for conflict management) could be related more strongly to depression for girls than for boys. Is there evidence that this gender differentiation is beginning in this sample at about 12 years of age?

Second, the traditional boys' gender role emphasis on social dominance and instrumental competence might encourage boys to emphasize feelings of self-efficacy in many domains. However, as sixth graders who are still dependent on parents, they might have few opportunities as yet to engage in social activities outside of the home that provide positive feedback that their interpersonal behavior is efficacious. Furthermore, they face increasing peer pressure for independence from parents and self-assertion among peers. Thus, boys, as compared with girls, might rate themselves lower in both social self-efficacies (because their baseline expectations for self-efficacy in other areas are higher than are girls'). In addition, however, they might feel more depressed if they feel less socially efficacious than are girls (because they might feel that they are "failing" at the traditional masculine role). Failure to meet those standards would be expected to contribute to depression.

Regarding the third question, as young adolescents mature and peers become more important, relationships with best friends yield information that is increasingly important for development of social skills. Thus, the support and conflict in best friendships could be influential on their self-perceived social efficacy. Because most girls mature socially earlier than boys, support and conflict with friends might be related negatively to both social selfefficacies for girls, but not for boys, at this age.

Finally, for the fourth question, previous studies that evaluated adolescents' perceptions of their fathers and mothers separately have sometimes found differences. Because parents provide gender-role models for their children that might be important differentially for boys' and girls' social development, the participants' perceptions of their fathers and their mothers were measured separately.

METHOD

Participants

The larger study from which these data were drawn recruited 223 sixth graders, 114 boys and 109 girls, who were attending middle school in a south-western metroplex. Ethnically, 188 were Caucasian, 4 Asian/Pacific Islander, 16 African American, 7 Hispanic, 4 Native American, and 4 placed themselves in the "Other" category. The average household income was in the \$50,000 to \$70,000 range. The mean age of the participants was 11.92 years and ranged from 10.75 through 13.25 years. Eligible participants attended the sixth grade, resided in a two-parent household, were area residents for a year or more, did not expect to move from the area within the next 3 years, and the family's written and spoken English was adequate to complete the research materials.

Procedure

Participants were recruited via letters requesting participation that were distributed in three venues. Over 90% of the sample (n = 217), nearly all Caucasian, was recruited through the sixth-graders' schools. To increase ethnic minority participation, targeted recruitment was done at a children's after school activities program (n = 2) and at local churches (n = 4). All families were paid \$25.00 for their participation. Of the families that passed the screening criteria and agreed to participate after being informed about the procedures of the study, less than 10% withdrew before completing data collection.

Parents signed informed consent forms and sixth graders signed assent forms before completing the measures. Trained undergraduates administered the research measures to the sixth grader during a home visit. For the larger longitudinal study, of which this was the first wave, data were gathered from mothers, fathers, and the targeted sixth grader. Parents completed the same measures as the adolescents (but based on their own observations), and mothers provided demographic information. Data on parents' perceptions were not relevant to the present analyses; only the adolescents' self-report data were used for this report. Family members completed their measures each in a separate room to ensure their privacy. The adolescent also identified his or her same-gender best friend by listing the first name and last initial of each of their friends, then choosing their "very best" friend from that list. All were able to do so. They then rated the support and conflict experienced with that friend and with their sibling (who was closest in age of those still living in the home at the time) and completed additional self-report measures on topics beyond the scope of this report.

Measures

Demographic questionnaire. A family demographic questionnaire was completed by each adolescent's mother, as fathers typically were less engaged in participation and not available for this task. This included questions concerning the adolescent's birth date, gender, ethnic background, mother's and father's education level, and household income.

Intimate support and conflict. The Relationship Questionnaire (Buhrmester, 1991) consists of 30 items from the Network of Relationships Inventory (Furman & Buhrmester, 1985) rated for each family relationship and the best friend relationship separately on a 5-point scale with endpoints labeled 1 = Never or hardly ever and 5 = VERY often or EXTREMELY much. The Companionship, Intimate Disclosure, and Satisfaction Scale scores were averaged to measure Intimate Support; Conflict/Rebuff Scale scores measured Conflict. High internal consistency reliability has been shown both for preadolescents and adolescents (Cronbach's alpha > .92 in both groups) for the scales of Companionship (e.g., "How often do you tell this person?"), Intimate Disclosure (e.g., "How often do you tell this person things that you don't want others to know?"), Satisfaction (e.g., "How happy are you with your relationship with this person?"), and Conflict/Rebuff (e.g., "How often do you and this person disagree and quarrel with each other?"; Buhrmester, 1990b).

Perceived self-efficacy. The Adolescent Interpersonal Competence Questionnaire (Buhrmester, 1990a) is a 35-item scale used to assess adolescents'

288 JOURNAL OF EARLY ADOLESCENCE / August 2002

self-perceived competence and comfort in self-disclosure, provision of emotional support (e.g., "How good [are you] at telling people private things about [your] self?"; "How good [are you] at making someone feel better when they are unhappy or sad?" averaged to measure Intimate Support Self-Efficacy), and managing interpersonal conflicts (e.g., "How good [are you] at resolving disagreements in ways that make things better instead of worse?" used to measure Conflict Management Self-Efficacy). Self-perceived interpersonal competence conceptually is equivalent to social self-efficacy. Additional subscales not reported here measure initiation and assertion. Respondents were instructed to use a 5-point scale anchored at 1 = Poor at this; would be so uncomfortable and unable to handle this situation that it would be avoided if possible and 5 = EXTREMELY good at this; would feel very comfortable and could handle this situation very well. High internal consistency has been shown both for preadolescents and adolescents (Cronbach's alpha > .91; Buhrmester, 1990b). Factorial validity, concurrent validity, and discriminant validity were reported for an earlier version using a college student sample (Buhrmester, Furman, Wittenberg, & Reis, 1988). That version was adapted for use with early adolescents and showed good construct validity in associations with measures of friendship qualities, adjustment, and best friend's observation-based rating of the target child (Buhrmester, 1990b, 1996).

Symptoms of depression. The CDI (Kovacs, 1982) is a 27-item self-report inventory assessing the affective, cognitive, behavioral, and somatic dimensions of depression. Each item consists of three statements ranked from 0 through 2 (e.g., "I am sad once in a while" [0], "I am sad many times" [1], "I am sad all the time" [2]). The participant is asked to select the statement from each item that best describes how he or she has been feeling for the past 2 weeks. (Omission of one item on suicidal thoughts was required by the school district due to parental concerns, as there recently had been a series of copy-cat suicides among older adolescents in the geographic area. Thus, the present total scores are slightly lower than would be likely for the full scale.) The CDI is reported to have high internal consistency (coefficients of .86, .71, and .87 have been reported) and moderate to high test-retest reliability depending on the time interval and population (Kazdin, 1990; Saylor, Finch, Baskin, Furey, & Kelly, 1984; Saylor, Finch, Spirito, & Bennett, 1984; Seligman et al., 1984). There is accumulating evidence of concurrent validity, with the CDI having been found to discriminate between depressed as compared with nondepressed emotionally disturbed children (Kovacs, 1982) and nondisturbed as compared with emotionally disturbed children (Saylor et al., 1984).

