The Relation Between Major Life Events, Minor Events and Psychological Distress.

James Cook Gilchrist

Louisiana State University and Agricultural & Mechanical College

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The relation between major life events, minor events and psychological distress

Gilchrist, James Cook, Ph.D.
The Louisiana State University and Agricultural and Mechanical Col., 1988
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UMI
THE RELATION BETWEEN MAJOR LIFE EVENTS, MINOR EVENTS AND PSYCHOLOGICAL DISTRESS

A Dissertation

Submitted to the Graduate Faculty of
Louisiana State University
In Partial Fulfillment of the
Requirements for the Degree of
Doctor of Philosophy

in

The Department of Psychology

by

James Cook Gilchrist
B.S., Ohio State University, 1979
M.A., Ball State University, 1983

May, 1988
Acknowledgements

I wish to express my sincerest gratitude to Dr. Phillip Brantley for his many contributions to this dissertation. In addition to providing valuable assistance with the project itself, he also provided endless support in the preparation of the manuscript. I am also deeply indebted to Dr. Brantley for providing me with the guidance, encouragement, and often the confidence, to pursue my interests and professional goals to the fullest. It is impossible to thank him enough for the role he has played, and will continue to play, in my career.

I would also like to express my thanks to Dr. Frank Gresham for his invaluable statistical consultation. I also would like to thank Dr. Arthur Riopelle for his ability to look beyond the details of the study and towards the broader picture, and, to Dr. Kelley and Dr. Waters for their valuable contributions and assistance.

I would also like to express my deepest appreciation to Dr. Glenn Jones, for his friendship, support and assistance. Finally, I would like to express a very special thanks to my parents, who, having had the courage to emigrate, provided me with the opportunity and the impetus to pursue this degree.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>ii</td>
</tr>
<tr>
<td>LIST OF APPENDICES</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>v</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>vi</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Background on the Concept of Stress</td>
<td>3</td>
</tr>
<tr>
<td>Life Events</td>
<td>5</td>
</tr>
<tr>
<td>Desirability Versus Undesirability of Events</td>
<td>8</td>
</tr>
<tr>
<td>Quantification of Life Events</td>
<td>12</td>
</tr>
<tr>
<td>Interactive Model of Stress</td>
<td>15</td>
</tr>
<tr>
<td>Assessment and Role of Minor Events</td>
<td>20</td>
</tr>
<tr>
<td>Definition of Psychological Distress</td>
<td>23</td>
</tr>
<tr>
<td>Assessment of Psychological Distress</td>
<td>27</td>
</tr>
<tr>
<td>Major Life Events and Psychological Distress</td>
<td>31</td>
</tr>
<tr>
<td>Minor Life Events and Psychological Distress</td>
<td>40</td>
</tr>
<tr>
<td>The Present Study</td>
<td>44</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>47</td>
</tr>
<tr>
<td>METHODS</td>
<td>50</td>
</tr>
<tr>
<td>Subjects</td>
<td>50</td>
</tr>
<tr>
<td>Measures</td>
<td>51</td>
</tr>
<tr>
<td>Procedure</td>
<td>59</td>
</tr>
<tr>
<td>RESULTS</td>
<td>61</td>
</tr>
<tr>
<td>DISCUSSION</td>
<td>79</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>93</td>
</tr>
<tr>
<td>APPENDICES</td>
<td>107</td>
</tr>
<tr>
<td>CURRICULUM VITAE</td>
<td>121</td>
</tr>
</tbody>
</table>
List of Appendices

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Daily Stress Inventory</td>
<td>107</td>
</tr>
<tr>
<td>B Life Experiences Survey</td>
<td>109</td>
</tr>
<tr>
<td>C State-Trait Anxiety Inventory</td>
<td>112</td>
</tr>
<tr>
<td>D Self-Rating Depression Scale</td>
<td>114</td>
</tr>
<tr>
<td>E Symptom Checklist 90-Revised</td>
<td>116</td>
</tr>
<tr>
<td>F Informed Consent Form</td>
<td>119</td>
</tr>
</tbody>
</table>
TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Demographic Summary of the Sample</td>
<td>51</td>
</tr>
<tr>
<td>2 Means and Standard Deviations of Independent and Dependent Measures</td>
<td>62</td>
</tr>
<tr>
<td>3 Correlation Matrix</td>
<td>63</td>
</tr>
<tr>
<td>4 Regression of Frequency of Major and Minor Events Predicting Depressive Symptoms</td>
<td>66</td>
</tr>
<tr>
<td>5 Regression of Frequency of Minor and Major Events Predicting Depressive Symptoms</td>
<td>67</td>
</tr>
<tr>
<td>6 Regression of Frequency of Major and Minor Events Predicting State Anxiety Symptoms</td>
<td>69</td>
</tr>
<tr>
<td>7 Regression of Frequency of Minor and Major Events Predicting State Anxiety Symptoms</td>
<td>70</td>
</tr>
<tr>
<td>8 Regression of Frequency of Major and Minor Events Predicting Global Psychological Distress</td>
<td>72</td>
</tr>
<tr>
<td>9 Regression of Frequency of Minor and Major Events Predicting Global Psychological Distress</td>
<td>73</td>
</tr>
<tr>
<td>10 R2 Improvement of Adding Weighted Scores to Frequency Scores Predicting Depressive Symptoms</td>
<td>75</td>
</tr>
</tbody>
</table>
11 $R^2$ Improvement of Adding Weighted Scores to Frequency Scores Predicting State Anxiety Symptoms ........................................ 77

12 $R^2$ Improvement of Adding Weighted Scores to Frequency Scores Predicting Global Distress 78
Abstract

The relation between life events and psychological distress has been a subject of considerable interest in recent years. Most previous research has focused on major life events. The present study investigated the role of minor daily events and their relation to symptoms of depression, anxiety and global psychological distress. Two scoring approaches were used for both types of events; frequency of occurrence and the subjective weighting of each occurrence.

A total of one hundred and ninety one subjects volunteered from the community. Each subject completed the daily stress scale each day for seven consecutive days. At the end of the week, each subject completed a measure of depressive symptoms, anxiety symptoms and global distress. The data were analyzed using correlational and multiple regression techniques.

A similar pattern of results were found for each of the three dependent measures in relation the major and minor events. The use of subjective weightings did produce some improvement in the magnitude of the associations.

The results indicated an association between major life events and psychological distress, as found in previous research. An association was also found
between minor events and psychological distress. Most importantly, minor events were significantly related to psychological distress when the influence of major events was statistically controlled. In conclusion, the role of minor events in psychological distress warrants continued study.
The Relation Between Major Life Events, Minor Events and Psychological Distress

The last quarter century has witnessed extensive research investigating the role of stressful events in various psychological disorders. Since the early pioneering work of Selye (1956), involving laboratory investigations of stress, a number of measures have been developed and revised in an attempt to provide an indication of the events in one's life which contribute to various symptoms and disorders. Results from numerous studies consistently have reported a significant positive relation between major life events and many psychological symptoms (Dohrenwend & Dohrenwend, 1981; Rabkin & Streuning, 1976). Despite the preponderance of evidence implicating major life events in the stress-symptom relation, the results have typically been rather modest regarding the strength of the relation. Although there exists substantial evidence to suggest that stressful events can contribute to psychological symptoms the exact nature and strength of the relation remains a topic of much debate.

In an attempt to clarify the relation between
stressful events and psychological symptoms a number of issues have been highlighted in the reviews of stress research and methodology (Cleary, 1980; Dohrenwend, Dohrenwend, Dodson & Shrout, 1984; Rabkin & Streuning, 1976; Tausig, 1982). Among the first issues to be addressed was the use of subjective versus objective scaling of the events experienced. Another issue that has received considerable attention is that of the aversiveness of an event versus the simple change of having experienced the event. A somewhat related issue is concerned with negative and positive events and their relation to distress. Considerable research has also been directed towards the investigation of moderating variables and their role in the development of psychological distress. Among the moderators suggested are environmental sources such as family and social support (Eaton, 1978; Pearlin, 1982; Warheit, 1979) as well as individual sources such as coping skills (Lazarus, 1981) and locus of control (Nelson & Cohen, 1983). Recently, a number of investigators have posited that minor stressors, such as everyday nuisances, may play an additional and unique role in the relation between stressful events and psychological distress.

The purpose of this paper is to present an
examination of some of the current debates regarding the role of stressful events in the experience of psychological distress. First, the major methodological issues and advancements regarding the concept and assessment of stress will be presented as background regarding the rationale for the use of minor life events in the investigation of stress. Second, a conceptualization of psychological distress will be presented in terms of symptoms and assessment. Lastly, recent literature will be presented regarding the relation of stressful events and psychological distress as the precursors to the hypotheses of the present paper.

**Background on the Concept of Stress**

The concept of stress has been researched and defined in a variety of ways since the notion of a stress syndrome was first introduced by Hans Selye (1936). The General Adaptation Syndrome introduced by Selye was concerned with the biological response of an organism exposed to any noxious agent. The psychophysiological changes that occurred in the body as a result of the demand upon it were referred to as stress and could be observed as adrenal enlargement, gastrointestinal ulcers, etc. Within the last quarter of a century the concepts of stress and the stress
reaction have expanded to include psychological as well as strictly physiological responses. The contemporary research on psychological stress developed from the need to understand the breakdowns of adaptive behavior that can occur under extreme situations (Holroyd & Lazarus, 1982). The types of situations that were of initial concern included military combat (Grinker & Spiegel, 1945), concentration camp experiences (Bettelheim, 1943) and traumatic injury (Hamburg, Hamburg, & deGozza, 1953). The disturbances that resulted from these experiences included psychotic behavior, anxiety and depression as well as physical consequences such as hypertension and ulcers (Graham, 1945; Paster, 1948; Sank, 1949). From the study of these various situations and their consequences investigators began to formulate general principles which conceptualized these phenomena as the results of stress.

Following these early investigations the concept of stress expanded to include a number of models and theories. Lazarus (1966) and others have stated that most theories of stress can be categorized into two types; stimulus theories and response theories. The stimulus oriented theorists view stress as an event, a stimulus, within the environment that places excessive
demands on the organism. An engineering analogy is sometimes used to explain this particular theory of stress (Cox, 1978). Using this analogy, each individual is viewed as possessing an innate capacity to withstand stress. However, if the individual is exposed to an environmental situation that results in the cumulative stress being greater than the innate capacity a deterioration in functioning occurs. This deterioration is observed as the reaction to stress. The response theory defines stress in a much different manner than that of the stimulus theory and is most directly traceable to Selye's original research. Selye identified three stages of response; the alarm phase, the resistance phase and the exhaustion phase. For Selye and the response theorists it is the changes that occur, physical and psychological, that define the presence, characteristics and degree of stress (Derogatis, 1982).

