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Stress coping and social support in individuals hypothesized to be at high-risk for psychotic disorders

Stephanie B. Karwacki

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STRESS, COPING, AND SOCIAL SUPPORT IN INDIVIDUALS HYPOTHEZED TO BE AT HIGH-RISK FOR PSYCHOTIC DISORDERS

By

Stephanie B. Karwacki

B.S., University of Wisconsin-Whitewater, 1983

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The present study compares individuals presumed to be at high-risk for the development of psychotic disorders with low-risk individuals on measures of stress, coping, and perceived social support. The groups are compared on measures of frequency and intensity of Hassles and Uplifts, cognitive appraisal and coping options employed in an interpersonal and an academic stressful situation, and perceived social support from family and friends. A group of college students (n=48) scoring high on either the Perceptual Aberration scale or Magical Ideation scale comprised the group hypothesized to be at high-risk. The Control or low-risk subjects (n=40) scored one-half standard deviation or less above the mean on the above scales. Results indicate no overall differences between the groups on measures of stress, cognitive appraisal or perceived support. A significant difference did occur between the groups on the measure of coping options in the interpersonal situation, with the high-risk subjects reporting greater use of wishful thinking, focusing on the positive, and tension reduction than did Controls. Implications of these findings are discussed in relation to etiological theories of schizophrenia and other psychotic disorders and current theories and research in the area of stress and coping. Future directions for research are also presented.
ACKNOWLEDGEMENTS

As I breathe a sigh of contentment and relief at the thought of the completion of this project, I would also like to acknowledge the contributions of the many people involved in its production.

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I would also like to thank the other committee members which included James Walsh, Ph.D., John Bradley, Ph.D. and Frank Clark, Ph.D. for their contributions. Dr. Walsh provided his expertise in statistics and patiently guided me through a seemingly jungle of statistical analyses and procedures. Dr. Bradley graciously joined the committee midway through this project’s completion in order to fill the opening left by Dr. Burns. Both Dr. Bradley and Dr. Clark were also a pleasure to have on my committee.

I would like to thank my research assistants Laurie Toner and Susan Vrona for their help in collecting the data. Special thanks to Scott Cramton for his help with the very tedious task of verifying the accuracy of the data. Special thanks also to Jim Allen and Rob Velin for their assistance with the management of the computer analyses.

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Stephanie B. Karwacki
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INTRODUCTION

Current theories of schizophrenia suggest that stress is a factor in the development of the disorder (e.g., Mirsky & Duncan, 1986; Zubin & Steinhauer, 1981). Lack of social support and poor coping skills are also associated with clinical schizophrenia and this may represent part of the clinical syndrome as well as possible etiological factors (e.g., Pattison et al., 1975; Platt & Spivak, 1972; Wallace, 1984). While stress, social support and coping skills are considered to be causal factors in the development of schizophrenia, little research has been done on how, and if, normal individuals who are considered to be "at-risk" for psychotic disorders differ from "low-risk" individuals in stress, social support and coping skills. The purpose of this study is to compare individuals presumed to be at high-risk for the development of psychotic disorders with low-risk individuals on the following dimensions:

1. Frequency, intensity and types of stressors experienced in their daily lives;

2. Cognitive appraisal and coping options employed in stressful situations; and

3. Perceived social support from friends and family.
The literature review will begin by summarizing two etiological models of schizophrenia and the role of stress as a contributing factor. A review of the research examining the relationship between life-events and the onset of schizophrenic episodes as well as on the coping responses and social support factors found to characterize schizophrenics will then be presented. Attention will then be given to the specific goals of this study and relevant literature regarding measurement of psychosis-proneness. Finally, a cognitive-phenomenological theory of stress and coping and measurement devices derived from the theory will be discussed.

The Role of Stress in the Development of Schizophrenia

Numerous etiological factors contributing to the development of schizophrenia, both biological and environmental, have been identified. Early etiological models generally focused on a specific factor or class of factors such as genetics, ecology, learning and development, neurophysiology, or biochemical factors. A more detailed review of these specific models is provided by Zubin (1972), and Zubin and Steinhauer (1981). While each of these models have contributed to our understanding of how particular elements may contribute to the development of schizophrenia, none of these models alone sufficiently explains the cause
of schizophrenia. Presently, multifactorial models integrating biological predisposition and environmental factors have become prominent in the literature. These models are based on the diathesis-stress model which asserts that the greater the innate susceptibility of an individual, the lower the degree of external stressors needed to bring the person over the threshold into symptom expression. Two such models are presented for illustrative purposes.

Mirsky and Duncan (1986) present an etiological model of schizophrenia that assumes a genetic diathesis expressed as one or more schizophrenogenic brain abnormalities (SBA) that have been identified by various researchers (e.g., Franzen & Ingvar, 1975; Johnstone et al., 1976; Andreason et al., 1982; Weinberger et al., 1983; Fish, 1985). The model proposes that a schizophrenic disorder develops when the combination of SBA and environmental stress exceeds a threshold value. At high levels of SBA, less environmental stress is needed to produce a disorder; conversely, at high levels of environmental stress, a lesser degree of SBA is needed to produce a disorder. Building on the work of Rosenthal et al. (1968) and Kety et al. (1968), Mirsky and Duncan also propose that the presence of fewer factors or their presence in milder forms might result in a less severe disorder. This point is consistent with there being a spectrum of schizophreniform disorders ranging from less severe disturbances of personality (schizoid, borderline,
and paranoid personality disorders) to more severe disturbances, such as schizotypal personality disorder, and finally to the manifestation of schizophrenia, representing the most severe end of the spectrum.

Mirsky and Duncan characterize environmental stress as consisting of familial and social factors that are relatively chronic in nature; they consider these factors to play a role in the development of schizophrenia or the severity of its expression. Specific familial and social factors identified by these authors include: (1) The clumsiness and feelings of being different in the subject associated with pandysmaturation (Fish, 1985) and neurointegrative deficits (Marcus et al., 1981), often manifested in delays and disorganization of gross motor and/or visual-motor development; (2) the increased dependency on parents occasioned by being different or impaired; (3) deficient attentional and cognitive capacities leading to poor academic performance and impaired coping skills (Matthysse, 1978; Gjerde, 1983; Neuchterlein & Dawson, 1984); (4) stressful family interaction patterns, including high degrees of Expressed Emotion (Brown et al., 1972) and a punitive Affective Style of child rearing (Doane et al., 1981); (5) Communication Deviance leading to perceptual and cognitive problems as well as difficulties in communication with those outside the family and, therefore to increased isolation (Singer & Wynne, 1966; Wynne et al.,
1976); (6) frequent hospitalizations of a parent and/or other family members.

In reviewing the above list of specific "environmental stress" factors it appears that a differentiation between stressors resulting from some external aspect of the environment and those that are secondary to internal deficits is not clearly made, and thus perhaps confuses stressors that are primary etiological factors with those that are effects of the illness.

Zubin and Steinhauer (1981), have also articulated a diathesis-stress or "vulnerability" model of schizophrenia and more clearly delineate between categories of stressors. They present a three-dimensional model. The dimensions in the model are: (1) Degree of vulnerability; (2) life event stressors required to trigger or actualize vulnerability; and (3) moderating variables such as social networks, premorbid personality characteristics involving competence and coping, and the physical, social, and cultural parameters of the ecological niche.

The vulnerability dimension represents the risk of developing a schizophrenic episode. This model has identified two types of vulnerability. Inborn vulnerability encompasses elements from the genetic, neurophysiological and biochemical models. Acquired vulnerability represents the influence of prior experience such as exposure to traumas, specific diseases, or other early life events such
as perinatal complications, pathogenic family interactions, and lack of intimacy in early adolescent friendships.

The second dimension represents triggering events, defined as short-term, recent inducers of sufficient stress to produce a crisis. These events are further defined as undesirable, novel, unexpected, unanticipated, and uncontrollable happenings which produce losses and require considerable readjustment of daily routine. These events are also distinguished from etiological life events or the long-term influences that induce acquired vulnerability. Building on available evidence regarding the role that triggering life events play in eliciting both physical and mental disorders (e.g., Brown & Birley, 1968; Dohrenwend & Dohrenwend, 1978; Rahe, Meyers, Smith et al., 1964), the authors contend that if the strain of readjustment is severe enough, the event triggers first a crisis and then an episode of illness.

The third dimension consists of variables that play a moderating role in the development of a schizophrenic episode. Two individuals of equal vulnerability and similarly stressed by a triggering event may not both develop an episode if moderating factors in the social network, personality and ecological niche differ in their cases. The role of premorbid competence and coping is considered to be crucial to the vulnerability hypothesis in that a coping breakdown may, in the face of triggering
events and high vulnerability, develop into an episode of psychopathology.

While these models of vulnerability are attractive and provide a useful beginning conceptual basis from which to work, much additional research is needed regarding how specific types of stressors, both acute and chronic, increase vulnerability or interact with other identified predisposing variables in the development of schizophrenia. Additionally, a better understanding is needed regarding the specific role and nature of moderating variables, such as coping and social support, and their relation to the subsequent development or absence of disorder.

This review now turns to an examination of the literature regarding life-events and the development of schizophrenia. This research has focused on the temporal relationship between stress and illness onset and has been quite extensive.

**Life Events Research**

In general, research examining the relationship between life-events and the onset of schizophrenic episodes has produced mixed findings. Most of these studies have been retrospective. Some studies have found a significant increase in events preceding the onset of psychotic symptoms, thus supporting the contention that these events play a "triggering" role. Other studies have failed to find
a significant relationship. A third set of studies finds an increase in life events before onset, but that their occurrence was not independent of the influence of the patient's behavior, suggesting that schizophrenic patients may bring an excess of stressful life events upon themselves. I will now present a brief review of these studies. A more detailed review is provided by Rabkin (1980) and Lukoff et al. (1984).

One of the most often cited studies supporting the triggering role of life events and onset is that of Brown and Birley (1968). Here, extensive interviews were conducted with hospitalized schizophrenic patients and their families regarding the occurrence of independent life events in the thirteen weeks prior to illness. Independent events were defined as ones not brought on by the patient or planned by the patient at least three months prior to the illness. The number of independent events experienced by schizophrenic patients during the full thirteen week period did not differ significantly from the number experienced by normal community comparison subjects. However, a significant difference was found between the two groups in the three-week period before symptom onset. Additionally, when events in the study were rated on a 4-point scale of severity of threatening implications, 16% of the patients experienced a markedly threatening event in the twelve weeks before onset, three times the incidence for the controls.
Serban (1975) investigated contributing causes associated with admission or readmission of schizophrenic patients. However, he deviated somewhat from the life events approach in using a scale that covered 21 categories within such areas as social performance and family interaction, with "events" representing everyday tasks of daily living. He found that chronic schizophrenics, acute schizophrenics, and normals experience different amounts of stress in reaction to these ordinary tasks. Chronic patients reported the highest level of stress, followed by acute patients, with normals having the lowest total scores.

Other researchers have compared life events reported by patients with and without subsequent relapses, as well as comparing events reported by chronic schizophrenic patients in the community with events reported by normal control subjects (Birley & Brown, 1970; Leff, Hirsch, Gaind, Rhode & Stevens, 1973; Michaux, Gansereit, McCabe & Kurland, 1967; Schwartz & Myers, 1977). Overall, a greater number of events was associated with relapse, although some patients who did not report events also relapsed. For chronic schizophrenics in the community, the report of more events was related to greater psychiatric impairment. Areas of difficulties, as reported in the study by Michaux et al. (1967), included interpersonal, marital and sexual, economic and domestic, occupational, recreational, and health.

Although many studies such as these have found an
increase in life events preceding a schizophrenic episode, independent events were not always clearly differentiated from events resulting from the influence of the illness. Some researchers, such as Zubin & Spring (1977), thus suggest that schizophrenic patients often bring an excess of stressful life events upon themselves through "stress-prone patterns of living". Both the symptoms and lifestyles of schizophrenics may contribute to the occurrence of stressful life events. Also, due to hereditary and socioeconomic factors, schizophrenics may be exposed more often to both dependent and independent life events than the average person.

Research also suggests that even as early as childhood, persons who later develop schizophrenia exhibit behaviors that might increase the occurrence of stressful life events. For example, Parnas et al. (1982), in a prospective longitudinal study of children of schizophrenic mothers, found differences before the age of two between individuals diagnosed as exhibiting schizophrenia spectrum disorders versus those not showing any signs of mental disorder. The schizophrenia spectrum children were found to have poorer attention span and increased passivity. During the school years, they exhibited more interpersonal difficulties, more unusual behavior, and were described as being discipline problems. Two retrospective studies comparing preschizophrenic children with controls found a
significantly larger proportion of preschizophrenic boys showing poor school performance, emotional instability, and disagreeableness. The preschizophrenic girls were described as emotionally unstable, introverted and passive (Watt et al., 1970; Watt, 1978). Thus, as a result of prodromal symptoms, an increase in stressful life events may occur; these in turn may exacerbate pathology.

Other studies focusing on the lifestyle of schizophrenic patients suggest that these patients actively participate in the creation of stressful life events, for example by creating disruptions in their social support systems that may in turn be a core aspect of the stressfulness of these events. For example, Jacobs and Myers (1976) found more geographical relocations among schizophrenic patients in the year preceding relapse than among controls. Fontana et al. (1972) suggest that events such as changing residence, engaging in angry outbursts, being arrested, and withdrawing from others may be motivated by a desire to gain access to hospitalization. Similarly, Braginsky, Braginsky and Ring (1982) suggest that the mental hospital is a "Last Resort" for a large proportion of patients who seek hospitalization as a refuge. Lewis and Hugi (1981) found that most of their sample of eighteen chronically treated patients (no diagnosis reported) lacked jobs, families and adequate income. Hospitalization served as a resource in their limited social network to replace or
supplement families, friends and jobs; however, validation of this "purposive" behavior remains a subject for future research.

Dohrenwend and Egri (1981) suggest that, given evidence for a genetic component in schizophrenia, schizophrenics are more likely to be exposed to psychopathology and problem situations or life events in their immediate families than are most people. For example, hostile, critical, and emotionally overinvolved attitudes toward the patient have been found to be related to relapses and development of schizophrenia spectrum disorders (e.g., Doane et al. 1981; Goldstein et al., 1978; Vaughn & Leff, 1976). Further, due to their status as psychiatric patients, these individuals may be exposed to additional life events. Dohrenwend (1974) found that many patients reported major life events connected with their social role as psychiatric in-patients, such as the side effects of medication and the stigma of being a psychiatric patient. Finally, studies have indicated that schizophrenic individuals are exposed to more independent life events (not directly related to the disorder) than the average person while living in the community (e.g., Schwartz & Myers, 1977), perhaps as a result of their lack of either economical or social support.