Data Analysis Plan

The present sample size of approximately 110 participants of each gender, using alpha = .05 one-tailed, provides for 99% statistical power to detect within-gender correlations of .40, a medium to large effect size (Cohen, 1988), and 94% power to detect within-gender correlations of .30 (a medium-sized effect), but only 67% power to detect small (.20) within-gender correlations in the population. For the corresponding two-tailed tests, power values are 99%, 89%, and 55%, respectively. With this sample size and alpha = .10 one-tailed, Fisher's *z* test of differences between correlations has 99% power to detect a difference of large effect size, 81% power to detect a medium effect size, and 29% power to detect a small effect sizes can be detected with powers of 98%, 71%, and 19% respectively (Cohen, 1988).

The first two hypotheses, regarding gender differences in means, were tested by *t* tests. The next three hypotheses were tested by the significance of correlation coefficients. All tests of hypotheses were one-tailed using alpha = .05, which provided 94% power to detect medium-sized effects.

The research questions, regarding gender differences in hypothesized associations, were tested by Fisher's *z* tests for the significance of differences between correlations. To avoid Type II error for these exploratory analyses, alpha was set at p < .10 one-tailed for questions for which a direction was specified (providing 81% power to detect medium-sized effects) and at p < .10 two-tailed when no direction was specified (providing only 71% power for medium-sized effects). For topical continuity of presentation, these results are presented along with the hypotheses tested, rather than in a separate section.

Certain descriptive analyses were undertaken to identify unhypothesized correlations among demographic variables, predictors, and outcomes that might indicate spurious associations that should be controlled statistically. Other analyses show correlational patterns that might be useful to guide further research. These are presented to provide a context for interpretation of the central findings. For these analyses, alpha was set at p < .10 two-tailed (providing 71% power to detect medium-sized effects), again to avoid Type II error.

Finally, a comprehensive picture of the findings is presented in the form of separate path models for each gender. Those models were tested by multiple regression.

RESULTS

Gender Differences in Means: Friend Relationships and Self-Efficacy

There were no significant gender differences in demographic variables (ethnicity, income, or either parent's education) that might be confounded by spurious association with gender differences in the scales of interest. There were no significant gender differences in depression symptoms (CDI mean for girls = 5.95, for boys = 6.24) or in parental or sibling Intimate Support or Conflict. As hypothesized (#1), girls reported greater friend Intimate Support and less friend Conflict than did boys. (Friend Intimate Support averaged 4.19 for girls, 3.62 for boys; t = 6.17, p < .001. Friend Conflict averaged 1.76 for girls, 2.07 for boys; t = -2.76, p < .01.) Also as hypothesized (#2), girls reported greater self-efficacy both for Intimate Support and Conflict Management than did boys. (Intimate Support Self-Efficacy averaged 3.60 for girls, 3.05 for boys; t = 5.66, p < .001. Conflict Management Self-Efficacy averaged 3.71 for girls, 3.19 for boys; t = 5.27, p < .001.)

Correlates of Depression Symptoms

Correlations of Support and Conflict with girls' and boys' depression symptoms for mothers and for fathers differed little in the exploratory analyses (Question #4), so those ratings were averaged into a rating of each parent for each scale. As hypothesized (#3), adolescents of both genders who reported greater Intimate Support from parents reported lower depression symptom levels as compared to those who reported less parental Intimate Support (see Table 1). Parental Intimate Support accounted for about 14% of the variance in depression for boys and about 20% for girls, a nonsignificant difference. Intimate Support from best friends was unrelated to depression for both genders.

As hypothesized (#4), adolescents who reported greater parental Conflict rated themselves higher on depression as compared to those who indicated less parental Conflict (Table 1). Parental Conflict accounted for about 6% of the variance in depression for boys and about 19% for girls. This exploratory gender difference (Question #1) was a significant small to medium-sized

	Intimate S	Support	Conflict		
Source	<i>Boys</i> n = 114	<i>Girls</i> n = 109	<i>Boys</i> n = 114	<i>Girls</i> n <i>= 109</i>	
1. Mother	36***	40***	.28***	.41***	
2. Father	35***	45***	.17*	.40***	
3. Parental	38***	45***	.25**	.44***	
4. Sibling	10	27**	.05	.25**	
5. Friend	10	09	.09	02	

TABLE 1: Correlations of Depression Scores With Sources of Intimate Support and Relationship Conflict by Participant Gender

p* < .05. *p* < .01. ****p* < .001.

effect, q = .23 (Cohen, 1988). Fisher's z = -1.55, p = .06 one-tailed. The exploratory gender difference in correlations between Conflict with father and depression (Question #4) was also significant, the association being strong for girls, r(107) = .40, p < .001, and significant for boys, a small to medium-sized effect, q = .25, r(112) = .17, p < .05, z = 1.86, p < .08 two-tailed. However, these associations were not significantly different from those for Conflict with mother (Question #4). Conflict with friends did not contribute to the prediction of depression for either gender.

Intimate Support Self-Efficacy only showed a trend toward significant association with depression symptoms and a very small effect size for either gender (not supporting Hypothesis #5a, Table 2), and the genders did not differ significantly, or even noticeably (Question #2a). Participants who reported greater Conflict Management Self-Efficacy reported less depression symptomology than did those who reported lower Conflict Management Self-Efficacy (Hypothesis #5b; Table 2). Conflict Management Self-Efficacy was associated negatively with depression symptomatology both for boys and for girls. The difference between the correlations for boys and girls (Question 2b), which explained 18% of the variance compared to 5%, was significant and of small to medium size, q = .23, Fisher's z = 1.47, p = .07 one-tailed, indicating that Conflict Management Self-Efficacy might be somewhat more important to depression for boys (a medium to large effect size) than for girls (a small effect size).

Gender Differences in Relationship Conflict Associations

There were no notable gender differences in the descriptive associations among the Intimate Support measures or among most of the Conflict variables. However, friend Conflict was correlated only weakly with Conflict

TABLE 2:	Intercorrelations Among Demographic Variables, Self-Efficacies,
	and Depression Symptoms

Variable	1	2	3	4	5	6
1. Family income	_	.39**	.44**	05	.12	12
2. Mother's education	.09	_	.41**	10	.07	20*
3. Father's education	.29**	.33**	_	.11	.25**	17*
4. Intimate Support Self-Efficacy	.08	04	.00	_	.58***	–.13 [†]
5. Conflict Management						
Self-Efficacy	.04	02	.00	.72***	—	43†††
6. Depression	08	03	.08	–.13 [†]	23††	—

NOTE: Correlations above the diagonal are for boys (n = 114); those below the diagonal are for girls (n = 109).