Life Events

The different theories of stress have resulted in corresponding differences among the methodologies employed to investigate the concept, which in turn has produced a variety of assessment instruments. Since the stimulus theory is concerned with situations in the environment which can be defined as stressful the
emphasis has been on categorizing these events. In general, this approach has come to be known as life events research and can be broadly defined as the attempt to qualify and quantify various environmental stimuli.

Although the majority of the research on life events has occurred over the past two decades and is primarily traced to the work of Holmes and Rahe, its roots extend much further. As early as the 1920's Cannon observed that emotionally arousing stimuli could cause changes in basic physiological processes (Cannon, 1929). In 1930, Adolph Meyer, as cited by Winters (1951), utilized his "life chart" approach to record biographical and medical information to provide data regarding the temporal relation between the two. The role of life events in the etiology of various disorders was first given formal recognition in 1949 at the Conference on Life Stress and Bodily Disease which was sponsored by the Association for Research in Nervous and Mental Disease (Rabkin & Streuning, 1976). Since this initial recognition a number of researchers have developed and adopted the life events framework for research on stress.

Among the earliest to use the life events type of methodology was the late Harold Wolff who taught
Meyer's approach to a number of his research trainees. One of Wolff's trainees, Thomas Holmes, collaborated with sociologist, David Hawkins to construct the first edition of the Schedule of Recent Experiences (SRE) (Hawkins, Davies, & Holmes, 1957). The SRE was designed to allow individuals to indicate the occurrence of various life events over a particular time period. The items were derived from the systematic study of the events which had preceded the illnesses in a large number of patients. The scope of the events ranged from death of a family member and illness to vacations and Christmas. The range of events covered the areas of work, home, family, finances and community. The original version of the SRE contained 42 items. In 1974, Rahe added 13 new life change questions along with instructions for the subjective scaling of life change events (Rahe, 1975). According to Rahe, the updated version was designed for prospective research on life change and illness. The revised version was called the Recent Life Change Questionnaire (RLCQ).

As previously stated the SRE was designed to assess the incidence of life change events, as was the revised RLCQ. Besides investigating the incidence of life events, Holmes and Rahe were concurrently
investigating the scaling of life events. It had been proposed that different events may account for differing degrees of change and therefore, differing degrees of stress. The fact that the same investigators were studying incidence and scaling of life events has resulted in confusion for those attempting to appreciate and comprehend this area of research. The studies on life event scaling actually followed a separate line of research from that of life event occurrence (Rahe, 1978).

The original scaling study was directed towards quantitatively estimating the varying degree of life change and readjustment secondary to having experienced a particular event. A sample of judges rated the events in terms of the estimated change involved. The scaling instrument developed was termed the Social Readjustment Rating Questionnaire (SRRQ). This instrument used ratio scaling to arrive at mean life change scores. The mean scores derived from the scaling study were referred to as Life Change Units (LCU) (Rahe, McKean & Arthur, 1967). The life change events were next rank ordered according to their mean LCU scores. The resultant scale was referred to as the Social Readjustment Rating Scale (SRRS) (Holmes & Rahe, 1967). An often cited mistake is that references to
the early scaling studies incorrectly refer to the resultant scale, the SRRS, as the scaling instrument when it was actually the SRRQ (Rahe, 1978). The development of the SRE and the research of Holmes and Rahe represented the initial attempt at assessing the impact of events. However, as with most initial attempts there have been numerous questions, criticisms and debates involving the instrument and method (Rabkin & Struening, 1976).

**Desirability Versus Undesirability of Events**

One of the major debates is the issue of desirability versus undesirability of events. The underlying premise of the SRE was that life changes are inherently stressful, regardless of whether the particular change is perceived as positive or negative. A number of investigators have taken issue with this assumption, proposing that the desirability of the event may be important in determining which events are detrimental to an individual. Furthermore, in assessing life stress it may be useful to separate the positive from negative events (Brown, 1974; Mechanic, 1975; Sarason, De Monchaux & Hunt, 1975). It had been hypothesized that the undesirable or negative events may have a different and more detrimental effect than desirable or positive events.
Vinokur and Selzer (1975) conducted one of the earliest studies regarding the issue of desirability versus undesirability of events. Using a modified version of the SRE, which yielded separate scores for positive and negative change, the authors investigated responses to a number of stress-related measures including self-ratings of depression, anxiety and tension. The study concluded that there was evidence for a relation between life changes and a number of the measures when using the measure of undesirable events. The positive change scores were not found to be systematically related to the measures. A subsequent study by Mueller, Edwards and Yarvis (1977) supported this conclusion, finding again that undesirable events were more strongly related to psychological distress than desirable events. Tausig (1982) investigated the desirability issue using depression as the dependent variable. Undesirable events were found to be significantly better at predicting depression than either desirable or ambiguous events. Although a definitive conclusion to this debate has yet to be reached, the majority of the evidence has tended to offer support for the notion that undesirable events may be most important in accounting for the relation between life change and distress (Dohrenwend &

The issue of desirability versus undesirability in life events research stemmed from a related debate regarding whether the events listed on the SRE were simply indicating change and readjustment or were actually indicating degree of aversiveness. Zeiss (1978) in an attempt to clarify this issue, asked volunteers to rate items on the SRE as to their degree of aversiveness. Previously, Holmes and Rahe (1967) had indicated that Life Change Units derived from the SRE indicated the degree of readjustment to an event independent of the aversiveness of the readjustment. Zeiss concluded that contrary to this position, the results of her study indicated that Life Change Unit weights were not at all independent of aversiveness. The level of the relation between Life Change Unit weights and aversiveness suggested that the aversiveness may be the major component of the LCU scores.

Earlier research regarding change versus desirability had produced conflicting findings. Dohrenwend (1973) compared events weighted by readjustment scores to a balance of undesirability score obtained by subtracting the sum of desirable events from the sum of undesirable events. She
concluded that change was the important variable in assessing life events for degree of stressfulness and not undesirability. Gersten, Langner, Eisenberg and Orzech (1974) proposed that Dohrenwend's findings in favor of change were due to the dependent measure used, which mainly reflects anxiety. They state that anxiety is often the first result of change, regardless of the desirability of the change. However, with regard to other forms of psychological distress the important variable becomes whether the change is positive or negative and therefore, is an issue of desirability. Mueller, Edwards and Yarvis (1977) concluded that Dohrenwend's findings favoring change were actually due to the undesirability measure used rather than the fact that the dependent measure reflected a degree of anxiety. In general, most studies concluded that the undesirability of events should be measured as the characteristic of life events. From this conclusion efforts were then directed to investigating the differential effects of desirable versus undesirable events.

Quantification of Life Events

An issue which naturally follows that of desirability versus undesirability concerns the quantification of life events and the degree of
stressfulness experienced. This issue contains two distinct components. The first deals with the fact that all life events may not be equal in the amount of influence they exert and involves the controversy of weighting events. Second, when assessing the impact of events, is it necessary to take into consideration individual responses to the experience? Within the literature this debate involves the use of normative versus individualized assessment to determine the impact or change resulting from an event. Attention will first be directed towards examining the merits of normative versus individualized assessment.

It is hypothesized that since individuals vary in their responses to events, the use of a normative approach using group ratings may not adequately reflect the influence of events on any one individual (Sarason, Johnson & Siegel, 1978). An example of the normative approach is the work of Holmes and Rahe (1967). Their LCU values were obtained from averaging the estimates of the change that resulted from experiencing a particular event, using a panel of judges. The result provides the degree of change expected with the average individual. However, the endorsement of an item on the Holmes and Rahe SRE does not provide any information regarding a particular individual’s perception of the
event. Furthermore, due to the particular wording of the events on the SRE it is impossible even to determine whether the individual perceived the event as negative or positive which is important in the investigation of desirability versus undesirability. For example, the item "major change in financial status" could refer to bankruptcy or winning the Publisher’s Clearing House grand prize. Although Life Change Units provide a quantitative view of the difference between particular events it offers nothing regarding the assessment of the individual experience of a specific event. Some researchers have proposed an individualized approach to life events as a potential solution (Breznitz, 1980; Vinokur & Selzer, 1975). Yamamoto and Kinney (1976) offer some support for this approach, they found that life stress scores based on self-ratings to be better predictors than mean adjustment ratings similar to those used with the SRE. The controversy surrounding the weighting of life events is conceptually related to that of normative versus individualized assessment of events. In essence, when an individualized approach is used the individual respondent could be perceived as providing his or her own particular weightings to the events. In general, the weighting controversy has centered on
whether differential weighting of events is superior to a simple frequency count. Assigning weights to events provides estimates of their importance and can be determined objectively or subjectively. Unweighted scores do not take into account the objective or subjective evaluation of events (Tausig, 1982). The majority of the evidence to date has failed to designate any particular weighting approach superior and suggests that weighted and unweighted scores do not differ in their ability to predict outcome (Ross & Mirowsky, 1979; Skinner & Lei, 1980). Indeed, simple frequency counts of events have been shown to be equally effective as weighting events. (Lei & Skinner, 1980). Cleary (1980) has suggested that the routine use of frequency counts be used to evaluate weighting techniques in future research on life events measures.

Interactive Model of Stress

As noted above the research on life events and disorder has progressed from the use of a checklist approach to the more complicated approaches of weighting events and also comparing normative to individual assessment of events. Throughout these advances an underlying factor is the increasing involvement of the individual respondent in assessing the stressfulness of events. Dohrenwend and Dohrenwend
(1978) addressed similar issues in suggesting that research on life events investigate factors that may mediate the impact of events. They proposed investigating social support, novelty of the event and anticipation of the event. Considerable evidence now exists to suggest that social support is an important factor in buffering against stress (Thoits, 1982). Individual differences in the perception and response to specific events has prompted the investigation of personal factors which may mediate the impact of stressful events (Redfield & Stone, 1979). Kobasa (1979) has proposed a personality style encompassing aspects of cognition, emotion and action referred to as "hardiness" which has been shown to decrease the impact of stressful life events (Kobasa, Maddi & Courington, 1981). Matheny and Cupp (1983) have found that perceived control over events also can be a mediating factor. Much of the research on the individual variables that may mediate events can be traced to the work of Lazarus and his colleagues on coping responses (Folkman & Lazarus, 1984; Lazarus, 1966; Holroyd & Lazarus, 1982).

An interactive model of stress has resulted from the research of Lazarus concerning the role of the individual in the stress process. This model suggests
that stress exists within the interaction between the environment and the individual's perception and evaluation of an event. The interactive position states that stress does not simply reside with specific events. The interactive model of stress is in direct conflict with that of the stimulus oriented theorists, particularly Dohrenwend and colleagues (Dohrenwend & Dohrenwend, 1978), and has received considerable criticism from them (Dohrenwend & Shrout, 1985).