Despite the evidence cited above suggesting a relationship between stressful life events and onset of schizophrenic episodes, many studies have found no
relationship between the two variables, and virtually all life event studies have found some schizophrenic patients who developed episodes in the absence of stressful life events. There are many factors that may account for the lack of an observed relationship. One explanation points to deficiencies in methodology, particularly involving measurement instruments and small sample sizes employed. For example, in vulnerable individuals, minor and idiosyncratic events may be sufficient to produce symptomatic exacerbation in some cases; however, such events easily escape detection using the standard life event assessment procedures such as the scale developed by Holmes and Rahe (1967), which measures major life changes such as "divorce" and "being fired from work". Furthermore, these events are oriented toward married, working people, and do not necessarily typify events encountered by schizophrenics who are often isolated, single and unemployed.

Another explanation for the lack of an observed relationship between life events measures and illness onset in some studies is that ongoing difficulties, such as highly stressful environments producing an overall high level of prevailing stress, may obviate the need for major life events to occur to produce onsets of illness episodes. As Serban (1975) argues, life events "contribute to admission in the majority of cases... only by increasing the already existing high global stress in the life of schizophrenics"
The demands of daily living may additionally contribute to prevailing stress in that "the surrounding world is a source of turmoil; almost everything creates anxiety and discomfort.... Everything appears to represent either an insurmountable demand which society place on them or worry induced by frustrated expectations (p. 405)". Similarly, Zubin and Spring (1977) point out that in highly vulnerable individuals, numerous contingencies encountered in daily life are sufficient to elicit a schizophrenic episode.

While the above researchers focus on the role of high external stimulation, others (e.g., Wing, 1978) have suggested that understimulating environments may precipitate onset even in the absence of external triggering events. In extreme cases where withdrawal from social and other sources of stimulation occurs for long periods of time, a sensorially depriving environment may exacerbate the development of symptoms such as hallucinations and delusions as well as poverty of speech and blunted affect. Thus, the absence of major or minor life events may also potentiate the development of psychotic symptoms.

Bowers (1980) suggests fluctuations in biochemical factors or neurophysiological states may produce exacerbation of symptoms in the absence of external stressors. Although the biochemistry of psychotic symptoms and their role in the development of an episode is not
clearly defined at this point, the importance of these factors should not be overlooked.

Finally, as Zubin and Steinhauer suggest in their vulnerability model, events are not equally stressful to all people, depending on the extent and role of moderating factors in the individual. Inquiry into the differential impact of stress in the general population and in various clinical populations has identified a number of environmental and personal factors that introduce contingencies into the outcome of stressors; these include contextual features of the environment (Brown, 1974; Brown & Harris, 1978), the availability of social support (Dean & Lin, 1977; Eaton, 1978; Liem & Liem, 1978), and personality characteristics (e.g., Byrne, Steinberg & Schwartz, 1968; Kobasa, Maddi & Courington, 1981; Kobasa, Maddi & Kahn, 1982). Other researchers have focused on the coping resources and/or coping styles of individuals exposed to life events (e.g., Billings & Moos, 1981; Pearlin, Lieberman, Menaghan & Mullen, 1981; Folkman & Lazarus, 1986), arguing that the effects of stress are moderated when the individual also has access to, or possesses, the appropriate coping resources. Thus, differences in these moderating variables may explain differences in the occurrence of illness onset following the occurrence of stressful life events.

The following section of this review considers the
coping responses and social support factors associated with schizophrenia that may amplify or attenuate the stressfulness of life events. Although the literature in this area is scant, existing research strongly suggests that schizophrenics are deficient in areas of both coping resources and social support.

Coping Responses in Schizophrenic Disorder

Andrews and Tenant (1978) suggest that "the human ability to recruit social support, defend intra-psychically and cope environmentally may limit arousal to nonpathogenic levels" (p. 545). More specifically, these intervening variables that protect an individual from breakdown may be defined as 1) cognitive coping abilities that allow the person to neutralize perception of stressors as problematic through subjective appraisal mechanisms and cognitive control strategies; 2) behavioral coping abilities enabling the individual to act directly to resolve the environmental stressor; and 3) social support recruitment which provides emotional support to buffer the impact of stressors. Unfortunately, systematic investigations regarding coping resources and coping responses of schizophrenic or preschizophrenic individuals are scarce. However, there are many anecdotal accounts and a few studies in the literature that point to deficiencies in coping abilities in these individuals.
In regard to cognitive appraisal and coping, it is suggested that schizophrenics may overevaluate the threatening potential of both major and minor life events, and, in addition, may rely on a very limited number of cognitive coping strategies that are probably unproductive for the long-term solution of problems. For example, Grant, Gerst and Yager (1976) found that members of a psychiatric patient group of whom 21% were diagnosed schizophrenic generally assigned greater weights to life events than normals, thus anticipating more stress from a life event. It is also suggested that the idiosyncratic thought patterns of schizophrenics, such as the tendency to assign referential meanings and the presence of persecutory ideas, might result in overreaction to perceived threats and thereby increase levels of stress (Shean, 1982). Finally, Wheaton (1983), in examining the role of personal coping resources to construct a model of the effects of stress on psychiatric symptoms, found that stress was related to the development of schizophrenic symptoms in individuals who were high in the traits of both inflexibility and fatalism.

In regard to behavioral coping, it is suggested that schizophrenics may be deficient in problem solving skills, both in generating solutions and in the implementation of alternatives. For example, studies by Spivak, Platt and Shure (1976) found that members of a population of psychiatric patients, many of whom were schizophrenic, were
deficient in problem solving skills when compared to normals in that they generated fewer alternatives, less effective alternatives, and a lower ratio of relevant to total alternatives. In another study (Platt, Siegal & Spivak, 1975), psychiatric patients were as accurate as normals in recognizing the best alternative in a problem-solving task, but were less able to provide a valid reason for choosing a particular alternative, and were less able to generate and evaluate the consequences of an alternative. Schizophrenics have also been found to possess poor communication skills and a lowered rate of social interaction (Wallace, 1982; 1984); this may result in overall social skill deficiencies and alienation of others. Both of these characteristics may impair the implementation of generated solutions and thus reduce coping competency.

Social Support in Schizophrenia

Research regarding social support factors in schizophrenics, generally suggests that schizophrenic patients have smaller social networks than normal comparison subjects (e.g., Pattison et al. 1975), and their networks consist of a higher proportion of relatives than do those of normal comparisons. Both of these characteristics were also found to be associated with a greater likelihood of rehospitalization. These findings support earlier work that identified the premorbid characteristics of social isolation.
(Strauss & Carpenter, 1972) and social disintegration (Leighton, 1958) as being associated with an increased incidence of schizophrenia. Tentatively, then, it can be suggested that a lack of social support found among many schizophrenic patients may negatively affect the course of their disorder.
GOALS OF THIS STUDY

The purpose of this study is to compare a sample of individuals hypothesized to be at high risk for the development of psychotic episodes with a sample considered to be at low risk on measures of the amount and types of everyday stressors encountered, the appraisal and coping methods applied in situations of interpersonal and academic stress, and the amount of perceived social support received from family and friends. While there is a lack of research regarding these dimensions in schizophrenia, the literature regarding these dimensions in preschizophrenics is virtually nonexistent. Following is a presentation of the rationale for the present study and the relevant literature on which the methodology is based.

Preschizophrenics or psychosis-prone individuals have been typically described as possessing many of the same characteristics as clinical schizophrenics. These characteristics include oddities of behavior, thinking, perception and speech, as well as social isolation and withdrawal, although these symptoms occur to a lesser degree in the at-risk population. Thus, it would seem likely that deficiencies in responding and coping with stress may also characterize the preschizophrenic group, although the degree may be less than in a population that has experienced breakdown. By making the comparison of a high and low-risk
group, patterns of differences that may emerge on the individual factors of stress, coping and social support, as well as their interaction, may provide information as to the process by which these factors contribute to the initial emergence of a psychotic disorder as well as to where preventive efforts might best be directed.

The methods of the present research bring together two very different areas of the literature. The first involves the work of L.J. and J.P. Chapman and colleagues that focuses on the identification of individuals who are hypothetically at high-risk for the development of psychosis. The second body of work is that of Richard Lazarus and colleagues who have developed a cognitive-phenomenological theory of stress and coping as well as measurement devices following from their theory.

The Chapman Measures of Psychosis - Proneness

The Chapmans and their colleagues have developed several measures of schizotypal symptoms (American Psychiatric Association, 1987) including Physical and Social Anhedonia (Chapman, Chapman & Raulin, 1976), Perceptual Aberration (Chapman, Chapman & Raulin, 1978), Magical Ideation (Eckblad & Chapman, 1983), and Impulsive Nonconformity (Chapman et al., 1984). These measures inquire about the presence of various schizotypal signs that have previously been described by Meehl (1962) and others
who proposed that a genetic predisposition (schizotaxia) was necessary but not sufficient condition for the development of schizophrenia. Meehl also argued that schizotaxic individuals would develop a distinctive personality organization (schizotypy) that could be identified by a series of signs such as those described above. Numerous studies have in general found that college students who score high on one or more of the Chapman scales display mild forms of a variety of symptoms found in schizophrenic populations (e.g., Beckfield, 1985; Chapman, Edell & Chapman, 1980; Eckblad & Chapman, 1983; Martin & Chapman, 1982; Numbers & Chapman, 1982). Thus, individuals who receive high scores on the scales are also assumed to constitute a high-risk group for the development of psychotic disorder. It is not yet known whether these subjects will indeed develop severe psychopathology at a rate exceeding that of the general population. In a preliminary study by Chapman & Chapman (1985) it was found in a 25-month follow-up period, that several individuals identified by the Perceptual Aberration and Magical Ideation scales had received their first clinical attention for psychosis or other disorders.

In the present study, two scales are used to define subjects hypothetically at high or low-risk for the development of a psychotic disorder: the Perceptual Aberration and Magical Ideation scales. Perceptual Aberration refers to the experience of distortion in
perception either in regard to one's own body or to sensory stimuli such as sights and sounds. Magical Ideation refers to beliefs in magical forms of causation such as precognition, thought transmissions, and good luck charms. Perceptual Aberration and Magical Ideation have been found in a recent study (Propper et al., 1987) to constitute factors in a strong cluster of signs which seems to represent mild forms of the positive symptoms of schizophrenia.

Prior research using these scales has found that groups of college students scoring high on the Perceptual Aberration scale exhibit schizophrenic-like thought disorder on the Rorschach Ink Blot Test (Edell & Chapman, 1979), deviancies of communication and speech (Martin & Chapman, 1982), and reported in an interview more schizotypal and psychotic-like experiences and more depression, hypomania, and social withdrawal than did control subject (Chapman et al., 1980). Psychotic-like experiences included thought-transmission experiences, voice experiences and other auditory hallucinations, visual and hypnogogic hallucination and illusions, and aberrant beliefs such as "a stranger can hypnotize one by a glance of his eyes". Subjects who score high on the Magical Ideation scale have been found to show the same kinds of symptoms as subjects who were high on the Perceptual Aberration Scale (Eckblad & Chapman, 1983). As these two scales have a substantial intercorrelation of
about .70, subjects scoring high on either scale are often assigned to a single group of Perceptual Aberration/Magical Ideation (Per-mag) subjects.

Lazarus' Cognitive-Phenomenological Theory of Stress and Coping

Lazarus and his colleagues over a number of years have developed a cognitive-phenomenological theory of stress and coping (e.g., Coyne & Lazarus, 1980; Lazarus, 1966, 1981; Lazarus, Averill & Opton, 1970; Lazarus & DeLongis, 1983; Lazarus & Folkman, 1984a, 1984b; Lazarus, Kanner & Folkman, 1980). This theory characterizes the shift in theory and research on psychological stress and disorder from an earlier perspective emphasizing environmental inputs or outputs to a relational perspective emphasizing the mutual effects of person and environmental variables on one another. Thus, while stress may lead to psychological symptoms, symptoms may also increase the likelihood of stress experiences.

Lazarus and his colleagues (e.g., Folkman & Lazarus, 1986) have also developed a systematic and comprehensive questionnaire for assessing the appraisal and coping methods individuals employ in response to stressful encounters (The Stress Questionnaire). This instrument allows for increased convergence between conceptualization and measurement as well as providing a useful method for examining patterns
that may contribute to the development of disorder. In a recent study, Folkman and Lazarus (1986) used the Stress Questionnaire to compare depressed and nondepressed individuals on appraisal and coping responses to everyday stressful encounters. Compared with subjects low in depressive symptoms, those high in symptoms felt they had more at stake in specific encounters regardless of the actual stake involved, and exhibited different coping patterns such as a greater degree of self-blame and escape-avoidance. The success of this research approach in identifying depressive patterns manifested in the day-to-day adaptational tasks of living suggests that it may be equally useful in investigating patterns in individuals at high-risk for psychosis. A description of Lazarus' theory as well as relevant research pertaining to the model follows.

Lazarus' theory conceptualizes stress as a transaction or relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and as endangering well-being. The theory identifies two processes, cognitive appraisal and coping, as critical mediators of stressful person-environment transactions and their immediate and long-range outcomes. Cognitive appraisal is defined as a process through which a person evaluates whether a particular encounter with the environment is relevant to his or her well-being and in what ways. In primary appraisal the person evaluates whether he
or she has anything "at stake" in the encounter. This is defined as the perception of potential harm or benefit regarding such factors as self-esteem, attainment of goals, personal health or health of a loved one, finances, and respect for others. In secondary appraisal, a person evaluates what can be done to overcome or prevent harm or to improve benefits. Various coping options are evaluated such as altering the potentially stressful situation, accepting it, seeking more information, or holding back from acting in an impulsive and counterproductive way. Primary and secondary appraisal together determine whether the person-environment transaction is regarded as significant for well-being, and if so, if it is primarily threatening (containing the possibility of harm or loss) or challenging (holding the possibility for benefit and mastery). Because appraisals appear to be related to coping independent of the objective features of the stressors (Folkman & Lazarus, 1980), the way a stressor is perceived may either facilitate or impede coping with the event.

Coping is defined as the person's constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the person's resources (Lazarus & Folkman, 1984b). The authors identify key features of this definition. First, coping is viewed as process-oriented in that it focuses on what the person actually thinks and does in the
situation, and how this changes as the encounter develops. Secondly, coping is viewed as contextual, or influenced by the actual demands in the encounter and the resources for managing them, so that particular person and situation variables together shape coping responses. Coping is also defined as having two major functions: Regulating stressful emotions (emotion-focused coping) and altering the person-environment relation causing the distress (problem-focused coping). Folkman and Lazarus have provided empirical support for the contention that coping usually involves both functions. For example, in a study examining the ways students coped with a college examination, eight coping scales or factors were identified including one problem-focused and six emotion-focused scales, and a scale containing both problem and emotion-focused items (Folkman & Lazarus, 1985). The problem-focused scale included items such as "making a plan of action and following it". Emotioned-focused scales included wishful thinking, detachment, focusing on the positive, self-blame, tension reduction, and keeping to self. The scale of seeking social support included both problem and emotion focused elements.

