Journal of Behavioral Medicine, Vol. 6, No. 2, 1983

Major and Minor Life Events as Predictors of Psychological Distress: Further Issues and Findings

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Accepted for publication: May 14, 1982

Current trends in research on stressful life events and disease have been to focus upon other psychosocial factors that may be associated with stress and illness relationships. Recently, the study of relatively minor life events or situations (e.g., daily hassles) has provided a promising alternative avenue of inquiry into basic stress measurement and the relationship of stress to disorder. While initial findings in this area of research appear encouraging, several methodological and procedural issues currently preclude definitive conclusions. The present paper outlines several of the most important limitations of existing research on this topic and provides further data taking these limitations into account for the role of minor life events as predictors of psychological distress. The results of the present prospective study indicate that undesirable minor events (e.g., hassles) significantly predict psychological symptoms, even once initial symptom status is controlled for statistically. Additionally, hassles were uniformly better predictors of subsequent psychological symptoms than were major life event categories; potentially important interactive effects (e.g., hassles × prior symptoms; hassles × prior major events) were also tested and their implications are discussed. Finally, basic associations between major and minor events were examined. The findings are discussed specifically in the context of recent advances in this area and more generally in relation to clarifying our understanding of psychosocial predictors of disorder.

KEY WORDS: stressful life events; daily hassles; psychological symptoms.

This work was supported in part by NIH BRSG Grant S07 RRO7084-14.

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0160-7715/83/0600-0189$03.00/0

Significant advances have been made within the past 20 years in the social sciences with respect to the quantification of social experiences. Beginning with the seminal work of Holmes and Rahe (1967), a tremendous amount of energy and ingenuity has been devoted in particular to developing and refining measures of stressful life events. In tandem with these methodological developments, changes in one's social sphere—as indexed by life events—have been studied extensively with respect to the onset of a wide variety of psychological and physical health outcomes. The result has been an impressive body of evidence linking perturbations in an individual's social environment with many forms of disorder.

Although findings of event–illness associations appear to be consistent in that increased life event scores predict dysfunction in both retrospective and prospective studies, the magnitude of association reported typically has been low (see Rabkin and Struening, 1976; Sarason *et al.*, 1975), with numerous methodological shortcomings being cited (e.g., Brown, 1974; Cleary, 1980; Dohrenwend, 1974; Mechanic, 1975; Perkins, 1982; Sarason *et al.*, 1975). And, from a theoretical perspective, little progress has been made in delineating the intermediary mechanisms via which major life changes eventually attain their adverse effects. Thus most recently, an increasing emphasis has been directed toward the assessment of other potentially related socioenvironmental and psychological considerations (e.g., social support, coping processes) that may moderate event–illness relationships (see Jenkins, 1979; Johnson and Sarason, 1979). Such an approach could provide a more complete understanding of stress–disorder associations and potentially increase the predictive utility of such formulations.

Perhaps one of the more promising areas of inquiry involves the extension of major stressful life events to daily experiences: the more common, everyday events or relatively minor life incidents (Holmes and Holmes, 1970; Lewinsohn and Talkington, 1979; McClean, 1976). The assessment of daily minor difficulties (or, alternatively, pleasures) may be one avenue of study that could conceivably provide the researcher with a finer analysis of the tapestry of experiences comprising daily living. Given a more sensitive picture of an individual's common psychosocial experiences and stressors, systematic associations with various health outcomes may be explored and stress–illness conceptualizations further refined.

Although previous work bears similarities to such an approach for studying stressor–disorder associations (e.g., Holmes and Holmes, 1970), Lazarus and his colleagues have been most influential in promulgating this viewpoint and in providing initial empirical support (e.g., Lazarus, 1980; Lazarus and Cohen, 1977; Lazarus *et al.*, 1980). A recent report by Kanner *et al.* (1981) is especially noteworthy and comprehensive in scope. In

an interesting paper examining the implications of minor daily experiences for psychological functioning, these authors provided a conceptual rationale for the study of minor events, introduced an instrument for their assessment, and provided data suggestive of the utility of this approach for studying stress and illness associations. Kanner *et al.* (1981) also introduced the distinction between more positive daily experiences and relatively negative daily experiences, labeling the former "uplifts" and the latter "hassles."