Since the interactive model suggests that stress resides in the appraisal of events, it naturally requires the respondent to indicate the degree of distress experienced by the occurrence of a particular event. The major criticism by Dohrenwend and Shrout (1985) is that the process of appraisal to determine individual distress risks circularity because it potentially is confounded with dependent psychological measures. They argue that the use of evaluation to determine the subjective distress of events results in using a measure of distress to predict distress, when using psychological dependent measures. The Hassles Scale (Hassles) developed by Lazarus and colleagues (Kanner, Coyne, Schaefer & Lazarus, 1981) has been cited by Dohrenwend and Shrout (1985) as exemplifying the issue of confoundedness between stress measures and
measures of psychological distress. The Hassles scale is a self-report inventory purported to assess relatively minor negative events that can occur with greater frequency than major life events. Respondents are asked to indicate which events they have experienced within the last month and rate their severity on a 3-point Likert scale. Dohrenwend and colleagues have criticized the instrument because each of the three choices indicates some degree of distress. In other words, there is no provision for endorsing an item which may have been experienced but did not cause distress. Dohrenwend and colleagues conclude that it is not surprising that the Hassles scale has been found to be a better predictor than other major life event scales, simply endorsing an item indicates "somewhat severe" distress which is then used to predict some measure of psychological distress. In response, Lazarus and colleagues (Lazarus, DeLongis, Folkman & Gruen, 1985) have stated that some amount of confounding is inevitable in the measurement of psychological distress and that it represents a combination of the variables found in nature and not simply an error in measurement. They propose that stress is a concept similar to emotion in that it has many interrelated facets and does not lend itself to
the simple measurement of one aspect, namely, environmental events.

It is interesting to note that the criticism regarding the confounding of stress measures with dependent measures of psychological distress had been previously directed towards measures that did not include subjective evaluation of events (Dohrenwend & Dohrenwend, 1978; Thoits, 1981). Estimates indicate that up to 29 of the original 42 items on the Holmes and Rahe scale could be confounded with physical or psychological distress (Tausig, 1982). The result could be an over-estimation of the relation between events and outcome measures.

The issues that have been raised regarding the measurement of stressful life events have naturally resulted in attempts to refine and improve the instruments. One scale, the Life Experiences Survey (LES) (Sarason, Johnson & Seigel, 1978), has the advantage of addressing a number of issues simultaneously. There are two major features that distinguish it from the previous scales of Holmes and Rahe. First, the LES provides positive and negative life change scores to determine desirability. Second, it permits the respondent to rate the impact of the event. The scores obtained from the LES can be both
normative and individualized which allows for the
direct investigation of a number of the previously
cited issues. The LES also allows the respondent to
endorse events within two time frames; 0-6 months and
7-12 months. This provides for the investigation of
both recent and more remote events.

The Assessment and Role of Minor Stressors

Despite the relatively low correlations that have
been found between major life events and various
outcome measures (Rabkin & Struening, 1976) This
approach has virtually dominated the study of stress.
Recently, Lazarus and colleagues have published a
series of papers and studies proposing the role of
minor stressors in relation to psychological and
physical distress (DeLongis, et. al., 1982; Kanner, et.
al., 1981; Lazarus, 1984; Lazarus et. al., 1985). They
suggest that the impact of day-to-day events should
have an influence due to their proximity to the outcome
indices. Minor events were defined as those that can
occur frequently, even daily, as compared to major life
events, some of which occur once in a lifetime.
Lazarus and colleagues in constructing scales to assess
minor events divided them into two types; hassles and
uplifts (Kanner et. al., 1981). Hassles are
irritating, frustrating occurrences such as losing
things, traffic jams, arguments and disappointments. Uplifts are considered positive experiences that can occur daily such as getting a good night's rest and hearing good news. As with previous research involving life events the Hassles scale, which assesses the more negative events, has proven to be the most useful.

The Hassles Scale is a 117-item inventory designed to assess the minor stressors that have been experienced over the preceding month. The items were generated by the investigators and included the areas of work, health, family, friends, the environment and practical considerations. Respondents are asked to indicate which events they have experienced during the past month. Each item is also rated on a Likert scale from 1 (somewhat severe) to 3 (extremely severe). Norms are based on a sample of 100 adults. As stated previously, a major difficulty with the Hassles Scale is that one cannot experience an event without it being considered a hassle. There is no contingency for simply indicating that an event was experienced.

While the Hassles scale was developed to be administered on a monthly basis, Brantley and colleagues have developed the Daily Stress Inventory (DSI) which as its name implies is designed for use on a daily basis (Brantley, Waggoner, Jones & Rappaport,
1987). Items were obtained from daily logs which adults kept on events that were perceived as stressful. The DSI was standardized on a sample of community adults and norms are available. The DSI has been found to have concurrent validity with the Hassles Scale when both are used to assess a month of minor stressors. The DSI is also concurrent with daily subjective ratings of stress. Directions for the DSI ask respondents to complete the measure at about the same time each day. Respondents are to indicate which events on the inventory they have experienced and to rate the stressfulness associated with the event. The DSI provides three scores; frequency of the events that occurred, the sum of subjectively weighted stressfulness of the events, and the average impact of events score.

The potential role of minor events on health outcome measures can be conceptualized in a number of ways. Hinkle (1974) has proposed that major life events may impact upon health due to their disruption of habits, patterns of activity and social relations. In essence, this idea suggests that the role of major events is that they have an impact on an individual’s daily events and therefore, minor stressors. It has also been suggested that minor events may actually
serve the role of mediating major life events (Kanner et. al., 1981). Minor stressors may disrupt a person’s normal coping skills making the impact of major events that much more severe. The number and intensity of minor stressors experienced may actually indicate the degree to which an individual’s routine has been upset. Kanner et. al. (1981) have proposed that minor stressors could have an impact separate from that of major events indicating that they may have their origin in a person’s characteristic style, environment and the interaction of both. Some minor stressors may be repeatedly experienced because the individual remains in the same situation or is inept at handling common situations.

In summary, a considerable amount of research remains to be conducted regarding the role of minor events, in relation to and separate from the documented role of major events. Before reviewing the literature regarding major and minor life events in relation to psychological distress an explanation of the concept of psychological distress is needed.

Definition of Psychological Distress

As reported the investigation of the relation between life events and psychological distress has received a considerable amount of attention in recent
years. Within the general context of investigating this relation a broad range of subject populations has been used, from college students (Johnson & Sarason, 1978) to hospitalized schizophrenics (Rabkin, 1982). Subsequently, the term psychological distress, when used to discuss the results of these various studies regarding stressful life events, has been used to encompass a wide range of symptomatology from severe psychopathology to relatively minor emotional upset as experienced by the general population. An issue that is often overlooked in the introduction of many studies on stressful life events and psychological distress is what constitutes psychological distress for the study at hand. Instead, the emphasis is primarily on the particular measure of life events being used. Since the term psychological distress can be ascribed to a wide range of symptomatology it is necessary that it be discussed with regards to the subject population being investigated in order to adequately interpret the results.

Psychological distress is not a term which lends itself to a simple definition. Instead, it is open to a variety of definitions since it encompasses a range of symptoms and diagnoses. Indeed, the term can be attributed to symptoms which may not actually meet the
criteria for a formal diagnosis. However, there are some aspects of psychological distress which may be common to an entire range of symptom severity and also diagnostic categories. Thoits (1985) has argued that affective criteria appear central to the assessment of psychopathology and are common to a number of diagnoses. This conclusion was based on an analysis of the diagnostic criteria of the DSM III which found that inappropriate emotional states or displays are a defining feature in 35% of the disorders and an associated feature in 65% of the disorders. If disorders due to organic or genetic causes were excluded the percentages would be even higher. Thoits proposed that psychological disturbance might be conceptualized as some degree of general emotional deviance.

Gotlib (1984) has also stated that a number of forms of maladaptive functioning, assessed by various measures, might actually tap one construct which could be labeled dysphoria, malaise or general psychological distress. Previously, Welsh and Dahlstrom (1956) factor analyzed the MMPI and found that two main dimensions were identified, one of which seemed to represent general psychiatric disturbance or distress. A recent study investigating the factor structure of
the Symptom Checklist 90-Revised (Cyr, McKenna-Foley & Peacock, 1985) found that it was a better indicator of general distress than of distinct categories of psychopathology. Dobson (1985) investigated the constructs of anxiety and depression through the administration of a number of self report scales to college students. The results indicated strong correlations between all measures and factor analyses again revealed one major "psychological distress" factor. These findings suggest that there appears to be a construct of general psychological distress which can be tapped with a number of different measures.

The investigation of the various concepts and constructs of psychopathology is beyond the scope and intent of this study. However, it is essential to specify the term psychological distress as it refers to this particular study. Lazarus and colleagues (1985) have suggested that distress should not necessarily be equated with psychopathology. It has been proposed that individuals may experience a range of symptoms indicative of anxiety, fear, depression etc., without necessarily receiving a diagnosis. In essence, suggesting that individuals in the population at large as well as those with clinical diagnosis can experience emotional symptoms. The focus of the present study is
to investigate the use of an instrument which monitors minor stressful events and the relation of these events to psychological distress as assessed by various psychological symptom measures. For this purpose the term psychological distress will refer to the identified factor of general emotional disturbance which appears to cut across diagnostic categories and can be experienced by the normal population at large and not just by a discrete psychiatric population. The interest is in evaluating minor stressors which can fluctuate and be experienced by the general population and this description of distress is in line with that objective. The advantage of investigating this relation in the general population is that a wide range of distress is likely to be reported, including relatively low levels of distress which might not be readily apparent in a clinical population.

Assessment of Psychological Distress

In general, studies involving stressful life events and psychological distress have typically used self-report instruments to assess psychological symptoms. Self-report measures can be classified into two categories, multidimensional and unidimensional. Multidimensional instruments are those that provide scales for a number of syndromes. Unidimensional
instruments purport to assess specific syndromes, such as depression or anxiety. Studies involving stressful life events and psychological distress have typically used unidimensional instruments. However, among multidimensional instruments the Symptom Checklist 90-Revised (SCL-90R) (Derogatis, 1977) has been used (Kanner et al., 1981). The SCL-90R was designed to measure symptomatic psychological distress and not necessarily discrete psychiatric diagnoses. It reflects distress through the use of nine primary symptom dimensions and three global indices of distress. A more detailed description of the SCL-90R is provided in a later section of this paper. Since it has been normed on nonpatients it is ideally suited for the present study. Furthermore, the SCL-90R has been shown to be sensitive to low levels of symptoms in a normal population (Rickels, Lipman, Garcia & Fisher, 1972; Uhlenhuth, Lipman, Balter & Stern, 1974).

Another advantage of the SCL-90R is that it includes symptoms that are likely to show short-term changes.

