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Relationship of Life Events and Social Support with Psychological Dysfunction Among Adolescents

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Relationships among major life events, perceived social support, and psychological disorder were assessed in a sample of older adolescents. Negative life events and satisfaction with social support were significantly and independently related to a range of psychological symptoms. Further, the relationship between negative events and disorder was moderated by gender, the types of events experienced, and anticipated change in the psychosocial environment. The importance of the use of standardized and psychometrically sound measures of life events, social support, and psychological disorder is highlighted.

INTRODUCTION

Adolescence is frequently described as a period of development during which dramatic life changes and transitions occur. However, research examining the effects of stressful life events during adolescence has lagged far behind similar research with adult populations. Only ten studies to date have

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examined the association of cumulative life events with psychological and/or physical dysfunction among adolescents (see Compas, in press, for a review). These studies have used several different measures of life events during adolescence, have seldom assessed factors that might mediate the relationship between life events and dysfunction, and have often used idiosyncratic, nonstandardized measures of disorder. The present investigation was designed to address these problems.

An investigation by Newcomb *et al.* (1981) reflects the current state of knowledge regarding the relationship between life events and disorder among adolescents. In the course of developing a measure of major life events during adolescence they examined several characteristics of events in this age group as well as the relationship of events to health and psychological functioning. A sample of over 1,000 adolescents reported on the occurrence of 39 major events during the previous year of their lives. Seven clusters of events were identified, based on common occurrence and similarity of content: family/parents, accident/illness, sexuality, autonomy, deviance, relocation, and distress. Health and psychological functioning were differentially related to these event clusters, as well as to total frequency of events perceived as negative and positive. Negative events were more strongly associated with dysfunction than were positive events, with the highest correlation occurring between negative events and depression ($r = .20$). Events from the distress, deviance, and family/parents clusters were most closely associated with disorder, with the strongest relationship occurring between distress events and depression ($r = .30$). Rates of occurrence for some of the event clusters also varied as a function of gender, grade level, and ethnic group.

While these findings indicate the measure has some promise for assessing major life events during adolescence, the scale has not been used in any further studies reported in the literature. This failure to attempt to replicate and expand on an initial measurement study has been true of other measures of adolescent life events. For example, the scale developed by Coddington (1972a,b) has been used most frequently in investigations involving adolescents. Many of the studies using this measure have altered its structure by deleting items and adding others (e.g., Barrera, 1981; Vaux and Ruggiero, 1983). This makes comparison of data across studies a risky venture at best. The need for sound replication of findings concerning life events during adolescence is clear.

In addition to warranting replication, the Newcomb *et al.* (1981) study can be expanded upon in at least two ways. First, the authors focused on the linear association between life events and dysfunction. However, research investigating this relationship among adults indicates that it is mediated by several factors, including perceived social support (e.g., Thoits, 1982), cognitive appraisals of events (e.g., Lazarus and Folkman, 1984), and cop-

ing (e.g., Folkman and Lazarus, 1980). Examination of mediational factors was not included in the Newcomb *et al.* (1981) study and it has been extremely rare in studies of adolescent life events in general. The few attempts to examine mediators in this age group have focused on the effects of social support (Barrera, 1981; Gad and Johnson, 1980; Hotaling *et al.*, 1978). However, these studies have used different methods to assess social support and have generated conflicting findings. Thus, the role of social support in adaptation to stressful events during adolescence needs further examination. A second problem with the Newcomb *et al.* (1981) investigation is also representative of most studies in this area—that is, the failure to use a standardized measure of psychological and physical dysfunction. Standardized measures of disorder have been used in only three of the ten studies of cumulative life events during adolescence (Barrera, 1981; Greenberger *et al.*, 1982; Johnson and McCutcheon, 1980). The Newcomb *et al.* (1981) investigation is representative of the remaining studies in their use of a self-report measure of health and psychological functioning of unknown test–retest reliability and validity.

