# STRESS LEVEL, BACKGROUND VARIABLES, PREMORBID HEALTH RATINGS, AND SEVERITY OF PSYCHOLOGICAL DISORDERS USING DSM-III-R RATINGS

THESIS

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This study predicted that individuals diagnosed as having higher levels of stress, based upon DSM-III-R, Axis IV ratings, would also be diagnosed as having more severe forms of mental illness. Conversely, it predicted that individuals with higher premorbid health ratings, according to DSM-III-R, Axis V, would be diagnosed as having less severe forms of mental illness. Highly significant correlations were found between stress ratings and severity of disorder. Significant inverse relationships were also found between Axis V ratings and disorder severity. Additionally, several other demographic variables were significantly correlated with severity of disorder.

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# INTRODUCTION

Over the past decade, considerable interest has developed in exploring the effects of stress on mental health. Stress has been defined in a variety of ways. Selye (1983) views stress as "...a nonspecific response of the body to any demand." (p. 2). Further, regardless of the particular stimuli, the nonspecific adaptive response of the body to an agent or demand is always the same. However, the degree of response varies depending on the intensity of the demand for adjustment back to normalcy.

Selye (1983) also defines a stressor as "...the agents or demands that evoke a patterned response" (p. 9). Stressors are not exclusively physical in nature. Emotions as well as thoughts can result in the stress syndrome.

Several theorists have attempted to identify the process by which psychological stress affects an individual (e.g., Tennant, Langeluddecke & Byrne, 1985). However, the model most often utilized is referred to as the General Adaptation Syndrome (GAS), proposed by Selye (1936). The General Adaptation Syndrome consists of three major stages. Initially there is an alarm reaction which is the response of the organism when it is exposed to adverse stimuli to which it can not adapt. It involves a general call to arms

of the body's defensive forces. This alarm reaction has two phases. Initially, there is a shock reaction to the noxious agent. Its symptoms may include various signs such as tachycardia, loss of muscle tone, decreased temperature, and decreased blood pressure. The second phase of the alarm reaction consists of a countershock. This phase is characterized by a rebound reaction marked by the activation of the defenses. During this sub-period, the adrenal cortex may become enlarged and secretion of corticoid hormones is increased. Most of the acute stress diseases result from these two phases of the alarm reaction. However, Selye (1983) maintains that no organism can be maintained continuously in the alarm state. If the demands are so severe that continued exposure becomes incompatible with life, the animal dies within the first hours or days of the alarm reaction. If the organism survives, it necessarily proceeds into the next stage of the GAS, the "stage of resistance."

The stage of resistance involves the organism's full adaptation to the stressor and the resulting improvement or disappearance of symptoms. Manifestations of this second stage are quite different from those which result from the alarm reaction. However, after continued exposure to the noxious agent, the acquired adaptation is lost again. The organism then enters into the third stage, the "stage of exhaustion."

This stage of exhaustion follows if the stressor is sufficiently severe and prolonged. During this period symptoms reappear, and if stress persists, psychological or a range of physical disorders including death follows.

Previous research has found that chronic stress is related to both physical (Selye, 1983) and psychological problems (Tennant, 1985). In one study by Mitchell, Cronkite, and Moos (1983), couples in which one of the partners was clinically depressed were investigated. Relative to control subjects, depressed patients were found to have higher levels of stress, and utilized fewer personal and social resources that might reduce its impact. Further, patient and nonpatient populations were similar in their overall pattern of effects experienced due to the stress process.

Another study (Breslau & Davis, 1986) compared mothers of children with disabilities to a geographically based probability sample for six-month and lifetime rates of DSM-III major depressive disorders. The National Institute of Mental Health Diagnostic Interview Schedule was used to assess the presence of DSM-III major depressive disorders (Breslau & Davis, 1986). The rates of depressive disorder were not significantly different in the two samples although mothers in the chronic stress sample had significantly more depressive symptoms. Additionally, a lower age of onset and more lifetime episodes of depression were reported by women

with depression in the chronic stress sample as compared to the controls. Overall, the data do not support the notion that chronic stress is related to a unique symptom profile or more severe episodes. However, the results do suggest that chronic stress is important in precipitating depressive episodes. However, due to methodological limitations including the assessment techniques used, results of this study must be interpreted cautiously.

Several others have found similar results (Lloyd, 1980; Paykel, 1978; Dohrenwend & Egri, 1981; Day, 1981; Rabkin, 1980). However these findings have not always been consistent and invariable. Tennant (1985) reviewed the relationship between life events and various types of psychiatric disorders, including neuroses, affective disorders, and schizophrenia. Empirical evidence suggestive that schizophrenia is related to stress was scant. The studies that had been done had many methodological limitations such that causal interpretation of the findings of most of the studies was impossible. However, of the three studies which Tennant cited as having appropriate methodology and controls, Brown and Birley (1968) found very recent life events trigger onset; Leff, Kuipers, Berkowitz, Vaughn, and Sturgeon (1983) found life events were capable of precipitating relapse under certain circumstances, while Jacobs and Myers (1976) found no significant effect due to independent events. Overall, Tennant concluded that the

relationship between life events and schizophrenic episodes is not yet supported by empirical data.

Thus, there is considerable evidence supporting the relationship of stress to psychological and physical problems. The following review summarizes some environmental and individual factors which have been found to modifify the effects of stress in the development of disorders.

## Environmental Factors

A variety of environmental factors have been studied as potential mediators in the stress process. One variable which has relatively consistently been found to reduce the effects of stress is social support. For the most part these studies have focused on both family and nonfamily social support variables. For example, Cohen, Sherrod, and Clark (1986) explored the effectiveness of social competence, social anxiety, and self-disclosure to serve as buffers on the psychological effects of stress. Their findings indicated that social anxiety, social competence, and self-disclosure did not appear to effect disorders which seemed to be due to stress. It was concluded that although these social skill factors do not discriminate among individuals for whom support will help, hurt, or be ineffective, they are probably predictive of the development of social supports in an individual. Finally, they report that the possible relationship between social skills and the

growth of perceived availability of social support are only partly mediated by number of friends.

Fisher (1985) observed a sample of newly graduated nurses during their first six months in full-time hospital jobs. Overall, it was found that novice nurses who received support from co-workers and supervisors adjusted more rapidly than comparable nurses who received less support.

A study by Popiel and Susskind (1985) investigated victims' reactions to sexual assault and the role of social support in their subsequent adjustment. Victims were interviewed 3 months after the assault to gather information about the assault, the type of support they received, and the psychological effects of the assault. Overall, it was found that the amount of overall support did not predict subsequent adjustment.