Lazarus and colleagues (Kanner, Coyne, Schaefer & Lazarus, 1981) have also developed a measure of stress that, in contrast to the typical life-event scales, focuses on relatively minor events, both positive and negative. These minor events constitute "hassles" and "uplifts" of everyday
living. Negative events or hassles are defined as "experiences and conditions of daily living that have been appraised as salient and harmful and threatening to the endorser's well-being" (p. 376). In contrast, uplifts are considered to constitute compensatory positive experiences. The frequency and intensity of experiences constitute composite self-report stress scores. The authors argue that this approach to stress measurement is superior to life-events measures as it allows for consideration of the individual significance of events, as well as for the individual's coping resources and liabilities. Empirically, the authors found that hassles were a better predictor of concurrent and subsequent psychological symptoms than were life-events scores and contributed to symptoms independently of major life events. In a statement similar to Zubin and Spring's (1977) reference to "stress prone patterns of living", Kanner et al. (1981) also suggest that, separate from the impact of life-events, many hassles have their origin in the person's characteristic style and routine environment, or their interaction. While some hassles are situationally determined and rare, others are repeated, either because a person remains in the same context with consistent and predictable demands or because of the person's ineffective coping with common situations.

Regarding the relationship between hassles and uplifts, Kanner, et al. (1981) found that hassles and uplifts were
positively correlated with each other; those who reported more hassles also reported more uplifts. These authors suggested that such a relationship may reflect either a common response style or a tendency for people who have many hassles to also have many uplifts and for those who experience their hassles as more intense also to do so with respect to uplifts. These authors also hypothesized that persons with high hassles scores and high uplifts scores would have less psychological symptoms than persons with high hassle and low uplifts scores, thus suggesting that uplifts serve as a buffer or mediator of psychological stress. However, results did not support the hypothesis as it was found that uplifts did not add any independent variance to the relationship between hassles and symptom reports. These authors suggest that the presence of uplifts themselves may not buffer the deleterious effects of stress; rather, what serves as a health preserver is the ability to put a positive light on experiences or to have agendas and expectations that allow for the experience of uplifts.

Lazarus (1984) has suggested that hassles and uplifts, rather than being antecedents of appraisal and coping, are consequences of appraisal, a process that is dependent on personal agendas, coping resources, and coping behavior. Lazarus further suggests that using this model of conceptualization, patterns of hassles can be informing as to what is important to a person and thus threatening and
or challenging, as well as what arenas in which a given individual or group of individuals is vulnerable.

In research particularly relevant to the present study, Raulin et al. (1987) examined the relationship between scores on measures of schizotypic traits and levels of perceived stress as measured by the Hassles and Uplifts scale in a sample of 31 chronic schizophrenics. A significant relationship was found between the schizotypal trait measure of Perceptual Aberration and frequency and intensity of hassles as well as uplifts. Scores on the schizotypal trait measure of Magical Ideation were correlated with the intensity of hassles only. These authors interpreted the findings as suggesting that Perceptual Aberration subjects may be more sensitive to the emotional aspects of their daily life or have a lifestyle that increases their exposure to emotional experiences. Further, it was suggested that Perceptual Aberration subjects may not only have a tendency to distort perceptions, but also to experience greater emotional turmoil, and these two factors might interact to increase the likelihood of breakdown.

Several investigators have built on the Lazarus model by addressing coping effectiveness or adaptational status as a function of the "match" or "goodness of fit" between coping efforts and appraisal. For example, several studies have found that coping strategies appear to differ for events appraised as controllable versus uncontrollable
(Folkman & Lazarus, 1980; Parkes, 1984; Stone & Neale, 1984). Results of these studies indicate that coping efforts directed at altering the source of stress by acting on it directly (problem-focused coping) are used more with events appraised as controllable, while emotion-focused coping, directed at moderating emotional reactions, is used more with events perceived as beyond personal control.

A more recent study by Forsythe & Compas (1987) investigated whether psychological distress varies as a function of the goodness of fit between cognitive appraisal and coping. Findings indicate that in relation to major life events, symptomology is high when there is a poor fit between appraisals and coping, as in the case where a person tries to change a stressor that is perceived as uncontrollable. Symptomology is low when there is a good fit between appraisals and coping, such as when a subject attempts to palliate emotions when a stressor is perceived as uncontrollable. Overall, the use of relatively more problem-focused coping efforts is associated with lower symptom levels when events are perceived as controllable and higher symptom levels when events are perceived as uncontrollable. The converse appears true for emotion focused coping, in that the use of this type of coping is associated with lower symptom levels when events are perceived as low in controllability and higher distress scores when events are appraised as more controllable.
Additionally, it was found that this pattern did not emerge in relation to daily hassles. The authors explain this finding by suggesting that the ramifications of mismatching cognitive appraisal and coping on a single daily hassle may be much less severe than a poor fit between these factors on a major event. They further suggest that the mismatch of appraisals and coping with daily events may become more important only when it occurs cumulatively across a number of daily hassles.

A final relevant finding of this study is that psychological symptoms varied as a direct function of both problem and emotion-focused coping. Individuals who reported greater distress also reported doing more to try and cope with the situation. The authors suggest that perhaps coping behavior reflects an individual's level of distress and that higher levels of coping may be expected when emotional distress is high.

**Perceived Social Support**

As social support has also been discussed as an important modifier or buffer of stress, the present study includes a measure of perceived social support from family and friends (Procidano & Heller, 1983). Although perceived social support does not assess the actual structural and functional dimensions of social networks, it does measure the impact these networks have on the individual. Heller
and Swindle (1983) suggest that the perception of social support is an element in an individual's appraisal of and subsequent coping with stress.

Support-seeking may follow from appraisals of threat when information or help is needed to deal with the threat, and when that aid is perceived to be available within the support network. Thus, while perception of support may depend on the availability of supportive networks, it may also be influenced by within-person factors, such as long-standing traits and temporal fluctuations in attitude or mood. Schizotypal individuals are clinically described as socially isolated, possessing undue social anxiety and social deficits; however, measures of their subjective experiences and perceptions of social support have been lacking.¹

**Hypotheses**

The main purpose of this study is to explore and identify possible differences or patterns of differences in stressors, coping, and social support that may emerge between individuals at high risk for developing psychosis and those at low risk. Several specific hypotheses are made.

**Frequency and Intensity of Hassles and Uplifts.** It is predicted that high-risk subjects will report more negative and less positive events than the control or low-risk
subjects. It is also expected that the high-risk group will report negative events to be more severe than the low-risk group. No hypothesis is made regarding the intensity of uplifts, although this factor is examined.

Appraisal and Coping. This area includes the dimensions of primary appraisal, secondary appraisal, and coping.

Primary Appraisal - It is predicted that high-risk subjects will appraise stressful encounters as involving more potential harm on the six stakes or factors assessed (e.g., threats to self-esteem) than low-risk subjects.

Secondary Appraisal - Although no specific hypothesis is made regarding this dimension, the high and low-risk groups are compared on the four options assessed regarding what can be done to overcome harm or improve benefits, such as altering or accepting the situation.

Coping - High-risk and low-risk groups are compared on their use of the eight coping factors assessed in order to identify similarities or differences in coping responses. No specific hypotheses are made.

Perceived Social Support. It is predicted that high-risk subjects will report less overall support from family and friends than low-risk subjects.
METHOD

Subjects

Participants in this study were recruited from a large group of introductory psychology students at the University of Montana who had previously participated in a mass screening on the psychosis-proneness measures of Perceptual Aberration, Magical Ideation, Physical Anhedonia, and Impulsive Nonconformity. The scales were given together with an Infrequency Scale and Golden and Meehl's (1979) Schizoidia Scale and presented as a survey of attitudes and experiences.

Subjects were selected to be recontacted if they met the criteria for either the Perceptual Aberration-Magical Ideation group (high-risk) or the Control group (low-risk). The criterion for inclusion in the Per-Mag group was a score of two or more standard deviation above the mean for the appropriate gender on either the Perceptual Aberration Scale or Magical Ideation Scale, but not on the Physical Anhedonia scale. Control subjects scored one-half standard deviation, or less above the mean on all three scales. All subjects also received scores of zero on the Chapman Infrequency Scale, designed to detect spurious responses to the test. The criterion of a zero score on this scale is more stringent than that used by the Chapmans. Additional inclusion criteria of the subject's being caucasian, a
native English speaker, and under 25 years of age were also applied in the present study in order to increase the homogeneity of the subject groups. The age criterion of 25 was applied because the onset of a schizophrenic disorder usually occurs during adolescence or early adulthood (American Psychiatric Association, 1987), and this study was interested in defining an at-risk group.

Subjects who met the above criteria were contacted by telephone and invited to take part in the investigation, described as a study of the manner in which college students handle common problems of everyday life. Subjects were also informed that they would receive credit toward the introductory psychology course experimental requirements or a small honorarium should they decide to participate. A total of 98 students participated. Two questionnaires were eliminated from the sample due to incomplete responses. Six questionnaires included an academic component in the response to the interpersonal situation portion of the questionnaire and were eliminated in order to reduce confounding of interpersonal and academic situation responses. Two additional questionnaires were eliminated due to the fact that the subjects did not meet the inclusion criteria. The final sample consisted of a total of 88 subjects with group composition as follows: Control males (n = 20), Control females (n = 20), Per-Mag males (n = 26), and Per-Mag females (n = 22).
Measures

The Chapman Scales

The Perceptual Aberration Scale (Chapman, Chapman & Raulin, 1978) is a 35-item scale that measures subjective distortion of perception, particularly of one's body. A sample item is, "The boundaries of my body have always been clear to me" (keyed false). The coefficient-alpha for this scale is about .90 and test-retest reliability is about .75.

The Magical Ideation Scale (Eckblad & Chapman, 1983) is a 30-item scale containing items that measure beliefs in forms of causality that, according to norms of our culture, are not generally valid, for example, "Some people can make me aware of them just by thinking about me" (keyed true). The scale's coefficient alpha was found to be .88 for male college students and .90 for female college students.

The Physical Anhedonia Scale (Chapman, Chapman & Raulin, 1976) is a 61-item scale that measures a deficiency in the experience of pleasure. An illustrative item is, "The beauty of sunsets is greatly overrated" (keyed true). This scale's coefficient alpha was found to be .83 for males and .78 for females. This scale was used in the present study only to exclude subjects.

The Infrequency Scale is a 13-item scale that consists of items that measure nonmeaningful test-taking, or those items that almost everyone answers in the same direction.
An illustrative item is "On some mornings, I didn’t get up immediately when I awakened" (keyed false).

Hassles and Uplifts Scales

The Hassles and Uplifts Scales were developed by Kanner, Coyne, Schaefer, and Lazarus (1980). The Hassles scale consists of 117 items that were generated in the areas of work, health, family, friends, the environment, and chance occurrence. For the purpose of this study, 12 additional items were included from the College Adjustment Rating Scale (Zitzow, 1984); these are commonly encountered stresses or hassles in the academic environment.

Students were asked to indicate the hassles that had occurred to them in the past month and to rate the severity of those hassles on a 3-point scale. Two summary scores obtained are: 1) Frequency, a simple count of the number of items checked, ranging from 0 to 136; and 2) intensity, the sum of the three-point severity scales divided by the frequency. The latter score is an index of how strongly or intensely the average hassle was experienced, regardless of the number or frequency of hassles checked.

The Uplifts Scale consists of a list of 135 positive items that were generated using the same content areas of the Hassles Scale. Examples include relaxing, spending time with family, praying, and enjoying nature. As with the Hassles Scale, items that have occurred during the previous
month are rated on a 3-point scale for both magnitude and presence, and the summary scores of frequency and intensity are obtained. No modification of this scale was made.

Kanner et al. (1980) tested these scales on a community sample of 100 middle-aged adults for 10 consecutive months. Gender differences appeared only for Uplifts intensity, with women reporting a higher mean intensity level than men. The one age difference occurred for Uplifts frequency, with older subjects reporting more frequent uplifts than younger subjects. Test-retest correlations of each monthly administration were higher for frequency scores than for intensity scores. For hassles, average \( r \)'s between testings were 0.79 for frequency and 0.48 for intensity. The corresponding figures for Uplifts frequency and intensity were 0.72 and 0.60, respectively. According to Kanner et al. (1981), the relatively higher correlations for both Hassles and Uplifts frequency scores suggest that people experience roughly the same number of events from month to month, although the events may not be similar in nature. The greater temporal fluctuations in the intensity scores indicate that the amount of stress or displeasure associated with hassles and uplifts varies more than the number of events experienced. The mean Hassles-Uplifts correlations for frequency scores and intensity scores were 0.51 and 0.28, respectively. Hassles and uplifts were also shown to be related, although modestly so, to positive and negative
affect, thus providing discriminant validity information in comparison to measures of emotion.

The Stress Questionnaire

The Stress Questionnaire is a structured protocol developed over a number of years by Folkman and Lazarus and their colleagues (e.g., Folkman & Lazarus, 1985, 1986). It was designed to elicit self-report information concerning primary appraisal, secondary appraisal, and coping processes in regard to a specific stressful encounter which subjects are asked to describe briefly prior to completing the questionnaire. A slightly modified version of the Stress Questionnaire used by Folkman et al. (1986) was used in the present study. In this investigation, subjects were asked to choose a situation that had occurred in the past two weeks. This time limitation was added in order to increase the accuracy of memory recall. The questionnaire also contains sections designed to examine social support, emotional, and outcome factors; however responses to these sections of the questionnaire were not analyzed in the current investigation.

Primary Appraisal is assessed with 13 items that describe various stakes that may be present in a stressful encounter. The items were selected by Lazarus on the basis of a review of subjects' responses to open-ended questions in a previous study (Folkman & Lazarus, 1980) and a review
of the literature. Subjects indicated on a 5-point scale (1 = does not apply; 5 = applies a great deal) the extent to which each stake was involved in the stressful encounter being reported.

Factor analysis of the 13 items by Folkman and Lazarus revealed two main factors. The first factor included items that involved threats to self-esteem. The second factor included items involving threats to a loved one's well-being. The remaining items were "not achieving an important goal at your job or work"; "harm to your own health, safety or physical well-being"; "a strain on your financial resources"; and "losing respect for someone else". These items were used individually in the analyses and results based on them should be interpreted cautiously.

Secondary Appraisal is assessed with 4 items that describe coping options (Lazarus & Launier, 1978; Folkman & Lazarus, 1980). Subjects indicate on a 5-point Likert scale the extent to which the situation was 1) "one that you could change or do something about," 2) "one that you had to accept," 3) "one in which you needed to know more before you could act", and 4) "one in which you had to hold yourself back from doing something you wanted to do". These single item measures should be interpreted cautiously.

Coping is assessed with the 66-item Ways of Coping (Revised) questionnaire (Folkman & Lazarus, 1985; Folkman, Lazarus, Dunkel-Schetter, DeLongis, Gruen, 1986). The
questionnaire contains a broad range of coping and behavioral strategies that people use to manage internal and/or external demands in a stressful encounter. Subjects are asked to respond on a 4-point Likert scale (0 = does not apply or not used; 3 = used a great deal). This revised version differs from the original Ways of Coping Checklist (Folkman & Lazarus, 1980) in that the response format of the original version was yes/no; redundant or unclear items were reworded or deleted, and several items were added.

