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The Protective Role of Coping and Social Resources for Depressive Symptoms among Young Adolescents

Mindy Herman-Stahl[1] **and Anne C. Petersen**[2]

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Early adolescence is a period of the life course involving high levels of challenge that are stressful for some, perhaps resulting in depressive symptoms. In this study, adolescents were divided into four groups based on indices of depression and negative life events. Group differences in coping style, mastery, optimism, and social resources as well as group differences in patterns of change were investigated. Participants were 458 adolescents in sixth and seventh grade from a rural working class community. Subjects were assessed twice over a one-year period. Analyses revealed that the four groups were characterized by different levels of coping and social resources. Asymptomatic youth reported higher levels of optimism, mastery, active coping, and more positive relationships with parents and peers than did symptomatic adolescents. These same characteristics distinguished the resilient adolescents from the vulnerable adolescents, suggesting potential stress-buffering effects. One year later, the adolescents who were low on both depressive symptoms and negative life events continued to

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[1]Project Manager of the Arizona Substance Abuse Needs Assessment Study, Arizona Department of Health Services. Received Ph.D. from the Department of Human Development and Family Studies at Pennsylvania State University, and did a postdoctoral fellowship in prevention research at Arizona State University. Research interests include adolescent development, prevention, and community psychology. To whom correspondence should be addressed at Arizona Department of Health Services, Office of Substance Abuse and General Mental Health, 2122 E. Highland, Suite 100, Phoenix, Arizona 85016.

[2]Professor of Adolescent Development and Pediatrics, University of Minnesota (on leave to the National Science Foundation). Received Ph.D. from the University of Chicago. Research interests include biopsychosocial development at adolescence, adolescent depression and interventions to prevent it, gender issues, and developmental methodology.

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report more individual and contextual resources than the adolescents in the other groups.

INTRODUCTION

During times of transition and life stress, some children experience adjustment problems, while others adapt successfully. Children who adjust well in the face of major or enduring stress are known as resilient (Garmezy, 1983). The finding that adaptive functioning may unfold following traumatic events or in dysfunctional and deprived contexts has led researchers to illuminate those factors that buffer the effects of deleterious circumstances. Research on childhood resilience points to the existence of both individual and contextual factors that moderate the negative effects of stress. Longitudinal studies of normative development have delineated a triad of protective features including (a) child characteristics such as IQ, self-efficacy, self-esteem, coping skills, and attributions of control; (b) warm, secure family relations and lack of discord; and (c) extrafamilial support (Block, 1971; Cowen *et al.*, 1990; Garmezy *et al.*, 1984; Murphy and Moriarity, 1976; Petersen and Spiga, 1982; Werner and Smith, 1992; White *et al.*, 1979).

The goal of the present study was to examine the role of coping and social resources in protecting youth during the developmental transition of early adolescence (Petersen, 1987; Petersen, *et al.*, 1991). The literature on stress and mental health suggests that individual differences in adaptation result from the coping and social resources employed to meet challenge (Lazarus and Folkman, 1984). Coping efforts appear to moderate the effects of negative life events on psychological well-being (Johnson, 1986), and certain styles of coping are linked with better adaptation. Specifically, active coping efforts (i.e., attempts to act on or modify stressors through cognitive or overt behavioral means) are linked with more positive adjustment, while avoidant strategies (i.e., attempts to escape from or avoid stressors or to deny their existence) are generally associated with poorer adaptation (Compas *et al.*, 1988; Ebata and Moos, 1991; Herman-Stahl *et al.*, 1995; Sandler *et al.*, 1994). Ineffective coping has been implicated as a risk factor for depression. Nolen-Hoeksema's (1987) research with adults suggests that rumination as opposed to distraction prolongs negative affect and may inhibit effective problem-solving. Similar results have been found with children (Asarnow *et al.*, 1987; Garber *et al.*, 1991). Depressed children generate more irrelevant strategies for coping with problems than nondepressed children, and they are more likely to suggest avoidant or negative behaviors as strategies for alleviating negative affect. In addition, depressed

children have lower expectations concerning their efficacy in lessening their negative affect.

Another construct with important implications for healthy coping is optimism. Individuals differ in the degree to which they expect favorable outcomes, and these differences appear to be relatively stable across time and context. Optimism is associated with active coping efforts, complexity of coping response, seeking social support, and it is inversely correlated with emotional expression and disengagement from goals (Sheier and Carver, 1985). In fact, research suggests that an optimistic style of explaining and responding to life circumstances is linked with a lower incidence of psychological and physical disorder (Seligman, 1990).