The purpose of the present study was to examine the relationships among major life events, perceived social support, and psychological dysfunction in a sample of adolescents, addressing the limitations of prior studies. An effort was made to select measures of each of these variables that possess adequate psychometric properties. Consistent with prior studies of major life events during adolescence (e.g., Gad and Johnson, 1980; Johnson and McCutcheon, 1980; Newcomb *et al.*, 1981), it was expected that life events during the past year that were perceived as negative would be positively related to level of psychological symptoms while events perceived as positive would not. Further, it was hypothesized that perceived social support would be inversely related to level of symptoms. That is, higher levels of disorder would be associated with lower levels of perceived social support.

Finally, the study allowed for the examination of several factors that might mediate the life events–disorder relationship. First, in addition to the idea that social support is directly related to psychological disorder, many investigators have suggested that social support may act as a protector variable, mediating the relationship between life events and disorder (see reviews by Gotlieb, 1981; Heller and Swindle, 1983; Thoits, 1982). Typically referred to as the "buffering hypothesis," this view predicts a significant interaction effect for social support and life events in relation to psychological outcome. Thus, according to the buffering hypothesis, psychological distress will be substantially higher under conditions of high stress and low support than high stress and high support. Psychological disorder is expected to be relatively unaffected by level of social support when stress is low. Equivocal or weak support for the buffering hypothesis has been found in studies in-

volving adolescents (Berrera, 1981; Gad and Johnson, 1980). The present study offered an opportunity to explore this concept further. Second, relationships between subtypes of life events and disorder were also examined. Newcomb *et al.* (1981) found that the association between events and dysfunction was affected by type of event, with a stronger relationship occurring for events concerning distress, deviance, and family/parents. This effect has not been reexamined in other studies of adolescent life events. Finally, certain times in an individual's life or particular psychosocial environments may put a person at greater risk or increase his/her vulnerability to the potential adverse effects of stressful events, and thus may heighten the association between life events and disorder (cf. Monroe *et al.*, 1983). The present study involved adolescents entering an important period of transition as they prepared to leave home to enter college. Although it is difficult to quantify the degree of disruption this transition will entail for different individuals, one variable that might reflect this concept is the geographical distance between a student's home and his or her new college environment. Students moving to a different state or different region of the country might find the task of adjusting to college more complex, and their access to familiar people and places more restricted than those moving a relatively short distance. In the current study the distance to be moved from home to college was explored as a variable that might reflect overall anticipated disruption and thus might be expected to be related to students' vulnerability to stress.

METHOD

Subjects

Participants were 243 high-school seniors (90 male and 153 female) attending a freshman orientation program held in June 1983 for students planning to enter a public university in the Northeast. They ranged in age from 16 to 19 ($X = 17.9$). All subjects were white and from middle to upper middle-class backgrounds. For 36% of the sample at least one parent had received a graduate degree, 79% had at least one parent with a college degree or a graduate degree, and for 90% one or both parents had completed high school. Ninety-three percent were living with one or both of their parents and 95% planned to move into campus dormitories the following September. Thirty-one percent would be moving less than 100 miles from home to attend college, 57% would be moving between 100 to 500 miles, and 12% would be

moving more than 500 miles. All subjects were volunteers and received no remuneration for their participation. Approximately 45% of those asked to participate volunteered to do so.

Measures

The Life Events Questionnaire (LEQ), developed by Newcomb *et al.* (1981) for use with adolescents, consists of 37 events that respondents indicate they have experienced during the previous year, over one year ago, or never. The emotional impact of those events that have been experienced in the previous year is rated from very negative (−2) to very positive (+2). Monotonicity analysis yielded a seven-factor solution accounting for 44% of the variance in the items (Newcomb *et al.*, 1981). Kuder-Richardson 20 internal consistency coefficients for the seven factors ranged from .38 for autonomy to .59 for deviance in the Newcomb *et al.* study. In the present sample, internal consistency reliabilities were considerably lower: family/parents (.25), accident/illness (.14), sexuality (.32), autonomy (.30), deviance (.25), relocation (.51), and distress (.28). These low coefficients indicated that events in each factor were not highly likely to "co-occur." However, the factors still possessed face validity and were examined in relation to symptom levels.