Factor-analysis of the Ways of Coping items (Aldwin, Schaefer, Coyne & Lazarus, 1980; Folkman & Lazarus, 1985; Folkman, Lazarus, Dunkel-Schetter, DeLongis, Gruen, 1986) has consistently revealed eight coping scales, although factor patterns were slightly different for each study, as was item content. As the current study involves a student population, the scales identified from a study of the ways students coped with a college examination (Folkman & Lazarus, 1985) were used in the data analysis. These scales and their alphas are as follows: 1) Problem-focused coping (alpha = .88); 2) wishful thinking (alpha = .86); 3) detachment (alpha = .74); 4) seeking social support (alpha = .82); 5) focusing on the positive (alpha = .70); 6) self-blame (alpha = .76); 7) tension reduction (alpha = .59); 8) keep to self (alpha = .65).
Perceived Social Support

Perceived social support was measured using Procidano and Heller's (1983) Perceived Social Support, Friends (PSS-Fr) and Perceived Social Support, Family (PSS-Fa) scales. These scales each consist of 20 items that evaluate the extent to which the individual perceives that his or her needs for support, information, and feedback are fulfilled by friends and by family. The distinction between the two sources of support is made on the basis that different populations may rely on or benefit from friend or family support to different extents. Illustrative items include "My friends give me the moral support I need" and "My family is sensitive to my personal needs". These scales have been found to be internally consistent and appear to measure valid constructs that are separate from each other and distinct from social network measures. Social network measures assess the functional and structural dimensions of social connections provided by the environment while perceived social support refers to the impact networks have on the individual.

Procedure

Measures were administered to subjects either individually or in small groups of between two and five people. Subjects were told that the purpose of the study was to investigate individual differences in handling
everyday problems. Each participant received a packet that included a cover sheet and the set of questionnaires. The cover sheet outlined the nature of the study and requested demographic information and permission to recontact the subject for future research. The set of questionnaires included the Hassles and Uplifts Scales, and two copies of the Stress Interview, the first to be completed for an interpersonal situation, the second for an academic situation. The packet also included the Perceived Social Support Scales for friends and family respectively. The order of the presentation of the questionnaire for all subjects was as described above. Upon completion of the questionnaires, subjects received either experimental credit or a small honorarium as agreed upon. Research assistants were generally available to answer questions regarding the experiment, or when this was not the case, subjects were directed to contact the primary researcher if they had any questions about the study.
Analyses

The statistical procedures of two-way Multivariate Analysis of Variance (MANOVA) and two-way univariate Analysis of Variance (ANOVA), with subjects' group (Per-Mag vs. Control) and gender as factors were used to analyze the data in this investigation. Gender was added as a factor because gender differences occur on the Perceptual Aberration and Magical Ideation Scale and have also been observed in the literature on measures of stress, coping and social support (e.g., Solomon & Rothblum, 1986). Following the suggestions of Milligan, Wong, and Thompson (1987), the cell n's were held equal for all two-way analyses. This was achieved by excluding the appropriate number of randomly selected cases for each cell for each analysis.
RESULTS

Hassles and Uplifts Scales

Subjects were compared on the summary scores of frequency and intensity of Hassles, and frequency and intensity of Uplifts using two-way ANOVAs. Means for each group are presented in Table 1. Results indicate no significant differences between the groups although the main effect for group on frequency of uplifts approached significance ($F [1,76] = 3.07, p = .084$), with Per-Mag subjects reporting higher scores. The main effect for gender also approached significance for both intensity of Hassles ($F [1,76] = 3.77, p = .056$) and intensity of Uplifts ($F [1,76] = 3.53, p = .064$), with females reporting higher scores in both instances. The ten most frequently reported hassles and uplifts for each subject group were also tabulated. These results are presented in Tables 2 and 3.

Appraisal and Coping

Two-way MANOVAs were used to compare subjects on primary appraisal, secondary appraisal and coping.
Analyses were conducted separately for the interpersonal and academic situation.

**Interpersonal situation.** Results of the MANOVA showed no significant main effects or interactions on the primary and secondary appraisal measures. The group effect results on the primary and secondary appraisal measures were \( F[6,66] = 1.56, p = .171 \) and \( F[4,70] = .88, p = .482 \), respectively. On the Ways of Coping measure an overall significant difference occurred between the Per-Mag and Control groups, \( F[8,69] = 2.18, p = .040 \). Univariate tests indicated that Per-Mags used significantly more wishful thinking, focusing on the positive and tension reduction than did controls. An overall significant gender difference also occurred, \( F[8,69] = 2.71, p = .012 \). This difference was due primarily to one form of coping, seeking social support, for which females reported higher use, \( F[8,69] = 12.22, p = .001 \). The overall interaction effect was not significant. Group means for the above analyses are presented in Tables 4a, 4b and 4c.

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**Academic Situation.** Results of the MANOVAs showed no overall significant interaction or main effects for
group or gender on the measures of primary appraisal, secondary appraisal or coping. Group means on these measures and results of the MANOVAs are presented in Tables 5a, 5b and 5c.

Perceived Social Support. Results of the two-way ANOVAs indicated no significant differences on the measures of perceived social support from family, perceived social support from friends, or total perceived social support, which was computed by combining scores on the above two scales. The main effect for gender approached significance for perceived social support from family ($F[1,76] = 3.11, p = .082$), and total perceived support $F[1,76] = 3.49, p = .066$) with females reporting higher scores on both variables. Group means are presented in Table 6.

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Insert Tables 5a, 5b and 5c about here

Insert Table 6 about here
DISCUSSION

The results do not support the hypotheses regarding expected differences between Per-Mags and Controls on measures of stress, appraisal or social support. Members of the Per-Mag group did not report significantly more hassles and significantly less uplifts than the Control group, nor did they report negative events to be more intense. The Per-Mag group did not report appraisal of stressful events as involving more potential harm than did Controls, nor did its members report significantly less perceived social support than the Control group. However, in the area of use of coping options, for which no hypotheses were made, a significant difference did occur between the groups for the interpersonal situation. These findings and their implications are discussed below.

Results for the Hassles and Uplifts scale indicate that the Per-Mag group was not experiencing either positive or negative everyday events significantly more frequently or more intensely than controls, although mean scores were in the expected direction. In comparison to Raulin and Mahler's (1987) findings, which indicated a strong association between scores on the Per-Mag scale and reports of frequency and intensity of hassles and uplifts in a sample of chronic
schizophrenics, the findings of the present study suggest that perhaps increased sensitivity to hassles and uplifts is an effect of the severity or duration of illness, rather than a premorbid or predisposing factor. Thus, reports of increased hassle frequency in a clinical population of schizophrenics may indeed be partly due to "stress-prone patterns of living" resulting from an overall lower level of functioning or poor coping skills, as well as adverse changes in social and environmental milieu related to the illness. Increased reports of intensity or amount of stress experienced in reaction to everyday hassles may similarly be a result of poor coping skills and/or poor appraisal of coping skills, or an effect due to an overall higher level of stress. Prior to breakdown, then, it might be suggested that intervening variables, such as adequate coping skills as well as social support do indeed play a role in reducing the amount of stress experienced and/or its saliency.

The finding in Raulin and Mahler's study of higher levels of reported uplifts by Per-Mags received only partial support in the present study; the group differences here only approach significance. This effect is difficult to explain in both cases. The findings are in agreement with those of Kanner et al. (1980), who found that frequencies of hassles and
uplifts were positively correlated. Both sets of authors explained their findings by suggesting a general increased sensitivity to everyday events in some individuals. Additionally, Kanner et al. (1985) suggested that the correlation may be an effect of a response bias or set.

In reviewing the most frequently reported hassles and uplifts items, it appears that both groups reported experiencing very similar patterns of salient events, with general themes appearing to reflect concerns related to academics and social interaction and support. One difference of interest was the report by Per-Mags of experiencing daydreaming as a frequent uplift. This finding might suggest that Per-Mags are more prone to find comfort in fantasy and to engage in this activity more frequently than low-risk individuals. This might also suggest a somewhat more passive or withdrawn style of interacting with the world. The first two hassle items listed for both groups were the first and fifth item on the hassle questionnaire which contains 130 items, suggesting that perhaps the high endorsement of these two items is a reflection of a response bias toward endorsing earlier items on the questionnaire. In future research this effect may be avoided by randomizing the order of item presentation.
Future research on stress variables in a high-risk population or Per-Mags in particular might be conducted with an additional measure to control for major-life events. This might provide information regarding how and if the experience of everyday events changes during times of major life stress. As Lazarus (1984) suggests, the presence of a major, pervasive, intrusive life event may increase a person's pattern of daily hassles through disruption of a person's usual routine. Thus, while it appears that perhaps mediating variables of coping and social support reduce or palliate the experience of everyday stress, the strength of these mediating variables in the presence of a major life event has yet to be explored.

Results regarding primary and secondary appraisal also indicate no overall significant differences between the Per-Mag and Control group in both the interpersonal and academic situation. This indicates that the groups did not differ regarding their cognitive evaluation of type or intensity of threat or loss involved in the assessed situations. A post-hoc analysis using a two-way ANOVA on the single item of the Stress Interview "How stressful is (was) this situation compared to other situations you have experienced during your lifetime" was also conducted in order to assess variability in the amount of stress
perceived to be inherent in the subjects' chosen situations. Results of the ANOVA indicated no differences between the groups on this item, which again suggests that the groups appraised the situations that they chose as being similar in terms of their degree of stress.

Regarding secondary appraisal, the lack of an overall difference between the Per-Mag and Control groups indicates that neither group tended to show a preference for one or the other of the four coping options available. While the variety of coping options endorsed is likely a product of individual differences in circumstances or the nature of subjects' chosen situations, this finding also suggests that both groups perceived having a variety of coping options available, a fact that may be reflective of the flexibility or breadth of their perceived and actual coping skills.

Perhaps the most interesting finding of this study is the differences in coping options actually applied by the Per-Mag and Control groups in the interpersonal situation. The Per-Mag group reported significantly more use of the forms of coping of wishful thinking, tension reduction, and focusing on the positive. The Per-Mag group also reported greater use of the remaining forms of coping to a degree that approached significance, with the exception of detachment.
While the present study made no hypotheses regarding expected differences between the groups in the use of particular coping options, the three forms used significantly more by the Per-Mag group may be reflective of the use of more "emotion-focused" coping. This may suggest that the Per-Mags experienced their stressful situations with more emotional intensity than did the Controls, although their appraisal of the overall amount of perceived stress inherent in the situation was not different from that of the Controls. It might also be that the members of the Per-Mag group are more likely to attend to their own emotional responses rather than to the objective aspects of a given situation.

The finding that overall the Per-Mags tended to use more of most of the different forms of coping may have several different explanations. As in the study by Forsythe and Compas (1987), who found that individuals who reported greater distress also reported trying to do more to cope with the situation, members of the Per-Mag group may have been experiencing higher emotional stress than Controls. It might also be that the Per-Mag subjects used more emotion-focused coping because they viewed their situations as more uncontrollable, similar again to the subjects in the study by Forsythe & Compas (1987). Research with
schizophrenic samples has found that schizophrenics appear to have deficits in attention and information processing and tend to respond to inappropriate or irrelevant stimuli more than normal subjects (e.g., Chapman, 1961; Payne, 1962). Theorists such as Mednick (1958, 1959) and Broen (1966) suggest that this response disorganization may be due to heightened drive in schizophrenics. Thus, another alternative explanation for the Per-Mag's choice of coping strategies in this study is that their reported higher use of coping responses may result from attempting to deal with heightened drive and/or attentional and information processing deficits, similar to those found in a clinical population, although likely to be present in a lesser degree. Perhaps future research will be able to address the questions raised by these competing hypotheses.

While no statements were made regarding the effectiveness of particular coping options in this study, it is interesting to examine the items composing the coping factors of wishful thinking, tension-reduction, and focusing on the positive. The items on the wishful thinking factor included "wished I could change what was happening or how I felt", "wished that the situation would go away or somehow be over with", "daydreamed or imagined a better time or place than the
one I was in", "had fantasies or wished about how things might turn out", and "hoped a miracle would happen." The items on the tension-reduction factor included "got away from it for awhile; tried to take a rest or vacation", "tried to make myself feel better by eating, drinking, smoking, using drugs or medication, etc.", and "jogged or exercised." The items on the focusing on the positive factor included "Changed or grew as a person in a good way", "rediscovered what was important in life", "was inspired to do something creative", and "looked for the silver lining, so to speak; tried to look on the bright side of things".

In reviewing the items on these factors, it appears that perhaps they reflect a lack of direct thought or action applied to resolution of the problem at hand, and rather reflect passivity, distraction and or perhaps minimization. Whether this reflects deficient problem solving skills, both in terms of generating solutions and in implementing alternatives, would perhaps depend on the nature and actual controllability of the specific situation chosen, a variable that was not assessed in the present research. An alternate interpretation is that while the Per-Mag group used more emotion-focused coping strategies, the palliation of emotions is a crucial mediating variable in that perhaps it is those
individuals at high-risk who are unable to palliate their emotions that have a higher incidence of actual breakdown.

In regard to coping options employed in the academic situation, no overall differences were found in the MANOVA, and univariate tests indeed showed similar frequency of use for the various available forms of coping, again with the exception of wishful thinking. For this factor, a difference significant at the .001 level occurred, with Per-Mags employing this option more frequently. Whether this is a maladaptive response is a question that needs to be addressed by future research. Again, the overall MANOVA did not indicate significant group differences; however the univariate result reported is of interest because of the exploratory nature of this study.

Regarding group differences found on the coping measures, it is not too surprising that the Per-Mag subjects would report more "fantasy" types of coping, as "Magical Ideation" is a defining characteristic of this group. However, items on the Chapman scale appear to reflect pathology whereas the Lazarus fantasy or wishful thinking items do not appear to reflect deviance in and of themselves. Rather, it might be that any "pathology" should be attributed not to the presence of fantasy but rather its misapplication to
or interference with problem solving.

Regarding perceived social support, the lack of a difference between the Per-Mag and Control groups on the support measures suggests that Per-Mags are more similar to low-risk subjects or normals on this dimension than they are to clinical schizophrenics, who have been described as socially isolated and having smaller social networks than normals. Whether the difference in support prior to hypothesized breakdown versus following breakdown is an effect of the severity of the disorder or a contributing factor is a question for future research.

What is lacking in the present investigation is an outcome measure that addresses the effectiveness of coping options both in relation to resolution of the specific problem and to effects on level of adaptation and/or level of symptomatology. Additionally, the factors of "goodness of fit" between appraisal and coping options as well as the nature of the situation would need to be addressed and analyzed in order to make any definitive statements regarding the appropriateness and or effectiveness of particular coping options in particular situations.

Taken together, the results indicate that forms of coping used was the only significant difference between high and low-risk subjects. Given its exploratory
nature, the meaning of this difference in relation to the development of more severe symptomatology can only be speculated upon in the present research. As the current study employed a relatively small sample and measures were not repeated, future research using a larger sample and repeated measures over time is needed. Several of the group differences of the present research did approach significance and with a larger sample it is possible that these differences would be found to be significant. Future research also needs to be directed to more specific questions regarding the mechanism of how variables of stress, coping and social support and their interaction operate within a population at high-risk as well as where and when breakdowns in these factors lead to illness.
REFERENCES


Platt, J. J., Siegal, J., & Spivak, G. (1975). Do psychiatric patients and normals see the same solutions as effective in solving interpersonal problems? *Journal of Consulting and Clinical Psychology, 43*, 279-


FOOTNOTES

1. An exception is research on the Social Anhedonia Scale (Chapman, Chapman & Raulin, 1976).

2. Although this hypothesis was originally posited and tested, findings by Kanner et al. (1980) suggest that Hassles and Uplifts frequencies are positively correlated, and thus the hypothesized difference would generally not be expected.