*p < .05, two-tailed. **p < .01, two-tailed. ***p < .001, two-tailed. *p < .10, one-tailed. **p < .01, one-tailed. **p < .01, one-tailed.

scores for family members for girls, r = .03 through .18, but more strongly for boys, r = .32 through .45. The correlations of friend Conflict and Conflict with mother (but not with father, Question #4) differed significantly between genders, for girls, r(107) = .17, p < .05, and for boys, r(112) = .45, p < .001, a medium-sized effect, q = .31, Fisher's z = 2.30, p < .03 two-tailed. Those for friend Conflict and Conflict with sibling also differed, for girls, r(107) = .03, p = ns, and for boys, r(112) = .36, p < .001, again a medium-sized effect, q = .35, z = 2.56, p < .02 two-tailed.

Gender Differences in Associations Between Support and Conflict

The descriptive intercorrelations among Intimate Support scales and among Conflict scales for each parent, sibling, and friend were similar and unremarkable within participant gender. Correlations between Intimate Support and Conflict for the same target individual usually were negative for both genders. However, there were notable gender differences in magnitude (see Table 3); the associations generally were independent for boys, r(112) = .07 through –.19, except for sibling, –.26, p < .01, but for girls there were moderate negative correlations (except for friend r(107) = -.02), indicating 4% through 21% shared variance (mother r = -.46, p < .001; father r = -.20, p > .05; sibling r = -.44, p < .001). Thus, girls generally reported each family relationship as less supportive if the conflict in that relationship was greater. This was true especially within the maternal relationship (Question #4), with

		Conflict					Self-Efficacy	
Variable	1	2	3	4	5	6	7	
Boys (<i>n</i> = 114)								
Intimate support	with:							
1. Mother	19*	10	16*	.06	03	.19*	.35***	
2. Father	17*	18*	19*	.08	06	.24**	.36***	
Parental	19*	15	19*	.07	05	.23**	.38***	
Sibling	05	11	08	26**	05	.22**	.32***	
5. Friend	.10	.02	.06	.05	.07	.63***	.37***	
Self-Efficacy:								
Support	.14	01	.07	.08	.15	—	.58***	
Conflict	02	06	05	.03	08	.58***	_	
Girls (<i>n</i> = 109)								
Intimate support	with							
1. Mother	46***	18*	35***	09	.08	.19*	.28**	
2. Father	40***	20*	32***	04	02	.24**	.33***	
Parental	44***	20*	35***	07	.03	.23**	.32***	
Sibling	18*	19*	20*	44***	.15	.18*	.19*	
5. Friend	.00	09	05	.01	02	.53***	.37***	
Self-Efficacy:								
Support	04	07	06	06	16*	—	.72***	
Conflict	06	04	06	07	18*	.72***	_	

TABLE 3: Correlations Between Perceived Intimate Support and Conflict Variables and Self-Efficacies, Separately by Gender

p* < .05. *p* < .01. ****p* < .001.

girls more so than boys reporting less supportive relationships with their mothers as maternal Conflict increases, a gender difference of medium effect size, q = .31, Fisher's z = 2.25, p < .03 two-tailed. (Gender differences for father and sibling were of small effect size and nonsignificant.) Interestingly, girls who reported more maternal Conflict also reported less paternal Support, to a greater extent than did boys, Fisher's z = 1.84, p < .07 two-tailed. They also rated siblings as less supportive, whereas for boys this relation was nonsignificant (though not significantly different from girls). For girls, the correlations of maternal and paternal Support with the Conflict ratings differed little, which was true also for boys. However, girls' maternal Conflict ratings were related more strongly to low Support from father and sibling than were their paternal Conflict ratings (Question #4), which was not true for boys. For both genders, friend Intimate Support and Conflict were unrelated to Conflict in any family relationship.

Few Gender Differences in Associations With Self-Efficacy

In further descriptive analyses, Intimate Support Self-Efficacy and Conflict Management Self-Efficacy were correlated highly within gender, r(107)= .72, p < .001 for girls, r(112) = .58, p < .001 for boys (an unhypothesized difference, z = 1.79, p < .07 two-tailed), and uniformly positively correlated with Intimate Support from all sources for both genders similarly (Table 3). Intimate Support Self-Efficacy was correlated more highly with friend Intimate Support, r = .63 for boys, r = .53 for girls (a nonsignificant gender difference, Question #3a), than with Intimate Support within family relationships, rs = .19 through .24 for boys; rs = .18 through .24 for girls. Friend Intimate Support contributed much more variance (40% for boys and 28% for girls) to Intimate Support Self-Efficacy than did family Intimate Support (6% for both genders). Conflict Management Self-Efficacy generally was correlated moderately with Intimate Support in all relationships for both genders similarly (Question #3a), rs = .19 through .38.

Both Self-Efficacies were uncorrelated with Conflict in any relationship with one exception. For girls, both Intimate Support and Conflict Management Self-Efficacies were correlated negatively with Friend Conflict, r(107) = -.16 and -.18, respectively, both p < .05 and of small effect size. Thus, girls who reported a stronger sense of social self-efficacy saw their best friendships as less conflictual. Only the finding for Intimate Support Self-Efficacy differed significantly from that for boys (which was positive in direction), Fisher's z = 2.28, p < .02 one-tailed, a gender difference of medium effect size showing partial support for Question #3b.

Gender Differences in Associations With Demographics

Interesting gender differences appeared in the descriptive intercorrelations of the demographic variables with predictors and depression symptoms, which were conducted to identify possible spurious associations between predictors and CDI scores (Table 2). In contrast to previous studies (e.g., Gore, Aseltine, & Colton, 1992) in which socioeconomic status had been found to be associated with depression, household income was not related to depression for either gender. (Restriction of range in income level for this sample is the likely explanation, as income level tended to be higher [\$50,000 to \$70,000] than the national average.) However, the mothers' and fathers' education were correlated negatively with depression for boys, but not for girls. Thus, less educated parents of 12-year-old boys tended to have sons who reported more symptoms of depression.

Given the sparse literature on father/child relationships, especially in the context of social class, further exploratory analyses for Question #4 yielded interesting findings that might stimulate further research. Paternal education (but not maternal education) had contrasting associations with Intimate Support for boys and for girls. Sons of more educated fathers reported more Intimate Support in all relationships, r(112) = .21 for mother, .19 for father, .17 for sibling, .17 for friend, all p < .05, and greater Conflict Management Self-Efficacy, r(112) = .25, p < .01, than did boys with less educated fathers (Table 2). However, daughters of more educated fathers reported less paternal Intimate Support, r(107) = -.16, p < .05. That gender difference was of medium effect size, q = .35, and significant, Fisher's z = 2.55, p < .01 two-tailed.

