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The Relationship between Life Stressors and Stress Related Medical Problems of Middle School Administrators

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THE RELATIONSHIP BETWEEN LIFE STRESSORS AND STRESS RELATED MEDICAL PROBLEMS OF MIDDLE SCHOOL ADMINISTRATORS

by

Marjorie Patton

A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the requirements for the Degree of Doctor of Education
Department of Educational Leadership

Western Michigan University
Kalamazoo, Michigan
June 1988
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The relationship between life stressors and stress related medical problems of middle school administrators

Patton, Marjorie Rose, Ed.D.
Western Michigan University, 1988
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Marjorie Patton
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CHAPTER I

INTRODUCTION

Background and Need for the Study

The art of managing stress and the health and well-being of school administrators were notable issues during the 1970s and 1980s. Journal literature regarding stress usually contains studies about teachers, rather than school administrators, and their ability or inability to cope with stress. Stressful life events play a role in the etiology of various somatic and psychiatric disorders but there is considerable disagreement among researchers as to the nature of this role (Dohrenwend & Dohrenwend, 1974). Life-change events evoke adaptive efforts which lower bodily resistance and enhance the probability of illness occurrence (Holmes & Masuda, 1974).

Literature in the field of stress surfaced with the monumental, revolutionary work of Selye (1956/1976). As a medical doctor, Selye had been intrigued with problems of what caused the symptoms of sickness and illness in patients to appear similar even though they suffered from different diseases.

Selye's (1956/1976) work accounted for actual external and real conditioning, which included diet, climate, and other no-concurrent experiences, as well as the internal conditioning of heredity and previous experiences as affecting the organism's response to external stressors. Within this context Selye explored what he called the
stressors of daily life, which for him included various occupations, climate, and environmental features. Throughout the initial work, Selye consistently held that even though stress produces a "wear and tear" effect on the body, it is not necessarily negative, nor should it be avoided. Selye's research has been an impetus for subsequent studies and has been influential in the development of various approaches to further research in the field of stress and stress related illnesses. Psychological and physiological manifestations of stress seen in society are also apparent in schools. Education mirrors the problems of larger social systems (Combs, 1965; Reitman, 1971). The need to identify individuals with high tolerance for stress or train administrators to manage stress may become increasingly important.

School administrators as individuals react differently to life stressors. Some appear to have the ability to handle stressors without suffering. Others appear not to have this immunity and as a result have difficulties. To relate to these changes, professionals need to work constantly to plan and create programs designed for change; and administrators should be given assistance in effecting needed change through systematic structured programs.

Needs of the American public school cannot be determined except with reference to the unfolding social scene. The qualities, skills, and necessary preparation of a good administrator must be determined in this light. Due to constant social change, continuous preparation is needed throughout the educator's professional career. Public schooling is one of the few large-scale enterprises in the United
States that does not provide for support and systematic updating of the skills and abilities of its employees. In many instances the local school budget does not include the updating of overall competencies. The ability to cope with stress is an important aspect of a school administrator's role.

Strategies for stress management were evaluated by Ganster, Mayes, Sime, and Tharp (1982). The study population consisted of all members of a public agency employing 230 individuals. From the employee population, 79 individuals volunteered to participate. The subjects were predominately female (92%), averaged 39 years of age, and had a mean education of 14.5 years. They had been employed in the agency an average of 4 years. A questionnaire and urine samples were employed as data gathering instruments as well as paper and pencil measures. Employees had been polled previously and indicated a strong desire for assistance in managing stress in their jobs. Workers cited heavy workloads, inadequate resources, and the frequency of crisis as sources of stress on the job (Weiss, Illgen, & Sharbaugh, 1982). Stress management training programs can produce a significant reduction in employer strain at work.