3. Due to missing data, several cases were dropped from these analyses, resulting in unequal cell n's. Additionally, the criteria for homogeneity of variance were not met for the primary appraisal measures. As this lack of homogeneity tends to increase the probability of finding significance and the overall MANOVA was not significant, the significant univariate differences that did occur were not interpreted.
Table 1.

Mean frequency and intensity of hassles and uplifts.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Group</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>F&lt;sup&gt;a&lt;/sup&gt;</th>
<th>F&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Hassle Frequency</td>
<td>Control</td>
<td>37.4</td>
<td>40.3</td>
<td>42.5</td>
<td>47.1</td>
<td>.71</td>
<td>.29</td>
</tr>
<tr>
<td>Mean Hassle Intensity</td>
<td>Per-Mag</td>
<td>1.7</td>
<td>1.8</td>
<td>1.7</td>
<td>1.7</td>
<td>.02</td>
<td>3.77</td>
</tr>
<tr>
<td>Mean Uplift Frequency</td>
<td>Control</td>
<td>42.4</td>
<td>49.8</td>
<td>59.4</td>
<td>54.1</td>
<td>3.07</td>
<td>.03</td>
</tr>
<tr>
<td>Mean Uplift Intensity</td>
<td>Per-Mag</td>
<td>1.8</td>
<td>2.0</td>
<td>1.8</td>
<td>1.9</td>
<td>.37</td>
<td>3.53</td>
</tr>
</tbody>
</table>

Note. No significant differences between groups or gender were indicated. Group by gender interactions were also not significant.

Cell n's = 20 in each group.

<sup>a</sup> F values are for the difference between Per-Mags and Controls.

<sup>b</sup> F values are for the difference between females and males.
Table 2.  
Most frequently reported Hassle items.

<table>
<thead>
<tr>
<th>Per-Mags</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misplacing or losing things</td>
<td>90</td>
</tr>
<tr>
<td>Troubling thoughts about your future</td>
<td>90</td>
</tr>
<tr>
<td>Personal pressure to get good grades</td>
<td>85</td>
</tr>
<tr>
<td>Studying for a test</td>
<td>83</td>
</tr>
<tr>
<td>Falling behind in class(es)</td>
<td>79</td>
</tr>
<tr>
<td>Physical appearance</td>
<td>77</td>
</tr>
<tr>
<td>Concerns about meeting high standards</td>
<td>77</td>
</tr>
<tr>
<td>Social Obligations</td>
<td>75</td>
</tr>
<tr>
<td>Friends or relatives too far away</td>
<td>69</td>
</tr>
<tr>
<td>Silly practical mistakes</td>
<td>67</td>
</tr>
<tr>
<td>Concerns about owing money</td>
<td>67</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Controls</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misplacing or losing things</td>
<td>93</td>
</tr>
<tr>
<td>Troubling thoughts about your future</td>
<td>85</td>
</tr>
<tr>
<td>Personal pressure to get good grades</td>
<td>80</td>
</tr>
<tr>
<td>Social obligations</td>
<td>78</td>
</tr>
<tr>
<td>Studying for a test</td>
<td>73</td>
</tr>
<tr>
<td>Concerns about weight</td>
<td>68</td>
</tr>
<tr>
<td>Physical appearance</td>
<td>68</td>
</tr>
<tr>
<td>Taking a test in class</td>
<td>65</td>
</tr>
<tr>
<td>Concerns about owing money</td>
<td>63</td>
</tr>
<tr>
<td>Inconsiderate smokers</td>
<td>63</td>
</tr>
</tbody>
</table>

Note. The ten (or eleven in the case of a tie) most frequently endorsed items are reported.

n = 20 Control females, 20 Control males, 22 Per-Mag females, and 26 Per-Mag males.
<table>
<thead>
<tr>
<th>Per-Mag</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being visited, phoned or sent a letter</td>
<td>90</td>
</tr>
<tr>
<td>Visiting, phoning or writing someone</td>
<td>85</td>
</tr>
<tr>
<td>Socializing (parties, being with friends, etc.)</td>
<td>85</td>
</tr>
<tr>
<td>Having fun</td>
<td>85</td>
</tr>
<tr>
<td>Laughing</td>
<td>83</td>
</tr>
<tr>
<td>Making a friend</td>
<td>79</td>
</tr>
<tr>
<td>Hugging and/or kissing</td>
<td>79</td>
</tr>
<tr>
<td>Flirting</td>
<td>79</td>
</tr>
<tr>
<td>Having someone listen to you</td>
<td>77</td>
</tr>
<tr>
<td>Daydreaming</td>
<td>75</td>
</tr>
<tr>
<td>Getting enough sleep</td>
<td>75</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Controls</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laughing</td>
<td>85</td>
</tr>
<tr>
<td>Visiting, phoning or writing someone</td>
<td>78</td>
</tr>
<tr>
<td>Having someone listen to you</td>
<td>78</td>
</tr>
<tr>
<td>Being visited, phoned or sent a letter</td>
<td>75</td>
</tr>
<tr>
<td>Getting enough sleep</td>
<td>73</td>
</tr>
<tr>
<td>Being complimented</td>
<td>73</td>
</tr>
<tr>
<td>Hugging and/or kissing</td>
<td>73</td>
</tr>
<tr>
<td>Socializing (parties, being with friends, etc.)</td>
<td>70</td>
</tr>
<tr>
<td>Making a friend</td>
<td>70</td>
</tr>
<tr>
<td>Relating well with friends</td>
<td>70</td>
</tr>
</tbody>
</table>

Note. The ten (or eleven in the case of a tie) most frequently endorsed items are reported.

n = 20 Control females, 20 Control males, 22 Per-Mag females, and 26 Per-Mag males.
Table 4a.

Mean primary appraisal scores in the interpersonal situation.

<table>
<thead>
<tr>
<th>Primary appraisal (stakes)</th>
<th>Control</th>
<th>Per-Mag</th>
<th>F²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>2.20</td>
<td>1.92</td>
<td>2.31</td>
</tr>
<tr>
<td>Concern for a loved one's well-being</td>
<td>2.01</td>
<td>2.05</td>
<td>1.54</td>
</tr>
<tr>
<td>Own physical well-being</td>
<td>1.35</td>
<td>1.74</td>
<td>2.35</td>
</tr>
<tr>
<td>Goal at work</td>
<td>1.24</td>
<td>1.31</td>
<td>1.40</td>
</tr>
<tr>
<td>Financial strain</td>
<td>1.29</td>
<td>1.52</td>
<td>1.95</td>
</tr>
<tr>
<td>Loss of respect for another</td>
<td>2.18</td>
<td>2.47</td>
<td>2.42</td>
</tr>
</tbody>
</table>

Note: Results of the Manova also indicated no significant gender or gender by group effects. Significant univariate differences were not reported in the text as the overall MANOVA was not significant and the criteria for homogeneity of variance was not met for this measure. Additionally, due to missing data, several cases were dropped from this analysis resulting in unequal cell n's.

n = 17 Control males, 19 Control females, 20 Per-Mag males, and 19 Per-Mag females.

*F values are for differences between Per-Mags and Controls.

*p < .05
Table 4b.

Mean secondary appraisal scores in the interpersonal situation.

<table>
<thead>
<tr>
<th>Secondary appraisal (coping options)</th>
<th>Control Male</th>
<th>Control Female</th>
<th>Per-Mag Male</th>
<th>Per-Mag Female</th>
<th>F^a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Could change the situation</td>
<td>1.84</td>
<td>1.26</td>
<td>1.95</td>
<td>1.95</td>
<td>.88</td>
</tr>
<tr>
<td>Had to accept the situation</td>
<td>1.95</td>
<td>2.74</td>
<td>2.47</td>
<td>2.05</td>
<td>.06</td>
</tr>
<tr>
<td>Needed to know before acting</td>
<td>1.80</td>
<td>1.21</td>
<td>1.90</td>
<td>1.90</td>
<td>1.50</td>
</tr>
<tr>
<td>Had to hold back from acting</td>
<td>1.68</td>
<td>2.37</td>
<td>2.58</td>
<td>2.05</td>
<td>.65</td>
</tr>
</tbody>
</table>

Note: Results of the Manova also indicated no significant gender or gender by group effects. Additionally, due to missing data, several cases were dropped from these analyses, resulting in unequal cell n's.

n = 19 Control males, 19 Control females, 19 Per-Mag males, and 20 Per-Mag females.

^a F values are for differences between Per-Mags and Controls.
Table 4c.

Mean scores on coping scales in the interpersonal situation.

<table>
<thead>
<tr>
<th>Coping scales</th>
<th>Control Male</th>
<th>Control Female</th>
<th>Per-Mag Male</th>
<th>Per-Mag Female</th>
<th>F&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem-focused</td>
<td>1.03</td>
<td>1.01</td>
<td>1.24</td>
<td>1.30</td>
<td>3.57</td>
</tr>
<tr>
<td>Wishful thinking</td>
<td>.90</td>
<td>1.40</td>
<td>1.68</td>
<td>1.41</td>
<td>4.56*</td>
</tr>
<tr>
<td>Detachment</td>
<td>.98</td>
<td>1.13</td>
<td>.84</td>
<td>.90</td>
<td>2.03</td>
</tr>
<tr>
<td>Seeking social support</td>
<td>.76</td>
<td>1.50</td>
<td>1.25</td>
<td>1.57</td>
<td>3.55</td>
</tr>
<tr>
<td>Focusing on the positive</td>
<td>.79</td>
<td>.69</td>
<td>1.30</td>
<td>1.05</td>
<td>7.09**</td>
</tr>
<tr>
<td>Self-blame</td>
<td>.83</td>
<td>.87</td>
<td>1.28</td>
<td>1.12</td>
<td>3.35</td>
</tr>
<tr>
<td>Tension-reduction</td>
<td>.45</td>
<td>.53</td>
<td>.88</td>
<td>.72</td>
<td>4.30*</td>
</tr>
<tr>
<td>Keep to self</td>
<td>.65</td>
<td>.68</td>
<td>.97</td>
<td>.92</td>
<td>3.48</td>
</tr>
</tbody>
</table>

Note. An overall significant gender effect was found on the coping scales, ($F_{[8,69]} = 2.71, p = .012$), the difference being due primarily to females' higher use of seeking social support ($F_{[8,69]} = 12.22, p = .001$). The group by gender effect for the coping scales were not significant.

Cell n's for the Coping scales = 20 in each group.

<sup>a</sup>F values are for differences between Per-Mags and Controls.

*<sup>p</sup> ≤ .05  **<sup>p</sup> ≤ .01
### Table 5a.

Mean primary appraisal scores in the academic situation.

<table>
<thead>
<tr>
<th></th>
<th>Control Male</th>
<th>Control Female</th>
<th>Per-Mag Male</th>
<th>Per-Mag Female</th>
<th>(F^a)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary appraisal (stakes)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.11</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>1.68</td>
<td>1.87</td>
<td>2.19</td>
<td>2.04</td>
<td>3.10</td>
</tr>
<tr>
<td>Concern for a loved one's well-being</td>
<td>1.24</td>
<td>1.02</td>
<td>1.07</td>
<td>1.24</td>
<td>.06</td>
</tr>
<tr>
<td>Own physical well-being</td>
<td>1.53</td>
<td>1.9</td>
<td>1.31</td>
<td>1.72</td>
<td>2.03</td>
</tr>
<tr>
<td>Goal at work</td>
<td>3.41</td>
<td>3.53</td>
<td>3.35</td>
<td>3.11</td>
<td>.42</td>
</tr>
<tr>
<td>Financial strain</td>
<td>1.59</td>
<td>1.63</td>
<td>1.55</td>
<td>1.67</td>
<td>.00</td>
</tr>
<tr>
<td>Loss of respect for another</td>
<td>1.18</td>
<td>1.26</td>
<td>1.15</td>
<td>1.28</td>
<td>.00</td>
</tr>
</tbody>
</table>

**Note:** Results of the Manova also indicated no significant gender or gender by group effects. The criteria for homogeneity of variance was not met for this measure. Additionally, due to missing data, several cases were dropped from this analysis resulting in unequal cell \(n\)'s.

\(n = 17\) Control males, 19 Control females, 20 Per-Mal males, and 18 Per-Mag females.

\(F^a\) values are for differences between Per-Mags and Controls.
### Table 5b.

Mean secondary appraisal scores in the academic situation.

<table>
<thead>
<tr>
<th>Group</th>
<th>Control</th>
<th></th>
<th>Per-Mag</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td></td>
<td>F^a</td>
</tr>
<tr>
<td>Secondary appraisal (coping options)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Could change the situation</td>
<td>2.40</td>
<td>2.63</td>
<td>3.21</td>
<td>2.85</td>
<td>2.29</td>
<td></td>
</tr>
<tr>
<td>Had to accept the situation</td>
<td>2.15</td>
<td>1.90</td>
<td>1.47</td>
<td>2.20</td>
<td>.26</td>
<td></td>
</tr>
<tr>
<td>Needed to know before acting</td>
<td>1.15</td>
<td>.95</td>
<td>.84</td>
<td>1.00</td>
<td>.17</td>
<td></td>
</tr>
<tr>
<td>Had to hold back from acting</td>
<td>.65</td>
<td>.47</td>
<td>1.05</td>
<td>.65</td>
<td>1.09</td>
<td></td>
</tr>
</tbody>
</table>

Note: Results of the Manova also indicated no significant gender or gender by group effects. Due to missing data, several cases were dropped from this analysis resulting in unequal cell n's.

n = 20 Control males, 19 Control females, 19 Per-Mag males, and 20 Per-Mag females.

^aF values are for differences between Per-Mags and Controls.
Table 5c.  
Mean scores on coping scales in the academic situation.