In the study by Kanner *et al.* (1981), a community sample of 100 middle-aged adults completed the Hassles and Uplifts Scales for 9 consecutive months, along with other measures assessing life events (at the study outset and for each subsequent month) and psychological symptoms (e.g., the Hopkins Symptom Checklist during the second and tenth months; Derogatis *et al.*, 1974). Their findings provided preliminary evidence for the importance of daily hassles for predicting psychological symptoms. For instance, hassles were found to be better predictors of concurrent and follow-up psychological symptoms than were the traditional life events scores. These authors subsequently suggested "that the scale shared most of the variance in symptoms accounted for by life events" (p. 11). They concluded that "the assessment of daily hassles and uplifts may be a better approach to the prediction of adaptational outcomes than the usual life events approach" (p. 1).

The work by Kanner *et al.* (1981) represents an important methodological and conceptual step for increasing our understanding of socioenvironmental–health associations. Such work is in its early phases, and as these authors emphasize, "...has thus far only begun the task of measuring hassles and uplifts and of demonstrating their value as descriptors of life stress..." (p. 23). Thus, while the initial results appear promising, several aspects require further clarification and study.

One problem area requiring clarification stems from the potential confounding of minor life events (e.g., hassles and/or uplifts) with either disorder or major life events. For example, while at face value the Hassles Scale developed by Kanner *et al.* (1981) appears to contain relatively minor everyday difficulties (e.g., traffic, noise, preparing meals, having to wait, etc.), closer inspection of the scale reveals numerous items that may be more directly related to psychological problems or symptoms (e.g., trouble relaxing, trouble making decisions, too many responsibilities, not getting enough sleep, etc.). A similar problem exists for the Uplifts Scale. Thus, as has been emphasized by Dohrenwend (1974) with respect to major life events inventories, there may be an inherent confound in measurement between the independent (hassles) and the dependent (psychological symptoms) variables (see also Fairbank and Hough, 1979).

The interpretive difficulties deriving from such a potentially confounded procedure may be due to any of three alternative sources of bias. First and most simply, there may be item redundancies. In other words, both the Hassles (or Uplifts) Scale and the psychological symptoms scale may have a number of overlapping (or identical) items. Second, as noted by Kanner *et al.* (1981), it may be that the presence of increased psychological symptoms may increase the likelihood of various minor hassles occurring (e.g., psychological distress may lead to more hassles). Third, those individuals experiencing psychological symptoms may simply report or remember greater levels of hassles in an attempt to explain away their difficulties (Brown, 1974). Such a response confound, termed "effort after meaning" (Bartlett, 1932), as well as the other two potential sources of bias, may lead also to a spurious association between hassles and psychological symptoms.

Similar issues are germane for understanding the relationship between minor and major life events, as well as for testing the relative predictive utility of these two psychosocial factors. In a parallel fashion to the above-cited independent-dependent variable confounds, three potential confounds are apparent between the two independent variables. First, major events and minor events may be redundant. For instance, many of the items included in the Hassles Scale are also included in most life events inventories (e.g., divorce or separation, crime, laid off or out of work, problems with the boss or supervisor). Second, it may be that the occurrence of major events may place an individual at risk for experiencing greater frequencies of minor events. For example, the loss of a close heterosexual relationship may create many smaller events (i.e., problems in maintaining one's home, loneliness, etc.). As Kanner *et al.* (1981) insightfully note, hassles may function as the mediators of the adverse consequences associated with stressful life events. Finally, it may be that those individuals experiencing greater degrees of stressful life events and/or levels of psychological symptoms may simply report or remember a greater number of hassles in an effort to explain away their difficulties (Brown, 1974). In light of these potential confounds between the independent variables (major and minor events) and the independent and dependent variables (hassles/uplifts and symptoms), an important task remaining ". . . is to explain the shared variance found among hassles, uplifts, and psychological symptom" (Kanner *et al.,* 1981, p. 21) as well as the shared variance between minor and major events.

Given such methodological issues, another procedural point becomes particularly important. Although Kanner *et al.* (1981) employed both a concurrent and a prospective design, such approaches as traditionally

implemented do not obviate certain inherent confounds outlined above. For example, a recent study by Monroe (1982a) highlights the importance of controlling for initial symptom status when studying life events and disorder prospectively. In this study, initial symptoms were found to be the best predictors of subsequent symptom status. These results, along with others (i.e., Warheit, 1979), underscore the importance of either studying initially disorder-free samples or of controlling for initial symptoms for demonstrating the incremental contribution of psychosocial factors to subsequent symptoms. Thus, it is important to assess the unique contribution provided by hassles beyond the basic predictor of prior symptoms.