A brief review of the literature on the relation between stressful life events and psychological distress indicates that most studies are conducted with unidimensional measures. The most frequently investigated emotional symptoms associated with stress
are depression and anxiety (Derogatis, 1982). There are a large number of instruments that are used to assess these two symptom complexes. The most frequently used measures of depression appear to be the Beck Depression Inventory (Beck, Ward, Mendelson, Mock & Erbaugh, 1961) and the Zung Self-Rating Depression Scale (Zung, 1965). The most frequently used measure of anxiety seems to be the State-Trait Anxiety Inventory (Speilberger et al., 1970).

A recent comparison of the BDI, Zung and MMPI-D depression scales found the Zung superior to the other measures (Scafefer, Brown, Watson, Plemel, DeMotts, Howard, Petrik & Balleweg, 1985). The measures were administered to inpatient psychiatric and chemically dependent patients. The scales were correlated with clinician's global ratings of depression, an overall score based on the DSM-III criteria and with scores on five DSM-III based factor analytic scales. A previous study compared the Zung with physician's global ratings and the Hamilton Rating Scale for Depression (Hamilton, 1960) (Biggs, Wylie & Ziegler, 1978). The results indicated that the Zung correlated well with both global ratings and the physician administered Hamilton Rating Scale. Other studies have illustrated significant correlations between the Zung and BDI.
Dobson (1985) found that the Zung correlated .76 with the BDI. The results of this study also found that the Zung correlated higher with the MMPI-D depression scale than the BDI, for both males and females. A study conducted in the Netherlands also found that the Zung and BDI were significantly correlated (.69) (Bosscher, Koning & Van Meurs, 1986). Derogatis (1982) has suggested that the Zung seems to have been overlooked as a measure to be used in stress research, although it has a number of positive attributes. A review of the literature does indicate that the Zung is more than adequate to assess depressive symptomatology.

Regarding measures of anxiety, the State-Trait Anxiety Inventory is undoubtedly the measure of choice. Gotlib (1984) has stated that the stability of the STAI A-Trait scale and the sensitivity of the STAI A-State have been examined and the results have consistently supported the use of these instruments to assess anxiety. An early review by Levitt (1967) concluded that among the measures available for assessing anxiety the STAI was, psychometrically, the most carefully developed. Indeed, the STAI has been the most frequently used measure of anxiety in the psychological literature (Buros, 1978). Detailed descriptions of both the Zung and STAI are provided in a later section.
Major Life Events and Psychological Distress

The literature investigating the role of major life events and psychological distress has been conducted with a variety of life events inventories. The majority of the studies have either used one of the Holmes and Rahe scales or the LES. The following review of major life events and psychological distress will be organized primarily around these two scales. First, studies using Holmes and Rahe scales will be presented.

Vinokur and Selzer (1975) used the Schedule of Recent Experiences (Holmes & Rahe, 1967), the Zung depression scale (Zung, 1965) and a set of items related to indications of anxiety. Significant relations were found between the SRE and the measures of psychological distress, with correlations ranging from .23 to .34. In separating undesirable from desirable events it was found that the relations did not exist for desirable events when used alone. Recent studies have supported this conclusion (Kanner et. al., 1981). A major limitation of this relatively early study was that it was conducted only with males, 1059 above the age of 20 obtained through a driver’s license bureau. Mueller, Edwards and Yarvis (1977) used the SRE and a scale measuring general psychiatric
symptomatology with a group of randomly selected adults. Again, major life events were significantly related to measures of psychological status and undesirable events were found to be more highly correlated with the dependent measures than desirable events and all items together. The highest correlation was reported for a subscale of items purported to assess anxiety, but as the authors noted, even this correlation is low. An interesting study recently conducted in Greece used the SRE and the Greek adaptation of the Manifest Anxiety Scale with a sample of teachers (Georgas & Giakoumaki, 1984). Sex differences were found for the relation between life events and anxiety and also a physical symptoms checklist. For females, a significant correlation of .57 was found between life events and anxiety, no significant relation was found for males. A similar finding was observed for the physical symptoms checklist.

Leavitt, Garron and Bieliauskas (1978) used the Social Readjustment Rating Scale (Holmes & Rahe, 1967), the Multiple Affect Adjective Check List (MAACL) (Zuckerman & Lubin, 1965) and the State-Trait Anxiety Inventory (Speilberger, Gorsuch & Lushene, 1968) with a sample of low back pain patients. Subjects were
classified into three groups according to the degree of organic findings for their complaints. Their results differ somewhat from previous studies. Within the group that definitely had organic findings, no significant relations were found between the SRRS and measures of anxiety and depression. A significant relation was found only for Trait anxiety and the SRRS, for subjects with probable organic cause. For subjects with no appreciable organic findings, only State anxiety was found to significantly correlate with life events as assessed with the SRRS. No significant differences were found between the three groups on the report of life events. As the authors noted there is no viable explanation for the lack of relation between life events and affective measures and seems to be "counter-intuitive". In retrospect, a possible explanation of these and other puzzling and inconsistent results may lie in the limitations of major life events measures and the general approach of major life events.

The idea that stress, as defined by major life events, is related to psychological distress has high face validity, yet most studies have consistently reported low to moderate estimates of the contribution of life events to distress (Rabkin & Struening, 1976;
Rahe & Arthur, 1978). Noting this difficulty, Tausig (1982) investigated the life events approach taking into consideration numerous methodological issues. Tausig used the SRE and the Center for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977). Despite using a number of modifications of the scale including; differing the number of items, investigating desirability versus undesirability and also objective and subjective approaches, no significant impact was found regarding the correlation with depression. The correlation between life events and depression remained around .21, accounting for 4.4 percent of the variation in depression scores. Tausig concluded that the Holmes and Rahe approach does not appear to be a very powerful predictor of depressive symptoms. Furthermore, the life events approach is either inadequately assessing the concept of stress related to disorder, or that if measured adequately, the concept has a very limited impact on depression scores.

Many methodological limitations were cited for the relatively low correlations found between life events, as measured by the Holmes and Rahe instruments, and psychological distress. These included the inability to indicate degree of desirability and individual ratings of the events. Sarason, Johnson and Siegel
(1978) developed the Life Experiences Survey in an attempt to address these issues. The LES has three stated advantages over the measures of Holmes and Rahe, particularly the SRE. First, it includes a list of events that are experienced with some degree of frequency by the population. Second, the LES allows for ratings of desirability by the respondents. Third, the LES also allows for individualized ratings of the events that are experienced. The authors proposed that these improvements would result in an superior measure of life events as compared to the SRE. In the initial article on the development of the LES, a comparison of both measures was reported using the 34 items that overlap between the two measures. The items were scored to provide four measures. Three were from the LES: positive, negative and total life change score. The fourth measure was obtained by applying the life change units used with the SRE to the 34 items. The dependent measures used included the Beck Depression Inventory and the State-Trait Anxiety Inventory. The authors reported that one "surprising" finding was that no significant correlations were found between any of the life change measures and anxiety. It was concluded that this finding was simply due to the "rather select nature of the sample studied", which consisted of
female undergraduates. However, significant
correlations were obtained with the measure of
depression. The LES negative and total scores were
found to be significantly correlated with depression
scores, .37 and .24 respectively. The life change unit
score (SRE) was nonsignificant. A second comparative
study using a psychological screening inventory yielded
similar results. The LES has subsequently been used in
a number of studies involving psychological distress.

Johnson and Sarason (1978) using the LES
investigated life events, depression, anxiety and locus
of control. Again, a significant correlation was found
between negative change scores and a measure of
depression, .32. Negative change was also found to be
significantly correlated with trait anxiety, .31. The
subject population was again comprised of undergraduate
college students. Smith, Johnson and Sarason (1978)
used the LES and the Discomfort scale of the
Psychological Screening Inventory (Lanyon, 1970) while
assessing low versus high sensation seekers in a
college sample. A significant relation, .35, was found
between the LES and the Discomfort scale for low
sensation seekers, but none was found for high
sensation seekers, .15. Sensation seeking had been
proposed as a moderator variable between life stress
and psychological distress.

Nezu (1986) in a recent study used the LES and the State-Trait Anxiety Inventory while investigating problem solving as a moderator variable in a college population. Unlike Johnson and Sarason (1978), Nezu found that the LES negative change score was significantly correlated with both Trait (.37) and State (.29) anxiety. A significant interaction was found for problem solving ability. As in previous studies, no significant findings were reported for positive life events scores.

Kuiper, Olinger and Lyons (1986) investigated the relation between life events, perceived stress and depression. They used the LES, Beck Depression Inventory (Beck et. al., 1961) and the Perceived Stress Scale (Cohen, Kamarck & Mermelstein, 1983) in a college sample, with a mean age of 19. The 14-item Perceived Stress Scale (PSS) is purported to be a measure which assesses the extent to which individuals feel that their lives are unpredictable, uncontrollable and overloading. It does not involve the endorsing of specific items. Instead it asks very general questions such as "In the last month, how often have you felt nervous and stressed". The results indicated a significant relation between the LES and Beck (.47), as
well as between the PSS and LES (0.38). This study, as with many others involving life events, used a sample of college students with a relatively young age, which questions the generalizability of its results. Indeed, the mean score on the Beck was 5.90, which is well below that considered clinically relevant.

As previously noted a number of different scoring systems have been used with major life events measures. Zuckerman, Oliver, Hollingsworth and Austrin (1986) recently contrasted a number of these methods using the LES to predict psychological distress using the Brief Symptom Inventory (BSI), which is a shortened form of the SCL-90R (Derogatis, 1977). The use of individualized negative ratings was a significantly better predictor than any of the other methods, among which were included generalized weighting and frequency approaches. In general, it was found that nomothetic methods for weighting life events did not increase the predictive ability of a scale beyond that obtained with a simple frequency count. Again, life events predicted psychological distress only if the events were perceived as negative. In contrast to Ross and Mirowsky (1979), the results of this study did not indicate that the frequency of negative events is a better predictor than the frequency of all events.
Seven correlation coefficients between life events and psychological distress were reported, six of which were significant. For the frequency and generalized weighting methods they ranged from $r = .22$ to $r = .33$. The significant individualized scoring methods were $r = .36$ and $.48$. Individualized positive weightings were not significantly correlated with psychological distress.

Among the strengths of the Zuckerman et. al. study was the use of a sample obtained from the general population. However, the subjects were paid and were more likely to be female, members of a minority group and in the lower socioeconomic levels. The study also contrasted the major scoring methods, concluding that negative individualized weightings seem to be the most powerful in predicting general psychological distress. They do suggest that the study be replicated with a variety of additional criterion measures. There does continue to be some controversy regarding the comparison of negative events frequency and the frequency of all events.