Programs such as job enrichment and improving the quality of work life reflect a growing awareness that an organization's productivity and long term prosperity are heavily dependent upon employee dedication, commitment, and effectiveness. When managers or employees suffer the effects of chronic stress, they are ineffective. Management has an educated self-interest in maintaining a healthy stimulated and productive work force (Pesci, 1982).
The issue of life events and their possible negative effects upon human functioning has received much attention since Holmes and Rahe (1967) developed their "social readjustment scale" listing many of the events which one may typically encounter. Similarly, the concept of the events which one encounters has received attention from researchers.

Events encountered as individuals interact with their environment both in and out of the working situation have the potential of creating wear and tear on the human organism. Selye (1976) discussed the proposition that the stress one encounters is reflected by the wear and tear of life experiences. Selye's description of these "stressors" included occupational as well as environmental factors such as "social and cultural stressors." These life experiences leading to stress have cumulative health-threatening consequences.

Literature regarding school administrators and their responses to life events is limited. The development of school administrators who seem to cope successfully with stressors is vital (Mulligan & Ainsworth, 1979). School administrators suffer greater stress from administrative constraints than from any other stress factor. The most important elements common to major stressors were identified as the management of time in time-consuming activities, the need to comply with rules and policies, and the maintenance of interpersonal relations. Coping activities fell into three categories: physical activity, mental control, and management skill development. Some
stress factors were observed to increase with age and tenure (Gmelch & Swent, 1981).

Research on stress and coping has involved behavioral scientists observing, analyzing, and interpreting the experiences of educators as well as other human service professionals. The perceptions of school administrators and what the experience of stress means within their realm has rarely been captured in previous studies.

Approaches have been advanced toward an understanding of the influences affecting the school administrator and the position. Getzels and Guba (1957) expressed in terms of "nomothetic" (role expectations) and "idiographic" (personal need dispositions) the need to explore interactions between role expectations and more personal aspects of experience as these affect behavior in organizations. Schools are organizations which possess an internal system. As interactions occur within the internal system and between the school and external systems the dynamics create stress among participants.

Stress arises from a discrepancy between the educators' work needs, values, and expectations, and the failure of the work environment to provide occupational rewards. This study will relate to these concepts by focusing attention on stress related medical problems. Kiev and Kohn (1979) found that the most stress producing factors at work are the pressures to perform a job well, time limitations, the disparity between individual goals and expectations of others, the political climate, and the lack of feedback on work performance. Needle, Griffin, and Svendsen (1981) stated that "stress is perceived when peoples' behavior modes are not adequate to
meet the demands of situations and when the failure to adapt has serious consequences" (p. 175).

The level of satisfaction the individual gets from his work is dependent upon the congruence which exists between the needs of the individual and the goals of the working group and the "feelings of togetherness" which exist within the group (Getzels & Guba, 1957).

According to Getzels and Guba:

The production of extra effort as implied by high morale requires the expenditure of extra energy, but such energy cannot be available if it has already been expended in the production of unsatisfying acts. Thus high satisfaction must precede high morale in time if the energy required for high morale is to be available. . . . If an individual has found past experiences satisfying, he is likely to anticipate satisfaction in the future, and we say that he has high morale. (p. 199)

Purpose of the Study

The purpose of this study was to identify relationships among reported medical problems and life stressors perceived by a selected group of middle school administrators.

Research Questions

The primary research question investigated in the study was: Is there a correlation between stressful life events and reported medical problems of middle school administrators? A secondary question investigated in this study was: Is sex a factor in the number of life stressors and medical problems reported?
Limitations of the Study

The participants used for this study were representative of school administrators belonging to the Michigan Association of Middle School Educators (MAMSE). Generalization of results to other groups should be done with caution. Stressors and their importance were not categorized and no attempts were made to qualify life-stressors. Numerous questions regarding stressors and coping were not answered. This study was an attempt to focus the attention of school administrators upon themselves in terms of stress related medical problems.

Due to the restricted range of responses on the Social Readjustment Rating Scale and the Medical Problems Checklist, one cannot assume that the responses of the administrators were entirely accurate. The instruments chosen, while proven to be reliable and valid, contributed to the limitations of the study. The administrators had to rely on memory and be willing to answer personal questions.