Finally, another important set of issues meriting further attention pertains to the specific methods employed for comparing major versus minor life events. While Kanner *et al.* (1981) compared life events that "at face value" appeared to reflect undesirable types of events, their procedures did not provide for a more detailed analysis of different event types (e.g., desirable and undesirable) in relation to either symptoms or hassles/uplifts. Furthermore, event totals were based upon events occurring either within the previous 2.5 years or during the 10-month follow-up period. A finer analysis of major life events based upon breakdowns more sensitive to the range of event characteristics (e.g., desirability and undesirability) and to the temporal dimensions (e.g., smaller time intervals; Cleary, 1980) would be useful for furthering our understanding of major versus minor event comparisons. This procedure would also be useful for providing additional information on basic major and minor event associations.

Such an approach also may help to clarify the importance of possible interactions between the variables involved over time. For instance, in a prospective study, Monroe (1982a) demonstrated the importance of different categories of life events for predicting subsequent symptoms conditional upon initial symptom status. In other words, certain types of events may not be associated with follow-up symptoms for individuals with initially low symptom scores, while such types of events may predict an exacerbation or maintenance of symptoms at follow-up for individuals with initially high symptom scores. With respect to the study of minor life events, hassles and/or uplifts may be related to subsequent symptomatology, but conditional upon initial symptom status (e.g., hassles may predict follow-up symptoms, but primarily for those individuals with initially high symptom levels). The testing for such interactive processes would help to clarify the nature of the shared variance among hassles/uplifts, major events, and symptoms.

A better understanding of the issues outlined above would be an important and timely contribution to the study of minor life events and

disorder. The purpose of the present study, therefore, is to build upon the methodological and conceptual foundation provided by Kanner *et al.* (1981) for studying minor life events and their association with psychological symptoms. Through addressing several problematic issues, the present investigation provides a basis for increasing our understanding of (a) the independent predictive utility of minor events for psychological symptoms (controlling for initial symptoms), along with the importance of minor event × initial symptom interactions; (b) the comparative importance of minor events versus major events (broken down into categories according to desirability and time of occurrence—again, controlling for initial symptoms), as well as the interactive importance of hassles and events; and (c) the associations between minor events and major event breakdowns.

METHOD

Subjects

Seventy-three employees from a moderate-size corporation (approximately 450 total employees) volunteered for the study and completed all of the requisite materials. The final sample represented 80% of the individuals that completed necessary requirements for the initial portion of the present investigation ($N = 91$). The final sample consisted of a relatively equal proportion of males and females (49 and 51%, respectively), ranged in age from 18 to 58 years ($\bar{X} = 34.36$, SD = 9.98), and ranged in education from 10 to 18 + years (mode = 12 years). These volunteers also represented a relatively equal distribution for job levels (hourly/clerical employees = 49%; salaried or higher level employees = 51%), and a wide range of income levels (from < \$6,000 to > \$30,000, mode = \$14,001-\$18,000). A comparison on income, gender, education, and job level of the study dropouts with the final sample indicated that individuals with lower income levels were more likely to not be included in the follow-up ($p < 0.01$).

Measures

Each participant received several measures assessing different dimensions of psychosocial functioning (i.e., major life events, minor daily

events, psychological status). The study was part of a large investigation on psychosocial predictors of disorder; the present results pertain primarily to the associations between major and minor events and psychological symptoms (for further details see Monroe, 1982a,b).[2]

Major Life Events. To assess the incidence and frequency of traditional life events, the Psychiatric Epidemiology Research Interview (PERI) Life Events Scale was selected (Dohrenwend *et al.*, 1978). Due to serious problems inherent in other commonly employed instruments [i.e., the Social Readjustment Rating Scale devised by Holmes and Rahe (1967); see Dohrenwend *et al.* (1978); Mechanic (1975)], the PERI Life Events Scale was chosen to provide a better basis for assessing events and various dimensions associated with events. In particular, the present scale was more comprehensive in the events included and, most importantly, classified individual events according to their degree of desirability (e.g., clearly desirable or undesirable events, and events that were unclear on an objective basis according to their desirability, designated neutral and/or ambiguous event types). Minor changes in the scale were implemented to ensure appropriateness for the sample under study (e.g., omission of "entered armed services").