Another study of general social support investigated the effects of stress, social support, and coping styles on both prepartum anxiety and intrapartum processes (labor and delivery complications, intrapartum analgesia requirements) in a sample of Hispanic women (Perez, 1983). Stress was significantly related to prepartum anxiety whether indexed in terms of life changes or the women's prepartum estimate of labor and delivery pain. However, social support and coping style variables failed to consistently predict the intrapartum criterion variables. In addition, many stress

by social support or coping style interactions were nonsignificant.

In a similar study, the relationship between social networks, stress, and physical health in an elderly inner-city population were explored (Cohen, Teresi, & Holmes, 1985). Elderly residents of mid-Manhattan hotels were followed for 1 year. It was found that social networks are an effective means of reducing subsequent physical symptoms in this population. Additional analyses further indicated that social networks also seemed to reduce symptoms by buffering the effect of increased levels of stress. These investigators also combined the knowledge of patients' social networks with their current health status and found that future health status could be predicted with a high degree of certainty. Therefore, it was concluded that intervention to reinforce a network can be as clinically significant as implementing a medical procedure.

Another study examined the social support as a "buffer" against the adverse effects of stressful life events in working class mothers (Parry & Shapiro, 1986). Social support, threatening life events, psychiatric symptomatology, and psychological well-being were measured utilizing an assessment battery consisting of a standardized interview and self-report questionnaires which yielded measures of distress and well-being. Overall, life events and social support were found to be largely independent of

one another. However, the authors suggest that these findings should be viewed as inconclusive due methodological limitations.

Many studies have attempted to identify more specific components of social support and their effectiveness as mediators of stress reactions. For example, Holahan and Moos (1985) separated respondents into a Distressed (high stress, high distress) and a Stress Resistant (high stress, low distress) groups. Their findings indicated that those who adapted to life stress with little physical or psychological strain, were more easy-going and less likely to use avoidance coping than persons who became ill under stress. In the stress resistant group as contrasted with the distressed group, men were more self-confident and women had better family support.

Holahan and Moos (1986) conducted a longitudinal study on the effects of stress-resistance factors in the areas of personality, coping skills, and family support in predicting psychological and physical adjustment. Their findings indicated that feelings of self-confidence, an easy-going disposition, a disinclination to use avoidance coping, and availability of family support operate jointly to buffer individuals from negative psychological results of life stress. For women, psychosomatic complaints were also predicted by the stress-resistance index.

Dressler (1985) suggested that extended family members among blacks may also be a source of support. The influences of a variety of social relationships including the number of extended kin, and the perceived supportiveness of both kin and non-kin on depression were explored. Individuals who reported fewer symptoms of depression also perceived their extended kin to be more supportive. However, the number of extended kin and perceived support from non-kin were unpredictive of depression. Only males demonstrated a protective effect of extended kin support on life events. Chronic stressors appeared to be immune to the usual buffering effects of social support.

A study by O'Hara (1986) examined the interactions between social support, life events, and depression during pregnancy and the puerperium. A group of women was observed prospectively from the second trimester of pregnancy until nine weeks post-partum. Depressed and nondepressed women were identified at (a) the second-trimester assessment and (b) the postpartum assessment and were then compared on measures of stressful life events and social support offered by their spouses and close confidants. More stressful life events and less support from their spouses after delivery were reported by the women experiencing postpartum depression than the women not experiencing postpartum depression.

A study by Martin and Burks (1985) examined the effects of family and nonfamily components of social support as buffers of stress for college women. Two samples of subjects were given a stress inventory, a social support scale, and the Hopkins Symptom Checklist. The researchers obtained separate measures of family and nonfamily social support as well as separate measures of types of social support: social availability, tangible support, information/guidance, and emotional support. Nonfamily social support showed a clear protective effect on life stress in both samples with the total symptom score used as the dependent variable. However, family social support showed significant protective effects only in Sample 2. Overall, nonfamily social support was more effective as a buffer than family social support in both samples. The buffering effectiveness of the types of social support were not significantly different. Although all four symptom subscales demonstrated buffering trends, depression was the only subscale that was significantly buffered in both samples by nonfamily social support.

Overall, previous research relatively consistently indicates that several external variables can both increase one's level of psychological distress as well as reduce the extent of a disorder. A variable which has been frequently found to reduct mental illness is social support. Further, previous research indicates that social support from a

variety of sources, including friends and family, is effective.

## Other External Mediators

In addition to other social support, a variety of other external factors have been found to act as mediators in the stress reaction. Some of these factors appear to increase and others tend to decrease the stress reaction.

Research by Kandel, Davies, and Raveis (1985) explored the stressfulness of daily social roles for women including marital, occupational and household duties on self-reported depressive symptoms. Family roles were found to have fewer strains and stresses than occupational or housework roles. However, when stresses and strains related to family roles do occur, they have more severe consequences on the psychological well-being of women than occupational strains and stresses.

Katz and Wykes (1985) explored the psychological difference between temporally predictable and unpredictable stressful events on psychological functioning. Female volunteers engaged in an experiment in which the researchers varied temporal information about the onset of an aversive stimulus (shock). Each subject received six predictable and six unpredictable shock trials. The results indicated that subjects felt less distress during the interval before the predictable shocks, perceived the predictable shocks to be less aversive than the unpredictable ones, and autonomic

indexes of arousal were lower during the signal for the predictable condition than during the unpredictable condition. In addition, the predictable condition was preferred by significantly more people. Thus, previous research also indicates that external factors such as lack of controlability or unpredictability of environmental stimuli may also be viewed as stressful.

## Internal Contributors

Various internal characteristics have also been found to influence the effects of environmental stress. One internal or intraindividual factor which has been found to mediate the relationship between stress and mental or physical disorders is the Type A behavior pattern first identified by Friedman and Rosenman (1974, p. 67). This personality characteristic has been described as "an action-emotion complex that can be observed in any person who is aggressively involved in a chronic incessant struggle to achieve more and more in less and less time, and if required to do so, against the opposing efforts of other things or persons." Type B was defined as the relative absence of Type A behaviors. Studies have found that, compared to Type B persons, Type A individuals display greater achievement striving (Burnam, Pennebaker & Glass, 1975), aggression (Glass, 1977), time urgency (Burnam et al., 1975; Glass, Snyder, & Hollis, 1974), and impatience and irritation (Glass et al.). Additionally, Type A individuals initially

set higher goals relative to their subsequent performance than do their Type B counterparts (Snow, 1978); Type A's also indicate greater interest in performing well relative to others, to their own standards, and to the best performance possible than do Type B's (Suls, Becker, & Mullen, 1981).