Preselected stressors and medical problems listed on the survey instruments were other possible limitations to this study. Another limitation was the lack of randomness regarding the sample.

Predispositions and assumptions influenced the scope and design of the research. These predispositions and assumptions included:

1. Individuals possess a fair degree of power within themselves to cope with stress.
2. The existence of external stressors is not the entire reality of stress.
3. Few stressors always produce stress of themselves.
4. Each person develops his or her own repertoire of strategies for identifying and coping with stress.

5. Administrators can continue to be caring, loving people although serious obstacles are present; job stress need not debilitate the individual as a human being.

6. The role of the school administrator is highly stressful because of the concentrated interplay of the many inherent variables and role functions.

Definition of Terms

For purposes of this study, the definitions below are provided:

**Stress**: A state or condition of strain measured by an instrument, either covert or overt, created by situations experienced by an individual.

**Stress instrument**: Social Readjustment Rating Scale (SRRS).

**Stressor**: A change in life which has the potential to disrupt psychological and physiological homeostasis.

**Stress tolerance**: The ability to cope with a stressful event and respond in an appropriate manner.

**Stress related medical problems**: The physiological response to a stressor which results in medical pathology.

**Stress response**: A reaction to a stressful situation.

**School administrator**: An individual who serves in an administrative capacity in a middle school.
Organization of the Study

The purpose of the study is to study stress in relation to medical problems and an overview has been presented. A review of literature is provided in Chapter II which includes five topic areas. In Chapter III, methodology for data collection and treatment is presented. The fourth chapter includes the findings of this study. A summary of these findings and implications of the study will be discussed in the final chapter.
CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

The problem of identifying the relationship between reported medical problems and life stressors regarding a select group of administrators is addressed in this study. Five related topics are included in the review of literature. These are: (a) definition of stress, (b) stressful life events, (c) physiological stress, (d) psychological stressors, and (e) stress coping and medical problems.

The school as a part of the larger social system has not escaped the pressures that our society imposes on organizations and individuals. The school administrator as an important component of the educational process has not enjoyed immunity from this same problem. One challenge for school administrators in the twentieth century will be the "art of managing stress" (Gmelch, 1978).

Definitions of Stress

The definition of stress used in this study has been adapted from Giammatteo and Giammatteo (1980) and refers to distress, which can debilitate, motivate, or cause one to be isolated by using unpredictable behavior. This is not the only definition of stress. The meaning of stress is confusing. Selye (1956/1976) described stress as a general bodily response to any demand. This demand placed on the
individual was the stressor. The respondent behavior which occurred contingent and subsequent to the stressor was the stress.

Stressors were viewed as stimuli and stress as the response. Selye (1976) has stated that there are positive as well as negative aspects to stress. Types of stress include neustress, distress, and eustress (Morse & Furst, 1979). If stress is necessary for day-to-day adaptation of man to his surroundings and results in an internal steady state the designation is neustress. If the response to stress is not favorable and the ultimate end is a stimulus for disease the label is distress. If the response is favorable and the results are an improvement in physical and mental functioning eustress occurs. A lack of common language in the literature has been detrimental to basic research problems and understandings of stress. Dohrenwend and Dohrenwend (1974) suggested that the use of the term stress is somewhat hazardous because of the lack of consensus that prevails in the stress research.

Margolis, Kroes, and Quinn (1974) defined stress in terms of a work setting. Stress is described as a condition within the working environment which interacted with worker characteristics to disrupt psychological and physiological homeostasis. The causal situations and conditions they labeled as stressors and the disrupted homeostasis as job-related strain. The concept of stressors and resulting strain provided a stimulus-response model.

Caplan, Cobb, French, Van Harrison, and Pinneau (1975) expressed stress as an employment phenomenon. Any part of the job environment which posed a threat to the person was considered a stress
phenomenon. Caplan et al., (1975) stated that two types of job stress could threaten the person. Demands may not be able to be met or supplies may be insufficient to meet needs. A person-environment fit (or misfit) was developed by French, Rogers, and Cobb (1974). The degree to which a person's skills and abilities matched the demands and requirements of the job represented one kind of fit. Job stress was then conceptualized as a misfit of either of these relationships between employee and job environment.