The Social Support Questionnaire (SSQ), developed by Sarason *et al.* (1983), consists of 27 items, each requiring subjects to list the people to whom they could turn and on whom they could rely in a specific hypothetical situation, and to indicate their level of satisfaction with the social support they would receive in each situation. Two scores were derived: the average number of support persons listed for each item and the average satisfaction with support for each item. Scores representing number of support persons and satisfaction with support are interpreted separately based on the modest relationship ($r = .34$) between the two (Sarason *et al.*, 1983). A similarly modest but significant correlation ($r = .27$, $p < .001$) between the two factors was obtained in the present sample. High test-retest reliability coefficients for a four-week period were obtained for both number of support persons ($r = .90$) and satisfaction with support ($r = .83$) (Sarason *et al.*, 1983). Alpha coefficients of internal consistency were also high (.97 for number of support persons and .94 for satisfaction with support). Due to the length of the battery of questionnaires used in the present study, an abbreviated version of the SSQ was used. A random set of 14 out of the 27 items was selected. Coefficient alphas for these 14 items were .94 for number of support persons and .94 for satisfaction with support. It appears that the abbreviated version retained the homogeneity of these two constructs.

The Hopkins Symptom Checklist (HSCL) is a 58-item self-report measure of a wide variety of physical and psychological symptoms (e.g., Derogatis *et al.*, 1974). Respondents rate the extent to which each symptom has bothered them during the past seven days (1 = not at all; 4 = extreme distress). Factor analyses and clustering based on psychiatrists' judgments were used to derive five subscales: depression, anxiety, obsessive-compulsiveness, interpersonal sensitivity, and somatization. These subscales have demonstrated high internal consistency (alphas ranging from .84 to .87) and test–retest reliability over a one-week interval (.75 to .85). Coefficient alphas for the present sample ranged from .79 to .85 for the subscales, with an alpha of .95 for the total symptom score. The validity of the HSCL has been established in several ways (see Derogatis *et al.*, 1974). First, factor analysis of the HSCL has yielded empirical symptom clusters highly similar to symptom clusters defined by clinicians' ratings. Second, rank ordering of patient subjects on HSCL subscale scores is highly consistent with ratings of patient distress levels assessed independently by physicians. Third, factor analyses of the HSCL with diverse samples have demonstrated factorial constancy across patient social status, psychiatrists' vs patients' ratings, and diagnostic category. Finally, the HSCL has been found to be sensitive to slight variation in symptomatology in nonclinical as well as clinical samples. Although a longer version of the HSCL has been developed that includes four additional dimensions, the shorter version was selected for two reasons. First, the longer form (90 items) would have made the battery of questionnaires too lengthy for subjects to complete. Second, the additional scales focus on more extreme forms of psychopathology (e.g., paranoid ideation and psychoticism), which seemed inappropriate for the nonclinical sample in this study.

Procedure

All data were collected at four two-day freshman orientation sessions held in early June 1983. Orientation group leaders (advanced undergraduate students) described the nature of the study to small groups (average size of 20) at the end of the first day of each session. Questionnaires were then distributed to those students who volunteered and were completed independently before the participants went on to their next scheduled activity. Identifying information appeared on a postcard that was separated from the questionnaires when they were returned to the orientation leaders. To ensure anonymity, all questionnaires were identified by code numbers only.

RESULTS

Means and standard deviations for each of the three measures are presented for the total sample and are broken down by gender in Table I. The scores of this sample on each of the measures are roughly equivalent to those from earlier reports on other samples. The current sample reported slightly fewer events ($M = 7.6$) during the previous year than the Newcomb *et al.* (1981) sample. Subjects in the current sample experienced significantly more positive events ($M = 3.7$) than negative events ($M = 2.2$), [$t(242) = 8.61, p < .001$]. The number of support persons ($M = 3.3$) and satisfaction with support ($M = 5.0$) scores are roughly equivalent to those reported by Sarason *et al.* (1983) ($M = 4.3$ and 5.4, respectively). The symptom scores are similar to those reported by Derogatis *et al.* (1974) for other nonclinical samples, indicating this sample was relatively "symptom free." Several differences between females and males were identified. Females reported more total life events [$t(241) = 3.76, p < .001$] and more weighted negative events [$t(241) = 4.23, p < .001$]. Females also reported having more individuals available for social support [$t(171) = 5.46, p < .001$]. With regard to symptom levels, females were higher in obsessive-compulsive symptoms [$t(226) = 2.14, p < .05$], anxiety symptoms [$t(227) = 2.11, p < .05$], and total symptom level [$t(214) = 2.30, p < .05$].