Although the LES is superior to the SRE in terms of providing a more comprehensive array of scores it has resulted in rather modest improvements regarding the ability to predict psychological distress using major life events. The recent and rather thorough
study of major life events by Zuckerman et. al. (1986) indicated that the correlations obtained, in the comparison of various scoring methods, remained similar to those previously reported (Rabkin & Streuning, 1976), although some improvement was noted with the use of individualized weighting systems. Despite the use of different measures, a variety of scoring procedures and the modification of measures over time, the major life events approach appears to be limited regarding its ability to predict psychological distress. Although significant correlations are reported, major life events continue to account for a relatively small proportion of the variance in the report of psychological distress. Therefore, conclusions based on studies involving the use of major life events in predicting psychological distress would seem to be of questionable utility. As stated previously, either the major life events approach is inadequate to evaluate the concept of stress as it relates to psychological distress or the role of major life events is minimal.

**Minor Events and Psychological Distress**

Reviewing the literature on the role of major life events and psychological distress it is striking that stress measurement has been virtually dominated by this approach in light of the rather weak evidence to
support its use. An alternative approach has been the study of relatively minor events and their role regarding psychological distress (Kanner et. al., 1981). In comparison to the major life events approach the investigation of minor events, in relation to psychological distress has yet to be thoroughly studied.

Kanner et. al. (1981) appear to be one of the earliest to investigate the role of minor events, using the Hassles scale which was discussed earlier. Kanner et. al. (1981) also directly compared the use of minor events and major events in predicting psychological distress, as measured by the Hopkins Symptom Checklist (HCL) (Derogatis et. al., 1971). Significant correlations were reported between the Hassles and the HCL. Furthermore, in a direct comparison the Hassles was shown to be superior to major life events in predicting psychological distress. The results also suggested that the role of minor events is independent of the role of major events. After controlling for life events, a substantial relation remained between hassles and psychological distress.

Although the results of Kanner et. al. (1981) reflect positively on the unique role that minor events have in relation to psychological distress, their
particular study does have its limitations. First, minor events were averaged over a period of nine months then used to predict psychological distress, as measured at one point in time. This approach, although assessing minor events, does not appear to adequately assess the daily fluctuations of events in relation to psychological distress. Instead of assessment at a particular place in time the method seems to assess the stability of events over time. Indeed, the correlations were found to be lower when evaluating the data from just one month, which is the stated time frame of the Hassles scale. Also, the time frame for reporting major events was exceptionally long as compared to other studies. Respondents were instructed to indicate which events they had experienced over the preceding two and a half years. The end result could have been the endorsement of a higher number of major events than in comparative studies. In evaluating the Hassles scale itself, it has been criticized for not allowing the endorsement of an item without inferring it created some degree of stress. Lastly, it is unclear which scales of the HCL were used or if any differences were apparent between the scales as predicted by the Hassles scale.

Monroe (1983) also has investigated the role of
minor and major events as predictors of psychological distress. Psychological distress was assessed using the General Health Questionnaire (GHQ). The measurement of minor events was conducted by asking respondents to "estimate how frequently they characteristically experience" particular situations. They were also asked to estimate the intensity of their emotional response. It is reported that only frequency measures were used in the analysis of the data. The study yielded results similar to that of Kanner et. al. (1981). Minor events were found to be significant and independent predictors of psychological distress. The results of this study show further promise for the continued evaluation of minor events. Again, there are some limitations to the methodology employed in the assessment of minor events.

First, there is no indication of the time frame used in reporting the occurrence of the minor events. Therefore, the daily fluctuating nature of minor events is inadequately assessed. Second, the study relies solely on "estimates" of how often the situations are typically experienced. It does not ask directly which situations have been experienced or within what time frame. However, the symptom measure appears to assess psychological distress at the particular point in time.
that the measure is administered. It is somewhat unclear how minor events that are assessed by estimating their occurrence, and without specifying a time frame, can logically be related to distress at a particular point in time. It seems to combine a state assessment of psychological distress with a long-term assessment of minor events.

Brantley et. al. (1987) compared the DSI and Hassles scale in the ability to predict anxiety, using the STAI. The results indicated that both instruments are equally able to predict trait anxiety, but only the DSI is able to predict state anxiety. These findings suggest that the DSI is a more sensitive measure than the Hassles scale when assessing daily fluctuations in anxiety. In general, the results also indicate that the relation between minor events and psychological distress is significant and worthy of further study.

In summary, the research to date on the role of minor events in relation to psychological distress is promising. However, many of the studies conducted have considerable limitations and there seems to be a need for further investigation along a number of different fronts.

The Present Study

The purpose of the current study was to further
evaluate the role of minor events in relation to psychological distress. As stated above, for the purposes of the present study psychological distress was conceptualized as the degree of emotional disturbance that can be experienced by the population at large and has been identified as a predominant general factor present in a number of studies on psychological impairment. The subject pool consisted of community residents from the population at large. The advantage of this population was that the study was not limited by the use of a single diagnostic category, which potentially could have resulted in a narrow band of reported psychological distress. The use of a community sample was also preferable to a sample of college students, which has often been used in previous life events studies, but limits the generalizability of the results.

In contrast to previous studies on life events and psychological distress a number of psychological symptom measures were used. Previous studies usually have used only one measure of a particular symptom complex or one measure of general distress. The present approach addressed the inconsistencies reported in previous studies regarding different types of psychological distress and life events. This
approach provided for a more thorough investigation of life events and psychological distress. The SCL-90R Global Severity Index was used as a general indicator of distress. As previously stated, the SCL-90R has been shown to be sensitive to relatively low levels of distress and has been illustrated to be a good measure of general psychological distress. The Zung Self-Rating Depression Scale was used to assess depressive symptomatology. It has recently been shown to be a superior measure in comparison with other depression instruments (Schaefer et al., 1985). The STAI-Y, State form, was used to assess anxiety symptomatology. This instrument has been widely examined and the results consistently support its use (Gotlib, 1984).

Major life events were assessed with the LES. The LES is currently the instrument of choice to evaluate major life events. Minor life events were evaluated with the DSI, as it has been shown to adequately assess minor stressors. It is also been shown to be superior to the Hassles scale in its sensitivity to daily fluctuations of anxiety. Lastly, the construction of the DSI allows the investigation of both frequency and intensity of events.

This investigation compared major life events
and minor life events in the ability to predict psychological distress. Psychological distress was defined as a state variable and assessed over a brief period. Both major and minor life events were examined in relation to their ability to predict outcome on different measures of psychological distress. The results of this examination provided further data on major and minor events, and also addressed the debate regarding the apparent overlap in psychological constructs. The relation between major and minor events was also examined. Lastly, frequency and subjective weightings were contrasted in light of the recent results of Zuckerman et. al. (1986), which has perpetuated the debate between the two scoring approaches.

Hypotheses

1. Life Events and Psychological Distress
   A. It was hypothesized that both major and minor life would be significantly related to measures of psychological distress. Previously, major events have been shown to be significantly, albeit moderately, related to psychological distress. The available data on the role of minor events also indicates a significant relation with psychological distress.
   B. It was expected that minor life events would be a
better predictor of psychological distress than major events. Although limitations are apparent with the previous attempts to investigate the relation between minor events and distress, this hypothesis was consistent with the limited data available.

C. Also consistent with previous findings, major and minor life events together would predict psychological distress better than does either category alone.

D. In light of the most recent findings on various scoring methods with life events scales, subjective weighting of events were compared to frequency count. It was hypothesized that subjective weightings would improve the prediction of distress.

2. Major and Minor Stressful Events
A. It was expected that major and minor events would be significantly, but moderately related. It has been suggested that major events may have an impact on distress through their impact on minor events, so it was expected that minor events would be in part predictable from major events. However, previous evidence does suggest that the two approaches are tapping different content areas, so the correlations would be rather moderate.

3. Psychological Distress-General and Specific
A. Previous research has produced inconsistent
findings in reporting the relation between major life events and psychological distress when using unitary measures of distress but not more general indicators. It was hypothesized that minor events would significantly predict both unitary measures of anxiety and depressive symptomatology as well as a general indicator of psychological distress.

B. Since the general indicator of distress should tap a combination of symptoms, it was hypothesized that minor events would be a more powerful predictor of this composite measure than of scores from measures designed to assess more unitary symptom clusters.
Methods

Subjects

A total of two hundred thirty three adult volunteers were obtained from the community of Baton Rouge, Louisiana. The subjects were recruited by undergraduate research assistants. The research assistants were volunteers who received course credit for their role in the study. Subjects who participated in the study were employed on at least a part-time basis and none were full-time college students. The subjects were informed that they would be participating in a "Stress Project". In return for participation in the study each subject received a "stress profile" that indicated their position in the overall distribution of results.

Demographic information obtained indicated that on the average subjects were in their 30's, had thirteen to fourteen years of education and incomes of approximately $40,000. Regarding sex, 64% of the sample was female and 36% was male. Table 1 presents a summary of the demographic characteristics of the sample. Since only 30 black subjects participated in the study, race effects could not be adequately analyzed and so they were not included in the analyses. Additional subjects were eliminated if they were determined to be

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Table 1

Demographic Summary of the Sample

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<th>Females</th>
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<td>41,198</td>
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<tr>
<td>SD</td>
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<td>(29,819)</td>
</tr>
</tbody>
</table>
outliers in the univariate distributions or had incorrectly completed the scales. A substantial number of subjects did not complete the Zung scale correctly, as many items were left blank. Subjects who did not respond to all items on the Zung scale were eliminated from the relevant analyses. The final sample size for the analyses was 191, except for the analyses involving the Zung scale which included 156 subjects.

**Measures**

**Independent Variables**

The Daily Stress Inventory (DSI). The DSI (Brantley et al., 1987) is a 58 item standardized self-report measure that assesses relatively minor daily events, such as arguments, job strains and social pressures, that occur during a 24-hour period. The inventory provides three daily stress scores: the number of stressful events that are experienced, the total sum of the ratings that are given to items that are endorsed, and the average of the ratings that are given to the items endorsed. Individuals rate the stressfulness of each event, that they experienced, on a Likert-type scale from 1 ("occurred but was not stressful") to 7 ("caused me to panic"). The items on this scale reflect less severe and potentially more
frequently encountered stressful events than items on the LES or Hassles scales. The DSI has very little item overlap with those on other scales. The DSI has been found to have test-retest reliability coefficients in the low .60's, which suggest that it is more of a "state" than "trait" measure and has the ability to fluctuate on a daily basis. The DSI has been found to significantly correlate with state anxiety and a monthly measure of daily stress (Brantley et al., 1987). It has also been shown to be related to an endocrine measure of stress (Brantley, Deitz, McKnight, Jones & Tulley, 1987). The authors provide normative data for an adult sample. The scale is presented in Appendix A.

The Life Experiences Survey (LES). The LES (Sarason et al., 1978) is a 57-item standardized, self-report measure. Respondents indicate which major life events, from those listed, that they have experienced during the previous 12 months. The LES provides an index of the number of major life events having occurred and allows individuals to provide subjective ratings of the impact of each event from "extremely negative" (-3) to "extremely positive" (+3). This scale allows the separation of subjectively aversive events from subjectively pleasant events.
Respondents also indicate during which 6-month time period each event occurred. The LES provides three scores: positive change, negative change and a total change score for each 6-month period as well as for the entire 12-month period.