There is considerable evidence indicating that the Type A behavior pattern is related to coronary disease. Jenkins (1976) conducted a comprehensive review of psychologic and social risk factors for coronary heart disease and found that there was more support for the relationship of coronary disease with the Type A behavior pattern than with any of the primary categories of psychosocial variables. More specifically, research indicated that Type A personalities are approximately twice as likely to develop heart disease as Type B personalities. The original association between Type A behaviors and coronary heart disease (CHD) was explored in a major prospective study of 3,145 men, and was known as the Western Collaborative Group Study (Rosenman et al., 1964, 1975). Data was collected over 8 1/2 years. From this data, it was discovered that the annual rate of CHD was 13.2 per 1,000 for Type A individuals compared to 5.9 for Type B individuals. Also, Type A risk factor not only works independently of, but can also heighten the effects of other risk factors. All existing data was reviewed by an expert panel of medical and behavioral

scientists convened by the National Heart, Lung, and Blood Institute who then confirmed that a "significant association exists between ... [Type A behaviors] and CHD" (The Review Panel on Coronary-Prone Behavior and Coronary Heart Disease, 1981, p. 1200). Since then, TABP has been studied in relationship to a variety of factors including stress and health. One study examined the relationship between Type A behavior among employed women with work habits, marital status, leisure activities, stress, tension, and health (Kelly & Houston, 1985). Using questionnaires and interviews, information regarding various work and nonwork-patterns were obtained. Type A women reported having higher occupational levels, more demanding jobs, and higher stress and tension than Type B women. Further, Type A women reported poorer physical health than Type B women. An earlier similar study by Matteson, Ivancevich, and Smith (1984) reported comparable results among salesmen.

Many studies have been conducted specifically examining the possible relationship between Type A behavior and Coronary Heart Disease (CHD). A study by Lawler, Rixse, and Allen (1983) assessed both coronary-prone behavior and physiological responses to stress in adult women. Half of the subjects were professional or executive-level employed women while the other half were housewives. The working women were found to be strong Type A's while the housewife group was composed of both Type A's and B's. While resting,

performing math problems, and attempting to solve visual puzzles, the heart rate, blood pressure, and skin conductance responses of these women were measured. Higher heart rates and larger increases in systolic and diastolic blood pressure were obtained from the Type A women. The researchers concluded that due to the similarities between employment status, Type A behavior, and physiological responses in these working women as compared to men, it is likely that their risk for coronary heart disease may also be similar.

Similar results have been found among children. Matthews and Jennings (1984) explored the effects of stress on cardiovascular responses of fourth- and fifth- grade boys exhibiting Type A behavior pattern. The Adolescent Structured Interview (ASI) and the Matthews Youth Test for Health (MYTH) were used to classify the boys as either Type A or B and two studies were conducted. Experiment 1 involved a competition task. During this experiment, ASI Type A's exhibited higher elevations in heart rate than did Type Bs. Experiment 2 engaged the boys in difficult, frustrating, and slow-paced tasks. In this task it was found that the greater the Type A personality style, the greater the elevation in systolic and diastolic blood pressure. These results parallel the findings from the adult Type A psychophysiologic studies and suggest that

cardiovascular responses related to the Type A pattern may begin in childhood.

Rhodewalt and Agustsdottir (1984) conducted a correlational study exploring the relationship between perceptions of life events and psychological distress with regard to the moderating effects of personality. The subjects were assessed for Type A behavior and hardiness. In addition, they completed the Langner psychiatric symptom inventory, reported life events during the previous year, and rated each event for its desirability, controllability, and foreseeability. For subjects low in hardiness, an accumulation of events perceived as undesirable was associated with distress. For Type A's, events perceived as moderately controllable or uncontrollable, regardless of their desirability, were related to distress. Personality type was not associated with experiencing any given event. However, hardy individuals, unlike their low hardy counterparts, were more likely to perceive an event as desirable and controllable. Type A and B individuals did not differ in such perceptual biases.

## Other Internal Mediators

In addition to Type A behavior patterns, several other internal mediators on the stress reaction have been identified. Like external moderators, internal mediators have been found to either enhance or attenuate stress reactions. A variety of studies have examined coping

ability as a stress buffer. Cook (1985) explored the capacity of repression-sensitization as a predictor of reactions to a laboratory stressor. Female undergraduates were separated into repressors and sensitizers and then asked to give brief talks about themselves in front of a video camera. They were then presented with information relevant to, versus information irrelevant to, the situation. Reported consistency of coping styles across situations, skin conductance and self-reported anxiety were continuously monitored. Overall, sensitizers reported more distress than repressors.

Other studies have focused on irrational beliefs as a moderator of stress reaction. Smith, Boaz, and Denney (1984) found that, consistent with previous research, irrational beliefs and life changes were significant predictors of both psychological and physical distress. In a similar study, Davidson, Feldman, and Osborn (1984) examined the thoughts of people with high and low scores on measures of social-evaluative anxiety and the tendency to think irrationally. Subjects' cognition was examined under controlled laboratory conditions in the "articulated thoughts during simulated situations" paradigm, in which the subject role-played an audiotaped interpersonal encounter and verbalized thoughts evoked by a short segment of the fictitious event at predetermined points. The results indicated that: When confronted with stressful

situations as opposed to nonstressful situations, irrational subjects had even less rational thought processes. Further, subjects with normally low levels of anxiety and a tendency to think rationally rated stressful tapes as more anxiety-provoking.

Other studies have examined the effects of various aspects of control as a mediator in the stress reaction. Sadwoski and Blackwell (1985) explored the relationship between locus of control and perceived stress. Student-teachers who had completed measures of teaching-specific and generalized locus of control expectancies rated events related to student-teaching on the degree to which they were considered stressful. The results indicated that student-teachers who felt they could influence the teaching environment perceived the events as less stressful than those who felt they had less control.

Similarly, Newcomb and Harlow (1986) examined the mediating role of perceived loss of control and meaninglessness in life in the relationship between uncontrollable stress and substance use among adolescents. The results support the conclusion that perceived loss of control and meaninglessness in life mediate the interaction between uncontrollable stress and substance use.

A variety of other studies have been conducted investigating the possible mediating effects of other internal varables in the stress reaction. A study by

Houston, Fox, and Forbes (1984) investigated trait anxiety, state anxiety, cognitive behaviors, and performance under stress in fourth-grade children. Children were given a mathematics task in either a high or a low stress condition. Using a Think Aloud procedure and a questionnaire, measures of seven cognitive behaviors were gathered. In addition, trait and state anxiety and task performance were also assessed. The results indicated that trait anxiety was related to state anxiety and the cognitive behaviors of preoccupation, and for females, justification of positive attitude. In addition, levels of stress influenced the performance of high but not low trait-anxious children.