<table>
<thead>
<tr>
<th>Coping scales</th>
<th>Control</th>
<th></th>
<th>Per-Mag</th>
<th></th>
<th>F&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Problem-focused</td>
<td>.85</td>
<td>1.02</td>
<td>1.06</td>
<td>1.19</td>
<td>2.04</td>
</tr>
<tr>
<td>Wishful thinking</td>
<td>.77</td>
<td>1.13</td>
<td>1.46</td>
<td>1.53</td>
<td>8.66&lt;sup&gt;**&lt;/sup&gt;</td>
</tr>
<tr>
<td>Detachment</td>
<td>.54</td>
<td>.44</td>
<td>.74</td>
<td>.34</td>
<td>.22</td>
</tr>
<tr>
<td>Seeking social support</td>
<td>.65</td>
<td>.93</td>
<td>.72</td>
<td>.97</td>
<td>.17</td>
</tr>
<tr>
<td>Focusing on the positive</td>
<td>.78</td>
<td>.70</td>
<td>.83</td>
<td>1.08</td>
<td>1.98</td>
</tr>
<tr>
<td>Self-blame</td>
<td>1.98</td>
<td>1.78</td>
<td>2.02</td>
<td>2.10</td>
<td>.87</td>
</tr>
<tr>
<td>Tension-reduction</td>
<td>.47</td>
<td>.47</td>
<td>.80</td>
<td>.57</td>
<td>2.76</td>
</tr>
<tr>
<td>Keep to self</td>
<td>.65</td>
<td>.68</td>
<td>.97</td>
<td>.92</td>
<td>3.48</td>
</tr>
</tbody>
</table>

Note. Results of the Manova also indicated no significant gender or group by gender effects. The significant univariate difference was not reported in the text of the results section as the overall MANOVA was not significant.

\[ n = 20 \text{ in each group} \]

<sup>a</sup>F values are for the differences between Per-Mags and Controls.

<sup>**</sup>p < .01
Table 6.

Mean perceived social support scores.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Control</th>
<th>Group</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Perceived support from friends</td>
<td>11.2</td>
<td>12.4</td>
<td>11.3</td>
<td>11.5</td>
<td>.65</td>
</tr>
<tr>
<td>Perceived support from family</td>
<td>11.0</td>
<td>13.6</td>
<td>11.8</td>
<td>11.8</td>
<td>.49</td>
</tr>
<tr>
<td>Total perceived support</td>
<td>22.2</td>
<td>26.0</td>
<td>23.1</td>
<td>23.2</td>
<td>.79</td>
</tr>
</tbody>
</table>

Note. The results of the Manovas also indicated no significant differences for gender or group by gender effects.

n's = 20 for each cell.

\( ^a \) F values are for differences between Per-Mags and Controls.
Appendix A

Chapman Psychosis-Proneness Scales

Instructions

This booklet contains a questionnaire consisting of approximately 200 questions. Answer each question True (1) or False (2) as best applies for you, using the answer sheet provided.

The questionnaire asks about a number of different attitudes and experiences people might describe themselves as having. Please blacken choice "1" on your scantron if the statement is true as best applies for you, and blacken choice "2" if the statement is false as best applies for you. You may leave an item blank, if you wish, but try to answer even if you are not sure the statement really applies to you.

It is best to work as quickly as possible.

After we begin, please keep your answers to yourself and do not discuss them with your neighbors. Again, please no talking while you are filling out the questionnaire.

Answer the questionnaire only for times you were not using drugs.

This will take you about 50 minutes to fill out.

1. PLEASE ENTER YOUR SEX IN ITEM 1. Male = 1. Female = 2.

2. I have sometimes enjoyed feeling the strength in my muscles.

3. Sometimes I have had feelings that I am united with an object near me.
4. On seeing a soft, thick carpet, I have sometimes had the impulse to take off my shoes and walk barefoot on it.

5. I sometimes have a feeling of gaining or losing energy when certain people look at me or touch me.

6. There just are not many things that I have ever really enjoyed doing.

7. Sometimes when I look at things like table and chairs, they seem strange.

8. The sound of rustling leaves has never much pleased me.

9. Sometimes I feel like everything around me is tilting.

10. I have always hated the feeling of exhaustion that comes from vigorous activity.

11. At times when I was ill or tired, I have felt like going to bed early.

12. I don’t understand why people enjoy looking at the stars at night.

13. I have been fascinated with the dancing of flames in a fireplace.

14. I have sometimes been fearful of stepping on sidewalk cracks.

15. I have often enjoyed receiving a strong, warm handshake.

16. The color that things are painted has seldom mattered to me.

17. I can remember when it seemed as though one of my limbs took on an unusual shape.

18. The taste of food has always been important to me.
19. I have always loved having my back massaged.
20. I have wondered whether the spirits of the dead can influence the living.
21. The bright lights of a city are exciting to look at.
22. The sounds of a parade have never excited me.
23. Things sometimes seem to be in different places when I get home, even though no one has been there.
24. I think I could learn to read others' minds if I wanted to.
25. The beauty of sunsets is greatly overrated.
26. I have felt that my body and another person's body were one and the same.
27. When I have seen a statue I have had the urge to feel it.
28. At times I perform certain little rituals to ward off negative influences.
29. I have felt that I might cause something to happen just by thinking too much about it.
30. I have been disappointed in love.
31. After a busy day, a slow walk has often felt relaxing.
32. Parts of my body occasionally seem dead or unreal.
33. I have always had a number of favorite foods.
34. I have occasionally had the silly feeling that a TV or radio broadcaster knew I was listening to him.
35. Sometimes people whom I know well begin to look like strangers.
36. There have been times when I have dialed a telephone number only to find that the line was busy.
37. It has always made me feel good when someone I care about reaches out to touch me.
38. I usually work things out for myself rather than get someone to show me how.
39. I have sometimes felt that strangers were reading my mind.
40. I have sometimes had the feeling that one of my arms or legs is disconnected from the rest of my body.
41. Sex is okay, but not as much fun as most people claim it is.
42. My hands or feet have never seemed far away.
43. When I have walked by a bakery, the smell of fresh bread has often made me hungry.
44. Flowers aren't as beautiful as many people claim.
45. It has often felt good to massage my muscles when they are tired or sore.
46. It has seemed at times as if my body was melting into my surroundings.
47. Poets always exaggerate the beauty and joys of nature.
48. There have been a number of occasions when people I know have said hello to me.
49. Some people can make me aware of them just by thinking about me.
50. I have worried that people on other planets may be
Appendix A (continued)

Influencing what happens on earth.

51. I have never had the passing feeling that my arms or legs had become longer than usual.

52. I have usually finished my bath or shower as quickly as possible just to get it over with.

53. The hand motions that strangers make seem to influence me at times.

54. I have felt as though my head or limbs were somehow not my own.

55. Numbers like 13 and 7 have no special powers.

56. I have seldom cared to sing in the shower.

57. People often behave so strangely that one wonders if they are part of an experiment.

58. Now and then when I look in the mirror, my face seems quite different than usual.

59. I cannot remember a time when I talked with someone who wore glasses.

60. I have never had the feeling that certain thoughts of mine really belonged to someone else.

61. Often I have a day when indoor lights seem so bright that they bother my eyes.

62. I've never cared much about the texture of food.

63. When I pass by flowers, I have often stopped to smell them.

64. I have sometimes had the feeling that my body is decaying inside.
65. It is not possible to harm others merely by thinking bad thoughts about them.
66. I have had the momentary feeling that someone's place has been taken by a look-alike.
67. I have sometimes felt that some part of my body no longer belonged to me.
68. I like playing with and petting soft little kittens or puppies.
69. I have felt that there were messages for me in the way things were arranged, like in a store window.
70. Beautiful scenery has been a great delight to me.
71. When introduced to strangers, I rarely wonder whether I have known them before.
72. I never wanted to go on any of the rides at an amusement park.
73. I have sometimes danced by myself just to feel my body move with the music.
74. I have often found walks to be relaxing and enjoyable.
75. I have never found a thunderstorm exhilarating.
76. I cannot remember a single occasion when I have ridden on a bus.
77. I have noticed sounds on my records that are not there at other times.
78. When I start out in the evening I seldom know what I'll end up doing.
79. I never have the desire to take off my shoes and walk
through a puddle barefoot.

80. I sometimes have to touch myself to make sure I'm still there.

81. My sex life is satisfactory.

82. When eating a favorite food, I have often tried to eat slowly to make it last longer.

83. I have sometimes felt confused as to whether my body was really my own.

84. At times I have felt that a professor's lecture was meant especially for me.

85. The boundaries of my body always seem clear.

86. I enjoy many different kinds of play and recreation.

87. It worries me if I know there are mistakes in my work.

88. I have felt that something outside my body was a part of my body.

89. I think that flying a kite is silly.

90. I have usually found lovemaking to be intensely pleasurable.

91. I almost never dream about things before they happen.

92. Sometimes I have had the feeling that a part of my body is larger than it usually is.

93. I have had very little fun from physical activities like walking, swimming, or sports.

94. A good soap lather when I'm bathing has sometimes soothed and refreshed me.

95. For several days at a time I have had such a heightened
awareness of sights and sounds that I cannot shut them out.

95. At times I have wondered if my body was really my own.

97. I am more sensitive than most other people.

99. The first winter snowfall has often looked pretty to me.

99. I sometimes have had the feeling that some parts of my body are not attached to the same person.

100. When I'm feeling a little sad, singing has often made me feel happier.

101. One food tastes as good as another to me.

102. My hearing is sometimes so sensitive that ordinary sounds become uncomfortable.

103. I have had very little desire to try new kinds of foods.

104. I have never felt that my arms or legs have momentarily grown in size.

105. I have always found organ music dull and unexciting.

106. I have sometimes had the passing thought that strangers are in love with me.

107. Occasionally I have felt as though my body did not exist.

108. I have seldom enjoyed any kind of sexual experience.

109. I have had the momentary feeling that I might not be human.

110. Sex is the most intensely enjoyable thing in life.

111. Occasionally it has seemed as if my body had taken on the appearance of another person's body.
112. I don't know why some people are so interested in music.
113. Horoscopes are right too often for it to be a coincidence.
114. I go at least once every two years to visit either northern Scotland or some part of Scandinavia.
115. I have usually found soft music boring rather than relaxing.
116. Good luck charms don't work.
117. Standing on a high place and looking out over the view is very exciting.
118. I am sure I am being talked about.
119. The smell of dinner cooking has hardly ever aroused my appetite.
120. I have had the momentary feeling that my body has become misshapen.
121. I have often felt uncomfortable when my friends touch me.
122. Dancing, or the idea of it, has always seemed dull to me.
123. Sunbathing isn't really more fun than lying down indoors.
124. Sometimes I have had a passing thought that some part of my body was rotting away.
125. Trying new foods is something I have always enjoyed.
126. On some mornings, I didn't get out of bed immediately when I first woke up.
127. The sound of organ music has often thrilled me.
128. I sometimes have had the feeling that my body is abnormal.
129. The sound of the rain falling on the roof has made me feel snug and secure.
130. I have had the momentary feeling that the things I touch remain attached to my body.
131. I have not lived the right kind of life.
132. Ordinary colors sometimes seem much too bright to me (without taking drugs).
133. Sometimes part of my body has seemed smaller than it usually is.
134. The warmth of an open fireplace hasn't especially soothed and calmed me.
135. On hearing a good song I have seldom wanted to sing along with it.
136. Sometimes I have felt that I could not distinguish my body from other objects around me.
137. I have often enjoyed the feel of silk, velvet, or fur.
138. I have sometimes sensed an evil presence around me, although I could not see it.
139. If reincarnation were true, it would explain some unusual experiences I have had.
140. I have never doubted that my dreams are the product of my own mind.
141. The government refuses to tell us the truth about flying
142. I've never cared to sunbathe; it just makes me hot.
143. A brisk walk has sometimes made me feel good all over.
144. I often get so mad that I lose track of some of the things I say.
145. I never get so angry I can't speak coherently.
146. Thinking things over too carefully can destroy half the fun of doing them.
147. It's important to save money.
148. I usually quit before finishing one activity in order to start something else.
149. As often as once a month I have become so angry that I have had to hit something or someone to relieve my anger.
150. I frequently overeat and wonder why later.
151. Most people say "please" and "thank you" more often than is necessary.
152. My friends consider me to be a cool, controlled person.
153. When I want something, delays are unbearable.
154. I don't have much sympathy for people whom I can push around and manipulate easily.
155. Most of the mourners at funerals are just pretending to be sad.
156. My way of doing things is apt to be misunderstood by others.
157. Most people think of me as reckless.
158. I always let people know how I feel about them, even if it hurts them a little.
159. I almost always do what makes me happy now, even at the expense of some distant goal.
160. I have had to invent some good excuses to get out of work or taking exams.
161. I think people spend too much time safeguarding their future with savings and insurance.
162. I break rules just for the hell of it.
163. I usually find myself doing things "on impulse".
164. I usually act first and ask questions later.
165. I rarely act on impulse.
166. I prefer being spontaneous rather than planning ahead.
167. I always stop at red lights.
168. I sometimes do dangerous things just for the thrill of it.
169. No one seems to understand me.
170. I let go and yell a lot when I'm mad.
171. I find it difficult to remain composed when I get into an argument.
172. Long-term goals are not as important for me as living for today.
173. During one period when I was a youngster I engaged in petty thievery.
174. Driving from New York to San Francisco is generally faster than flying between these cities.
175. I often do unusual things just to be different from other people.
176. I usually consider different viewpoints before making a decision.
177. Sometimes when walking down the sidewalk, I have seen children playing.
178. In school I sometimes got in trouble for cutting up.
179. Being in debt would worry me.
180. I like to use obscene language to shock people.
181. People who drive carefully annoy me.
182. If I burped loudly while having dinner at the house of someone I knew, I would be embarrassed.
183. I liked to annoy my high school teachers.
184. When I really want something, I don't care how much it costs.
185. I believe that most light bulbs are powered by electricity.
186. My parents often objected to the kind of people I went around with.
187. I would probably purchase stolen merchandise if I knew it was safe.
188. I have never been in trouble with the law.
189. I do many things that seem strange to others but don't seem strange to me.
190. I wouldn't worry too much if my bills were overdue.
191. I try to remember to send people birthday cards.
192. I usually laugh out loud at clumsy people.

193. On some occasions I have noticed that some people are better dressed than myself.

194. I avoid trouble whenever I can.

195. It would embarrass me a lot to have to spend a night in jail.

196. I find that I often walk with a limp, which is the result of a skydiving accident.

197. I have never combed my hair before going out in the morning.

198. I usually control my feelings well.
APPENDIX B

STRESS, COPING STYLES & SOCIAL RELATIONSHIPS

Subject Number:_______________ Date:_______________

This is a study of stress, coping styles, and social relationships. You will be given three different questionnaires to complete. These questionnaires measure a number of dimensions along which many individuals are the same, and also differ. There are no right or wrong answers. We are interested in your individual experiences, and therefore ask that you complete the measures carefully and accurately.

Your questionnaires will only be seen by members of the research team, and confidentiality will be protected through the use of subject numbers on these measures. If you have any questions about this study, you can talk to the experimenter afterward, or contact Stephanie Karwacki at 243-4523 at the Clinical Psychology Center.

You are free to discontinue your participation in this study at anytime without penalty.

Other people have found these questionnaires interesting and enjoyable. Your help in this study is greatly appreciated.

We would also like your permission to contact you in the future to complete an additional questionnaire. If you would be willing to assist us, please sign below.

______________________________
Signature
INFORMATION SHEET

(PLEASE PRINT)

NAME ________________________________________ SUBJECT NUMBER ______

SCHOOL ADDRESS ____________________________________________________

SCHOOL PHONE _______________________________________________________

HOME ADDRESS ______________________________________________________

HOME PHONE _________________________________________________________

SEX (CIRCLE ONE) :  M  F

AGE _____________________________

ETHNICITY: ASIAN  BLACK  CAUCASIAN  ESKIMO  HISPANIC

NATIVE AMERICAN  OTHER  (CIRCLE ONE)

IS ENGLISH YOU NATIVE (FIRST) LANGUAGE?  YES  NO
APPENDIX C

THE HASSLES SCALE

Directions: Hassles are irritants that can range from minor annoyances to fairly major pressures, problems, or difficulties. They can occur few or many times.