The LES items were chosen to represent life changes frequently experienced by the general population. The first 47 items are completed by all respondents. The remaining 10 items are designed primarily for use by a student population. Among the 57 items, 34 are similar in content to the SRE. However, certain items on the LES are reworded to be more specific than they appear to be on the SRE.

In the initial normative studies (Sarason et. al., 1977) no significant differences were found between males and females on any of the three measures obtained from the LES. The positive and negative life change scores were essentially uncorrelated. Using two samples from a college population, test-retest data indicate that positive change scores correlate .19 and .53 for five to six weeks, negative scores correlate .56 and .88 and total scores .63 and .64. It is noted that test-retest reliability coefficients with measures of this type may often be underestimated. This is due to the fact that during
the intervening time period individuals may experience events that are reflected in their responses at retesting. The scale is presented in Appendix B.

**Dependent Variables**

*State-Trait Anxiety Inventory-Form Y (STAI)*. The STAI (Speilberger, Gorsuch & Lushene, 1970) is composed of two 20-item questionnaires of similar format, one asking respondents to indicate how they "generally" feel and the other asking how the individual feels "right now". The respondent chooses one of four responses for each item: "almost never", "sometimes", "often", or "almost always". The instrument was developed to evaluate feelings of tension, nervousness, worry and apprehension. The STAI was designed to be self-administered, requiring approximately 15-30 minutes to complete both questionnaires.

The STAI was designed to provide a distinction between anxiety as a relatively enduring personality characteristic, trait anxiety, and anxiety as a transient emotional experience, state anxiety. Test-retest reliability for the state form of the STAI has been found to be low, .20 to .40 regardless of the time elapsed. Test-retest reliability for the trait anxiety measure have been found to be about .80.
Two scores are derived from the STAI: an A-Trait and A-State. Interpretation of the scores is relatively straightforward. High score on A-trait are indicative of higher levels of anxiety proneness. Higher A-State scores are indicative of transitory perception of feelings of apprehension, tension and worry. The scale is presented in Appendix C.

**Zung Self-Rating Depression Scale (SDS).** The SDS was developed in an effort to quantify the symptoms present in individuals with depressive disorders (Zung, 1965). Zung concluded, following a review of the clinical and multivariate research on depression, that four characteristics are commonly observed in depressive disorders: affect disturbances, physiological disturbances, psychomotor disturbances and psychological disturbances. Twenty items were developed to be representative of these four areas and are reported to be an excellent checklist of the most common complaints that comprise the concept of a depressive disorder (Derogatis, 1982).

Each of the twenty items that comprise the SDS contains a 4-point ordinal scale corresponding to one of four responses; "none or a little of the time", "some of the time", "a good part of the time" and "most all of the time".
The SDS has been widely used and evaluated including numerous studies overseas (Zung, 1981). A recent study (Gabrys & Peters, 1985) reported a split-half reliability coefficient of .94. It was also found to effectively discriminate between depressed and non-depressed clients. The SDS has been found to significantly correlate with other depression scales, including the MMPI-Depression scale, MAACL-D and BDI (Dobson, 1985; Bosscher, Koning & Van Meurs, 1986). The scale is presented in Appendix D.

**Symptom Checklist-90-Revised (SCL-90-R).** The SCL-90-R is a measure of current psychological symptom status developed in its most recent form by Derogatis (1977). The measure is a 90-item self-report inventory. Each item is rated on a 5-point scale of distress from "not at all" to "extremely". Respondents are asked to record how much discomfort a particular symptom has caused within a specific period of time, typically the past seven days.

The SCL-90-R includes psychological symptoms that are particularly likely to show short-term changes (Kanner et. al., 1981). The SCL-90-R has also been demonstrated to be a relatively sensitive instrument to low levels of symptoms in normal populations (Uhlenhuth et. al., 1974). This finding indicates that the SCL-
90-R is particularly suited for use with nonclinical subject populations.

The SCL-90-R provides scores on nine primary symptom dimensions and three global indices of distress. The nine symptom dimensions include: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism. There are three global indices each of which are used to communicate the degree of psychological distress in a single score. Each index does this in a different manner. The Global Severity Index (GSI) represents the single best indicator of the current level of distress and should be utilized when a single summary measure is required (Derogatis, 1977). The GSI combines information on the number of symptoms and intensity of perceived distress. The Positive Symptom Distress Index (PSDI) is a pure intensity measure which is considered to correct for the number of symptoms endorsed. It serves the function of assessing response style in indicating whether the individual is "augmenting" or "attenuating" symptomatic distress. The Positive Symptom Total (PST) is simply the number of symptoms that the individual reports as having experienced.

The author reports internal consistency measures
of .77 to .90 for the scales of the instrument. Test-retest reliability measure of consistency range from .78 to .90. The scale is presented in Appendix E.

**Procedure**

Subjects were recruited by undergraduate research assistants and were provided with an explanation of the purpose of the study. Those who agreed to participate were given an Informed Consent Form (See Appendix F) to read and sign. Each subject was given 7 copies of the DSI and instructed to complete it at about the same time each day. On the third or fourth day the subject received a telephone call from the research assistant, which consisted of asking the subject if there were any questions about the instructions and to remind the subject to continue to complete the DSI each day. Each subject received a second call from the research assistant to schedule a time for the completion of the remaining scales. On the seventh or eighth day the subject met with the research assistant and completed the demographics questionnaire, LES, Zung, STAI and SCL-90R scales.

In order to confirm that the subjects existed and had actually participated in the study the investigator and two research assistants checked the telephone
directory and directory assistance. About 84% of the subjects were able to be confirmed. Of those who could not be confirmed a number had not provided telephone numbers or addresses.
Results

A preliminary inspection of the univariate distributions was performed in order to determine the presence of outliers that could present problems in analyzing the data. Since the presence of outliers can substantially influence regression coefficients, it has been recommended that they be eliminated from the data analyses (Cohen & Cohen, 1983). Subjects who scored more than four standard deviations from the mean were deemed as outliers and removed from further analyses.

The means and standard deviations for each measure are presented in Table 2 and the correlations between variables are presented in Table 3. The data were analyzed using correlation and regression techniques. The level of significance for each statistical test was set to $p < .01$ to reduce the experiment-wise error rate.

The analyses will be presented separately for each measure of psychological distress in relation to frequency of major and minor events. Next, the analysis of the frequency approach will be contrasted to the subjective approach for each measure of distress. The results are presented in terms of semipartial correlation coefficients ($sr$).
Table 2

Means and Standard Deviations of Independent and Dependent Measures

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<th>M</th>
<th>(SD)</th>
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<td>Frequency of Events</td>
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<td><strong>Dependent Measures</strong></td>
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<td>State Anxiety</td>
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<td>(11.12)</td>
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<td>SCL-90R Global Distress Index</td>
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<td>(0.39)</td>
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Table 3

**Correlation Matrix**

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<th>DS</th>
<th>Z</th>
<th>SA</th>
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<tr>
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<td>DSI(FREQ)</td>
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<tr>
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<td>.58</td>
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<td>.67</td>
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Note: All correlations are significant, $p < .01$. 
Relation Between Frequency of Major Events, Minor Events and Zung Depression Scores.

A correlational analysis was used to investigate the relation between major and minor events. The correlation between the frequency of major and minor events was significant, $r = .356, p < .01$. This finding indicates that the frequency of major and minor events have about 13 percent of their variance in common.

The relations between depressive symptomatology (Zung Depression scores) and the frequency of major and minor events were also investigated using correlations. The frequency of major events was significantly related to depressive symptoms, $r = .279, p < .001$. The frequency of minor events was also significantly related to depressive symptoms, $r = .283, p < .001$.

Regression analyses were performed to evaluate the relation between depressive symptoms and the combination of major and minor events. Major and minor events and their interaction term were entered into a regression equation in a hierarchical manner. The frequency of major events was entered first, followed by the frequency of minor events and lastly the interaction of the two. The overall regression was significant, $R = .356, p < .001$. Entered first, the
frequency of major events accounted for a significant portion of the variance of depressive symptoms, \(sr = .279, p < .01\). Entered second, the frequency of minor events also accounted for a significant additional portion of the variance, \(sr = .191, p < .01\). The interaction of major and minor stressors was not a significant predictor of depressive symptoms, \(sr = .114, ns\). Table 4 presents a summary of the regression. A second regression analysis was performed in which minor events were entered first, followed by major events and the interaction of the two last. As presented in Table 5, entering minor events first accounted for a significant portion of the variance, \(sr = .283, p < .01\). However, entered second, major events were not a significant predictor of depressive symptoms, \(sr = .184, ns\). A stepwise regression analysis was performed and yielded the same results as the hierarchical regression with minor events entered first. For minor events, \(r = .283, p < .01\).

See Table 5.

Relation Between Major Events, Minor Events and State Anxiety Scores.

The relations between anxiety symptoms and the frequency of major and minor events were investigated using correlation analyses. The frequency of major
Table 4

Regression of Frequency of Major and Minor Events

Predicting Depressive Symptoms

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<thead>
<tr>
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<th>F</th>
<th>R</th>
<th>P</th>
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<tr>
<td>Model</td>
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<td>19.71</td>
<td>7.38</td>
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<td>.001</td>
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<tr>
<td>Error</td>
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<td>Total</td>
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<th>P</th>
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<td>.001</td>
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<td>Minor Events</td>
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<td>Interaction</td>
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Table 5

Regression of Frequency of Minor and Major Events
Predicting Depressive Symptoms

<table>
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<th>Source</th>
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<th>R</th>
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<tr>
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<td>19.72</td>
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<td>.001</td>
</tr>
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<table>
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<th>P</th>
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<tr>
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</tr>
<tr>
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<td>5.26</td>
<td>.184</td>
<td>ns</td>
</tr>
<tr>
<td>Interaction</td>
<td>2.03</td>
<td>.110</td>
<td>ns</td>
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events was significantly related to anxiety symptoms, \( r = .272, p < .001 \). The frequency of minor events was also significantly related to anxiety symptoms, \( r = .375, p < .001 \).

Regression analyses were performed to investigate the relation between anxiety and the combination of major and minor events. The frequency of major events was entered into the equation first, followed by minor events, which was followed by the interaction term. As presented in Table 6, the overall regression was significant \( R = .404, p < .001 \). Entered first, the frequency of major events accounted for a significant portion of the variance in anxiety symptoms, \( sr = .272, p < .01 \). Minor events also accounted for a significant portion of the variance in anxiety symptoms, \( sr = .297, p < .01 \). The interaction of major and minor events was not a significant predictor of symptoms, \( sr = .03, ns \).