Social resources are also considered an important component of effective coping. Families, friends, and significant others may help adolescents cope by providing advice, securing resources needed to address problems, or offering occasions for self-disclosure and emotional release (Berndt, 1989). During the adolescent transition, peers become an increasingly important source of support as adolescents strive for independence from parents (Petersen, 1988). Peers do not supplant the role of parents; rather they support different developmental functions. Specifically, peers aid in the adolescent's identity formation, assist in the development and maintenance of self-esteem, provide opportunities for belongingness, serve as sources of social comparison, contribute to the learning and practice of social skills, and supply a sense of stability, especially in cases of family disruption (Gottlieb, 1991). Peer relations are important for the identification of children at risk for maladjustment, as poor peer relations are one of the most salient characteristics distinguishing well-adjusted children from those seen in mental health clinics. Rejected children have been found to be more lonely and depressed than other children (Coie, 1990), and negative developmental trajectories are likely for these children. Without the support of peers, rejected youth have little opportunity to develop effective coping styles or to utilize social support in times of stress.

Children's family context has been identified as an important protective factor. Specifically, familial characteristics such as parental warmth, intimacy, and communication have been associated with children's well-being, despite exposure to threat (Rutter, 1983; Werner and Smith, 1992). Familial support during stressful times may help children maintain a sense of stability and routine in the face of change (Sandler *et al.*, 1989). Further, children who experience noncontingent, aversive stress may come to believe that they have no control over the occurrence of events in their lives. Positive relations may counteract this perception by providing supportive environments that promote self-efficacy and increase children's sense of predictability and safety (Sandler *et al.*, 1989). In addition, research indi-

cates that warm and supportive parenting is linked with more adaptive coping (Hardy *et al.*, 1993; Herman and McHale, 1993; Shell *et al.*, 1991), while maladaptive family processes have been linked with less functional coping responses (Shulman *et al.*, 1987; Stern and Zevon, 1991).

As such, we hypothesize that adolescents reporting few depressive symptoms will report greater levels of active coping, mastery, optimism, and peer and family relationships. Furthermore, we hypothesize that these resources will serve a protective function against the effects of undesirable events. That is, we expect that high stress, low symptom adolescents (i.e., resilient) will report more coping and social resources than high stress, high symptom (i.e., vulnerable) adolescents. Given that at age 13–14, girls consistently show higher rates of depression than boys (Petersen, Sarigiani, and Kennedy, 1991), we added gender as an independent variable to investigate potential gender differences in the associations among stress, resources, and symptoms. Several etiologic variables have been put forth in an effort to explain the consistently higher rates of depression among adolescent and adult females including both biologic and psychosocial models. In the extant literature on hormonal changes at puberty and depressive symptoms in early adolescent girls, no consistent relationship between high rates of depression and hormonal changes have been found (Brooks-Gunn and Warren, 1989). Thus, Brooks-Gunn and Warren (1989) suggest that it may not be hormonal changes per se, but the interaction between preexisting risk conditions and the multiple physical and social changes that occur that increase females' susceptibility to depressive disorders. Thus, a more promising approach to understanding gender differences in depression may be exploring the associations among individual and contextual resources and depressive symptoms.

The present study contributes to research in resiliency in several ways. First, we focused on the factors that may protect youth during the developmental transition of early adolescence. This period is viewed as a crucial turning point where developmental trajectories begin to diverge with long-term implications for mental health (Petersen and Ebata, 1987; Petersen, Kennedy, and Sullivan, 1991). Much of the previous work on resilience has been conducted with younger children or preadolescents; thus, we know less about protective mechanisms during adolescence.

Second, most resiliency research has operationalized resilience in terms of social competence, a multifaceted construct referring to an individual's ability to effectively deal with the environment (Garmezy and Masten, 1991). However, competence in one domain does not necessarily imply competence in another (Luthar *et al.*, 1993). For instance, Luthar (1991) found that high stress, high competence (i.e., resilient) youth reported more internalizing symptoms than their low stress, high competence counterparts.