Werbel (1983) examined the relationship between job entry and job stress. It was hypothesized that skill uncertainty, defined as having inadequately developed job skills, was related to the stress reaction. This longitudinal study of transferred employees found that skill uncertainty was related to both negative emotional arousal 1 month after job entry and with positive emotional arousal 3 months after job entry.

A study by Sammon, Reznikoff, and Geisinger (1985) explored the relationship between ego identity, commitment age, and recent life-change stress among Religious Prefessionals. Recent life-change stress was assessed with the Religious Life Experience Survey. The results

indicated that men with higher levels of ego identity perceived recent life-change less negatively while those with lower levels judged it to be more noxious. Thus, results of this study seem to indicate that a well-developed identity framework moderates stressful life events, while individuals with poorly developed identities are related to subjects perceiving recent life-change events as having a negative effect on their lives.

Hammen, Marks, Mayol, and deMayo (1985) tested the hypothesis that depressogenic self-schemas that interact with schema-congruent negative life events will be related to depression. College students were followed prospectively for four monthly assessments of both questionnaire- and interview-measured stressful life events, and clinical questionnaire- and interview-measured depression. Subgroups of dependent and self-critical individuals were identified at the beginning of the study with an information-processing schema model of vulnerability; the schema groups were supported by clinical subtypes discussed both by Beck and by psychodynamically oriented theorists. As hypothesized, a stronger association was found between depression and schema-relevant interpersonal life events than between depression and schema-irrelevant negative achievement events for the dependent subgroup. The opposite pattern was observed

self-critical schematics, as predicted, but was less often statistically significant.

A study by Nagy (1985) examined the relationships of work-orientation, job involvement, and assertiveness with various classifications of burnout. Secretaries were administered questionnaires measuring four constructs. The results indicated moderate to high burnout on the categories of emotional exhaustion, depersonalization, and personal accomplishment.

A study by Suls and Fletcher (1985) investigated the hypothesis that a predisposition to focus on internal aspects of the self acts as a stress buffer. The subjects completed the Private Self-Consciousness inventory, a schedule of recent life events and a symptom checklist. Two months later they again reported recent life events and symptoms that had occurred in the two month interval. The data supported the hypothesis that incidence of stressful life events predict subsequent illness among individuals low in private self-consciousness but not in individuals high in private self-consciousness. The authors proposed that the tendency of individuals low in private self-consciousness to disattend to their somatic and psychologic reactions to stressful life events and to fail to take corrective actions may be related to decreased body resistance over time and therefore increased susceptibility to physical illness.

The relationship between life events, affective disorders, life satisfaction, stress symptoms and demographic factors such as gender and age were examined by Hall, Matthews, and Keeler (1984). A cross-sectional sample of ambulatory visitors to a voluntary health screening was used. The results indicated a relationship between age and life satisfaction, stress symptoms, and life stresses, while gender was the major factor in depression.

Interaction of Internal and External Mediators

Several studies have examined the combined effects of internal and external mediators in the stress reaction. One study by Wong and Reker (1985) explored stress, perceived well-being, and coping behaviors in a sample of aging Chinese immigrants as compared to Anglos. The Chinese sample perceived growing old as a more stressful experience, reported lower psychological well-being, relied more strongly on external and palliative coping strategies, and perceived themselves as less effective in coping as compared to the Anglo counterparts.

Another study (Padilla, Wagatsuma, & Lindholm, 1985) examined the experience of stress and personality variables among Japanese and Japanese-American students undergoing varying degrees of acculturation. Self-esteem, introversion-extraversion, and locus of control were assessed with standard measures. A stress scale, tailored

for immigrant students, was administered in addition to new scales for acculturation and values. Students were categorized into first, second, third, and beyond generations. The results indicated that first-generation students experienced higher stress, lower self-esteem, and were more externally oriented than third or later generation students.

A study by Fry (1985) investigated the stress ideations of a sample of Vietnamese refugees living in Canada and the United States. It was hypothesized, based on the assumption that most Vietmanese refugees were under acute stress prior to leaving their home country, that they would experience greater stress arising from their search for identity in a new country. Four major factors, assumed to result from this source of stress, were derived from factor analysis of the contents of interviews with Vietnamese youth. A sense of hopelessness, low self-esteem, social isolation, and general anxiety were observed among this group.

A study by Miller and Mangan (1983) examined the interaction effects of personal disposition and situational conditions on the stress response in gynecologic patients about to undergo a diagnostic procedure (colposcopy). The subjects were divided into information seekers (monitors) and information avoiders (blunters). Half the subjects in each group were given voluminous preparatory information,

and half were given the usual low level of information. Assessment of arousal and discomfort with subjective, physiological, and behavioral measures were obtained before, during, and after the procedure. The results indicated that blunters displayed lower subjective and behavioral arousal than monitors. Further, low-information patients expressed lower subjective arousal than high-information patients. Additionally, when the level of preparatory information was consistent with coping style, patients' level of psychophysiological arousal was lower. Therefore, monitors were less aroused with high information and blunters were less aroused with low information.

Holmes and Roth (1985) studied the association of aerobic fitness with pulse rate and subjective responses to psychological stress. Subjects, classified as either high fit or low fit, first sat quietly during a baseline period and then engaged in a mildly stressful task (recall of digits backwards). During both the baseline period and the task performance period, pulse rates and levels of subjective arousal were measured. Greater increases in pulse rates, subjective cognitive arousal, and subjective somatic arousal were found in the task performance condition. High fit subjects showed a smaller pulse rate increase in response to stress than did low fit subjects, but the two groups of subjects did not differ in their subjective responses to stress. These results are

consistent with the hypothesis that a high level of aerobic fitness is related to decreased physiological reactivity to psychological stress.

Roth and Holmes (1985) also examined the influence of physical fitness in determining the impact of stressful life events on physical and psychologic health. Subjects first reported their life changes (stress) for the preceeding 12 months and then had their fitness measured. Over the next 9 weeks, subjects kept records regarding their physical health (e.g., ailments, doctor visits, medication usage), and at the end of that time, they reported psychologic symptoms (e.g., depression, anxiety, alienation). The results indicated that a high level of life stress during the preceding year was associated with poorer subsequent physical health for subjects with a low level of fitness in particular. In contrast, life stress was observed to have little effect on the subsequent physical health of fit subjects. Comparable results were found for depression. Their results support the hypothesis that fitness does buffer the stress/illness relationship and suggest that increasing fitness may be a way of reducing the impact of unavoidable stress.