Testing Regression Models

To determine the overall predictive efficacy and unique variance attributable to parental Intimate Support and Conflict, and to Conflict Management Self-Efficacy, CDI scores were regressed on these variables for the genders separately. For boys, mothers' and fathers' educations were entered on the first step to control for their associations with depression symptoms. Intimate Support and Conflict were entered together on the second step, and the two social self-efficacies were allowed to enter stepwise on the third step. In the analysis for girls, the first step was omitted.

The resulting predictions were strong, accounting for over one-quarter of the variance for both genders, but the predictors were different for the two genders, highlighting the role of Conflict Management Self-Efficacy in boys' depression even more than in the bivariate correlations (Table 4). Compared to the bivariate correlations, girls' Support and Conflict were related equally strongly to depression, which also was true for boys. However, in the multiple regression, boys' Conflict Management Self-Efficacy, as compared to Support and Conflict, explained more than twice as much unique variance in their depression symptoms. Girls' Conflict Management Self-Efficacy did not contribute unique variance to their depression symptoms, consistent with the gender difference in the zero-order correlations. The gender difference in the importance of Conflict with parents was of small to medium effect size, q = .22, and significant, Fisher's z = 1.58, p < .06 one-tailed. The two models are presented in Figure 1.

Given the significance of Support and Conflict for both genders, their possible joint effects were explored. Might parental Intimate Support be related to less depression only when parental Conflict is low? Might high Conflict with parents be related less to depression if Intimate Support also is high?

_	<i>Zero-Order</i> r	β	% σ ²	F	R	<i>Adjusted</i> R ²
Boys (<i>n</i> = 113)					.55***	.26
Father's Education	17	.04	0	.16		
Mother's Education	20*	16	2	3.44		
Parental Support	38***	20	4	5.15*		
Parental Conflict	.25**	.19	4	5.01*		
Conflict Managemen	t					
Self-Efficacy	43***	34	10	14.48***		
Girls (<i>n</i> = 106)					.53***	.27
Parental Support	44***	33	9	13.64***		
Parental Conflict	.44***	.32	9	13.16***		

TABLE 4: Regressions of Depression Scores on Perceived Intimate Support and Conflict

NOTE: Because differences between the zero-order correlations with depression for maternal and paternal ratings were very small (see Table 2), these were averaged to create parental scales.

p < .05. p < .01. p < .001.

Furthermore, given the independence of Support and Conflict for boys and their negative association for girls, might there be gender differences in these patterns? The effect of the amount of parental Intimate Support relative to parental Conflict was tested by regressing CDI scores first on parental Intimate Support and Conflict separately, and then on net Intimate Support (parental Intimate Support minus parental Conflict) using hierarchical multiple regression. Although the zero-order correlations of the composite interaction variables with CDI score sometimes were larger than those of any individual component, and even larger than the R^2 of the combined components, none contributed any unique variance in the hierarchical regressions with the components controlled for either gender.

A second question about joint effects addressed whether the two forms of self-efficacy have a potentiating effect on the already strong relations between depression symptoms and parental relationship quality. Those effects were tested for each gender by first regressing CDI scores on the components of the interaction term separately, then entering the multiplicative interactions of Intimate Support and Conflict with their respective Self-Efficacies (parental Intimate Support × Intimate Support Self-Efficacy). Again, the interaction terms did not contribute significant unique variance.

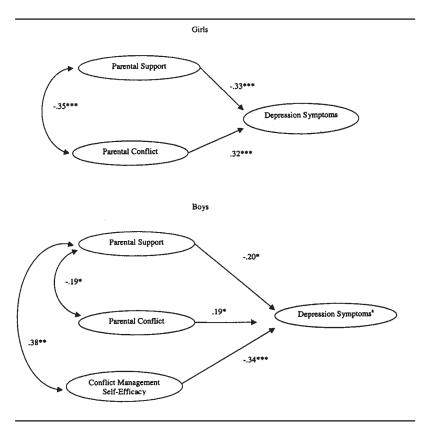


Figure 1: Models for girls (top) and boys (bottom). a. With father's and mother's education controlled. *p < .05. **p < .01. ***p < .001.

DISCUSSION

Examined in this study were two kinds of gender differences in early adolescents' relationship qualities, social self-efficacies, and depression symptoms: differences between means and differences in associations. The selection of 12-year-olds to begin this longitudinal study was successful in establishing that there were no significant gender differences at this age in average perceived family support or conflict or in self-rated depression symptoms. Thus, although other analyses found gender differences in other variables and associations which, if sustained over time, might eventuate in gender differences in mean levels of depression, there is a 64% probability that those levels do not differ yet by more than a small effect size in this early adolescent sample. The hypothesized gender differences in means that were found (girls rated their best friendships as more supportive and less conflictual than did boys, and also rated themselves as higher in both self-efficacies than did boys) were not related directly or obviously to depression symptoms for either gender.

The hypothesized associations of support and conflict with depression symptoms were significant both for girls and for boys, and both selfefficacies were related to lower depression symptoms for both genders, (although for Intimate Support Self-Efficacy, this was only a very small effect size with a trend toward significance for each gender separately), consistent with the Ehrenberg et al. (1991) findings for early adolescents and with those of McFarlane et al. (1995) for 10th graders. However, exploratory and descriptive analyses revealed gender differences in correlations with and among Conflict variables and in associations for the social self-efficacies, and also differences in associations for maternal and paternal variables. Those relations formed patterns indicative of plausible gender differentiated causal pathways for depression that might begin to diverge even before 12 years of age and might be explored productively in further research. Most of the significant gender differences were of small to medium effect sizes. Follow-up studies of those patterns at later ages should be designed to detect medium effect sizes with more conservative significance tests; those with younger participants should be designed with sufficient sensitivity to detect small effect sizes.

In a multiple regression model with parental education and Support controlled, parental Conflict was a stronger predictor of depression symptoms for girls than for boys, explaining 19% of the variance in contrast to 6% for boys. In contrast, low Conflict Management Self-Efficacy was more important for boys' symptoms of depression than for those of girls. Boys' Conflict Management Self-Efficacy was the strongest independent predictor of their depression symptomology (18% of variance) and significantly more important than it was for girls (5% of variance), whereas for girls, parental Intimate Support and parental Conflict were equally strong and independent. High levels of the respective self-efficacy did not change the effect on depression symptoms of either parental Intimate Support or Conflict for either gender.