Her results indicate that the factors that protect adolescents' social and academic adjustment may differ from those that buffer the effects of stress on depressive symptoms. As such, we operationalized resilience as the absence of psychological distress in the face of high stress. Four groups were created by crossing indices of depressive symptoms and negative life events: low on stressful events, low on depressive symptoms (positively adjusted); high on stressful events, low on depressive symptoms (resilient); low on stressful events, high on depressive symptoms (negatively adjusted); and high on stressful events, high on depressive symptoms (vulnerable). This approach may provide different information concerning protective mechanisms, since it has been demonstrated that adolescents can be simultaneously socially and academically competent yet emotionally distressed (Luthar, 1991; Luthar *et al.*, 1993; Radke-Yarrow and Sherman, 1990; Werner and Smith, 1992).

Finally, this study explores changes in adolescents' coping and social resources over a one year period. Given that most prior studies have been cross-sectional, researchers have been unable to examine how adjustment status at one time relates to future reports of individual and contextual resources.

METHODS

Design

The design was a short-term, cohort-sequential, longitudinal study of adolescent mental health. The subjects used in the present study were part of a larger project assessing gender differences in mental health (Petersen, 1991).

Sample

The participants were 458 sixth graders (233 boys and 225 girls) from a rural lower middle class community in central Pennsylvania. Using the occupational prestige rating developed by the National Opinion Research Center (NORC; Stevens and Hoisington, 1987), the average prestige scores for fathers was 44 (SD = 16), (i.e., equivalent to a realtor). The average prestige score for mothers was 41 (SD = 15; i.e., equivalent to a payroll clerk). Forty-four percent of the mothers and 47% of the fathers were college educated. Subjects included two cohorts of adolescents (220 subjects in cohort one and 238 subjects in cohort two). No significant differences between cohorts was found on any of the demographic variables. Subjects

were recruited from two of three middle schools in the district through a passive consent procedure employed at the request of the school district. The parents of 36 children (10%) of cohort one and 25 children (6%) of cohort two withheld permission to participate. Another 11% of the subjects in cohort one and 31% of the subjects in cohort two chose not to participate or were not available during survey administration. Thus, the participation rate for the entire school population was 79% for cohort one and 63% for cohort two. Only subjects who completed surveys in both sixth and seventh grade were used in this study. From cohort one, 74 students (25%) failed to complete the survey in the second year, whereas only 32 students (12%) in cohort two failed to complete the survey in seventh grade. Attempts were made in cohort two to increase Time Two participation by offering makeup sessions to students absent during the initial data collection. Subjects in cohort one who failed to complete the survey at Time Two were significantly more depressed, $t = 3.02$, $p < .01$ than subjects who remained in the study for the two waves of data collection. No differences were found for cohort two. No significant differences emerged between dropouts and completers in terms of negative life events.

The mean age of the subjects was 11.76 years at Time One. The majority of the students were Caucasian (82%); in addition, the sample was 8% African American, 2% Asian, and 1% Hispanic. The remaining 7% of the students did not respond to the ethnicity item. Fifty-nine percent of the sample came from families in which parents were married and living together. Eight percent of the students sampled reported that their parents were separated, 11% were divorced, 16% were divorced and remarried, and 1% were widowed.

Procedure

Data were collected during the fall of the school year while subjects were in sixth grade and again in the fall of their seventh grade year. Surveys were administered at the schools during a 50-minute free period or study hall.

Measures

Coping Resources

Coping was assessed using a modified version of a questionnaire developed by Seiffge-Krenke and Shulman (1987) containing two coping factors, approach and avoidant coping (for more information on this measure,

see Herman-Stahl *et al.*, 1995). Two original items that appeared redundant were dropped from the survey ("I do not worry because everything usually turns out all right" and "I tell myself that there will always be problems"); one item representing internal coping was added ("I try to see things from another point of view"); and two similar items describing talking about problems when they appear were merged to form a single item ("I talk about problems when they appear and do not worry about them later"). Students were asked how often they used each of the 18 coping strategies when they had a problem. Each type of coping response was ranked on a 5-point Likert scale from (0) *not used* to (4) *always use*. Approach coping was represented by both intra- and interpersonal means of coping (e.g., "I think about the problem and try to find different solutions"; "I discuss the problem with my parents/other adults"). Avoidant coping reflected passive-avoidant behaviors (e.g., "I try not to think about the problem"). Cronbach's alpha for the 11-item Approach-oriented coping scale was .76 and the alpha for the 6-item Avoidant scale was .54.