Life Events, Social Support, and Symptoms

Pearson correlation coefficients for perceived negative life events and social support satisfaction with HSCL scores are presented in Table II. Neither weighted positive life events nor number of support persons were significantly related to total symptom level or to any of the HSCL subscales, and these variables were omitted from subsequent analyses. Weighted negative events ($r = .27, p < .001$) and lower satisfaction with social support ($r = -.27, p < .001$) were significantly and approximately equally related to total symptoms. Correlations with HSCL subscales varied. Weighted negative events were significantly related to all subscales, with a slightly lower association with somatization. Satisfaction with support was inversely related to depression, somatization, and interpersonal sensitivity; less so with anxiety; and not related to obsessive-compulsive symptoms. While weighted negative events were somewhat more strongly correlated with anxiety and obsessive-compulsive symptoms than was satisfaction with social support, a test for differences between nonindependent correlations indicated that these differences were nonsignificant.

Table I. Means and Standard Deviations of Life Events, Social Support, and Symptom Measures

	Total sample			Females			Males		
	n	Mean	*SD*	*n*	Mean	*SD*	*n*	Mean	*SD*
Life events									
Total raw events	243	7.6	3.5	153	8.2	3.5	90	6.5	3.3
Positive events	243	3.7	2.2	153	3.9	2.2	90	3.3	2.1
Negative events	243	2.2	1.9	153	2.6	2.0	90	1.5	1.6
Weighted positive events	243	5.4	3.6	153	5.7	3.6	90	4.9	3.6
Weighted negative events	243	3.1	3.0	153	3.7	3.1	90	2.1	2.5
Social support									
Average number of support persons	173[a]	3.3	1.5	114[a]	3.7	1.6	59[a]	2.5	1.1
Average satisfaction with support	140[a]	5.0	0.9	93[a]	5.1	0.9	47[a]	4.9	0.9
Symptoms									
Depression	227	18.0	5.7	144	18.5	5.6	83	17.2	5.8
Somatization	228	17.6	4.7	148	17.9	4.8	80	17.3	4.6
Obsessive-compulsive	228	13.3	4.2	147	13.7	4.5	81	12.5	3.3
Interpersonal sensitivity	231	12.9	4.0	150	13.2	4.2	81	12.2	3.6
Anxiety	229	11.6	3.9	148	12.0	4.0	81	10.8	3.7
Total symptoms	216	95.2	23.3	138	97.9	24.6	78	90.4	20.2

[a]Samples sizes were considerably smaller for the social support variables, owing to the fact that many subjects elected not to complete this form, perhaps due to its considerable length.

Table II. Pearson Correlations of Weighted Negative Life Events, Satisfaction with Social Support, and Psychological Symptoms

Symptom	Weighted negative events	Satisfaction with social support
Depression	.27[b]	−.27[b]
	(n = 227)	(n = 136)
Somatization	.18[a]	−.22[a]
	(n = 228)	(n = 136)
Obessive-compulsive	.25[b]	−.15
	(n = 228)	(n = 137)
Interpersonal sensitivity	.29[b]	−.26[b]
	(n = 231)	(n = 138)
Anxiety	.30[b]	−.19
	(n = 229)	(n = 138)
Total symptom level	.27[b]	−.25[a]
	(n = 216)	(n = 131)

[a] $p < .01$.
[b] $p < .001$.

A multiple-regression analysis was performed to determine the relative contributions of weighted negative events and satisfaction with social support to the variance in symptoms (total HSCL score). Weighted negative events alone accounted for 6% of the variance in symptoms ($R = .25$, $p < .01$) and the addition of satisfaction with social support resulted in a significant increase in the proportion of the variance in symptoms accounted for ($R = .35$, $R^2 = .12$, $p < .001$). Entering the interaction term of Weighted Negative Events × Satisfaction with Social Support into the regression equation as a third step did not result in a significant increase in the proportion of variance explained.