Girls and Gender-Role Differences in Meaning of Conflict

The clearest pattern of gender differences for these sixth graders involved the exploratory and descriptive analyses of their ratings of Conflict with family and friends, but this pattern is neither direct nor simple in relation to depression symptoms at 12 years of age. The stronger exploratory association of parental Conflict with depression symptoms for girls than for boys (with and without other variables controlled) was consistent with the Kaplan (1986) discussion of the role played in adult women's depression by repeated experiences of affective disconnection and disruption of relational ties as threats to the development of an authentic self-structure, and also the Jack (1991) research on "silencing the self" and girls' depression symptoms. If being unable to keep conflicts from occurring grows developmentally in importance for girls' depression symptoms as compared to those of boys, it might represent an early gender-role failure for girls that is perhaps implicated in their observed decreases in self-esteem later in adolescence (Greenberg-Lake: The Analysis Group, 1991; reviewed in Petersen, 1988). Maturing girls are expected increasingly to suppress their anger in the face of conflict, especially when they are at a power disadvantage in a relationship (Jack, 1991). Paradoxically, this might provide girls with a greater sense of self-control at the expense of less real social power. "Effectiveness comes to represent the ability to control oneself rather than to express oneself" (Surrey, 1991, p. 245). Kaplan made clear the potential function of anger expression as an affirming, bonding experience that increases authenticity but noted that constricted anger and feelings of powerlessness tend to increase depression. Further research might examine productively the associations for early adolescent girls of traditional femininity ideology, anger expression, conflict avoidance, social self-efficacies, self-esteem, and depression symptoms.

The correlation matrix for Conflict ratings showed descriptive evidence that girls, as compared to boys, might tend to perceive conflict as relationship specific, with best friends as more distinct from family (especially from mother and siblings, whereas perceived relationship conflict might generalize from family to friends (or vice versa) for boys. The stronger negative association between Conflict (especially with mother) and Intimate Support for girls than for boys indicates that as early as sixth grade, Conflict (with mother in particular) becomes disruptive of supportive relational experiences (especially with mother, but also with father) for girls, and less so for boys. Thus, the girls appeared already to have more difficulty reconciling autonomy and relatedness needs (reviewed in McGrath et al., 1990) than did boys. Girls might be socialized to harbor a more polarized view of relationships than do boys, with conflict negating felt support; indeed the higher correlation between the two self-efficacies for girls as compared to boys does not support the discriminant validity of these scales for girls. This polarization also appeared when girls rated their best friend relationships as higher in Intimate Support and lower in Conflict than did boys, consistent with the Plancherel and Bolognini (1995) finding, in a seventh-grade sample, that girls made more use of peer relationships for coping than did boys.

As hypothesized, the girls reported feeling more efficacious than did the boys on both self-efficacy dimensions, consistent with their likely greater social maturity and the differing qualities of their best friendships as well as with the expected interpersonal competencies of the feminine gender-role. Those feelings of greater competence than those reported by boys appear to be related to their hypothesized higher Intimate Support and lower Conflict with friends as compared with boys' friendships, because friend Intimate Support was related strongly to Intimate Support Self-Efficacy for both genders, and girls who reported less Conflict with friends rated themselves higher in both self-efficacies than did those who reported less Conflict. Further research might well be focused on the role of early adolescent girls' friendships in their psychological differentiation from their families, specifically with regard to their actual skills in eliciting intimate support and in conflict management.

Furthermore, girls' understanding of the relational meanings of supportive and conflictual behavior might differ from that of boys, such that the same interpersonal behaviors are seen by girls as more conflictual and thus depressing. Gender-role norms might differ regarding whether arguments are seen as constructive or destructive for a continuing relationship and its provision of intimate support. For example, obeying the strictures of traditional femininity against open expression of negative feelings (Kaplan, 1986), girls might signal conflict by withdrawal of support instead of arguing, whereas for boys overt conflict might be a means of testing and evaluating some aspects of social support such as a peer's utility as an ally in a fight. (Indeed, boys' best friend Conflict was related positively to their Intimate Support Self-Efficacy, a relation that was negative for girls.) If so, it is necessary to explain why for girls, conflict with mother or siblings less often generalized to best friendships than was true for boys. Perhaps sixth-grade girls cannot use withdrawal as a conflict signal in the family as they might with girl friends, whereas boys might use conflict to test limits at home and friends at play.

Alternatively, perhaps boys and girls differed in their interpretations of the self-report questionnaire items used in this study. For instance, one Conflict scale item inquires as to how often the sixth grader argues with a particular person. Boys and girls might differ in what they consider an "argument," including the meaning for a relationship of having a difference of opinion, and whether such differences should be subjects of "argument."

Further research should begin at even younger ages to examine developmental changes and gender differences in the nature and meaning of relationship conflict as an important precursor of depression for girls. This would be consistent with the Leadbeater et al. (1995) suggestion that girls might be more vulnerable than are boys, and with the literature that links unhappy marriages to depression in adult women (Klerman & Weissman, 1980; Weissman, 1987; reviewed in Aneshensel, 1986, and Vanfossen, 1986).

Boys and Conflict Management Self-Efficacy

An interesting gender difference was found for perceptions of Conflict Management Self-Efficacy. Boys reported less Conflict Management Self-Efficacy than did girls, and in exploratory analyses, low scores were associated more strongly with depression (a medium to large effect size) for boys than for girls. Feeling less skillful at managing relationship conflict might have a stronger relation to depression symptomology for boys because they also perceived themselves as having higher levels of conflict with best friends than did girls. Thus, they might be anticipating that as they continue to individuate from the family, they will move into peer relationships in which higher conflict is normative. In contrast to the findings for girls, it seems less to be conflict per se, but rather helplessness when confronted by it, that is related to depression symptoms for early adolescent boys.

If conflict might be expected and its management might be more important in boys' social lives than in those of girls, then successful responses to conflict might be as central to the developing boy's gender-role as appearing "nice" (conflict-avoidant) is for girls. Perhaps maturing boys receive more social permission than do girls for anger expression as a means of conflict resolution. For them, anger expression is gender-role consistent and would likely both decrease their depression symptoms and increase their feelings of Conflict Management Self-Efficacy after conflict has occurred. This would be consistent with the Ehrenberg et al. (1991) results that showed the importance for early adolescents of self-efficacy in content areas relevant to gender-roles. This might illuminate the Larson, Raffaelli, Richards, Ham, and Jewell (1990) finding that depressed fifth- to ninth- grade boys spent less time with same-gender friends and preferred to spend time alone. Perhaps for boys, social isolation is preferable to unmanageable conflict. The descriptive positive correlation for boys between Conflict with friends and Conflict Management Self-Efficacy might reflect a beneficial effect of practice in evoking and resolving conflicts with friends, or might be a spurious association due to high conflict tolerance in contrast to conflict avoidance. That distinction could be examined in further research.

The gender difference in average self-efficacies and the strength of those correlations indicates that these learning processes might be more difficult for boys than for girls, but even more important for prevention of depression of boys. For boys, friend conflict was related positively to self-efficacy for conflict management; perhaps for boys the management of conflict requires channeling it rather than stopping it.