A second regression was performed entering minor events first, followed by major events and lastly, the interaction term. The results are presented in Table 7. Entered first, minor events accounted for a significant portion of the variance in anxiety symptoms, \( sr = .375, p < .01 \). However, entered second, major events did not account for a significant portion of the variance in symptoms, \( sr = .149, ns \). A stepwise regression
Table 6

**Regression of Frequency of Major and Minor Events Predicting State Anxiety Symptoms**

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<tr>
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<td>Error</td>
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<tr>
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<td>Minor Events</td>
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<td>.297</td>
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Table 7

Regression of Frequency of Minor and Major Events Predicting State Anxiety Symptoms

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<td>Model</td>
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<td>.001</td>
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<tr>
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<table>
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<tr>
<td>Minor Events</td>
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<td>.375</td>
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<td>Major Events</td>
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<td>.149</td>
<td>ns</td>
</tr>
<tr>
<td>Interaction</td>
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<td>.030</td>
<td>ns</td>
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</table>
analysis was performed and yielded the same results as
the hierarchical regression with minor events entered
first. For minor events, $r = .375, p < .01$. See
Table 7.

Relation Between Major Events, Minor Events and
SCL-90R Global Severity Scores.

The relations between global psychological
distress and the frequency of major and minor events
symptoms of global psychological distress, $r = .290,$
$p < .001$. The frequency of minor events was also found
to be significantly related to symptoms of global
psychological distress, $r = .420, p < .001$.

As with the depression and anxiety results,
regression analyses were performed to determine the
relation between global psychological distress and major
and minor events. Again, major and minor events and
their interaction term were entered into a regression
equation in a hierarchical manner. See Tables 8 and 9.
The frequency of major events was entered first, minor
events were entered second and the interaction term
last. The overall regression was significant, $R = .446$
p $< .001$. Again, when entered first major events
accounted for a significant portion of the variance in
symptoms of global psychological distress, $sr = .290,$
p $< .01$. Minor events also accounted for a significant
Table 8

**Regression of Frequency of Major and Minor Events**

**Predicting Global Psychological Distress**

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Table 9

Regression of Frequency of Minor and Major Events Predicting Global Psychological Distress

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portion of the variance in symptoms, $sr = .338$, $p < .01$. The interaction of the frequency of major and minor events was not a significant predictor of global distress, $sr = .02$, ns. As presented in Table 9, a second regression was performed entering minor events first, followed by major events and the interaction of both. Minor events, entered first, were found to be a significant predictor of global distress, $sr = .420$, $p < .01$. Entered second, major events did not significantly predict distress, $sr = .146$, ns. A stepwise regression analysis was performed and yielded the same results as the hierarchical regression with minor events entered first. For minor events, $r = .420$, $< .01$. See Table 9.

**Frequency Scores In Comparison to Weighted Scores.**

Regression analyses were performed to determine if using subjective weightings would significantly improve the relation between major events, minor events and the three measures of psychological distress. For each measure of psychological distress, the frequency of major events, minor events and the interaction were entered into the regression equation followed by subjectively weighted scores for major events, minor events and the interaction. Increases in the overall $R^2$ were tested for significance using the $F$ test of $R^2$.
Table 10

**R2 Improvement of Adding Weighted Scores to Frequency Scores Predicting Depressive Symptoms**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>F</th>
<th>R</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighted Scores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model</td>
<td>6</td>
<td>38.93</td>
<td>8.33</td>
<td>.500</td>
<td>.001</td>
</tr>
<tr>
<td>Error</td>
<td>149</td>
<td>116.07</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>155</td>
<td>155.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**R2 Improvement**

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>R2 Improvement</td>
<td>.13</td>
<td>8.60</td>
</tr>
</tbody>
</table>
improvement (Cohen & Cohen, 1983)

**Zung Depression Scores.** The frequency of major events, minor events and the interaction yielded an overall $R$ of $.366, p < .001$. With the addition of the subjectively weighted scores for major and minor events the overall $R$ increased, $R = .500, p < .001$. This increase was found to be significant, $F(3,149) = 8.60, p < .01$. (See Table 10)

**State Anxiety Scores.** The frequency of major events, minor events and the interaction yielded an overall $R$ of $.404, p < .001$. Entering the subjectively weighted scores produced an overall $R$ of $.589, p < .001$. This increase in $R$ was found to be significant, $F = 15.00 (3,183), p < .01$. (See Table 11)

**Global Severity Index Scores.** The frequency scores of major events, minor events and their interaction produced an overall $R$ of $.446, p < .001$. Entering the subjectively weighted scores yielded an overall $R$ of $.636, p < .001$. Again, this increase was found to be significant, $F = 22.67 (3,184), p < .01$. (See Table 12)
Table 11

R² Improvement of Adding Weighted Scores to Frequency Score Predicting State Anxiety Symptoms

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>F</th>
<th>R²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighted Scores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model</td>
<td>6</td>
<td>65.66</td>
<td>16.24</td>
<td>.589</td>
<td>.001</td>
</tr>
<tr>
<td>Error</td>
<td>183</td>
<td>123.34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>189</td>
<td>189.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R² Improvement</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15.00</td>
<td>.01</td>
</tr>
</tbody>
</table>
Table 12

**R² Improvement of Adding Weighted Scores to Frequency Scores Predicting Global Psychological Distress**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>F</th>
<th>R²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weighted Scores</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Model</td>
<td>6</td>
<td>76.73</td>
<td>20.77</td>
<td>.635</td>
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<td>Error</td>
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<tr>
<td>Total</td>
<td>190</td>
<td>190.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**R² Improvement**

<table>
<thead>
<tr>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.67</td>
<td>.01</td>
</tr>
</tbody>
</table>
Discussion

The present study was undertaken to evaluate the relations between major events, minor events and psychological distress. Major and minor events were compared in their ability to predict outcome on symptoms of anxiety, depression and general psychological distress. Also, subjective weighting and frequency methods of scoring life events were contrasted. Overall, the results of the study supported the hypotheses.

Major and Minor Stressful Events

As hypothesized, a significant relation was found between major and minor life events. However, the two classes of events only share approximately 13 percent of their variance. In general, the present results support previous findings on the relation between major and minor events (Kanner et. al., 1981; Delongis et. al., 1982). Although there is a significant relation between the two classes of life events, the strength of the relation suggests that they are not evaluating the same domain.

The precise nature of the relation between major and minor events is unclear. As previously stated, minor events may serve a mediating role between major events and distress (Kanner et. al., 1981). It has
also been hypothesized that major events may have a direct impact on daily activities, in other words, minor events (Hinkle, 1974). A recent study investigated the influence of major events on minor events and found that only about 11 percent of the minor events could be directly attributed to the influence of major events (Jones, 1987). It may be concluded that despite the relation between major and minor events the two classes of events are not redundant. Therefore, it does appear that some benefit can be gained from assessing minor events along with major events. The present results regarding the role of both classes of events in predicting psychological distress support this contention.

Frequency of Major and Minor Events in Relation to Depressive Symptoms

The results of the present study indicate that there is a significant relation between major life events and depressive symptoms, as assessed by the Zung scale. This finding is consistent with previous research involving major life events scales and measures of depression (Kuiper, Olinger & Lyons, 1986; Johnson & Sarason, 1978). The magnitude of the relation in the present study was similar to that of previous studies. Major life events accounted for
approximately 8 percent of the variance in depressive symptoms.

The present study also found a significant relation between minor events, as assessed by the Daily Stress Inventory, and depressive symptoms. The minor events of one week accounted for about 8 percent of the variance in depressive symptoms. Although there has been a paucity of previous research involving minor events and depressive symptoms, the findings of the present study are in general agreement with the findings of Kanner et. al. (1981) involving minor events and psychological distress. A recent study, that used an unvalidated checklist of "everyday problems" and the depression subscale of the Hopkins Symptom Checklist, found similar findings (Burks & Martin, 1985).

The present study also evaluated the role of major and minor events when the influence of one class on the other was statistically controlled. Minor events were found to add significant variance in addition to that contributed by major life events. Together, major and minor events proved to be moderately better in predicting depressive symptoms than either class of events alone, accounting for about 13 percent of the variance in depressive symptoms. The interaction
between major and minor events was not significant, indicating that the impact of one class of events on depressive symptoms is not related to the level of the other class of events.

In general, the role of major and minor events in relation to depressive symptoms appears to be quite moderate. The most important finding was the unique role of minor events in addition to that of the major events. Also, major events do not add variance once minor events are partialled.

Frequency of Major and Minor Events in Relation to Symptoms of State Anxiety

The results of the present study regarding the relation between the two classes of events and anxiety symptoms is similar to the findings regarding depressive symptoms. However, in some instances the relation is of a somewhat larger magnitude. First, major events were found to significantly predict anxiety symptoms, accounting for about 7 percent of the variance. This finding is consistent with that of previous researchers (Georgas & Giakoumaki, 1984; Vinokur & Selzer, 1975). Interestingly, this finding is in contrast to an earlier finding of Sarason, Johnson and Seigel (1978) which found no significant relation between LES scores and state anxiety. As the
authors noted at the time, this was a rather "surprising" finding and may have been due to their select sample of female undergraduates. Indeed, in retrospect it seems that their finding may have been influenced by their subject population and again points to the limitations of using a college student sample.

As in the case of depressive symptoms, minor events were found to be significantly related to anxiety symptoms, accounting for about 14 percent of the variance. The present results are consistent with previous studies on minor events and anxiety (Brantley et. al., 1987) and general psychological distress (Kanner et. al., 1981).

A similar pattern of results were found regarding anxiety symptoms as in the case of depressive symptoms, when analyzing the role of each class of events when controlling for the effect of the other. Minor events accounted for additional significant variance, but not vice versa. Together, minor and major events accounted for about 16 percent of the variance in anxiety symptoms, which is somewhat greater than the variance accounted for regarding depressive symptoms.

Frequency of Major and Minor Events in Relation to Global Psychological Distress

The results regarding the SCL-90R Global Distress
Index were much the same as the results involving the Zung depression scale and State Anxiety Scale. In general, the magnitude of the relations was greater for the measure of global psychological distress than for either of the unitary measures of depressive symptoms or anxiety. This finding supported the hypothesis regarding unitary versus more general indices of psychological distress. Some implications of this finding will be discussed later.

Individually both major and minor events were significantly correlated with global distress. Major events accounted for about 8 percent of the variance in symptoms, while minor events accounted for approximately 18 percent. Again, the present results are consistent with previous studies that have investigated major life events and psychological distress, and also with the available data on the relation of minor events to distress (Monroe, 1983; Kanner et. al., 1981).

As in the case of the two unitary measures of distress, minor events were found to account for significant variance beyond that of major events. Also, taken together major and minor events accounted for greater variance, approximately 20 percent, than either class of events alone.