Listed in the center of the following pages are a number of ways in which a person can feel hassled. First, circle the hassles that have happened to you in the past month. Then look at the numbers on the right of the items you circled. Indicate by circling a 1, 2, or 3 how severe each of the circled hassles has been for you in the past month. If a hassle did not occur in the last month, do NOT circle it.

<table>
<thead>
<tr>
<th>SEVERITY</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Somewhat severe</td>
<td></td>
</tr>
<tr>
<td>2. Moderately severe</td>
<td></td>
</tr>
<tr>
<td>3. Extremely severe</td>
<td></td>
</tr>
</tbody>
</table>

**HASSLES**

1. Misplacing or losing things.............................................. 1  2  3
2. Troublesome neighbors.................................................. 1  2  3
3. Social obligations..................................................... 1  2  3
4. Inconsiderate smokers.................................................. 1  2  3
5. Troubling thoughts about your future.............................. 1  2  3
6. Thoughts about death.................................................. 1  2  3
7. Health of a family member............................................. 1  2  3
8. Not enough money for clothing........................................ 1  2  3
9. Not enough money for housing.......................................... 1  2  3
10. Concerns about owing money.......................................... 1  2  3
11. Concerns about getting credit....................................... 1  2  3
12. Concerns about money for emergencies............................ 1  2  3
13. Someone owes you money.............................................. 1  2  3
14. Financial responsibility for someone who doesn't live with you........................................................................ 1  2  3
15. Cutting down on electricity, water, etc.................................. 1  2  3
16. Smoking too much........................................................... 1  2  3
17. Use of alcohol...................................................................... 1  2  3
18. Personal use of drugs.................................................... 1  2  3
19. Too many responsibilities................................................ 1  2  3
20. Decisions about having children...................................... 1  2  3
21. Non-family members living in your house................................ 1  2  3
22. Care for pet........................................................................ 1  2  3
23. Planning meals..................................................................... 1  2  3
24. Concerned about the meaning of life.................................. 1  2  3
25. Trouble relaxing.............................................................. 1  2  3
26. Trouble making decisions................................................ 1  2  3
27. Problems getting along with fellow workers.......................... 1  2  3
28. Customers or clients give you a hard time............................ 1  2  3
Appendix C (continued)

29. Home maintenance (inside) .................. 2 3
30. Concerns about job security ............. 2 3
31. Concerns about retirement ............... 2 3
32. Laid-off or out of work ................. 2 3
33. Don't like current work duties .......... 2 3
34. Don't like fellow workers .............. 2 3
35. Not enough money for basic necessities . 2 3
36. Not enough money for food .............. 2 3
37. Too many interruptions ................. 2 3
38. Unexpected company ..................... 2 3
39. Too much time on hands .................. 2 3
40. Having to wait ................................ 2 3
41. Concerns about accidents .................. 2 3
42. Being lonely ................................ 2 3
43. Not enough money for health care ....... 2 3
44. Fear of confrontation ........................ 2 3
45. Financial security ....................... 2 3
46. Silly practical mistakes ................... 2 3
47. Inability to express yourself .......... 2 3
48. Physical illness .......................... 2 3
49. Side effects of medication .............. 2 3
50. Concerns about medical treatment ....... 2 3
51. Physical appearance ..................... 2 3
52. Fear of rejection .......................... 2 3
53. Difficulties with getting pregnant ...... 2 3
54. Sexual problems that result from ...... 2 3
  physical problems ........................ 2 3
55. Sexual problems other than those .... 2 3
  resulting from physical problems ....... 2 3
56. Concerns about health in general ...... 2 3
57. Not seeing enough people .............. 2 3
58. Friends or relatives too far away ...... 2 3
59. Preparing meals .......................... 2 3
60. Wasting time ................................ 2 3
61. Auto maintenance .......................... 2 3
62. Filling out forms ........................... 2 3
63. Neighborhood deterioration ............. 2 3
64. Financing children's education .......... 2 3
65. Problems with employees ............... 2 3
66. Problems on job due to being a woman 2 3
  or man ........................................ 2 3
67. Declining physical abilities ........... 2 3
68. Being exploited ........................... 2 3
69. Concerns about bodily functions ...... 2 3
70. Rising prices of common goods ........ 2 3
71. Not getting enough rest .................. 2 3
72. Not getting enough sleep ............... 2 3
73. Problems with aging parents ........... 2 3
74. Problems with your children ........... 2 3
75. Problems with persons younger than yourself .................. 2 3
76. Problems with your lover .................. 2 3
Appendix C (continued)

77. Difficulties seeing or hearing
78. Overloaded with family responsibilities
79. Too many things to do
80. Unchallenging work
81. Concerns about meeting high standards
82. Financial dealings with friends or acquaintances
83. Job dissatisfactions
84. Worries about decisions to change jobs
85. Trouble with reading, writing, or spelling abilities
86. Too many meetings
87. Problems with divorce or separation
88. Trouble with arithmetic skills
89. Gossip
90. Legal problems
91. Concerns about weight
92. Not enough time to do the things you need to do
93. Television
94. Not enough personal energy
95. Concerns about inner conflicts
96. Feel conflicted over what to do
97. Regrets over past decisions
98. Menstrual (period) problems
99. The weather
100. Nightmares
101. Concerns about getting ahead
102. Hassles from boss or supervisor
103. Difficulties with friends
104. Not enough time for family
105. Transportation problems
106. Not enough money for transportation
107. Not enough money for entertainment and recreation
108. Shopping
109. Prejudice and discrimination from others
110. Property, investments or taxes
111. Not enough time for entertainment and recreation
112. Yardwork or outside home maintenance
113. Concerns about news events
114. Noise
115. Crime
116. Traffic
117. Pollution
118. Being suspended or placed on academic probation
119. Giving a class presentation
120. Receiving a "D" or "F" on a test
121. Personal pressure to get good grades
122. Completing a research paper.................. 1 2 3
123. Falling behind in class(es).................... 1 2 3
124. Pressure to get an "A" or "D" in a course......................... 1 2 3
125. Failing to complete assignments.............. 1 2 3
126. Studying for a test.................................... 1 2 3
127. Taking a test in class......................... 1 2 3
128. Difficulty in making vocational selection......................... 1 2 3
129. Peer pressure against getting good grades.......................... 1 2 3

HAVE WE MISSED ANY OF YOUR HASSLES?
IF SO, WRITE THEM IN BELOW:

130. _________________________________________________________________________ 1 2 3

ONE MORE THING: HAS THERE BEEN A CHANGE IN YOUR LIFE THAT AFFECTED HOW YOU ANSWERED THIS SCALE? IF SO, TELL US WHAT IT WAS:

____________________________________________________________________________
THE UPLIFTS SCALE

Directions: Uplifts are events that make you feel good. They can be sources of peace, satisfaction, or joy. Some occur often, others are relatively rare.

On the following pages, circle the events that have made you feel good in the past month. Then look at the numbers on the right of the items you circled. Indicate by circling a 1, 2, or 3 how often each of the circled uplifts has occurred in the last month. If an uplift did not occur in the last month, do NOT circle it.

HOW OFTEN
1. Somewhat often
2. Moderately often
3. Extremely often

UPLIFTS

1. Getting enough sleep
2. Practicing your hobby
3. Being lucky
4. Saving money
5. Nature
6. Liking fellow workers
7. Not working (on vacation, laid-off, etc.)
8. Gossiping; "shooting the bull"
9. Successful financial dealings
10. Being rested
11. Feeling healthy
12. Finding something presumed lost
13. Recovering from illness
14. Staying or getting in good physical shape
15. Being with children
16. "Pulling something off"; getting away with something
17. Visiting, phoning, or writing someone
18. Relating well with your spouse or lover
19. Completing a task
20. Giving a compliment
21. Meeting family responsibilities
22. Relating well with friends
23. Being efficient
24. Meeting your responsibilities
25. Quitting or cutting down on alcohol
26. Quitting or cutting down on smoking
27. Solving an ongoing practical problem
28. Daydreaming ........................................ 1 2 3
29. Weight ........................................ 1 2 3
30. Financially supporting someone who doesn't live with you .................. 1 2 3
31. Sex ........................................ 1 2 3
32. Friendly neighbors ........................................ 1 2 3
33. Having enough time to do what you want ........................................ 1 2 3
34. Divorce or separation ........................................ 1 2 3
35. Eating out ........................................ 1 2 3
36. Having enough (personal) energy ........................................ 1 2 3
37. Resolving inner conflicts ........................................ 1 2 3
38. Being with older people ........................................ 1 2 3
39. Finding no prejudice or discrimination when you expect it .................. 1 2 3
40. Cooking ........................................ 1 2 3
41. Capitalizing on an unexpected opportunity ........................................ 1 2 3
42. Using drugs or alcohol ........................................ 1 2 3
43. Life being meaningful ........................................ 1 2 3
44. Being well-prepared ........................................ 1 2 3
45. Eating ........................................ 1 2 3
46. Relaxing ........................................ 1 2 3
47. Having the "right" amount of things to do ........................................ 1 2 3
48. Being visited, phoned, or sent a letter ........................................ 1 2 3
49. The weather ........................................ 1 2 3
50. Thinking about the future ........................................ 1 2 3
51. Spending time with family ........................................ 1 2 3
52. Home (inside) pleasing to you ........................................ 1 2 3
53. Being with younger people ........................................ 1 2 3
54. Buying things for the house ........................................ 1 2 3
55. Reading ........................................ 1 2 3
56. Shopping ........................................ 1 2 3
57. Smoking ........................................ 1 2 3
58. Buying clothes ........................................ 1 2 3
59. Giving a present ........................................ 1 2 3
60. Getting a present ........................................ 1 2 3
61. Becoming pregnant or contributing thereto ........................................ 1 2 3
62. Having enough money for health care ........................................ 1 2 3
63. Traveling or commuting ........................................ 1 2 3
64. Doing yardwork or outside housework ........................................ 1 2 3
65. Having enough money for transportation ........................................ 1 2 3
66. Health of a family member improving ........................................ 1 2 3
67. Resolving conflicts over what to do ........................................ 1 2 3
68. Thinking about health ........................................ 1 2 3
69. Being a "good" listener ........................................ 1 2 3
70. Socializing (parties, being with friends, etc.) ........................................ 1 2 3
71. Making a friend ........................................ 1 2 3
72. Sharing something ........................................ 1 2 3
<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>73</td>
<td>Having someone listen to you</td>
<td>1</td>
</tr>
<tr>
<td>74</td>
<td>Your yard or outside of house is pleasing</td>
<td>1</td>
</tr>
<tr>
<td>75</td>
<td>Looking forward to retirement</td>
<td>1</td>
</tr>
<tr>
<td>76</td>
<td>Having enough money for entertainment and recreation</td>
<td>1</td>
</tr>
<tr>
<td>77</td>
<td>Entertainment (movies, concerts, TV, etc.)</td>
<td>1</td>
</tr>
<tr>
<td>78</td>
<td>Good news on local or world level</td>
<td>1</td>
</tr>
<tr>
<td>79</td>
<td>Getting good advice</td>
<td>1</td>
</tr>
<tr>
<td>80</td>
<td>Recreation (sports, games, hiking, etc.)</td>
<td>1</td>
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<tr>
<td>81</td>
<td>Paying off debts</td>
<td>1</td>
</tr>
<tr>
<td>82</td>
<td>Using skills well at work</td>
<td>1</td>
</tr>
<tr>
<td>83</td>
<td>Past decisions &quot;panning out&quot;</td>
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<tr>
<td>84</td>
<td>Growing as a person</td>
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<tr>
<td>85</td>
<td>Being complimented</td>
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<td>86</td>
<td>Having good ideas at work</td>
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<tr>
<td>87</td>
<td>Improving or gaining new skills</td>
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<td>88</td>
<td>Job satisfying despite discrimination due to your sex</td>
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<td>89</td>
<td>Free time</td>
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</tr>
<tr>
<td>90</td>
<td>Expressing yourself well</td>
<td>1</td>
</tr>
<tr>
<td>91</td>
<td>Laughing</td>
<td>1</td>
</tr>
<tr>
<td>92</td>
<td>Vacationing without spouse or children</td>
<td>1</td>
</tr>
<tr>
<td>93</td>
<td>Liking work duties</td>
<td>1</td>
</tr>
<tr>
<td>94</td>
<td>Having good credit</td>
<td>1</td>
</tr>
<tr>
<td>95</td>
<td>Music</td>
<td>1</td>
</tr>
<tr>
<td>96</td>
<td>Getting unexpected money</td>
<td>1</td>
</tr>
<tr>
<td>97</td>
<td>Changing jobs</td>
<td>1</td>
</tr>
<tr>
<td>98</td>
<td>Dreaming</td>
<td>1</td>
</tr>
<tr>
<td>99</td>
<td>Having fun</td>
<td>1</td>
</tr>
<tr>
<td>100</td>
<td>Going someplace that's different</td>
<td>1</td>
</tr>
<tr>
<td>101</td>
<td>Deciding to have children</td>
<td>1</td>
</tr>
<tr>
<td>102</td>
<td>Enjoying non-family members living in your house</td>
<td>1</td>
</tr>
<tr>
<td>103</td>
<td>Pets</td>
<td>1</td>
</tr>
<tr>
<td>104</td>
<td>Car working/running well</td>
<td>1</td>
</tr>
<tr>
<td>105</td>
<td>Neighborhood improving</td>
<td>1</td>
</tr>
<tr>
<td>106</td>
<td>Children's accomplishments</td>
<td>1</td>
</tr>
<tr>
<td>107</td>
<td>Things going well with employee(s)</td>
<td>1</td>
</tr>
<tr>
<td>108</td>
<td>Pleasant smells</td>
<td>1</td>
</tr>
<tr>
<td>109</td>
<td>Getting love</td>
<td>1</td>
</tr>
<tr>
<td>110</td>
<td>Successfully avoiding or dealing with bureaucracy or institutions</td>
<td>1</td>
</tr>
<tr>
<td>111</td>
<td>Making decisions</td>
<td>1</td>
</tr>
<tr>
<td>112</td>
<td>Thinking about the past</td>
<td>1</td>
</tr>
<tr>
<td>113</td>
<td>Giving good advice</td>
<td>1</td>
</tr>
<tr>
<td>114</td>
<td>Praying</td>
<td>1</td>
</tr>
<tr>
<td>115</td>
<td>Meditating</td>
<td>1</td>
</tr>
<tr>
<td>116</td>
<td>Fresh air</td>
<td>1</td>
</tr>
<tr>
<td>117</td>
<td>Confronting someone or something</td>
<td>1</td>
</tr>
</tbody>
</table>
110. Being accepted................................. 1 2 3
111. Giving love........................................ 1 2 3
112. Boss pleased with your work................. 1 2 3
113. Being alone...................................... 1 2 3
114. Feeling safe.................................... 1 2 3
115. Working well with fellow workers.......... 1 2 3
116. Knowing your job is secure.................. 1 2 3
117. Feeling safe in your neighborhood.......... 1 2 3
118. Doing volunteer work......................... 1 2 3
119. Contributing to a charity.................... 1 2 3
120. Learning something......................... 1 2 3
121. Being "one" with the world.................. 1 2 3
122. Fixing/repairing something (besides at your job)........ 1 2 3
123. Making something (besides at your job).... 1 2 3
124. Exercising..................................... 1 2 3
125. Meeting a challenge........................... 1 2 3
126. Hugging and/or kissing...................... 1 2 3
127. Flirting....................................... 1 2 3

HAVE WE MISSED ANY OF YOUR UPLIFTS?
IF SO, WRITE THEM IN BELOW:

ONE MORE THING: HAS THERE BEEN A CHANGE IN YOUR LIFE THAT AFFECTED HOW YOU ANSWERED THIS SCALE? IF SO, TELL US WHAT IT WAS:
STRESS QUESTIONNAIRE

Part I

Take a few moments to think about the interpersonal situation that has been most stressful for you during the past two weeks. By stressful, we mean a situation that was difficult or troubling to you, either because it upset you or because it took considerable effort to deal with it. By interpersonal, we mean relating to or involving another person or other people.