Best Friendships and Social Self-Efficacy

The present findings indicate that relationship qualities of 12-year-olds' friendships are not related to depression directly as they might be at later ages. However, peer relationship qualities also might come to affect depression indirectly to a larger degree later in development, to the extent that these are connected to a developing sense of relational self-efficacy that in turn is related to depression symptoms. For both genders, in descriptive analyses, friend Intimate Support had by far the strongest association with Intimate Support Self-Efficacy when compared to familial sources of Intimate Support.

Best same-gender friend relationships might be an especially crucial (and family-independent) arena for girls to learn support-building and conflict management skills and to experience themselves as efficacious. This learning process in early adolescence might be part of the development of the "ethic of care" (Gilligan, 1982) and of the capacity for relational reciprocity and affective connection (Kaplan, 1986). In contrast to these friendships, the general absence of associations between family conflict ratings and selfefficacies indicates that sixth graders might possibly be perceiving family conflict as unavoidable and uncontrollable, and thus not contributing feedback about their relational competence. Girls at least might be perceiving friend conflict as avoidable and controllable, and thus a source of negative feedback about their skills. Perhaps sixth graders must feel skillful with specific friendship behaviors so as to see themselves as competent and comfortable at developing relationships more generally, whereas in sixth grade, family relationship skills do not provide such a generalizable sense of relational competence.

Differentiating Mothers and Fathers

In response to the well made point of other researchers (e.g., Forehand et al., 1991; Phares, 1992; Stoneman et al., 1989), information was obtained both about fathers and about mothers, separately. The inclusion of data pertaining to the sixth graders' fathers permitted the examination of gender contrasts in relationships with same-gender and opposite-gender parent. For instance, conflict with father was related to depression symptoms for girls more strongly than for boys. That is reminiscent of the Schwarz and Zuroff (1979) finding that college women who had more depression symptoms, as compared to their least depressed peers, described their fathers as high in conflict and inconsistent in expression of love. Fathers might have a smaller role in boys' early adolescent depression symptoms, but a larger role in their sons' development of other disorders such as externalizing/antisocial behavior and anxiety (Forehand et al., 1991).

In addition, compared with less educated fathers, 12-year-old sons of more educated fathers (but not mothers) saw their fathers and their other family members as providing more Intimate Support, and also reported higher Conflict Management Self-Efficacy. The pattern of intercorrelations indicates that more educated fathers might foster a family atmosphere seen as supportive by their sons, who appear to have more confidence in their social competence and less depression symptomology. In contrast, more educated fathers' daughters reported *less* paternal Intimate Support than did the daughters of less educated fathers. Fortunately, these girls did not differ in overall or family Intimate Support as did boys, and girls' fathers' education was uncorrelated with maternal or sibling Intimate Support, or with the girls' depression. Excluding fathers would have eliminated this interesting gender differentiation that deserves exploration in further research.

Strengths and Limitations

A major strength of this study is that the participants' relatively narrow age range makes possible developmental comparisons with other age-stratified samples. The finding of no significant gender difference for depression scores is consistent with the purpose of the study and is not surprising given that researchers typically have not found gender differences in depression in children 6 years to 12 years of age (Hankin et al., 1998; see Kazdin, 1990, for a review) and the mean age of the current sample is 11.92 years old. This study therefore was designed to sample participants from a relatively narrow age range (boys: $\overline{X} = 11.97$, SD = .46; girls: $\overline{X} = 11.83$, SD = .40). Age-strati-

fied studies of adolescents are imperative if researchers are to follow the development of gender differences in depression. Indeed, several findings of the current study might have been missed had there been a larger span in participant's ages.

The conclusions for this study are limited by the nature of the sample, which primarily affects the generalizability of the findings. First, the sample predominantly was Caucasian and of higher than average income. Furthermore, only married two-parent families were studied. These are now about 70% of families in the United States (Fields & Casper, 2001). Children in single-parent homes, those whose parents have divorced, and those losing a parent through death probably experience these additional stressors as depressing. The hypothesis that children of divorce, in particular, might feel lower levels of intimate support and more conflicted family relationships, and that the associations of those with depression might differ, should be tested in future research.

A second limitation, appropriate to the exploratory purposes of the study and the choice of age group, is the large number of analyses conducted and the less stringent statistical significance levels used. All of the findings for the research questions and descriptive analyses require replication with stricter criteria and more focused purposes based on the effect sizes expected for specific analyses at specific ages.

Although the focus of this study was the subjective experience of early adolescents, this required the use of self-report measures. In the future, researchers should use observation of interactions or reports by others. Self-ratings might be affected by response biases such as social desirability. The adolescents' subjective perceptions might not generalize to public actions notable by others. Tesser et al. (1989) found early adolescents' adjustment to be related to their mothers' reports of mother/child interactions, but the adolescents' self-reports of those interactions were not related to their own adjustment. In this study, sons' adjustment was related to their own self-reported interactions with fathers, but sons' adjustment was not related to the fathers' reports of those interactions.

Implications for Interventions

Psychotherapy with depressed adolescent girls might explore beneficially the possible polarization of support and conflict perceptions that might be influencing the adolescent's judgments of relationship quality, which has consequences for her perceived social self-efficacy and depression. This might be one important aspect of what McGrath et al. (1990) called "the adolescent's management of her transitional power position (beyond total dependence but not yet total independence) in her family and the world" (p. 83).

Given these findings, preventive interventions for depression with early adolescent girls might begin best with discussion of the positive aspects of relationship conflict and its healthy resolution, as suggested by Kaplan et al. (1991), for example by the constructive expression of anger (Kaplan, 1986) and the use of calm discussion (Tesser et al., 1989). Use of role playing techniques to practice conflict resolution with peers might help girls to integrate conflict experiences into their supportive peer relationships. Caution should be taken in applying the same approach to girls' family conflicts, however. Careful assessment should be made of the degree and kind of conflict involved to determine the likelihood of successful conflict management initiated by the early adolescent girl. McGrath et al. (1990) warned, based on their literature review, that family interventions should consider "the prevalence of family violence and sexual abuse and its effects on gender differences in adolescent depression" (p. 84).

Depression prevention interventions for early adolescent boys best might address teaching conflict management skills, especially in role-playing situations that allow boys the opportunity to demonstrate publicly their growing competence with those skills. Given that boys appear to accept the presence of conflict in their supportive relationships, they might benefit from feeling a gender-role appropriate comfort in resolving conflicts successfully by calm discussions rather than by self-isolation. Social isolation can be a precursor of depression both for adolescents and adults.

Family therapy research with depressed early adolescents' families might do well to explore differences among fathers in their interaction patterns with their children. First, because of the possible differential consequences for girls and for boys, the support available in less educated fathers' relationships with their sons should be evaluated, whereas more educated fathers' support of their daughters might need more attention. Second, teaching parents about the greater depressive impact on daughters of conflict with both parents and on sons of lower competence in conflict management might be useful.