The conceptualization of stress as strain began with McLean (1974). Stress was discussed in engineering terms as a force induced strain or deformation to that which it was applied. An external load caused overloading which produced irreversible strain or yielding. Such yielding might not necessarily prevent functioning; although in time, it could cause a rupture and breakdown. McLean noted that his engineering analogy had been considerably distorted by other authors in the field.

Stressful Life Events

Based on findings of psychological research, personality differences mediate the effects of stressful life events. Research has not provided estimates of the extent to which these differences modify the risk of general or specific effects of stressful life events (Hinkle, 1974; Hudgens, 1974; Theorell, 1974). Stress for one person may be of little consequence to another. For example, Hinkle (1974) reported that those who had experienced the "greater amount of illness had, in general, perceived their environment as more
threatening, challenging, demanding, and frustrating than the healthier people" (p. 29).

Some of the research on stressful life events questions various criteria for inclusion of specific types of events. Paykel (1974) and Gerstein (1974) suggested that the domain of possible stressful life events be limited to particular categories of life changes: specifically, either undesirable changes or exit events such as leaving one's job. In contrast, Rahe (1974) reported that studies concerned with a wide variety of illnesses have yielded positive correlations between reported illness on the one hand and desirable as well as undesirable life events on the other. Dohrenwend and Dohrenwend (1974) cautioned against generalizing measures of the stressfulness of life events beyond the particular sociocultural group from whom the ratings of events were obtained.

Janis (1971) in Stress and Frustration examined personality changes provoked by stressful and frustrating events. A persistent theme evolves around specific disruptive external events and the reactions they typically evoke. The greater the degree of victimization produced by exposure to severe stress the higher the probability of emotional disturbance afterward. Even in the most stable personalities, the acute symptoms of traumatic neurosis will usually occur at least temporarily following direct involvement in a disaster. Why some people can shake off a trauma quickly, whereas others succumb to it and have persistent, perhaps permanent, distressing symptoms may lie in (a) the type of danger stimuli to which the person is exposed, (b) the main situational factors that increase the chances of
psychological trauma, and (c) the individual's personality makeup. According to Janis (1971) the conditions most likely to induce panic in the face of severe distress are:

1. Signs of oncoming danger that cannot be readily averted;
2. Lack of opportunity for acting when the danger is at hand;
3. Loss of emotional ties with loved persons, esteemed leaders or members of a primary group, resulting from death, separation or alienation. (p. 66)

Persons involved in severe distress often display symptoms that may continue over time, which include (a) spells of uncontrollable emotions, usually anxiety but sometimes rage or depression; (b) sleep disturbances; and (c) blocking or partial loss of various personal skills, such as the inability to concentrate and the loss of other "ego" functions. Once a person has been utterly powerless to protect himself or herself from danger he or she can no longer maintain a basic sense of confidence about his or her future safety. The same kind of attitude change, one which causes a loss of self-confidence concerning personal invulnerability, may develop gradually if a highly stressful and frustrating life situation continues for a long time. The relentless accumulation of stresses day after day lowers the person's stress tolerance to the point where he begins to react to every minor stress as though it were a serious threat. As severe frustrations continue unabated, the person feels that he or she has been abandoned and that no one cares what happens to him or her.