## Health and Stress

Research has found consistent associations between stress and various indicators of poor physical and psychological health (Dohrenwend & Dohrenwend, 1974,

1981; Rabkin & Struening, 1976; Zarski, 1984). For example, stressful life events have been found to correlate with depression, psychosomatic disorders, cancer, and various other types of illness (Andrews, 1981; Billings, 1983; Dohrenwend & Dohrenwend, 1974, 1981; Feather & Barber, 1983; Holahan 1984; Jacobs & Charles, 1980; Newcomb, 1981). The majority of this research has consisted of examining participants' ratings or performance on measures which are not commonly used by applied mental health practioners. In most instances, clinicians utilize the Diagnostic and Statistical Manual, Revised (DSM-III-R), a diagnostic system developed by the American Psychiatric Association (1987). However, no studies have been done exploring whether a relationship exists between mental illness and the DSM-III-R method of rating psychological health and stress.

## Diagnostic and Statistical Manual, Third Edition, Revised (DSM-III-R)

Previous theorists have maintained that mental illness may be viewed as existing on a hierarchy (cf. Foulds, 1975 for a review). More recently Maxmen (1986) points out that DSM-III (American Psychological Association, 1980) stresses two fundamental, related principles of parsimony and hierarchy. The principle of parsimony is that clinician should seek the singly most elegant, economical, and efficient diagnosis that accounts for all the available

data. The principle of hierarchy is that mental disorders generally exist on a hierarchy of syndromes, which tend to decline in severity from top to bottom: This hierarchy of syndromes are: no mental disorder, adjustment, personality, psychosexual, somatic, anxiety, affective, psychotic, and organic. Thus, when a patient's symptoms could be attributed to several disorders, the most parsimonious diagnosis belongs to the most severe category on this hierarchy. For instance, without these principles, the diagnosis of a patient with auditory hallucinations, persecutory delusions, apprehensiveness, and somatic preoccupations could range from schizophrenic to paranoid, generalized anxiety, and somatoform disorder. With these principles, there is but one diagnosis, which is schizophrenia, since it is the highest ranking disorder on the hierarchy which could account for all of these symptoms. Several practioners (i.e., Kernberg, 1975; Kohut, 1971; and Masterson, 1976) consider personality disorders to be more severe than anxiety syndromes. However, clinicians who utilize the DSM-III-R nomenclature presumably have followed the DSM-III-R guidelines in assigning diagnoses.

## Summary and Purpose of the Study

There is strong evidence for the support of a relationship between environmental stress and physical as well as psychological disorders. However, this

relationship has been found to be mediated by various external, internal and demographic variables (e.g., social support, Type A-B behavior, marital status). In addition, individuals with high levels of pre-morbid health or adaptive functioning have been shown to develop less severe forms of mental illness when confronted with stress.

DSM-III-R implies that one's pre-morbid health or previous level of adaptive functioning may be one intrinsic variable which may attenuate or enhance the effects of stress on the individual. This study was designed to replicate and extend the findings of previous research by exploring the relationship between external and internal variables upon severity of psychological disorders presumed to be related to stress as well as the relationship between pre-morbid psychological health to severity of psychological disorders. It was predicted that individuals diagnosed as having high levels of stress would also be diagnosed as having more severe forms of mental illness as well as psychological and physical complaints. Conversely, individuals rated as having a higher level of premorbid health would be diagnosed as having less severe forms of mental illness and have fewer psychological and physical complaints. For the purpose of this study Axis IV ratings were used as measures of severity of psychosocial stressors, Axis V ratings were used as measures of pre-morbid psychological health, while Axis I and II diagnoses were used indicators of severity of psychological disorder.

# METHOD

## Subjects

Participants for this study were the folders of clients who had been seen during the past 3 years as out-patients at a University based, psychology clinic located in a southwestern state. Of this total sample, 62.5 percent were males and 37.5 percent were females. Clients ranged in age from 20 to 60 years. Only clients with an IQ of 80 or above (low average range) on the Wechsler Adult Intelligence Scale-Revised were included in the study. Thus borderline and mentally retarded clients were excluded from the study. Clients who received a diagnosis of an organic nature or of malingering were also excluded from the study.

For the first regression equation, all of the 56 total subjects were included. Of these subjects, 48.2 percent were single, 32.1 percent were married, and 19.6 percent were divorced or separated. The average age of the sample was 30.9 with the ages ranging from 20 to 49. The mean education level of the subjects was 13 years with a range of 8 to 19 years. For the second regression equation, 32 subjects were included. Those subjects' files without an intake form and accompanying symptom checklist were excluded from this group. Of these subjects, 40.6 percent were male and 59.4 percent were female. Regarding marital status, 53.1 percent were single, 34.4 percent were

married, and 12.5 percent were divorced or separated. The subjects ranged in age from 20 to 49 years with an average age of 30.1. The mean educational level was 14.1 years with a range of 10 to 18 years.

## Measures

Two measures were used in this study. One measure was an intake form all new clients are required to complete when they visit the Psychology Clinic. This questionnaire contains approximately 30 items and asks clients to indicate their age, gender, marital status, and types of problems they are experiencing. A copy of this questionnaire is available in Appendix A.

In addition to the above, the nomenclature of the American Psychiatric Association (1987) third edition-revised of the Diagnostic and Statistical Manual (DSM-III-R) was used (American Psychiatric Association, 1987). This diagnostic procedure is the most commonly used method by clinicians to indicate whether, and if so, the type of disorder a client might be experiencing as well as an estimate of their pre-morbid health and the extent to which they are experiencing stress. The entire classification of mental disorders is contained in the Axis I, Axis II, and V codes. Axis II consists of Developmental Disorders and Personality Disorders which generally begin in childhood or adolescence and continue in a stable form into adult life. These features are not characteristic of the Axis I

disorders with only a few exceptions. In some cases, a client may have a diagnosis on both axes. Axis II can be used when no Personality Disorder exists to indicate specific personality traits. When a person is given more than one diagnosis, the principle diagnosis is the condition that was primarily responsible for the evaluation or the admission to clinical care. When a person has both an Axis I and Axis II diagnosis, the principal diagnosis is assumed to be on Axis I except when the Axis II diagnosis is followed by the qualifying phrase "Principle diagnosis."