Coping was also assessed using the Mastery and Coping scale of the Self Image Questionnaire for Young Adolescents (SIQYA), a multidimensional measure of self-image (Petersen *et al.*, 1984). This scale contained 10 items designed to tap subjects' perceived competence in coping with challenges. Example items include "If I put my mind to it, I can do anything" and "New situations are often difficult for me to cope with." (This item was reverse coded.) Subjects were asked to circle a response ranging from 1 (*describes me very well*) to 6 (*does not describe me at all*). Means scores were calculated and higher scores were indicative of a higher degree of mastery. Cronbach's alpha for this sample was .68, whereas Cronbach's alpha reliabilities from Petersen *et al.*'s (1984) initial study were .75 for boys and .67 for girls.

The Life Orientation Test (LOT) was used to assess adolescents' dispositional optimism in terms of generalized outcome expectancies (Sheier and Carver, 1985). The LOT was a 12-item (8 items plus 4 filler items), 5-point Likert-scale. Adolescents indicated the degree to which they agreed or disagreed with each statement. (e.g., "In uncertain times, I usually expect the best".) High scores represented greater dispositional optimism. Cronbach's alpha for this sample was .67.

Depression

Adolescents' symptoms of depression were assessed using a shortened version of Kovacs and Beck's (1977) Childhood Depression Inventory (CDI). Research by Smucker (1982) suggests that the CDI is a reliable

and valid measure of depression for young adolescents. This shortened version is based on the short version of the Beck Depression Inventory (BDI; i.e., the adult version of the CDI), which consists of the 13 items that correlate highest with the total BDI scale (Kovacs and Beck, 1977). The CDI assesses the presence and severity of affective, cognitive, and motivational components of depression and represents childhood depression as a collection of symptoms rather than depression as a sad, despondent mood. (e.g., "I am sad many times"; "Nothing will work out for me"; and "I never have any fun at school"). Adolescents were asked to choose one sentence from a group of three that best described their feelings within the last two weeks. Responses were summed across 13 of the original 27 items so that higher scores indicate a higher incidence of depressive symptoms. Alpha reliability for this sample was .83.

Social Resources

Two measures were used to assess social resources for adolescents. Intimacy with mother and father was assessed using an adapted version of an intimacy questionnaire developed by Blyth *et al.* (1982). Subjects used a 5-point rating scale to indicate how much each statement described aspects of their relationships with a mother figure and father figure. Constructs from these items include intimacy (feelings of closeness and being understood), self-disclosure (sharing inner feelings or secrets, seeking advice), and satisfaction. Examples items include the following: "How much does this person understand what you are really like?" "How much do you go to this person for advice and support?" and "How satisfied are you with the relationship you have with this person?" Each relationship was rated separately. Higher scores were indicative of a close relationship. Cronbach coefficient alphas for this sample were .83 for mothers and .88 for fathers.

Social resources also was assessed using the Peer and Family Relationship scales of the SIQYA (Petersen *et al.*, 1984). The Family Relationship scale of the SIQYA consists of 17 items that include questions about the family in general, the relationship between parents, and the adolescent's relationships with each parent. Item examples include "I can count on my parents most of the time," "Most of the time my parents get along well with each other," and "Very often, I feel that my mother/father is no good." The Peer Relationship scale of the SIQYA consists of 10 items that assess aspects of social orientation, social satisfaction, and perceptions of social competence. Examples include "I find it very difficult to establish new friendships" and "I usually feel out of place at parties." Alpha reliabilities for this sample were .77 for the Peer Relationship scale and .83 for the

Family Relationship scale. Cronbach's alphas from Petersen *et al.*'s reliability and validity study were .85 for boys and .81 for girls on the peer relationship scale and .88 for both boys and girls on the family scale.

Life Events

Adolescents' stressful life events and daily hassles were assessed by using the total negative event score (i.e., an additive score of 31 undesirable events in three domains of functioning) from the Adolescent Life Event Scale (Brooks-Gunn and Warren, 1989). Subjects were asked to examine a checklist of 47 negative and positive life events and to check the ones that they had experienced within the last six months. Both major life events and daily hassles were included from adolescents' three primary contexts: family, peers, and school. Examples include parental separation or divorce, parent getting laid off, trying out and not making a sports team, getting demerits at school, and doing worse than expected at school.

RESULTS

The goals of this research were threefold: to examine group and gender differences in adolescents' coping characteristics, to investigate group and gender differences in adolescents' social resources, and to explore how these groups changed in personal and contextual resources over a one-year period.