Janis (1958) stated that if a person is able to carry on what he calls the "work of worrying," that person will be better able to
tolerate suffering and deprivation by worrying about it beforehand rather than remaining free from anticipatory fear of maintaining unrealistic expectations of personal invulnerability. People follow a sequence when exposed to stress situations that in turn escalates the stress reaction. These steps include (a) the absence of anticipatory fear, (b) absence of mental rehearsal of the impending danger, (c) feelings of helplessness when the danger materialized, and (d) increased expectations of vulnerability and disappointment in protective authority figures and intense fear and anger. This sequence can be regarded as the major consequence of failing to carry out the work of worrying. Such failures are to be expected whenever a stressful event occurs under any of the following three conditions: (a) when the person is accustomed to suppressing anticipatory fear by means of denial defenses either by overoptimism or by avoiding warnings that would stimulate the work of worrying, (b) if the stressful event is so sudden that it cannot be prepared for, and (c) if an adequate prior warning is not given or if strong but false reassurances encourage the person to believe that he or she is invulnerable. Janis has provided a needed link between the research involved with stressful life events and studies which take a cognitive appraisal approach to stress.

Physiological Stress

Stress was traditionally viewed from a physiological or psychological point of view. Several investigators defined stress in terms of the work setting. Others focused on the more obvious emotional
and behavioral responses to stress. All of these positions inherently ignored the physiological etiology or body explanation for how we react. A look at the development of physiological stress demonstrated the innate mechanisms at work in response to a stressor. The debilitating consequences of stress via the General Adaptation Syndrome (GAS) (Selye, 1976) emphasized the importance of understanding the underlying physiological mechanisms at work. Selye (1956/1976) used rats to study the effects of stress. Rats were subjected to traumatic aversive chemical injections, but also to less severe stresses such as nervous irritation. When firmly held down, rats exhibited clear symptoms of fear and rage.

Symptoms described by Selye (1956/1976) were very similar to the fight or flight pattern demonstrated by Cannon (1932). While observing injured and immobilized rats, Selye developed a sequence of behavior that was interpreted as the result or consequence of encountering stressors. While investigating, three stages of stress were recognized. The first was entitled the "alarm reaction" which included all the automatic physiological responses. This part of Selye's paradigm roughly corresponded to Cannon's "fight or flight pattern." The second part of the stress response was called the "stage of resistance" during which the organism's functioning returned to normal, and its resistance to further stressors increased.

The third and final "stage of exhaustion" occurred when stressors were continually encountered. Symptoms of the alarm reaction reappeared and physiological effects were irreversible. The outcome was death. According to Selye (1976), death occurred because
the organism had exhausted its fund of "adaptive energy" and had not
found a suitable way in which to accommodate the stressor.

A thorough description of the many physiological activities
which were altered as a result of stress in the human body was
provided by Douglass (1977). With the command of the autonomic
nervous system, the muscles of the body began to tense and tighten.
As a result of this muscle activity, the heart rate increased, blood
vessels constricted, and blood pressure heightened. Blood vessels
lying close to the skin became nearly cut off—hence the drop in
temperature of the limbs. Breathing became deeper and faster, the
muscles of the face contorted, and nostril and throat passages opened
wide. Muscles in the stomach and intestines terminated their activi-
ties. This caused a cessation in digestion and the muscles control-
ing the bowels and the bladder loosened. Subtler changes were also
occurring. The amount of perspiration increased, while the secretion
of saliva and mucus decreased. Hearing and smell became more acute
and the pupils of the eyes dilated to admit light for more sensitive
seeing. Research indicated that the pituitary-adrenal system acti-
vated as a response to stressors (Levine, Goldman, & Coover, 1972;
Mason, 1968; Selye, 1950).

The adrenal glands were stimulated by the autonomic nervous
system to release the hormones epinephrine and norepinephrine. The
giddiness and anxiety felt when the adrenalin is flowing was due to
these hormones. Together, these hormones affected circulation by
reinforcing the autonomic action of increasing both heartbeat and
blood pressure. This also caused the spleen to release more red
blood corpuscles, increase the clotting time of blood, and raise the count of white blood corpuscles in the blood.