Events were assessed for the previous 24 months. Participants were requested to date events to the closest month during the preceding year. For the present results, analyses were confined to raw event scores.[3] These scores were further partitioned into both desirability (desirable, undesirable, or neutral-ambiguous) and temporal (year total, first or second 6-month interval) breakdowns. Thus, event breakdowns ranged from total events scores through smaller subgroups based on desirability and/or temporal dimensions (e.g., total desirable events for the year, undesirable events for the first 6 months, etc.).

Psychological Symptoms. To assess psychological symptoms, the General Health Questionnaire (GHQ) was chosen (Goldberg, 1972). The GHQ is comprised of items ranging from questions concerning social role performance to items more overtly psychological in nature. For present

[2]Small variations in sample size (e.g., $72 < 76$) were unavoidable due to missing data for particular measures used in the relevant analyses.

[3]Previous work suggests that using weighted event scores adds little additional information beyond raw event scores (Cleary, 1980; McFarlane *et al.*, 1980; Rahe, 1978). Therefore, in line with current practices, only raw event scores were used.

purposes, the cumulative symptom scores were employed.[4] Acceptable levels of reliability previously have been established for the GHQ (r = 0.83–0.96 for split-half reliabilities, depending upon the version of the GHQ used); for the present sample (the 20-item version of the GHQ), Cronbach's α was 0.89.

Minor Life Events. Both pleasant (uplifts) and unpleasant (hassles) daily situations were assessed with a self-report measure derived originally from Epstein (1979). While the original instrument was employed to predict behavior averaged over a sample of situations, the situations included covered a wide range of typical minor events and the measure was therefore selected as an index of such common incidents. The present modified scale provides a list of daily experiences (and their descriptions) that may be either pleasant or unpleasant (18 in each category) (e.g., Social activity—You derive pleasure from social activities for two or more people; Failure—You are upset by being unable to succeed in what you set out to do). Subjects were required to estimate how frequently they characteristically experience such situations and the intensity of their associated emotional response. Since the frequency measures were uniformly better predictors of symptoms than the intensity scores (or combinations of intensity and frequency scores), only these indices were employed in the analyses.

Procedure

An introductory letter was sent to all employees via interdepartmental mail, presenting the study as an inquiry into "Health and Environment." Several small group sessions were subsequently run at the plant, during working hours for interested personnel. At these meetings, the goals and requirements of the project were clarified and detailed instructions were provided for completing the measures. Volunteers were requested to complete their packets alone and at their own pace (e.g., at home when they would not be distracted by other duties). All participants were contacted by telephone within the next week to answer any questions; a phone number was provided at which the investigator could be reached for answering other inquiries. Two weeks was given for completing and returning the initial materials.

[4]The GHQ may be also used to make more qualitative distinctions according to the clinical importance of the endorsed symtoms (e.g., identifying individuals who upon psychiatric interview may be diagnosed as suitable candidates for treatment; see Goldberg, 1972). While such distinctions in clinical severity of reported symptoms represent an important aspect of stress–disorder associations, the present results are confined to cumulative symptom scores to provide for a more comparable basis with the existing literature.

For the prospective assessment phase of the investigation, small packets of materials were distributed containing the GHQ via interdepartmental mail at the end of each month for 4 months. All materials were required to be returned within 1 week. Compliance with these requirements was typically quite good, yet a certain degree of attrition and tardiness could not be avoided. Therefore, to maximize the number of subjects yet minimize biases due to missing data, a minimum completion of three of four follow-up assessments was required. For each subject the highest follow-up month psychological symptom score was employed for the data analysis.

RESULTS

The overall means for the hassles frequency scale was 15.49 (SD = 7.29); for the uplifts scales, 31.58 (SD = 6.61); and for follow-up psychological symptoms scores, 17.23 (SD = 10.57). Means and standard deviations for the different event breakdowns (by desirability classification and time periods) are presented in Table I. Hassles and uplifts frequencies were uncorrelated ($r = 0.01$, ns).

Table I. Event Scores by Desirability Classification and Time Period ($N = 73$)

	$\bar{X}$	SD
First 6 months		
Desirable	1.51	1.38
Neutral-ambiguous	0.48	0.69
Undesirable	0.92	1.14
Total	2.90	2.31
Second 6 months		
Desirable	2.15	1.60
Neutral-ambiguous	0.59	0.76
Undesirable	1.32	1.40
Total	4.06	2.85
Year total		
Desirable	3.66	2.16
Neutral-ambiguous	1.07	1.05
Undesirable	2.23	2.06
Total	6.96	4.18

Due to a large decrease in event reporting for more temporally remote time periods (see Monroe, 1982b), analyses were confined to the most recent year reports. The results are reported separately below for the different questions under study.