The Formation of Adjustment Groups

Adolescents were classified into four groups based on indices of both depressive symptoms and negative life events. Two levels of adolescent depression were created. The high distress group consisted of the top one-third of the distribution on the CDI, while the low distress group was represented by the remaining two-thirds of the sample. With respect to negative life events, adolescents scoring within the upper 33 percentile of the distribution of the Total Negative Events scale were considered to be highly stressed. All other adolescents were placed into the low stress group. Adolescents who experienced more than three negative events within the last six months were considered highly stressed.

Four groups were formed by crossing the above categories: Low on stressful life events, low on depressive symptoms (positively adjusted, 56%); high on stressful life events, low on depressive symptoms (resilient, 16%); low on stressful life events, high on depressive symptoms (negatively ad-

justed, 14%); and high on stressful life events, high on depressive symptoms (vulnerable, 14%). Chi-squared analyses revealed that gender was randomly distributed across groups, $\chi^2 = (3, N = 458) = 1.64$ (See Table I).

Coping Resources

The first goal of this research was to explore differences across the groups described above in (a) approach and avoidant coping, (b) perceived mastery (i.e., perceived competence in coping with challenges), and (c) dispositional optimism. A multivariate analysis of variance (MANOVA) was performed with adjustment group and gender as the independent variables and the four indices of coping as the dependent variables. Analyses revealed significant group differences on all four measures (see Table II); however, there were no Group × Gender interactions. Only one gender difference was revealed with girls reporting more approach coping than boys ($F[403, 3] = 4.23, p < .05$).

Post hoc mean comparisons using the Scheffé procedure revealed that positively adjusted youth scored significantly higher on approach-oriented coping and perceived mastery and lower on avoidant coping than did negatively adjusted and vulnerable youth. They also reported more optimism than adolescents in each of the remaining three groups. Resilient adolescents could be distinguished from the vulnerable adolescents by higher levels of approach coping, perceived mastery, and optimism and lower levels of avoidant coping. Resilient adolescents also reported more approach coping, mastery, and optimism than the negatively adjusted group.

Social Resources

The second goal was to explore group differences in social resources, in terms of intimacy with mother and father as well as competence and satisfaction with peers and family.

Table I. Numners and Percentages of Boys and Girls in Four Adjustment Groups

Adjustment Group	Number of Boys	Number of Girls	Total	Total %
Positive adjustment	133 (52%)	123 (48%)	256	56%
Resilient	39 (55%)	32 (45%)	71	16%
Negative adjustment	29 (45%)	35 (55%)	64	14%
Vulnerable	32 (48%)	35 (52%)	67	14%

Table II. Group Differences in Coping Characteristics: Means (and Standard Deviations)

	Adjustment Groups								
	Positive Adjustment (n = 256) a		Resilient (n = 71) b		Negative Adjustment (n = 64) c		Vulnerable (n = 67) d		F
Approach coping	23.56	(7.99)[cd]	23.37	(8.52)[cd]	18.03	(8.46)	19.24	(8.35)	9.28
Avoidant coping	5.39	(3.78)[cd]	6.78	(4.26)[d]	7.74	(4.53)	9.14	(4.67)	15.04
Mastery and Coping (SIQYA)	5.09	(.63)[cd]	4.91	(.64)[cd]	4.19	(.66)	4.21	(.64)	53.95
Optimism	2.79	(.55)[bcd]	2.57	(.60)[cd]	2.08	(.54)	1.90	(.52)	54.44

Table III. Group Differences in Social Resources: Means (and Standard Deviations)

	Adjustment Groups								
	Positive Adjustment (n = 256)		Resilient (n = 71)		Negative Adjustment (n = 64)		Vulnerable (n = 67)		
Social Resources	a		b		c		d		F
Intimacy with mother	4.04	$(.66)^{cd}$	3.84	$(.86)^{c}$	3.50	(.81)	3.54	(.60)	19.68
Intimacy with father	3.87	$(.62)^{bcd}$	3.56	$(.90)^{d}$	3.27	(.88)	3.18	(.90)	22.07
Family relationships (SIQYA)	5.15	$(.65)^{bcd}$	4.71	$(.79)^{d}$	4.37	(.84)	4.21	(.84)	39.99
Peer relationships (SIQYA)	4.95	$(.72)^{cd}$	5.03	$(.67)^{cd}$	3.77	(.86)	3.99	(.79)	63.70