The pituitary reacted to the hypothalamus when these actions were being set in motion. A part of the brain, the hypothalamus, activates the pituitary gland in order to release chemical messages or hormones directly into the bloodstream (Cannon, 1932). The autonomic nervous system and the involuntary body functions within the autonomic framework are controlled. The two systems produce the fight or flight response and change the function of various parts of the body. Two hormones described by Mason (1959), played major roles in the physiological stress response. The thyrotrophic hormone, or TTS, stimulated the thyroid which in turn increased the rate at which the body produced energy. The adrenocorticotrophic hormone, or ACTH, reinforced signals sent to the adrenal glands through the autonomic nervous system. The ACTH hormone caused 30 other hormones to be produced by the outer layers of the adrenals. Laboratory experiments indicated that hormones concentration in the blood was among the surest signs of stress (Sayers & Sayers, 1949).

The alarm reaction is a highly physiological response which served man well at an earlier time when more primitive physical activity or behavior was allowed; but to modern day man, fight or flight has served as a nemesis when allowed to go unchecked (Thatcher, 1980). Unabated use of the alarm reaction appeared to have morbidity and mortality implications.
Psychological Stressors

Psychological stress is concerned with the emotional and psychological state of the organism when perceived as a threat. Physiological (systemic) stress usually described the biological responses to a stressor. However, the distinction between physical and psychological factors was not always clear in that some of the points of view dealt with a combination of both (Altman & Lett, 1970).

With the exception of extreme and sudden life-threatening situations, it is reasonable to say that no stimulus is a stressor to all individuals exposed to it and that it becomes necessary to recognize the many kinds of stress within any given specific situation. Stress is a response state and that its induction depends on the mediation of some appraising, perceiving, or interpreting mechanism. The objective reality of any given situation and the series of subtle, subjective equations comprising the individual's own assessments of possible success or failure based on that person's motives and motive-satisfying needs must be considered (Appley & Trumbull, 1967).

Psychological stress has been described as those characteristics in the environment which might affect people adversely (Beehr, 1976). There is a potential for stress when a situation is perceived as presenting a demand which threatens to exceed the person's capabilities and resources for meeting demands, under conditions where an expected substantial differential in the rewards and costs from meeting demand versus not meeting (McGrath, 1976). These definitions implied that stress is a stimulus having psychological consequences.
The relationship between stressful situations and psychological factors was investigated by Stopol (1954). Rorschach responses were used as the basis for 12 hypotheses concerning personality characteristics of subjects and no relationships were found regarding the hypotheses. Subjects who scored high on the Rorschach index of perceptual maturity performed better on a psychomotor task under distraction than those who scored low on the index (Lofchie, 1955). Anxious and nonanxious subjects were selected by Katchmar (1953) based on scores from the Taylor Manifest Anxiety Scale. The highly anxious group, when compared to the nonanxious group, performed poorly.

The relation between discrete and definable life changes and acute and fatal coronary heart disease interested Hinkle (1974). A group of people who remained free from illness in the face of major life changes were identified. Psychological characteristics appeared to help insulate them from the effects of their life experiences.

School administrators have differing capabilities in dealing with stressors. Personality characteristics and a vast variety of life events may result in stress related medical problems. The school administrator is the middle manager within the system and must also be an educational leader who is possessed of the authority, responsibility, and skills to shape, articulate, and create a sense of mission within the school (Goodlad, 1979). The very complexity of this role presents a challenging source for uncovering components which bear the potential of being either life-fulfilling or stress-ful. Relationships between job-related stress and effective coping
mechanisms have not been explored with regard to the role of school administrator.

Depending on individual psychological and coping resources, social support and other conditions outside of work can result in stress responses which affect an administrator's health and well-being. Some job stressors of educators are shared with other occupations. They center around job content, resource adequacy, and financial rewards (job security). Stressors unique to educators center around job conditions over which they have little control. These include overcrowded classrooms, reorganization, success with school programs, and implementing curriculum goals. Other stressful events center around time demands of administrators and why they feel they have so little time to devote to management.

Stress Coping and Medical Problems

While stress cannot and to some extent should not be avoided, the damaging side effects can be kept to a minimum. Coping techniques documented by Cherniss (1980) were used to reduce personal stress among helping professionals. A framework found useful in this study included nomothetic and idiographic dimensions of the school as well as life stressors and coping mechanisms. The development of administrators demonstrating a high threshold for successfully coping with stressors evidenced by a lack of stress related medical problems appears timely.