The possibility of an interaction of weighted negative events and satisfaction with social support (i.e., the buffering hypothesis) was further explored

Table III. Mean Psychological Symptom Scores as a Function of Levels of Negative Events and Satisfaction with Social Support[a]

Negative life events	Satisfaction with Social Support	
	Low	High
Low	94.0	87.7
High	105.5	94.4

[a] Means reflect the total score on the HSCL.

Table IV. Pearson Correlations of Life Event Factors with Symptom Scores

		Hopkins Symptom Checklist				
	Total symptoms	Depression	Somatization	Obsessive-compulsive	Interpersonal sensitivity	Anxiety
Family/parents						
Negative	.16[a]	.11	.13	.13	.12	.23[b]
Positive	.14	.15	.08	.10	.14	.05
Accident/illness						
Negative	.00	−.03	.05	.00	.04	.05
Positive	.08	.06	.07	.03	.01	.10
Sexuality						
Negative	.05	.04	.06	.05	.01	.06
Neutral	−.07	−.07	.00	.01	−.05	−.01
Positive	−.05	−.03	.03	−.03	−.07	.00
Autonomy						
Negative	.08	.14	.00	.03	.09	.01
Neutral	.02	.00	.07	−.01	.02	.07
Positive	−.01	−.05	−.04	.01	.00	−.02
Deviance						
Negative	.16[a]	.14	.06	.23[b]	.20[b]	.17[a]
Positive	.04	−.03	.05	.12	.07	.10

Relocation						
Negative	.06	.05	.08	.09	.17[a]	.09
Positive	.03	−.01	.05	.04	−.06	.00
Distress						
Negative	.21[b]	.26[b]	.08	.22[b]	.24[b]	.20[b]
Positive	.09	.12	.12	.11	.06	−.01
Cross factor scores						
Negative	.24[b]	.23[b]	.15	.23[b]	.26[b]	.26[b]
Neutral	.09	.06	.16[a]	.08	.05	.09
Positive	−.01	−.04	−.01	.02	−.03	−.01
Total individual factor scores						
Family/parents	.22[b]	.18[a]	.16[a]	.18[a]	.18[a]	.25[b]
Accident/illness	.06	.02	.09	.02	.04	.11
Sexuality	−.04	−.03	.06	.01	−.07	.03
Autonomy	.01	−.02	−.01	.01	.03	.01
Deviance	.15	.10	.08	.25[b]	.19[b]	.19[a]
Relocation	.06	.02	.09	.08	.07	.06
Distress	.24[b]	.29[b]	.14	.26[b]	.25[b]	.17[a]

[a] $p < .01$.
[b] $p < .001$.

by splitting subjects at the median scores for weighted negative events and for satisfaction with social support, thus forming "high stress," "low stress," "high support," and "low support" groups. Mean total HSCL scores as a function of stress and social support are presented in Table III. A two-way analysis of variance indicated significant main effects for life events [$F(1,127) = 5.10$, $p < .05$] and social support [$F(1,127) = 4.88$, $p < .05$] but the Life Events × Social Support interaction was nonsignificant. Further comparisons between groups were made using the Student Newman–Keuls procedure. The high stress–low social support group reported significantly more symptoms than the low stress–high social support group ($p < .05$). No other comparisons were significant.

Life Events Clusters

Scores for each of the seven life-event factors derived by Newcomb *et al.* (1981) were calculated using the unit-weighting method they described, yielding 16 negative, neutral, and positive scores: family/parents negative and positive events; accident/illness negative and positive; sexuality negative, neutral, and positive; autonomy negative, neutral, and positive; deviance negative and positive; relocation negative and positive; and distress negative and positive. Correlations of these event factor scores with the HSCL scales are presented in Table IV.[5] Unweighted negative events concerning family/parents, deviance, and distress were most strongly associated with symptom scores. Unweighted positive events were less strongly associated with symptoms, with significant relationships occurring on these three factors less often than for unweighted negative events. Correlations of the negative, neutral, and positive cross-factor events scores with symptoms indicate that negative events are much more closely associated with symptoms than are either positive or neutral events. Finally, examination of the correlations between the total individual events factor scores (incorporating positive, negative, and neutral scores within event clusters) and the symptom subscales reflects even more clearly that only events related to family/parents, deviance, and distress had any relationship with symptoms.