When stepwise regression procedures were used to
analyze the data, minor events were found to be the best predictor for each of the three measures of psychological distress. Minor events consistently accounted for the greatest amount of variance in scores. The implications of this finding suggest that if one had to choose one class of events to predict psychological distress, minor events should be the choice. It might also be interpreted that minor events are more important than major events in relation to psychological distress.

The interactions of major and minor events in relation to the three measures of distress were not significant. A recent study (Jones, 1987) showed similar findings regarding physical symptoms. It does not appear that an increase in the occurrence of minor events has a greater effect on distress when a greater number of major events have occurred concurrently.

**Subjective Weightings in Comparison to Frequency of Events in the Prediction of Psychological Distress**

In the present study subjective weightings of major and minor events were entered into the regression equations to determine if they would significantly improve the predictions of distress. The use of subjective weightings was found to significantly improve the association between major and minor events with each
of the three measures of psychological distress. The present results are consistent with those of Zuckerman et. al. (1986), that found negative ratings on the LES to be a better predictor of psychological distress in contrast to frequency counts. However, the present findings are in contrast to a recent study which investigated major and minor events in relation to physical symptoms (Jones, 1987). Jones found that subjective ratings of events on the LES and DSI did not add any significant improvement to the frequency counts of events in predicting physical symptoms.

The most apparent difference in the present study in contrast to Jones (1987) is the choice of dependent measures. Since similar methods were employed it seems plausible to assume that the difference in findings maybe due in part to the type of symptoms being evaluated. Subjectively rating one’s level of distress in relation to physical symptoms may be qualitatively different than rating the distress associated with one’s psychological symptoms. Dohrenwend and colleagues (1984) have cautioned against the use of weighting schemes due to the possibility of circular reasoning, i.e., using distress ratings to predict distress ratings. Often the descriptors used to indicate the degree of distress associated with events
do seem to imply psychological upset, e.g., "caused me to panic". Therefore, the use of subjective weightings in a study involving physical symptoms could be conceptualized as evaluating the psychological distress posed by the occurrence of particular physical symptoms. The possibility of circular reasoning would seem to be an even greater risk when evaluating psychological distress as the dependent measure. It does seem possible that subjects may actually be implying some degree of psychological distress when they assign weightings to events. To avoid this potential confound, reliance on simple frequencies of events may be preferred since it appears to provide for clearer and more straightforward interpretations.

Endorsing the use of frequency counts as opposed to subjective weightings would seem to discount the interactive model of Lazarus and colleagues, which basically argues for the importance of the individual's perception of events in relation to the resultant level of distress and is incorporated into their Hassles scale. In part this is true, because the descriptors used in the Hassles scale (Kanner et. al., 1981) do appear to have the potential to be confounded with measures of psychological distress. Despite the drawbacks of the descriptors, an alternative approach
is possible which would combine the tenets of the interactive model while minimizing the problem of confounding measures. Instead of evaluating the "severity" of stress an individual associated with the occurrence of events it may be of more utility to investigate other perceptions in relation to the events. In other words, there are a number of ways to evaluate the reaction of an individual when confronted with major and minor stressors, possibly incorporating some of the literature on moderator variables as a way of subjectively weighting events. For example, recently, ratings of problem solving skills have been shown to moderate the relation of major life events and severity of depressive symptoms (Nezu, Perri, Nezu & Mahoney, 1987). It could prove useful to evaluate the impact of major and minor events on psychological distress through the study of variables such as problem solving, instead of simply asking an individual to rate the "severity" of the events. In essence, the study of these types of variables would also investigate the interactive model.

Overlap of Psychological Constructs

The ability of both classes of events to account for a greater percentage of the variance with a global index in comparison to unitary indices is interesting
in light of the previously mentioned debate regarding the construct of psychological distress. The most simple explanation is that the global measure would be expected to assess symptoms across a number of categories of distress, including depression and anxiety. Therefore, it should not be surprising that the relations between stressful events and a global index is larger than either unitary measure alone. In essence, the global index could be viewed as the addition of a number of unitary indices.

Although the primary goal of the present study was to investigate the role of major and minor events in relation to psychological distress, some results provide additional data regarding the apparent overlap in psychological constructs. As in previous studies significant correlations were found between the dependent psychological measures (Dobson, 1985). Dobson used a number of self-report instruments of anxiety and depression with a college student sample and concluded that the instruments did not appear to discriminate between the two constructs of anxiety and depression. He further proposed that they were both tapping a general construct which has been labeled as "psychological distress" by Gotlib (1984). The present results seem to support Dobson's contention that
current instruments do not sufficiently discriminate between constructs and may actually assess a common construct of "distress". A lack of discrimination between the constructs of anxiety and depression with commonly used self-report measures could be troublesome when conducting research specifically directed to either one of the constructs. For example, it is possible that research which bases its conclusions on the prior classification of subjects as depressed, using self-report measures, could just as likely have classified them as anxious.

The apparent overlap in the constructs of anxiety and depression, and the possibility of just a single construct of "psychological distress" was the topic of a study by Mirowsky and Ross (1983). They investigated the multidimensionality of psychopathology in a community sample. As opposed to using discrete diagnostic categories, such as those implied by the terms anxiety and depression, they proposed the use of distinct clusters of symptoms, which are more encompassing than diagnoses. Indeed, using this system, anxiety and depression would fall into the same symptoms cluster, termed "demoralization". Other symptom clusters included "antisocial attitudes", "mistrust", "physiological malaise", and "alcoholism".
The debate regarding psychological constructs is apparently far from resolution.

Some limitations of the present study should be stated. First, although the sample population was preferable to the commonly used college student sample it remained rather select. The sample consisted of white, relatively well educated, upper middle class individuals and was predominantly female. The conclusions of the present study may not be generalizable to the entire population. Second, the study relied on the recall of major events during the previous year, the pros and cons of subjects reliability and accuracy in recall is yet another major area of debate.

Summary of Findings: Major and Minor Events and Psychological Distress

First, major and minor events were found to be significantly related to each of the three dependent measures. Second, as hypothesized minor events contributed additional significant variance beyond that of major life events. Third, major and minor events together proved to be a better predictor of distress than either class of events alone. Fourth, no interaction was apparent between major and minor events. Fifth, the relation between major and minor events and
the global measure of distress was larger than that found with either unitary measure of distress. Sixth, no significant interaction between major and minor events were found.

As stated previously, it appears that the assessment of minor events is of significant benefit in predicting psychological distress. However, the combination of both classes of events proved to be a better predictor than either class alone which indicates that the assessment of major events is also worthwhile. Clinically, the results suggest that attention should be given to recent changes in minor events during assessments in addition to the more common approach of concentrating on recent major "catastrophic" events.

The present findings provide additional information regarding the utility of studying events to predict psychological distress and also the continued use of major events. Further data was also provided on the debate of various scoring methods, as well as the overlap in psychological constructs. In conclusion, it appears that the role of minor events in relation to psychological distress is an area that is deserving of future attention.
References


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Appendix A

Daily Stress Inventory (DSI)
PLEASE NOTE:

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These consist of pages:

Appendix A p 108
Appendix B p 110-111
Appendix D p 115
Appendix E p 117-118
Appendix B

Life Experiences Survey (LES)
Appendix C

State-Trait Anxiety Inventory-Form Y (STAI)
# SELF-EVALUATION QUESTIONNAIRE

Developed by Charles D. Spielberger
in collaboration with
R. L. Gorsuch, R. Lushene, P. R. Vagg, and G. A. Jacobs

| Name ___________________________ | Date __________ | S _ |
| Age ________ Sex: M ____ F ____ |

**DIRECTIONS:** A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you feel right now, that is, at this moment. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

1. I feel calm .......................................................... ☐ ☐ ☐ ☐
2. I feel secure .......................................................... ☐ ☐ ☐ ☐
3. I am tense .................................................................. ☐ ☐ ☐ ☐
4. I feel strained .......................................................... ☐ ☐ ☐ ☐
5. I feel at ease .................................................................. ☐ ☐ ☐ ☐
6. I feel upset .................................................................... ☐ ☐ ☐ ☐
7. I am presently worrying over possible misfortunes .......... ☐ ☐ ☐ ☐
8. I feel satisfied .......................................................... ☐ ☐ ☐ ☐
9. I feel frightened ......................................................... ☐ ☐ ☐ ☐
10. I feel comfortable .................................................... ☐ ☐ ☐ ☐
11. I feel self-confident ................................................... ☐ ☐ ☐ ☐
12. I feel nervous .......................................................... ☐ ☐ ☐ ☐
13. I am jittery .................................................................. ☐ ☐ ☐ ☐
14. I feel indecisive ......................................................... ☐ ☐ ☐ ☐
15. I am relaxed .................................................................. ☐ ☐ ☐ ☐
16. I feel content .......................................................... ☐ ☐ ☐ ☐
17. I am worried .......................................................... ☐ ☐ ☐ ☐
18. I feel confused ......................................................... ☐ ☐ ☐ ☐
19. I feel steady .......................................................... ☐ ☐ ☐ ☐
20. I feel pleasant .......................................................... ☐ ☐ ☐ ☐
Appendix D

Zung Self-Rating Depression Scale (SDS)
Appendix E

Symptom Checklist 90-Revised (SCL-90R)
Appendix F

Informed Consent Form
INFORMED CONSENT - STRESS PROJECT

The psychology department at LSU is conducting a survey on stress. We are asking people to complete seven consecutive days of monitoring with the Daily Stress Record, and then to complete some other questionnaires. In this way we can study how environmental, psychological, and physiological factors are related to stress. This project is being directed by Dr. Phillip Brantley of the LSU department of Psychology and of the LSU Medical School. Other principle investigators include James Gilchrist and Glenn Jones, who are doctoral students in the clinical psychology program at LSU.

In return for completing this project, participants will receive a 'stress summary' after all of the data have been collected. The stress summary will give an indication of how a person compares to the other people on his or her stress levels. For this reason, you are asked to include your name, phone number, and address. Otherwise, all information will be kept strictly confidential. No one will be identified personally if any of the information is presented publically (e.g. in journal articles or at conferences).

By signing, you are agreeing to participate in this research project. Of course you may withdraw at any time with no consequences. You also have the right to ask questions, and to have your questions answered to your satisfaction.

Participant (Signature)        Witness

Name

Address

Phone

Date
Curriculum Vitae

Personal Data

Name: James Cook Gilchrist
Date of Birth: December 17, 1957
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Madison High School
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Internship in Clinical
Completed: August, 1986

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Specialty: Medical Psychology
Ph.D. awarded: May, 1988
Candidate: James C. Gilchrist

Major Field: Psychology (Clinical)

Title of Dissertation: The Relation Between Major Life Events, Minor Events, and Psychological Distress

Approved:

[Signatures]

Major Professor and Chairman
Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination:

April 14, 1988