Prediction of Symptoms: Hassles and Uplifts

The total frequency of hassles was highly correlated with psychological symptoms, both for retrospective analyses (when hassles and symptoms were assessed concomitantly; $r = 0.65$, $P < 0.001$) and for the prospective analyses (when hassles were measured initially and symptoms latter; $r = 0.63$, $P < 0.001$). In contrast, the uplifts frequency score correlations were consistently low and statistically nonsignificant ($P > 0.5$).

Multiple regression analyses were performed to control for initial symptom status and to assess the importance of (a) minor events and (b) minor events × initial psychological symptom interactions. Initial symptom scores were entered hierarchically first into the equation, followed by hassles and uplifts and, finally, by the interaction terms [the products of initial symptoms by minor event scores (Cohen, 1978; Cohen and Cohen, 1975)]. Initial symptoms were highly predictive of subsequent symptoms ($F = 74.79$, $P < 0.001$); once the variance associated with initial symptoms was taken into account, hassles continued to predict follow-up symptoms significantly, although the magnitude of the association was reduced ($F = 7.37$, $P < 0.01$). Uplifts again evidenced no significant association with the dependent variable. The interaction terms for minor events × initial symptoms also failed to demonstrate any statistically significant associations.

Thus, it appears from these results that the hassles frequency score does significantly predict symptoms in a prospective design once prior symptoms are taken into account.

Prediction of Symptoms: Hassles and Major Life Events

Multiple regression equations were constructed to test the predictive utility of (a) hassles and major life event categories and (b) hassles × major event category interactions. In all equations, initial symptom status was controlled for statistically.

The first series of equations compared hassles with the various breakdowns of event categories by time and desirability classification (see Table I). Nine regression equations were tested, each involving a different partitioning of life events. Initial symptoms were entered hierarchically into the equation first ($F = 78.71$, $P < 0.001$), followed by forward inclusion of the hassles and event categories when an entry criterion of $P < 0.05$ was

Table II. Event Breakdowns and Minor Event (Hassles, Uplifts) Correlations ($N = 91$)

	Uplifts	Hassles
First 6 months		
Desirable	−0.04	−0.01
Neutral-ambiguous	−0.04	0.09
Undesirable	0.06	0.14
Total	−0.01	0.09
Second 6 months		
Desirable	0.08	0.13
Neutral-ambiguous	0.12	−0.01
Undesirable	−0.04	0.31*
Total	0.06	0.23**
Year total		
Desirable	0.03	0.09
Neutral-ambiguous	0.06	0.04
Undesirable	0.01	0.29*
Total	0.04	0.20

*$P < 0.01$.
**$P < 0.05$.

met. In each equation, hassles significantly predicted follow-up symptoms ($F = 7.36$, $P < 0.01$); none of the event categories was significant once hassles were entered into the equation. Thus, in these analyses hassles accounted for the major portion of the variance compared to the major event breakdowns.[5]

The second series of regression equations tested for significant hassles × events interactions. As before, initial symptoms were entered into the equations first, followed by the different event categories and, finally, by the respective interaction terms (see above). None of these interaction terms attained statistical significance.

Hassles and Uplifts: Correlations with Major Event Categories

Table II presents the Pearson product-moment correlations for hassles and uplifts frequency scores with the major event categories.[6] For

[5]To ensure that hassles were not associated with the outcome variable merely as a function of shared variance with events, separate analyses were run entering events hierarchically *before* hassles. Although the magnitude of association was slightly diminished, in each equation hassles were significantly related to follow-up symptoms once the different event breakdowns were accounted for ($P < 0.02$).

[6]All significance levels are based upon two-tailed tests of significance.

the hassles frequency scores, there were statistically significant associations with (a) undesirable events occurring in the most recent 6-month period ($r = 0.31, P < 0.01$), (b) total undesirable events for the year ($r = 0.29, P < 0.01$), and (c) total events occurring during the most recent 6-month interval ($r = 0.23, P < 0.05$). Partial correlations were run subsequently to determine if these significant associations were attributable primarily to the subcategory of undesirable events occurring during the most recent 6-months. When this category of events was controlled for statistically, the other two event scores did not attain statistical significance ($P > 0.05$).