Gender Differences

Separate analyses of the relationship of weighted negative events and satisfaction with social support to symptoms were conducted for males and females, and the results are presented in Table V. While most of these cor-

[5]Because of the large number of correlations computed, the significance level was set at .01.

Table V. Pearson Correlations of Weighted Negative Events and Satisfaction with Social Support with Symptoms for Males and Females

	Weighted negative events		Satisfaction with social support	
Symptoms	Females	Males	Females	Males
Total HSCL	.14	.49[b]	−.29[a]	−.32
Depression	.20[a]	.37[b]	−.30[a]	−.33
Somatization	.12	.29[a]	−.27[a]	−.26
Obsessive-compulsive	.20[a]	.30[a]	−.17	−.26
Interpersonal sensitivity	.21[a]	.44[b]	−.31[b]	−.22
Anxiety	.20[a]	.47[b]	−.28[a]	−.11

[a] $p < .01$.
[b] $p < .001$.

relations are significant for both females and males, the relationship between weighted negative events and total symptoms was significantly stronger for males ($r = .49$, $p < .001$) than for females ($r = .14$, n.s.) (Fisher's test of independent correlations). The relationship between social support and total symptoms did not differ between males and females.

Distance from Home

The relationship of weighted negative events and satisfaction with social support to symptoms as a function of the distance subjects would be moving from home to attend college is presented in Table VI. These correla-

Table VI. Pearson Correlations of Weighted Negative Events and Satisfaction with Social Support with Total Symptoms as a Function of Distance Moved

	Less than 100 miles	
	Weighted negative events	Satisfaction with social support
Total symptoms	.20 ($n = 62$)	−.13 ($n = 36$)
	100 to 500 miles	
	Weighted negative events	Satisfaction with social support
Total symptoms	.22[a] ($n = 125$)	−.30[a] ($n = 78$)
	Over 500 miles	
	Weighted negative events	Satisfaction with social support
Total symptoms	.48[a] ($n = 28$)	−.50 ($n = 16$)

[a] $p < .01$.

tions reflect a trend for stronger association of these two variables with symptoms the further subjects would be moving. The apparent difference between subjects moving 100 to 500 miles and those moving more than 500 miles did not reach significance due to the small number of subjects in the third group.

DISCUSSION

The present investigation provides clear support for the association between perceived negative life events and psychological dysfunction among adolescents. Negative life events were significantly correlated with symptoms of a variety of psychological problems (depression, anxiety, obsessive-compulsiveness, interpersonal sensitivity, and somatization) while positive and neutral events were not. These findings support those reported by Newcomb *et al.* (1981) using the same measure of life events. Further, the magnitude of the correlations obtained in the present study exceed those found by Newcomb *et al.* (1981). Combined with the use of a standardized and psychometrically sound measure of psychological disorder, these data provide stronger support for the association between negative events and disorder among adolescents than has prior research. The findings represent a much needed replication of earlier work in the area of stressful life events during adolescence.

A number of factors that could moderate the life events–disorder relationship were also examined. First, perceived social support was found to be associated with symptomatology. More specifically, lower levels of satisfaction with social support were significantly related to symptoms of depression, somatization, interpersonal sensitivity, and anxiety, while the number of individuals reported available as soruces of support was not related to these problems. A significant relationship exists between satisfaction with social support and dysfunction independent of perceived negative events, with satisfaction with support and negative events explaining equal portions of the variance in symptoms. Satisfaction with social support and negative life events did *not* interact in their relationships with dysfunction. That is, the notion that social support increases in importance as negative events increase was not supported. This is consistent with data presented by Barrera (1981) in which satisfaction with support was related to symptomatology, but network size and the interaction of negative events and satisfaction with social support were not related to symptoms among pregnant adolescents.