Axis IV, Severity of Psychosocial Stressors, provides a coding on a scale from 1 to 6 of the overall severity of a stressor or multiple psychosocial stressors that has occurred in the past year that may have contributed to development of a new mental disorder, recurrence of a prior mental disorder, or exacerbation of an already existing mental disorder (American Psychiatric Association, 1987). The rating given is based on the clinician's assessment of the stress an "average" individual in comparable circumstances and with comparable sociocultural values would experience from the specific psychosocial stressor(s). This decision involves consideration of the following: the amount of change in the individual's life caused by the stressor, the degree to which the event is desired and under the individual's control, and the number of stressors. A code of "1" is given when no apparent

acute events or enduring circumstances that may be relevant to the disorder are present, a code of "2" when mild psychosocial stressors are present such as an acute event, for example, a breakup with a boyfriend or girlfriend or a child leaving home, or an enduring circumstance such as family arguments or job dissatisfaction. A code of "3" is given when a moderate psychosocial stressor such as an acute event is present, for example, marriage, marital separation, or loss of a job or an enduring circumstance such as marital discord, serious financial problems, or trouble with a boss. A code of "4" is assigned when severe psychosocial stressors are present such as an acute event, for example, a divorce, or the birth of a first child or enduring circumstances such as unemployment or poverty. A code of "5" is given when an extreme psychosocial stressor such as an acute event is present, for example, the death of a spouse or serious physical illness or an enduring circumstance such as a serious chronic illness in self or child or ongoing physical or sexual abuse. A code of "6" is assigned when a catastrophic psychosocial stressor such as an acute event is present, for example, the death of a child, suicide of a spouse, or a devastating natural disaster or an enduring circumstance such as captivity as a hostage or a concentration camp experience. A code of "0" is given if the degree of psychosocial stressors present is unspecified such as when no information is available

regarding the psychosocial stressors. However, diagnoses with a code of "0" on Axis IV will be excluded from the study. Overall, the following types of psychosocial stressors should be considered: conjugal (marital and nonmarital), parenting, other interpersonal, occupational, living circumstances, financial, legal, developmental, physical illness or injury, as well as other psychosocial stressors.

Axis V, Global Assessment of Functioning, provides a rating scale from 1 to 90 with which the clinician assesses the individual (American Psychiatic Association, 1987). This information often has prognostic importance, because usually an individual resumes his or her previous level of adaptive functioning after a period of illness. Ratings on Axis V should be given for two time periods: current, at the time of the evaluation and past year, the highest level of functioning for at least a few months during the past year. Adaptive Functioning, as measured by Axis V, is composed of three major areas: psychological, social, and occupational functioning. Impairments in functioning due to physical or environmental limitations should not be included in this rating.

Regarding Axis V, a code of 1 to 10 is given when the individual is showing persistent danger of severely hurting self or others or persistent inability to maintain minimal personal hygiene or serious suicidal act with clear

expectation of death (American Psychiatric Association, 1987). A client is assigned a code of 11 to 20 if they are in some danger of hurting themself or others or occasionally fail to maintain minimal personal hygiene or show gross impairment in communication. A code of 21 to 30 is given to an individual who exhibits behavior which is considerably influenced by delusions or hallucinations or is showing serious impairment in communication or judgment or an inability to function in almost all areas. A client is assigned a code of 31 to 40 when he or she exhibits some impairment in reality testing or communication or major impairment in several areas, such as work or school, family relations, judgment, thinking, or mood. A code of 41 to 50 is given when an individual shows serious symptoms or any serious impairment in social, occupational, or school functioning. A code of 51 to 60 is assigned when the client displays moderate symptoms or moderate difficulty is social, occupational, or school functioning. An individual is given a code of 61 to 70 when he or she has some mild symptoms or some difficulty in social, occupational, or school functioning, but is generally functioning pretty well, and has some meaningful interpersonal relationships. A client is assigned a code of 71 to 80 when symptoms are present, but are transient and he or she shows expectable reactions to psychosocial stressors and no more than slight impairment in social, occupational, or school functioning.

Finally, a code of 81 to 90 is given when symptoms are absent or minimal, when the client is functioning well in all areas, is interested and involved in a wide range of activities, is socially effective, is generally satisfied with life, and has no more than everyday problems or concerns.

After choosing the files which fulfilled the requirements of the study, the clinicians who completed the assessments were asked to give their clients complete DSM-III-R diagnoses. The clinicians were blind to the purpose of the study.

## Clinicians

Clinicians consisted of 26 graduate students in Clinical and Counseling Psychology with at least one year of assessment experience. The clinicians were supervised in their assessments by doctoral level licensed Clinical and Counseling Psychologists. When asked to give their clients complete DSM-III-R diagnoses, the clinicians were asked to rate on a scale of 0 to 7 how familiar they thought they were with DSM-III-R after studying it for 8 hours or as long as they felt was necessary. The average rating of familiarity given by the clinicians was 3.52.

## Procedure

The clients' age, sex, marital status, and educational status were extracted from the files. Only files which included an assessment battery which included the results

of at least three assessment techniques were included in the study. The three assessment techniques must have been the Wechsler Adult Intelligence Scale-Revised (WAIS-R), Minnesota Multiphasic Personality Inventory (MMPI), and either the Rorschach or the Thematic Apperception Test (TAT). Because of the infrequent rate of diagnosis in the clinic, and because of the difficulty in randomizing archival data, randomization of the files chosen to be included in the study was not done. Rather, all of the files which met the qualifications of the study were included.

## RESULTS

Two multiple regression analyses were used to analyze the data. The first regression analysis used Axes I & II diagnoses as the criterion variable. This diagnosis was translated into the system described by Maxmen (1986). The number of diagnoses given may be found in Table 1.

The predictor variables were the the clinicians' ratings on Axis IV and V of the DSM-III-R. In addition, the demographic variables of age, gender, educational status, and marital status were used as predictor variables. The means and standard deviations for these variables may be found in Table 2.

The second regression analysis utilized the same predictor variables. However, the criterion variable was a simple count of the number of symptoms clients checked on the intake form.

Table 1

Number of Disorders Reported by Clinicians and Symptoms Reported by Clients According to Hierarchy of Severity

| Disorder | Frequency |
|---|---|
| No Mental Disorder | 15 |
| Adjustment | 13 |
| Personality | 10 |
| Psychosexual | 0 |
| Somatic | 0 |
| Anxiety | 0 |
| Affective | 15 |
| Psychotic | 3 |

Table 2

Means and Standard Deviations of the Predictor Variables for Severity of Disorder and Number of Symptoms

| | Severity | | Symptoms | |
|---|---|---|---|---|
| Variable | M | SD | M | SD |
| Age | 30.9 | 8.1 | 30.1 | 8.5 |
| Education | 13.8 | 2.1 | 14.1 | 1.6 |
| Premorbid Health | 67.0 | 13.8 | 70.6 | 15.0 |
| Current Functioning | 62.0 | 14.7 | 65.8 | 14.2 |
| Severity of Stressors | 3.2 | 1.1 | 2.6 | 1.0 |
| Number of Symptoms | 3.6 | 2.6 | 6.5 | 8.1 |

Among the subjects included in the first regression equation, the mean premorbid health rating was 67 with a range of 40 to 90. The average rating of current functioning was 61.96 with a range of 25 to 85. The subjects' average stress rating was 3.23 with a range of 1 to 5. Finally, the mean rating for severity of disorder was 3.57 with a range of 1 to 8.