REFERENCES

Abramson, L. Y., Seligman, M.E.P., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology*, 87, 49-74.

Allen, J. P., Hauser, S. T., Eickholt, C., Bell, K. L., & O'Connor, T. G. (1994). Autonomy and relatedness in family interactions as predictors of expressions of negative adolescent affect. *Journal of Research on Adolescence*, 4, 535-552.

306 JOURNAL OF EARLY ADOLESCENCE / August 2002

- Allgood-Merten, B., Lewinsohn, P. M., & Hops, H. (1990). Sex differences and adolescent depression. *Journal of Abnormal Psychology*, 99, 55-63.
- Aneshensel, C. S. (1986). Marital and employment role-strain, social support, and depression among adult women. In S. E. Hobfoll (Ed.), *Stress, social support, and women* (pp. 99-114). Washington, DC: Hemisphere.
- Armsden, G. C., McCauley, E., Greenberg, M. T., Burke, P. M., & Mitchell, J. R. (1990). Parent and peer attachment in early adolescent depression. *Journal of Abnormal Child Psychology*, 18, 683-697.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.
- Belle, D. (1982). Lives in stress: Women and depression. Beverly Hills, CA: Sage.
- Bernard, J. (1972). The future of marriage. New York: Bantam Books.
- Berndt, T. J. (1982). The features and effects of friendships in early adolescence. *Child Development*, 53, 1447-1460.
- Brown, G. W., & Harris, T. O. (1978). Social origins of depression: A study of psychiatric disorder in women. London: Tavistock.
- Brown, G. W., & Harris, T. O. (1989). Life events and illness. New York: Guilford.
- Buhrmester, D. (1990a). Adolescent Interpersonal Competence Questionnaire. Unpublished measure, University of Texas at Dallas.
- Buhrmester, D. (1990b). Intimacy of friendship, interpersonal competence, and adjustment during preadolescence and adolescence. *Child Development*, 61, 1101-1111.
- Buhrmester, D. (1991). *Relationship Questionnaire*. Unpublished measure, University of Texas at Dallas.
- Buhrmester, D. (1996). Need fulfillment, interpersonal competence, and the developmental contexts of early adolescent friendships. In W. M. Bukowski, A. F. Newcomb, & W. W. Hartup (Eds.), *The company they keep: Friendship in children and adolescents* (pp. 158-185). New York: Cambridge University Press.
- Buhrmester, D., & Furman, W. (1987). The changing functions of friendship in childhood: A neo-Sullivanian perspective. In V. J. Derlega & B. A. Winstead (Eds.), *Friendship and social interaction* (pp. 41-62). New York: Springer-Verlag.
- Buhrmester, D., Furman, W., Wittenberg, M., & Reis, H. (1988). Five domains of interpersonal competence in peer relationships. *Journal of Personality and Social Psychology*, 55, 991-1008.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum.
- Cole, D. A., & McPherson, A. E. (1993). Relation of family subsystems to adolescent depression: Implementing a new family assessment strategy. *Journal of Family Psychology*, 7, 119-133.
- Connelly, B., Johnston, D., Brown, I.D., Mackay, S., & Blackstock, E. G. (1993). The prevalence of depression in a high school population. *Adolescence*, 28, 149-158.
- Cooper, C. R., Grotevant, H. D., & Condon, S. M. (1983). Individuality and connectedness in the family as a context for adolescent identity formation and role taking skill. In H. D. Grotevant & C. R. Cooper (Eds.), Adolescent development in the family: New directions for child development (pp. 43-59). San Francisco: Jossey-Bass.
- Dadds, M. R., Sanders, M. R., Morrison, M., & Rebgetz, M. (1992). Childhood depression and conduct disorder: II. An analysis of family interaction patterns in the home. *Journal of Abnormal Psychology*, 101, 505-513.
- Ehrenberg, M. F., Cox, D. N., & Koopman, R. F. (1991). The relationship between self-efficacy and depression in adolescents. *Adolescence*, *26*, 361-373.

Erikson, E. H. (1968). Identity: Youth and crisis. New York: Norton.

- Fields, J., & Casper, L. M. (2001). America's families and living arrangements: March, 2000. *Current Population Reports* (pp. 520-537). Washington, DC: U.S. Census Bureau.
- Forehand, R., Brody, J., Slotkin, J., Fauber, R., McCombs, A., & Long, N. (1988). Young adolescent and maternal depression: Assessment, interrelations, and family predictors. *Journal of Consulting and Clinical Psychology*, 56, 422-426.
- Forehand, R., Wierson, M., Thomas, A. M., Armistead, L., Kempton, T., & Neighbors, B. (1991). The role of family stressors and parent relationships on adolescent functioning. *Journal of American Academy of Child and Adolescent Psychiatry*, 30, 316-322.
- Furman, W., & Buhrmester, D. (1985). Children's perceptions of the personal relationships in their social networks. *Developmental Psychology*, 21, 1016-1024.

Gilligan, C. (1982). In a different voice. Cambridge, MA: Harvard University Press.

- Gore, S., Aseltine, R. H., & Colton, M. E. (1992). Social structure, life stress and depressive symptoms in a high school-aged population. *Journal of Health and Social Behavior*, 33, 97-113.
- Greenberg-Lake: The Analysis Group. (1991, January). Shortchanging girls, short-changing America: A nationwide poll to assess self-esteem, educational experiences, interest in math and science, and career aspirations of girls and boys ages 9-15. (Available from the American Association of University Women, 515 Second Street NE, Washington, DC 20002).
- Grotevant, H. D., & Cooper, C. R. (1986). Individualization in family relationships. *Human Development*, 29, 83-100.
- Hankin, B. L., Abramson, L. Y., Moffitt, T. E., Silva, P. A., McGee, R., & Angell, K. E. (1998). Development of depression from preadolescence to young adulthood: Emerging gender differences in a 10-year longitudinal study. *Journal of Abnormal Psychology*, 107, 128-140.
- Inderbitzen, H. M. (1994). Adolescent peer social competence: A critical review of assessment methodologies and instruments. In T. H. Ollendick & R. J. Prinz (Eds.), Advances in clinical child psychology (pp. 227-259). New York: Plenum.
- Jack, D. C. (1991). Silencing the self: Women and depression. Cambridge, MA: Harvard University Press.
- Kaplan, A. (1986). The "self-in-relation": Implications for depression in women. Psychotherapy, 23, 234-242.
- Kaplan, A., Klein, R., & Gleason, N. (1991). Women's self development in late adolescence. In J. V. Jordan, A. G. Kaplan, J. B. Miller, I. P. Stiver, & J. L. Surrey (Eds.), Women's growth in connection (pp. 122-140). New York: Guilford.
- Kazdin, A. E. (1990). Childhood depression. Journal of Child Psychology and Psychiatry, 31, 121-160.
- Klerman, G., & Weissman, M. (1980). Depressions among women: Their nature and causes. In M. Guttentag, S. Salasin, & D. Belle (Eds.), *The mental health of women* (pp. 57-92). New York: Academic Press.
- Kovacs, M. (1982). Children's Depression Inventory (CDI). Unpublished manuscript, University of Pittsburgh, Pittsburgh, PA.
- Larson, R. W., Raffaelli, M., Richards, M. H., Ham, M., & Jewell, L. (1990). Ecology of depression in late childhood and early adolescence: A profile of daily states and activities. *Journal* of Abnormal Psychology, 99, 92-102.
- Leadbeater, B. J., Blatt, S. J., & Quinlan, D. M. (1995). Gender-linked vulnerabilities to depressive symptoms, stress, and problem behaviors in adolescents. *Journal of Research on Adolescence*, 5, 1-29.
- Lewinsohn, P. M., Duncan, E. M., Stanton, A. K., & Hautzinger, M. (1986). Age at first onset for nonbipolar depression. *Journal of Abnormal Psychology*, 95, 378-383.