The association between negative events and psychological symptoms also varied as a function of the type of events experienced. Negative events involving parents or other family members, distress, and to a lesser extent,

deviance events, were associated with a range of symptoms. However, events involving accidents or illness, sexuality, personal autonomy, or relocation were not correlated with dysfunction. The low internal-consistency reliabilities for these factors indicate that their association with symptoms is not the result of the contemporaneous occurrence of similar events. Rather, it appears that certain types of life events may be distressing for adolescents, whether they occur in isolation or together. This pattern of association between event clusters and disorder is much more distinct than the pattern found by Newcomb *et al.* (1981) who report some significant relationships with dysfunction for all of the event clusters. This may be due to differences in the two samples (e.g., age, socioeconomic status) or characteristics of the measure of dysfunction. It appears that, at least for the present sample of older adolescents, the link between negative events and psychological problems is limited to events concerned with family problems, troubles at school or with the law, or personal difficulties. Surprisingly, becoming more autonomous, moving to a new home or school, and sexuality are not related to psychological symptoms in this sample. A number of the events included in the Newcomb *et al.* (1981) measure appear to be relatively benign in their impact.

Surprisingly strong differences in the life events–disorder relationship were found as a function of gender. In spite of the fact that females experienced significantly more negative events than males, the correlation between negative events and symptoms was significantly higher for males ($r = .49$) than for females ($r = .14$). This suggests that it is not simply the number or severity of negative events that leads to an association with disorder. Prior studies have not typically found gender differences in the frequency of occurrence of the types of events studied here. Newcomb *et al.* (1981) did not find a difference in frequency of negative, positive, or total events for males and females. Compas *et al.* (1985), in examining open-ended reports of major and daily events by adolescents, found that males and females reported similar numbers of positive and negative major events, while females reported significantly more *daily* events than did males. This pattern warrants further investigation. The stronger association between life events and disorder for males than for females is also in contrast to prior studies with adolescents. Newcomb *et al.* (1981) did not report any gender differences in event–disorder associations. Vaux and Ruggiero (1981), and Greenberger *et al.* (1982), found that life change was more closely associated with delinquency and psychological problems, respectively, for females than for males. Johnson and McCutcheon (1980) reported that negative events were more strongly associated with physical problems for males than for females, but they were more strongly associated with psychological problems for females than for males. Whether the present findings are a result of the

impact of events on adolescent males and females as they are about to leave home, or only represent a unique feature of this sample, also warrants further study.

Finally, preliminary support was found for the notion that a high degree of change or disruption in the psychosocial environment may increase adolescents' vulnerability to stress. There was a trend suggesting increasingly stronger associations between disorder and both negative events and lower satisfaction with social support the further adolescents planned to move from home to attend college. Small sample sizes prohibit any conclusion regarding this pattern at present. However, the data indicate the need to further examine the association of events and dysfunction under circumstances that vary in terms of the degree of disruption in the psychosocial environment they may entail. This research strategy could help clarify which individuals are likely to be adversely affected by life events and which are not.

Two concerns raised by this study should be highlighted. The first relates to the relatively low magnitude, albeit significant, correlations obtained between events and disorder. While these correlations are generally higher than those obtained by Newcomb *et al.* (1981) using this life events scale, negative life events still account for only 6% of the variance in psychological symptoms. It appears that in the general population of adolescents, major life events are consistently but weakly associated with psychological dysfunction. A similar weak but significant association between satisfaction with social support and psychological dysfunction, when added to the effects of negative life events, leads to a significant increase in the variance accounted for. However, even both variables combined make it possible to account for only 12% of the variance in symptoms. While these findings confirm an association between major life events and psychological symptoms during adolescence, the mediating effects of gender and disruption in the psychosocial environment suggest that examining individual differences in response to events will be a more fruitful avenue to pursue than continued study of the effects of major life events per se. The second problem involves the nature of the research design used in the current study. By studying the relationship of life events, social support, and dysfunction at a single point in time using retrospective methods, the possible "transactional" and reciprocal relationships among these variables cannot be assessed. That is, the mutual influence of these factors on one another and changes in these relationships over time are obscured. To examine such processes, these same variables must be assessed at multiple points in time.

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