Finally, no significant correlations were found between the uplifts frequency score and the major event categories.[7]

DISCUSSION

The findings from the present study indicate that relatively minor life events—daily hassles—are significant and independent predictors of subsequent psychological symptoms. These results are consistent with recent work on the topic (Kanner *et al.*, 1981) yet provide for a more rigorous test of the utility of the minor life events approach to the study of stress and illness. It appears that (a) daily hassles are a significant predictor of prospectively assessed psychological symptoms even when initial symp-

[7]Kanner *et al.* (1981) reported several gender differences for correlations between major events, hassles, and uplifts (e.g., for prestudy events, correlations were significant with hassles for both sexes; for concurrent events, only women had significant positive correlations with events, whereas uplifts tended to be positively related to events for women and negatively related to events for men). Separate analyses were run for the present sample, with results suggesting that (a) for men, uplifts correlated negatively with undesirable events occurring during the most recent 6-month interval ($r = -0.32, P < 0.04$), while hassles were unrelated events; and (b) for women, uplifts correlated significantly with neutral-ambiguous events occurring during the most recent 6-month interval ($r = 0.30, P < 0.04$); hassles also were significantly related to undesirable events occurring during the most recent 6-month interval ($r = 0.44, P < 0.01$), during the entire year ($r = 0.43, P < 0.01$), and to all event totals for the most recent 6-month interval ($r = 0.30, P < 0.04$) and year total ($r = 0.32, P < 0.03$) ($N = 42$ and 49 for men and women, respectively).

Similarly with respect to uplifts, hassles, and psychological symptoms, Kanner *et al.* (1981) found gender differences (e.g., hassles were significantly related to symptoms for both sexes; uplifts were significantly and positively related to symptoms for women only). For the present sample, hassles were significantly related to follow-up symptoms for both sexes ($r = 0.51, P < .01$, and $r = 0.70, P < 0.001$, for men and women, respectively); for uplifts, no significant relationships were found for men ($r = 0.10$, ns) and women ($r = -0.25$, ns), although for women the trend was similar to that reported by Kanner et al. (1981).

Thus, while some differences were apparent, the overall pattern of gender associations was similar to those reported by Kanner *et al.* (1981) and underscores the importance of taking gender differences into account when studying such major and minor event associations with disorder. Unfortunately, due to the relatively small number of subjects comprising the present sample, such breakdowns were not appropriate for the regression analyses.

tom levels are taken into account and (b) daily hassles in general may be better predictors than the major life events. However, it also appears that due to the large amount of overlapping variance shared among the measures of hassles, events, and symptoms, such conclusions should be offered tentatively.

The present research underscores the complexity of the associations that are involved among minor events, major events, and psychological symptoms. It is important to note that although hassles were related to subsequent symptoms, no significant interaction effects between hassles and initial symptoms were found once initial symptoms were controlled. It appears therefore that, at least within the present sample, daily hassles predict symptoms in a relatively consistent manner across levels of initial symptoms. Such findings are useful for beginning to eliminate possible alternative explanations of hassles–symptoms associations. For example, as discussed previously, initially symptomatic individuals might be inclined either to experience or to report more hassles and it might be such a spurious process that largely accounts for the subsequent hassles–symptoms association. Or, from a slightly different perspective, hassles may disproportionately exacerbate symptoms for already symptomatic individuals compared to asymptomatic individuals (again, indicative of an interaction effect). While it is still conceivable that such underlying processes may account in part for the hassles–symptoms association, a more substantial and significant proportion of the effect appears to be attributable to hassles predicting follow-up symptoms.

The comparison of hassles with the different event breakdowns also provides additional information on the relative importance—as well as the interactive effects—of these two approaches to quantifying social experiences. The majority of comparisons tested indicated that the minor events accounted for a significant and relatively greater proportion of the variance in predicting psychological symptoms. It is also noteworthy that none of the hassles × events interactions was significantly associated with follow-up psychological symptoms. This suggests that hassles are truly independent predictors of disturbance; they are not important only in conjunction with more major life events (e.g., as mediators of the negative impact of major events). Thus, again it appears that hassles may reflect a rather unique psychosocial dimension predictive of dysfunction.[8]

[8]As noted previously (Monroe, 1982a), major event × initial symptom interactions were significantly related to follow-up symptoms, even in the present case when hassles also were controlled for statistically (e.g., year total neutral-ambiguous events × initial symptoms: $F = 8.80$, $P < 0.01$). Inspection of the data suggested that the interactive effects were attributable primarily to initially high symptoms and events predicting high follow-up symptoms. Thus, while the minor events accounted for a relatively larger proportion of the variance, major life events may be significantly associated with follow-up symptoms in certain complex ways.