Again, a MANOVA was performed with adjustment group and gender as the independent variables and the four indices of social resources as the dependent variables. Analyses revealed significant group differences on all four measures (see Table III). There was one significant gender difference, with girls reporting higher levels of intimacy with mother ($F[418, 3] = 8.99$, $p < .01$). One Group × Sex interaction emerged, indicating that boys in the positive adjustment group reported more intimacy with dads than girls ($F[418, 3] = 13.14$, $p < .01$). Follow-up tests revealed that positively adjusted youth reported significantly higher levels of intimacy with both parents and better overall family relations than adolescents from all the other groups. They also reported more intimacy with mothers and more social competence than both the negatively adjusted and vulnerable groups. Furthermore, the resilient adolescents differed from the vulnerable adolescents in reports of more intimacy with fathers and better peer and family relationships. The resilient youth also had more intimacy with mothers and more social competence than the negatively adjusted adolescents.

The final goal of the present study was to use repeated measures analyses of variance (ANOVAs) to investigate change over time in adolescent's coping and social resources, and to determine whether changes on these indices varied by adjustment group status at Time One.

Repeated measure ANOVAs on the coping indices revealed one Group × Time interaction indicating that both the positive and negative adjustment (i.e., low stress) groups increased in their perceptions of being able to cope with and master challenges, whereas the resilient and vulnerable adolescents (i.e., the high stress groups) did not change in their perceptions of mastery ($F[3, 441] = 3.68$, $p < .01$). There were no time or Time × Group effects for approach coping, avoidant coping, and optimism (see Table IV).

When examining social resources, one Time × Group interaction emerged. Specifically, we found that all groups except the resilients increased in peer relationships over time ($F[3, 442] = 4.75$, $p < .01$). There was also a main effect for time suggesting that intimacy with mothers and fathers declined from sixth to seventh grades for all adolescents ($F[1,427] = 9.85$, $p < .01$ (mom) and $F[1, 394] = 8.37$, $p < .01$ (dad). (See Table IV.)

DISCUSSION

The discussion focuses on the following three goals: (a) exploring group and gender differences in adolescent's coping characteristics, (b) investigating group and gender differences in adolescent's social resources, and (c) examining change over time in coping skills and social resources.

Table IV. Time One and Time Two Measures of Depression, Negative Life Events, and Resource Variables

	Adjustment Groups															
	Positive Adjustment				Resilient				Negative Adjustment				Vulnerable			
	Time one		Time two		Time one		Time two		Time one		Time two		Time one		Time two	
Depression	1.11	(1.07)	1.35	(2.17)	1.38	(1.05)	2.38	(3.27)	7.42	(3.68)	5.71	(4.93)	7.40	(3.42)	5.62	(5.37)
Negative life events	1.43	(1.06)	2.31	(2.34)	5.55	(1.65)	3.69	(3.38)	1.52	(1.34)	3.03	(3.99)	7.31	(3.37)	4.02	(3.70)
Approach coping	23.56	(7.99)	23.92	(8.90)	23.37	(8.32)	21.93	(9.29)	18.03	(8.46)	17.87	(7.52)	19.24	(4.67)	19.60	(8.79)
Mastery	5.39	(3.79)	5.66	(4.48)	6.78	(4.26)	7.25	(4.22)	7.74	(4.53)	7.15	(3.93)	9.14	(4.67)	8.02	(4.88)
Optimism	5.09	(.63)	5.19	(.57)	4.91	(.64)	4.74	(.79)	4.19	(.66)	4.49	(.74)	4.21	(.64)	4.36	(.86)
Intimacy with mom	2.79	(.55)	2.86	(.63)	2.57	(.60)	2.56	(.62)	2.08	(.54)	2.23	(.63)	1.90	(.52)	2.18	(.66)
Intimacy with dad	4.04	(.66)	3.92	(.67)	3.84	(.86)	3.65	(.83)	3.50	(.81)	3.51	(.85)	3.50	(.60)	3.39	(.87)
Family relationships	3.87	(.62)	3.66	(.77)	3.56	(.90)	3.49	(.99)	3.27	(.88)	3.04	(.97)	3.22	(.90)	3.18	(.99)
Peer relationships	5.15	(.65)	5.11	(.67)	4.71	(.79)	4.55	(.88)	4.37	(.84)	4.24	(.91)	4.21	(.84)	4.19	(.86)
	4.95	(.72)	5.11	(.70)	5.03	(.67)	4.87	(.86)	3.77	(.86)	4.17	(1.00)	3.99	(.79)	4.27	(.92)

Coping Resources

The first goal of this study was to investigate group and gender differences in coping style, perceived mastery, and optimism. We found that high levels of active coping, mastery, optimism, and low levels of avoidant coping were associated with better adjustment outcomes at both high and low levels of adversity. The finding that symptomatic youth reported lower levels of personal and social resources is consistent with previous research indicating that depressed youth use less effective coping, engage in more negative attributions, and have poorer interpersonal relations (Compas *et al.*, 1988; Ebata and Moos, 1991; Garber *et al.*, 1991; Kaslow *et al.*, 1984; Puig-Antich *et al.*, 1985; Seligman *et al.*, 1984).