308 JOURNAL OF EARLY ADOLESCENCE / August 2002

- Lewinsohn, P. M., Roberts, R. E., Seeley, J. R., Rohde, P., Gotlib, I. H., & Hops, H. (1994). Adolescent psychopathology: II. Psychosocial risk factors for depression. *Journal of Abnormal Psychology*, 103, 302-315.
- Licitra-Kleckler, D. M., & Waas, G. A. (1993). Perceived social support among high-stress adolescents: The role of peers and family. *Journal of Adolescent Research*, 8, 381-402.
- McFarlane, A. H., Bellissimo, A., & Norman, G. R. (1995). The role of family and peers in social self-efficacy: Links to depression in adolescence. *American Journal of Orthopsychiatry*, 65, 402-410.
- McGrath, E., Keita, G. P., Strickland, B. R., & Russo, N. F. (1990). Women and depression. Washington, DC: American Psychological Association.
- Miller, J. B. (1976). Toward a new psychology of women. Boston, MA: Beacon.
- Monroe, S. M., Bromet, E. J., Connell, M. M., & Steiner, S. C. (1986). Social support, life events, and depressive symptoms: A 1-year prospective study. *Journal of Consulting and Clinical Psychology*, 54, 424-431.
- Nolen-Hoeksema, S. (1994). An interactive model for the emergence of gender differences in depression in adolescence. Special Issue: Affective processes in adolescence. *Journal of Research on Adolescence*, 4, 519-534.
- Nolen-Hoeksema, S., & Girgus, J. S. (1994). The emergence of gender differences in depression during adolescence. *Psychological Bulletin*, 115, 424-443.
- Petersen, A. (1988). Adolescent development. Annual Review of Psychology, 39, 583-607.
- Petersen, A. C., Compas, B. E., Brooks-Gunn, J., Stemmler, M., Ey, S., & Grant, K. E. (1993). Depression in adolescence. *American Psychologist*, 48, 155-168.
- Petersen, A. C., Sarigiani, P. A., & Kennedy, R. E. (1991). Adolescent depression: Why more girls? Special Issue: The emergence of depressive symptoms during adolescence. *Journal of Youth and Adolescence*, 20, 247-271.
- Plancherel, B., & Bolognini, M. (1995). Coping and mental health in early adolescence. Special Issue: Adolescent research: A European perspective. *Journal of Adolescence*, 18, 459-474.
- Phares, V. (1992). The relative lack of attention to the roles of fathers in child and adolescent psychopathology. *American Psychologist*, 47, 656-664.
- Reynolds, W. M. (1994). Depression in adolescence: Contemporary issues and perspectives. In T. H. Ollendick & R. J. Prinz (Eds.), *Advances in clinical child psychology* (pp. 261-317). New York: Plenum.
- Rubin, C., Rubenstein, J. L., Stechler, G., Heeren, T., Halton, A., Housman, D., et al. (1992). Depressive affect in "normal" adolescents: Relationship to life stress, family and friends. *American Journal of Orthopsychiatry*, 62, 430-441.
- Saylor, C. F., Finch, A. J., Baskin, C. H., Furey, W., & Kelly, M. M. (1984). Construct validity for measures of childhood depression. Application of multitrait-multimethod methodology. *Journal of Consulting and Clinical Psychology*, 52, 977-985.
- Saylor, C. F., Finch, A. J., Spirito, A., & Bennett, B. (1984). The Children's Depression Inventory: A systematic evaluation of psychometric properties. *Journal of Consulting and Clini*cal Psychology, 52, 955-967.
- Schwarz, J. C., & Zuroff, D. C. (1979). Family structure and depression in female college students: Effects of parental conflict, decision-making power, and inconsistency of love. *Journal of Abnormal Psychology*, 88, 398-406.
- Seligman, M.E.P., Kaslow, N. J., Alloy, L. B., Peterson, C., Tanenbaum, R. L., & Abramson, L. Y. (1984). Attributional style and depressive symptoms among children. *Journal of Abnormal Psychology*, 93, 235-238.
- Selman, R. L. (1980). The growth of interpersonal understanding: Developmental and clinical analyses. New York: Academic Press.

- Steinberg, L. (1990). Autonomy, conflict, and harmony in the family. In S. S. Feldman & G. R. Elliot (Eds.), At the threshold: The developing adolescent (pp. 255-276). Cambridge, MA: Harvard University Press.
- Stoneman, Z., Brody, G. H., & Burke, M. (1989). Marital quality, depression, and inconsistent parenting: Relationship with observed mother-child conflict. *American Journal of Ortho*psychiatry, 59, 105-117.
- Surrey, J. L. (1991). Eating patterns as a reflection of women's development. In J. V. Jordan, A. G. Kaplan, J. B. Miller, I. P. Stiver, & J. L. Surrey (Eds.), *Women's growth in connection: Writings from the Stone Center.* New York: Guilford.
- Tesser, A., Forehand, R., Brody, G., & Long, N. (1989). Conflict: The role of calm and angry parent-child discussion in adolescent adjustment. *Journal of Social and Clinical Psychol*ogy, 8, 317-330.
- Vanfossen, B. E. (1986). Sex differences in depression: The role of spousal support. In S. E. Hobfoll (Ed.), Stress, social support, and women (pp. 69-84). Washington, DC: Hemisphere.
- Weiss, B., & Weisz, J. R. (1988). Factor structure of self-reported depression: Clinic-referred children versus adolescents. *Journal of Abnormal Psychology*, 97, 492-495.
- Weissman, M. M. (1987). Advances in psychiatric epidemiology: Rates and risks for major depression. American Journal of Public Health, 77, 445-451.

Requests for reprints should be addressed to Sharon Rae Jenkins, Ph.D., Psychology Department, University of North Texas, P.O. Box 311280, Denton, TX 76203-1280; e-mail:jenkinss@unt.edu.