Yet it is also clear from the significant correlations between hassles and events—particularly undesirable events occurring within the past 6 months—that major and minor events are not totally unrelated to one another. These findings are compatible with those of Kanner *et al.* (1981); however, given the present results, it is apparent that hassles are still a relatively independent predictor. Thus, it may be that hassles lead to certain more recently experienced undesirable life events, or both hassles and undesirable events are a result of a third, underlying factor (e.g., personality variables; environmental contexts). Further evidence bearing on this issue, especially taking into consideration possible gender differences (see footnote 7), may help to clarify the etiologic importance of hassles for psychological disturbance.

In pursuing the implications of daily hassles for an individual's well-being it might be useful for future studies to examine subgroups of items in relation to the dependent variable under investigation. For example, it might be particularly important to examine certain subsets of hassles (e.g., more persistent or annoying ones). Another area of importance remaining is to elucidate the coping methods employed by individuals to deal with hassles in general, or specific types of hassles, to aid in understanding the implications of hassles for an individual's well-being. Also, while the present results indicate that the hassles–symptoms associations cannot be attributed solely to the item overlap and confounds between the dependent and the independent variables, it would appear wise in future work to avoid item redundancies and to examine hassles subgroups according to their independence from psychological influences (e.g., those hassles that may be attributed to preexisting psychological dysfunction versus those that occur entirely independent of such processes).

Certain limitations of the present investigation and current approaches to this area of study should be noted. First, it is clear that the assessment of hassles (and uplifts) requires considerable development before the procedures may be considered optimal. It is important in this respect that the present results were so similar to those of the Kanner *et al.* (1981) study. Although the basic instruments employed to assess the quantify minor events in the two studies were different, they were both derived on an a priori basis for similar purposes and provided very similar results. And, at face value, there is a good deal of overlap in the item content of both scales. Yet it should be pointed out that these are early studies underscoring the potential viability of such an approach for the study of stress and illness associations. Clearly more instrument and procedural refinement is required.

Also apparent is the need for replication with other samples to increase the generalizability of the observed effects. The present sample was

comprised of employed volunteers and therefore is not optimally representative. For instance, certain biases in selection may work to minimize important aspects of event–disorder associations (e.g., severely disturbed individuals may be underrepresented; self-selection factors involved with volunteering). Thus, if in the present sample more undesirable forms of life events are less likely to occur, the associations of various temporal breakdowns for life events with disorder may be underestimated (Kanner *et al.,* 1981). Additional work with different samples may help to clarify associations among event breakdowns, psychological symptoms, and minor events.

Furthermore, the nature of the symptoms investigated in the present study requires some clarification with respect to conceptions of event–disorder associations. While the majority of studies concerning psychosocial factors (i.e., life events) and their consequences typically adopts a continuity assumption of disorder (e.g., more symptoms, more disorder), such linear event–symptom associations are not necessarily informative for the onset conditions of more discrete psychopathologic or disease syndromes. In other words, the implications of such major or minor event–symptoms associations for the onset of more severe and/or clinically definable disorders represent a related, important topic for life events research.

Finally, recent evidence suggests that self-report measures of life events covering lengthy retrospective intervals may not be a very reliable means of quantifying such social experiences (Jenkins *et al.,* 1979; Monroe, 1982b; Yager *et al.,* 1981). Thus, although the life event scale used in the present study is a better instrument than many existing and commonly employed scales (e.g., the SRE), it still may posses certain limitations. Other methods of assessment (e.g., detailed structured interviews, concurrent assessments) may provide a more accurate estimate of major life events (and possibly minor events). Thus, while recent findings appear to support the general superiority of hassles for predicting psychological symptoms, such work requires replication on other samples using the most reliable assessment procedures available before the evidence may be considered conclusive.

In summary, it appears that the study of relatively minor life experiences holds promise as a means of studying socioenvironmental predictors of psychological symptoms. Although the present findings further support the potential utility of such an approach, they also suggest several issues requiring further study. Thus, while it appears that some of the shared variance among minor events, major events, and psychological symptoms has been unraveled, much remains to be done in untangling the complicated web of associations and in clarifying theory concerning these predictors of disorder.

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