The resilient adolescents were compared to the vulnerable adolescents in an effort to identify the factors that may moderate the effects of negative life events on depressive symptoms. Coping style (i.e., high approach and low avoidance), optimism, and mastery all appeared to be important in differentiating highly stressed adolescents who displayed depressive symptoms from highly stressed adolescents reporting few depressive symptoms. There were no differences in coping resources between the two symptomatic groups and only one difference between the two asymptomatic groups (e.g., optimism). Thus, poor coping skills and low perceptions of efficacy were more closely linked with depressive symptoms than with stress. Pessimism, withdrawal, and low efficacy may be concomitants of the depressive experience, or they may reflect traits that predispose individuals to depression regardless of exposure to negative events. Girls did report more active coping than did boys; however, the association between coping, stress, and symptoms did not appear to differ by gender.

Social Resources

When exploring social resources, we found that reports of positive relationships with peers and family were associated with fewer internalizing symptoms and this pattern generally held up across both low and high adversity groups. Again, there were far more differences between the symptomatic and asymptomatic groups than between the high and low stress groups indicating that low individual and contextual resources may be more closely tied to depression than to negative life events. The resilient vs. vulnerable adolescents were contrasted in order to illuminate potential moderators of the stress-depression link. We found that intimacy with fathers, overall family relationships, and satisfaction and competencies with peers differentiated the nondistressed, high adversity adolescents from the dis-

tressed, high adversity adolescents. Taken together, these results suggest that individuals with depressive symptoms have poorer coping skills and more negative self-efficacy expectations and outcome expectancies, in addition to having less satisfactory relations with family and peers. Given that the resilient youth reported more intrapersonal and interpersonal resources than the vulnerable adolescents, it is probable that these characteristics buffer the effects of stress on depression. Although girls reported more intimacy with mom and positively adjusted boys reported more intimacy with dad, it did not appear that the role of social resources differed for boys and girls.

Patterns of Change from Sixth to Seventh Grade

The next step was to determine whether the four groups displayed different patterns of change over time. The positively adjusted group appeared to maintain their advantage in both intra- and interpersonal resources, continuing to report higher levels of resources than the other groups at time two. In addition, they reported significant gains in perceptions of mastery and social competence. Thus as a group, the positively adjusted appeared to be doing well and to be successfully negotiating the early adolescent transition.

The resilient adolescents did not fare as well as the positively adjusted. Over the one-year period, the resilient group appeared to have lost its advantage in personal and social resources. Compared to sixth grade when they surpassed the symptomatic groups in reports of these resources, in seventh grade they no longer differed from the symptomatic groups on approach and avoidant coping, intimacy with father, and general family environment. In addition, by seventh grade they indicated lower levels of perceived mastery than the positive adjustment group. Furthermore, the resilients failed to achieve the improvements in mastery and social competence seen in the other groups. In fact, the resilient adolescents were the only ones to experience a decline in self-efficacy, although the magnitude of this change was nonsignificant. Enhancement in self-efficacy likely occurs when individuals believe they have effectively mastered stressful events. However, when problems pile up and overwhelm individuals, resources become taxed and little opportunity exists to experience the reinforcement and pride associated with facing and resolving life's challenges. Although the resilient adolescents appeared to have a sufficient level of personal and environmental resources to cope with negative events and maintain emotional adjustment at sixth grade, the energy it took to deal with these challenges may have precluded their involvement in developmentally

appropriate opportunities for continued personal growth. Thus, experiencing a number of negative events within a short period of time may place young adolescents at risk if they fail to develop and enhance the skills necessary for successfully negotiating this developmental period. Moreover, we found that all adolescents except the resilients increased in social competence and satisfaction with peer relationships from sixth to seventh grade. Perhaps, relying heavily on peer support, while it may have protected them from depression, strained their personal relationships leaving them doubtful of their social competence and unsure of the security of their friendships. Future research should include more follow-ups to explore whether resilient adolescents continue to show a decline in personal and social resources and in mental health over longer periods of time.