A stepwise multiple regression analysis was conducted to find the relationship of the clinicians' ratings on Axes IV and V and the demographic variables to the severity of disorder. These results are available in Table 3.

Table 3

Regression Results for Severity of Psychological Disorders and the Predictor Variables

| Predictor Variables | Beta Values | $R^2$ |
|---|---|---|
| Current Functioning | -.48** | .195 |
| Age | .26** | .262 |
| Gender | .14 | |
| Marital Status | .13 | |
| Education | .17 | |
| Premorbid Health in Past Year | -.16 | |
| Severity of Psychosocial Stressors | -.01 | |

*$p < .05$; **$p < .01$.

The highest single predictor of severity of disorder was current functioning, $R$ = -.48, $F(1, 54)$ = 13.14, $p<.01$, and $R^2$ = .19. Thus, current functioning was the first predictor variable to enter into the stepwise multiple regression. The second variable which significantly predicted disorder severity was age, $R$ = .26, $F(2, 53)$ = 9.43, $p<.01$, and $R^2$ = .067. Pearson correlation coefficients for this regression analysis may be found in Table 4.

As expected, severity of stress was inversely correlated with premorbid health during the past year ($r$ = -.56, $p<.01$) as well as with current functioning ($r$ = -.66, $p<.01$), but positively correlated with severity of the disorder ($r$ = .35, $p<.01$). Stress was negatively correlated with gender ($r$ = -.42, $p<.01$) indicating that of these subjects, the males experienced more severe levels of stress than females. However, stress was positively correlated with marital status ($r$ = .30, $p<.05$). These findings indicate that males experience more severe levels of stress than females and that divorced and separated subjects had a higher level of stress than single and married subjects.

As predicted, premorbid health during the past year was positively correlated with current functioning ($r$ = .77, $p<.01$) and inversely correlated with severity of the disorder ($r$ = - .38, $p$ <.01).

Table 4

Correlations Between Predictor Variables and Axes I and II Ratings

| Variables[1] | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|
| A | -.09 | -.15 | -.09 | -.13 | .19 | -.42** | .00 |
| B | | .27* | .23* | .08 | -.06 | .30** | .22* |
| C | | | .03 | .19 | .14 | .17 | .19 |
| D | | | | .07 | .06 | -.08 | .15 |
| E | | | | | .77** | -.56** | -.38** |
| F | | | | | | -.66** | -.44** |
| G | | | | | | | .35** |

[1]A = Gender

B = Marital Status

C = Age

D = Education

E = Premorbid Health in Past Year

F = Current Functioning

G = Severity of Psychosocial Stressors

H = Severity of Disorder

*$p < .05$; **$p < .01$.

For the second regression equation, the mean premorbid health rating was 70.63 with a range from 40 to 90. The mean current level of functioning rating was 65.75 with a range from 30 to 85. The average level of stress rating was 2.63 with a range from 1 to 4. The mean rating for severity of

disorder was 3.38 with a range from 1 to 8. Finally, the mean number of symptoms was 6.5 with a range from 0 to 29. The data were entered into a stepwise multiple regression analysis to explore whether any of the variables were predictive of the number of symptoms reported (see Table 5). However, none of the predictor variables were significantly related to the criterion variable.

Table 5

Regression Results for Number of Psychological Symptoms and the Predictor Variables

| Predictor Variables | Beta Values |
|---|---|
| Current Functioning | -.29 |
| Gender | .02 |
| Marital Status | -.02 |
| Age | -.01 |
| Education | -.02 |
| Premorbid Health in the Past Year | -.05 |
| Severity of Psychosocial Stressors | -.02 |

Pearson correlation coefficients were obtained for the variables. As can be seen in Table 6, current functioning and premorbid health were found to be significantly related ($r$ = .80, $p<.01$). Current functioning was also found to be negatively related to level of stress ($r$ = -.66, $p<.01$).

In addition, level of stress was found to be inversely related to premorbid health ($r$ = -.58, $p$<.01).

Table 6

Correlation Matrix Between Predictor Variables and Number of Client Symptoms

| Variables[1] | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|
| A | -.05 | -.14 | -.35* | -.06 | .03 | -.18 | .01 |
| B | | .29 | -.12 | .13 | -.11 | .23 | .01 |
| C | | | -.18 | .21 | .10 | .17 | -.04 |
| D | | | | -.05 | -.10 | .06 | .01 |
| E | | | | | .80** | -.58** | -.25 |
| F | | | | | | -.66** | -.29* |
| G | | | | | | | .18 |

[1]A = Gender

B = Marital Status

C = Age

D = Education

E = Premorbid Health

F = Current Functioning

G = Stress Level

H = Number of Symptoms

*$p$ < .05; **$p$ < .01.

# DISCUSSION

One purpose of this study was to explore whether severity of disorders, premorbid health in the past year, current functioning, and what, if any, demographic variables were predictive of severity of psychological stressors. Axes I and II of the DSM-III-R (American Psychiatric Association, 1987) were used as indicators of severity of psychological disorder according to Maxmen's hierarchy. Premorbid health in the past year, current functioning, and severity of stressors were measured using Axes V, parts one and two, and Axis IV, respectively of the DSM-III-R. In addition, the demographic variables of age, education, marital status, and gender were also included to examine whether a relationship exists between these variables and severity of disorder. A second purpose of this project was to examine whether premorbid health in the last year, current functioning, severity of psychosocial stress, and any demographic variables were predictive of the number of psychological complaints by clients.

Two stepwise multiple regressions were then conducted. Severity of disorder served as the criterion variable and the other variables were used as predictors in the first regression analysis. The second regression utilized the same predictor variables. However, the number of psychological symptoms the client complained of served as the criterion variable.

Results of this study revealed an inverse relationship between severity of disorder and current functioning. In addition, a positive relationship between severity of disorder and age was also supported. These findings are consistent with the results reported by Kovacs and Beck (1978) and Hirschfeld and Cross (1981).

Premorbid health during the past year and severity of stressors were not predictive of severity of disorder. However, the Pearson correlation coefficients for these variables were significant. Severity of the disorder was positively correlated with severity of stress ($p<.01$) and inversely correlated with premorbid health during the past year ($p<.01$). This finding is consistent with results reported by others (Mitchell, Cronkite & Moos, 1983; O'Hara, 1986; Breslau & Davis, 1986).