Brief description of the situation: ________________________

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________
2. Who specifically was involved in this situation? (Please indicate by circling "Yes" or "No" for each item. If more than one person was involved, please indicate all who apply.)

   1. spouse Yes No
   2. child(ren) Yes No
   3. parent(s) Yes No
   4. parent(s)-in-law Yes No
   5. other family member(s) Yes No
   6. friend(s) Yes No
   7. neighbor(s) Yes No
   8. supervisor or employer Yes No
   9. peer at work Yes No
   10. subordinate at work Yes No
   11. client Yes No
   12. professional person Yes No
   13. other (please specify):

   14. none of the above — no one else was involved Yes No

3. If more than one person was involved, which one was most important?

4. When did this particular situation began? (How many days, weeks, months ago? Please give best estimate.)

5. Has this situation ever happened before? (Please circle the appropriate number.)

   1. never
   2. once or twice
   3. three or four times
   4. five times or more

6. Did you anticipate this situation? (Please circle the number that best applies.)

   0 1 2 3 4
   Not at all Somewhat Completely

7. How much responsibility do you feel you had in bringing this situation about? (Please circle the number that best applies.)

   0 1 2 3 4
   None Some A great deal at all
8. Why was this situation stressful for you? (Please indicate how much each of the following reasons applies to this situation by circling the appropriate number.)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Does not apply</th>
<th>Applies a little</th>
<th>Applies somewhat</th>
<th>Applies a lot</th>
<th>Applies a great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Harm to a loved one's health, safety or physical well-being.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>b. Harm to a loved one's emotional well-being.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>c. Harm to your own health, safety, or physical well-being.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>d. A loved one having difficulty getting along in the world.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>e. Not achieving an important goal at your job or in your work.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>f. A strain on your financial resources.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>g. Losing the affection of someone important to you.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>h. Losing your self-respect.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>i. Appearing to be an uncaring person.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>j. Appearing unethical.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>k. Losing the approval or respect of someone important to you.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>l. Losing respect for someone else</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>m. Appearing incompetent.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>n. Other</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

9. If more than one item in Question 8 applies in this situation, which one applies the most? (Please indicate by circling the appropriate letter.)

a b c d e f g h i j k l m n
10. At the outset, how difficult did you think it would be to deal with this situation? (Please circle the number that best applies.)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>Somewhat</td>
<td>Extremely</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>difficult</td>
<td>difficult</td>
<td>difficult</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. As best you can, tell us how you felt when this began. (For each item, please circle the number that best describes the extent of that feeling.)

<table>
<thead>
<tr>
<th>Feeling</th>
<th>Not at all</th>
<th>A little</th>
<th>Somewhat</th>
<th>Quite a bit</th>
<th>A great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>angry</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>jealous</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>worried</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>challenged</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>exhilarated</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>sad</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>threatened</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>disappointed</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>secure</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>harmed</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>confident</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>in control</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>fearful</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>pleased</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>guilty</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>hopeful</td>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>disgusted</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>eager</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>frustrated</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>embarrassed</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>anxious</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>happy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>envious</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>relieved</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>other (please specify):</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
12. To what extent was this situation one: (please circle the number on each item that best describes the situation)

<table>
<thead>
<tr>
<th>Item</th>
<th>Not at all</th>
<th>A little</th>
<th>Somewhat</th>
<th>Quite a bit</th>
<th>Very much so</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. That you could change or do something about</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. That you had to accept</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. In which you needed to know more before you could act.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. In which you had to hold yourself back from doing what you wanted to do.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

13. If more than one statement in Question 12 applied, please indicate which one best describes the situation by circling the appropriate number.

1 2 3 4

14. Which people helped you in this situation? If more than one person was helpful, rank them in order of helpfulness by putting the rank number on the appropriate line. If no one helped, please check here, and go to Question 17.

Ranks: 1 = most helpful; 2 = second most helpful; 3 = third most helpful, etc.

1. spouse
2. mother
3. father
4. child(ren)
5. parent(s)-in-law
6. sister
7. brother
8. other relative(s)
9. friend: 1st initial
10. friend: 1st initial
11. friend: 1st initial
12. neighbor(s)
13. work associate
14. employer
15. professional person
16. other (specify):
15. For the most helpful persons listed in Question 14, please answer the following, using ratings from 1-5.
(1 = not at all; 2 = slightly; 3 = moderately; 4 = very; 5 = extremely)

a. How much did this person give you information, suggestions and guidance about this particular situation?

b. How much did this person give you tangible assistance?

c. How much did this person make you feel he/she cared?

1. Most helpful person

2. Second most helpful person (if applicable)

3. Third most helpful person (if applicable)

16. Which, if any, of those people who were most helpful to you offered help without your asking?

a. Most helpful person Yes No

b. Second most helpful person (if applicable) Yes No

c. Third most helpful person (if applicable) Yes No
17. How stressful is (was) this situation compared to other situations you have experienced during your lifetime? Please circle the number that best applies.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>This situation was among the least stressful I have ever experienced</td>
<td>This situation was among the most stressful I have ever experienced</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

18. About how stressful do you think other people would rate this situation? Please circle the number that best applies.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all stressful</td>
<td>Somewhat stressful</td>
<td>Extremely stressful</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix D (continued)

Part II. Ways of Coping

Please read each item below and indicate, by circling the appropriate category, to what extent you used it in the situation you have just described.

<table>
<thead>
<tr>
<th>Item</th>
<th>Not used</th>
<th>Used somewhat</th>
<th>Used quite a bit</th>
<th>Used a great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Just concentrated on what I had to do next — the next step.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. I tried to analyze the problem in order to understand it better.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. Turned to work or substitute activity to take my mind off things.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. I felt that time would make a difference — the only thing to do was to wait.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. Bargained or compromised to get something positive from the situation.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. I did something which I didn't think would work, but at least I was doing something.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. Tried to get the person responsible to change his or her mind.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. Talked to someone to find out more about the situation.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. Criticized or lectured myself.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. Tried not to burn my bridges, but leave things open somewhat.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11. Hoped a miracle would happen.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>12. Went along with fate; sometimes I just have bad luck.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>13. Went on as if nothing had happened.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14. I tried to keep my feelings to myself.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15. Looked for the silver lining, so to speak; tried to look on the bright side of things.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>16. Slept more than usual.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>17. I expressed anger to the person(s) who caused the problem.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
18. Accepted sympathy and understanding from someone. 0 1 2 3
19. I told myself things that helped me to feel better. 0 1 2 3
20. I was inspired to do something creative. 0 1 2 3
21. Tried to forget the whole thing. 0 1 2 3
22. I got professional help. 0 1 2 3
23. Changed or grew as a person in a good way. 0 1 2 3
24. I waited to see what would happen before doing anything. 0 1 2 3
25. I apologized or did something to make up. 0 1 2 3
26. I made a plan of action and followed it. 0 1 2 3
27. I accepted the next best thing to what I wanted. 0 1 2 3
28. I let my feelings out somehow. 0 1 2 3
29. Realized I brought the problem on myself. 0 1 2 3
30. I came out of the experience better than when I went in. 0 1 2 3
31. Talked to someone who could do something concrete about the problem. 0 1 2 3
32. Got away from it for a while; tried to rest or take a vacation. 0 1 2 3
33. Tried to make myself feel better by eating, drinking, smoking, using drugs or medication, etc. 0 1 2 3
34. Took a big chance or did something very risky. 0 1 2 3
35. I tried not to act too hastily or follow my first hunch. 0 1 2 3
36. Found new faith. 0 1 2 3
37. Maintained my pride and kept a stiff upper lip. 0 1 2 3
38. Rediscovered what is important in life. 0 1 2 3
39. Changed something so things would turn out all right. 0 1 2 3
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Not used</th>
<th>Used somewhat</th>
<th>Used quite a bit</th>
<th>Used a great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>Avoided being with people in general.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>41</td>
<td>Didn’t let it get to me; refused to think too much about it.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>42</td>
<td>I asked a relative or friend I respected for advice.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>43</td>
<td>Kept others from knowing how bad things were.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>44</td>
<td>Made light of the situation; refused to get too serious about it.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>45</td>
<td>Talked to someone about how I was feeling.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>46</td>
<td>Stood my ground and fought for what I wanted.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>47</td>
<td>Took it out on other people.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>48</td>
<td>Drew on my past experiences; I was in a similar situation before.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>49</td>
<td>I knew what had to be done, so I doubled my efforts to make things work.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>50</td>
<td>Refused to believe that it had happened.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>51</td>
<td>I made a promise to myself that things would be different next time.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>52</td>
<td>Came up with a couple of different solutions to the problem.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>53</td>
<td>Accepted it, since nothing could be done.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>54</td>
<td>I tried to keep my feelings from interfering with other things too much.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>55</td>
<td>Wished that I could change what had happened or how I felt.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>56</td>
<td>I changed something about myself.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>57</td>
<td>I daydreamed or imagined a better time or place than the one I was in.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>58</td>
<td>Wished that the situation would go away or somehow be over with.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>59</td>
<td>Had fantasies or wishes about how things might turn out.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>60</td>
<td>I prayed.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>61</td>
<td>I prepared myself for the worst.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
62. I went over in my mind what I would say or do.  
Not used | Used somewhat | Used quite a bit | Used a great deal  
--- | --- | --- | ---  
0 | 1 | 2 | 3  

63. I thought about how a person I admire would handle this situation and used that as a model.  
Not used | Used somewhat | Used quite a bit | Used a great deal  
--- | --- | --- | ---  
0 | 1 | 2 | 3  

64. I tried to see things from the other person's point of view.  
Not used | Used somewhat | Used quite a bit | Used a great deal  
--- | --- | --- | ---  
0 | 1 | 2 | 3  

65. I reminded myself how much worse things could be.  
Not used | Used somewhat | Used quite a bit | Used a great deal  
--- | --- | --- | ---  
0 | 1 | 2 | 3  

66. I jogged or exercised.  
Not used | Used somewhat | Used quite a bit | Used a great deal  
--- | --- | --- | ---  
0 | 1 | 2 | 3  

67. I tried something entirely different from any of the above. (Please describe.)  
Not used | Used somewhat | Used quite a bit | Used a great deal  
--- | --- | --- | ---  
0 | 1 | 2 | 3  

68. Please indicate the two strategies that were the most helpful for you.  
Most helpful: Item No.______  
Second most helpful: Item No.______  

69. Which five items are most characteristic of you in stressful situations generally?  
Item No.______  
Item No.______  
Item No.______  
Item No.______  
Item No.______
STRESS QUESTIONNAIRE

Part II

Take a few moments to think about the academic situation that has been most stressful for you during the past two weeks. By academic, we mean relating to or involving your educational work or goals.

Brief description of the situation: ___________________________

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________
APPENDIX E

Perceived Social Support - Friends
Directions: The statements which follow refer to feelings and experiences which occur to most people at one time or another in their relationships with their friends. For each statement there are three possible answers: Yes, No, Don't Know. Please circle the answer you choose for each item.

Yes No Don’t Know 1. My friends give me the moral support I need.
Yes No Don’t Know 2. Most other people are closer to their friends than I am.
Yes No Don’t Know 3. My friends enjoy hearing about what I think.
Yes No Don’t Know 4. Certain friends come to me when they have problems or need advice.
Yes No Don’t Know 5. I rely on my friends for emotional support.
Yes No Don’t Know 6. If I felt that one or more of my friends were upset with me, I’d just keep it to myself.
Yes No Don’t Know 7. I feel that I’m on the fringe in my circle of friends.
Yes No Don’t Know 8. There is a friend that I could go to if I were just feeling down, without feeling funny about it later.
Yes No Don’t Know 9. My friends and I are very open about what we think about things.
Yes No Don’t Know 10. My friends are sensitive to my personal needs.
Yes No Don’t Know 11. My friends come to me for emotional support.
Yes No Don’t Know 12. My friends are good at helping me solve problems.
Yes No Don’t Know 13. I have a deep sharing relationship with a number of friends.
Yes No Don’t Know 14. My friends get good ideas about how to do things or make things from me.
Yes No Don’t Know 15. When I confide in friends, it makes me uncomfortable.
Yes No Don’t Know 16. My friends seek me out for companionship.
Yes No Don’t Know 17. I think that my friends feel that I’m good at helping them solve problems.
Yes No Don’t Know 18. I don’t have a relationship with a friend that is as intimate as other people’s relationships with friends.
Yes No Don’t Know 19. I’ve recently gotten a good idea about how to do something from a friend.
Yes No Don’t Know 20. I wish my friends were much different.
Perceived Social Support - Family

Directions: The statements which follow refer to feelings and experiences which occur to most people at one time or another in their relationships with their families. For each statement there are three possible answers: Yes, No, Don't Know. Please circle the answer you choose for each item.

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>My family gives me the moral support I need.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>I get good ideas about how to do things or make things from my family.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Most other people are closer to their family than I am.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>When I confide in members of my family who are closest to me, I get the idea that it makes them uncomfortable.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>My family enjoys hearing about what I think.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Members of my family share many of my interests.</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Certain members of family come to me when they have problems or need advice.</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>I rely on my family for emotional support.</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>There is a member of my family that I could go to if I were just feeling down, without feeling funny about it later.</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>My family and I are very open about what we think about things.</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>My family is sensitive to my personal needs.</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Members of my family come to me for emotional support.</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Members of my family are good at helping me solve problems.</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>I have a deep sharing relationship with a number of members of my family.</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Members of my family get good ideas about how to do things or make things from me.</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>When I confide in members of my family it makes me uncomfortable.</td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Members of my family seek me out for companionship.</td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>I think that my family feels that I'm good at helping them solve problems.</td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>I don't have a relationship with a member of my family that is as close as other people's relationships with family members.</td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>I wish my family were much different.</td>
<td></td>
</tr>
</tbody>
</table>