The previously symptomatic youth remained low, compared to the positive adjustment group, on reports of coping and social resources. Similar to the resilients, the vulnerables failed to make significant gains in mastery. Thus, both high adversity groups appeared compromised by the high level of stress in their lives. However, the vulnerable adolescents did increase in peer relations. The negatively adjusted youth evidenced improvements in both mastery and peer relationships. Despite the higher level of adversity faced by the vulnerables, they did not appear any worse off at time two than the negatively adjusted adolescents.

In sum, asymptomatic adolescents in sixth grade could be distinguished from symptomatic youth in reports of high approach coping, optimism, perceived mastery in coping with challenge, and more satisfactory relationships with parents and peers. By seventh grade, the positively adjusted group remained high in intra- and interpersonal resources. In addition, they demonstrated improvements in both coping mastery and social competence. The picture was not quite as bright for the resilients as they failed to attain the gains in mastery and peer relations seen in the other groups. Moreover, by seventh grade they no longer reported more individual and contextual resources than the previously symptomatic groups. The adolescents distressed in sixth grade continued to report lower levels of resources than the positive adjustment youth. Thus, having limited resources in sixth grade appeared relatively stable.

There are several limitations to this study. First, systematic sampling bias may be a problem. It is unclear whether the adolescents who participated differed from those whose parents refused permission or who were unavailable during the initial or makeup sessions. Those subjects in cohort one who dropped out after the first wave of data collection were significantly more depressed than those who remained in the study. Although dropouts and completers did not differ in their level of negative life events and daily hassles, it is plausible that an increase in undesirable events was

associated with attrition at time two. As such, this sample most likely represents a more psychologically healthy group than would be expected if all adolescents from the schools had participated.

A further limitation of this study is that only one adjustment outcome was studied (i.e., depressive symptoms). It should also be noted that we explored depression in terms of a continuum of symptoms rather than defining depression in regards to any clinical diagnostic criteria. It is likely that stressful life events relate differentially to adjustment outcome. Therefore, for some youth stress may be linked with internalizing symptoms, but for others, stress may correlate with externalizing disorders. As such, these findings may only be discussed in light of the relationship between stress and depressive symptoms and may represent a process more salient for females, as they tend to exhibit more internalizing symptoms than males (Petersen *et al.*, 1993). Future research should include a broader array of adjustment outcomes and attempt to link different domains of stress with different measures of well-being. In addition, conflict exists regarding whether resiliency is viewed as an absence of psychopathology or the presence of competence and positive mental health (Luthar *et al.*, 1993). This study focused strictly on the absence of depressive symptoms as the indicator of well-being. Recommendations for improving future resiliency research include utilizing measures that tap positive as well as negative dimensions of adjustment.

In addition, there is only one follow-up point; thus we are unable to determine whether changes represent stable trends. Future research should follow adolescent's mental health trajectories over longer periods of time to determine the implications of adjustment status and resources on later patterns of well-being.

Finally, this study is limited by its reliance on self-report and correlational data. While self-report data provides valid means for assessing internal processes like coping and depressive symptoms, future work would benefit by including other reporters such as parents and teachers and using alternative methods such as observation in investigating the relationships between stress, resources, and mental health. Given that the data are correlational, no conclusion regarding causality can be determined. Indeed, it is likely that these relationships are bidirectional—that poor coping and social resources influence depressive symptoms which in turn affect personal and contextual resources.

The present study provides evidence that the transition to adolescence is smooth for most youth, and that a successful transition is more likely for adolescents who have high levels of coping and social resources. In addition, these results intimate that individual and contextual factors play an important role in moderating the relationship between stress and well-

being, and that individual differences in these protective factors may result in different processes being set into motion after exposure to life events. Furthermore, as a group, those distressed in sixth grade continued to demonstrate fewer personal and contextual resources implying that these youth would benefit from interventions designed to bolster coping and social skills. However, the adolescents deemed resilient at time one who may have been overlooked for participation in intervention programs because of their low levels of depressive symptoms may also be at risk because of their exposure to numerous negative life events. Thus, our findings provide justification for including highly stressed adolescents in intervention programs, who as a consequence of incurring high levels of stress may begin heading down a negative developmental trajectory.

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