Although not a primary purpose of this study, the relationship between the background variables of stress and level of adaptive functioning was also explored. Significant Pearson correlation coefficients were also found between several background variables. It was found that males experienced higher levels of stress than females, and separated clients had a higher level of stress than single and married subjects. In addition, individuals with higher levels of stress had lower ratings of both premorbid health during the past year as well as current functioning. Similar findings have been reported by Perez (1983) and Brown and Birley (1968). It should be noted

however, that these results were not consistently supported (Leff et al., 1983; Jacobs & Myers, 1976). Although the findings are not totally consistent, there is overwhelming evidence indicating that gender, marital status, and level of adaptive functioning are related to stress levels.

These findings would seem to have both practical and theoretical implications. At an applied level these findings may be indicative of individuals who may benefit from preventive programs. More specifically, results of this study suggest that one way of reducing the severity of mental disorders may be to minimize the amount of stress to which they are exposed. In view of the importance stress seems to play in the development of mental illness as indicated by the results of this study, another implication of these findings is that more attention should be given to identifying sources of stressors in order to prevent disorders. These findings may also have theoretical implications. For example, several theorists have proposed that stress levels differ as a function of gender (i.e., Freud, 1949). Findings of this study support those theorists which maintain that males are exposed to more stress.

A second stepwise multiple regression was done to examine whether ratings of current functioning, premorbid health during the past year, and severity of stress, as well as the demographic variables of age, gender, marital status, and

education were predictive of the number of symptoms checked by clients seeking outpatient psychological treatment. However, the multiple regression failed to provide support for any of these potential relationships.

Significant Pearson correlation coefficients were found for the relationships between the predictor variables. Current functioning and premorbid health were found to be significantly related in a positive direction ($p<.01$), while current functioning was negatively correlated with the level of stress ($p<.01$). In addition, severity of stress was inversely related to premorbid health ($p<.01$).

Although significant correlations were found between the independent and outcome variables, no variables were predictive of number of client complaints. This general lack of significant relationships may be due to several possibilities. First, in addition to using a relatively small sample, all participants in this study were outpatients. As a consequence, the sample was relatively homogeneous. Had a more heterogeneous sample been used, it is possible that different results would have been found. The lack of a significant findings using the regression analyses may also be due to the lack of experience on the part of the examiners. There is no reason to believe that the examiners were not familiar with DSM-III-R or that their diagnostic skills were inadequate. However, had more experienced clinicians been used who were able to make finer

ratings, a significant predictive relationship between the predictor and criterion variables may have been found. Similar studies should be done with other populations to reevaluate the hypotheses.

The utility of Maxmen's severity of disorder hierarchy (Maxmen, 1986) for future research was also supported by this study. Future research using this hierarchy might focus on a different sample than the one used in this study. For example, a clinic treating a population with more severe disorders might be investigated. Future research might focus on chronic versus acute stressors to investigate possible differences in severity of disorder as well as premorbid health and current functioning. In addition, a more involved longitudinal research project might investigate the effects of therapy over time on the severity of disorders as well as the possible stress buffering effects of therapy. Premorbid health and current functioning might also be observed in relation to therapy. Finally a larger, more heterogenous sample might be investigated to find a possible relationship between the number of symptoms and the severity of disorder as well as with stressors, premorbid health, and current functioning.

# APPENDIX A

## Clinic Intake Form

# Appendix A

Name of Student Conducting Intake Interview:

Fee Assessed _____ _____

_____Therapy _____Assessment Date: _____

CLINIC ADMISSION FORM

ADULT

Name_____ D.O.B. _____ Age ____ Sex ____
Last First Middle/Maiden

Address_____ City _____

Home Phone_____ Business Phone_____ SS No._____

Business Address_____

Preferred Address & Phone for Clinic Contact _____

_____

Who suggested you come here?_____

Height_____ Weight_____ Place of Birth_____

Marital Status_____ If married, how long?_____

Number of Previous Marriages?_____

PEOPLE CURRENTLY IN HOUSEHOLD INCLUDING YOURSELF

| NAME | Relationship to Client | Age | Sex | Educational Level | Occupation |
|---|---|---|---|---|---|
| 1. Client | Self | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |

Any children not living in household?_____

Amount of family income _____ Religious Preference_____

With whom did you live as a child? _____

Mother: Living?____Age:____Town of Residence_____

Education Level_____

Father: Living?____Age:____Town of Residence_____

Education Level_____

If both living, marital status: Married____Living together_____

Separated____ Divorced_____

Brothers and Sisters: Number_____ (Please list details below)

| First names | Ages | Town of residence | Education level |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

continue on back if necessary

Any history of psychiatric illness in family? If so, explain:

_____

_____

_____

_____

Family doctor:_ _____ _____

_____ City

telephone _____ _____

telephone When last seen

Taking any medication? If so, describe: _____

Ever been hospitalized? If so explain:_____

_____

_____

_____

_____

With what problem do you want the Psychology Clinic to help you?

_____

_____

_____

How long have you had this problem?_____

Have you seen any person or agency in the past about this problem? _____

If so, who?_____

Have you been a client of this Clinic in the past?_____

If so, when?_____

I authorize the Psychology Clinic to provide treatment to me. I understand that the Psychology Clinic is a training facility and that all information obtained, though confidential, may be used for instruction, training, and research, and may be video and/or tape recorded as well as observed by students-in-training at this Facility.

_____ _____
APPLICANT'S SIGNATURE DATE

In case of emergency, the person to contact is:

_____ _____
Name Relationship

( ) _____ _____
Telephone Address/City

CIRCLE ANY OF THE FOLLOWING THAT APPLY TO YOU NOW:

| | |
|---|---|
| headaches | lying |
| fearful | stomach trouble |
| heart palpitations | immature |
| often hungry | fatigue |
| bowel disturbances | problems in school |
| temper outburst | take sedatives |
| anger | continuous speech |
| legal problems | feel panicky |
| nightmares | confused |
| aches or pains | shy with people |
| feel tense | delusions |

CIRCLE ANY OF THE FOLLOWING THAT APPLY TO YOU NOW: (continued)

moody
depressed
unable to relax
don't like weekends or vacations
neglect appearance
can't make friends
sleepy during daytime
financial problems
swelling
excessive sweating
twitches
can't keep a job
easily frustrated
problems with friends
elated at times
dizziness
no appetite
trouble falling asleep
overly active
withdrawn
take drugs, how much _____
what kind _____
_____
crying spells
numb or tingling limbs
allergies
concentration difficulties

suicidal ideas
sexual problems
sinus discomfort
heart problems
overambitious
tired of living
inferiority feelings
tired after sleeping
skin problems
memory problems
lonely
often use aspirin or pain killers
problems with family
irritable
fainting spells
speech problems
anxiety
stealing
trouble remaining asleep
alcohol consumption: How much per day _____
lung problems
can't make decisions
unable to have a good time
problems with opposite sex
ear problems
eye problems

Other: _____

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