Educators may think that they must satisfy so many constituencies, pressure groups, and regulations that they have little control
over their own domain (Cherniss, 1980). The cynical, negativistic, pessimistic educator who interacts with others under the same stress can turn an entire group into a collection of burnouts. Cherniss also indicated that in many situations with a high degree of stress, educators are expected to perform at high levels but the expectations are unclear or unrealistic. They have little control over what they can do or how they do it. Where there are many opportunities for accomplishment and control, most educators will be able to minimize negative effects of stress.

The most common symptom of stress is emotional as well as physical exhaustion. Physical symptoms of such "burnout" include headaches, problems with sleeping, colds, hives, nausea, vomiting, and gastrointestinal disturbances. A classic example is peptic ulcers. People who are bored or frustrated at work show differences in blood chemistry. They also tend to complain a lot, snap at people, and appear generally irritable. Dissatisfaction from work has a spill-over effect within the family. There is more tension within the family from the stresses people who are burned out bring home from the job.

For many people life has lost its meaning. Work has become mere drudgery and off-hours are spent in dullness (Freudenberger & Richelson, 1980). Researchers found that if a person has been functioning well and experienced past progress, there is no deep-rooted psychological problem. That nameless malaise with its physical symptoms and its feelings of depression, anger, and weariness may be a developing case of burnout. This demon appears to be born of the society
and times and the ongoing struggle to invest lives with meaning. For many educators enthusiasm is gone and they are uninvolved even in the midst of family and friends. Jobs have become dull with no associated feeling of reward. No matter how great the effort, the only result seems to be frustration.

Types of role structuring and performance evaluation information labeled information search behaviors have been assessed in previous research. The results of life and job stress on information search behaviors of organizational members was studied by Weiss et al. (1982). The relationship of stressful life events and work related stress was examined. Forty-five persons employed in various organizations completed questionnaires measuring life and work stressful events at a management development seminar. These questionnaires were completed on their own and mailed to researchers. Approximately 50% of the participants returned the questionnaires. Two types of stressful events were measured. They included non-work-related events and job related stressful events. Information search behaviors were assessed using a list of search behaviors participants had engaged in during the past year. Results of this study seemed to support the relationship between stressful life events and information search activities.

An instrument for measuring job related stress perceived by school administrators was developed by Gmelch and Swent (1981). Subjects were members of the Confederation of Oregon School Administrators. A questionnaire listing age, sex, years in position, health, and percentage of total life stress each attributed to work
was completed. Growing institutional responsibilities indicated that stress at the present time does not decline with age and experience. Each perceived job related stress factor was associated with reports of poor health.

Executive health has become an industry of its own, with hundreds of large and small psychological service centers opening across the country. Executives are, to one degree or another, sold on the idea that they should learn to control stress before it controls them.

Individuals vary in their way of coping with stress. An aggressive approach which provides more advice than is immediately needed may increase anxiety and ultimately interfere with the process of working through conflict according to Glicken (1982). Response to stress may be seen as falling into two categories: persons who face stress and conflict directly and persons who tend to deny and repress a conflict reaction. Demanding that people cope with stress in a way which differs from their usual methods of stress management is unlikely to work. Services provided by organizations should be individualized to meet personal needs according to Novit (1982).

Several stress management techniques available to help educators cope with stress were analyzed by Blimling and Metenberger (1981). These include:

1. **Biofeedback training:** Relaxation training to release anxiety often accumulated.

2. **Meditation:** Stress is reduced as the person moves to a new level of consciousness through relaxation.
3. Stress prevention: Allow time to loaf or simply play.
4. Exercise: Work out aggressive feelings or tensions.
5. Sleeping: Adequate rest is important to being able to cope. However, sleep as escape is not productive.
6. Talk out problems: Gain someone else's perspective.
7. Be realistic: Most stresses are not of a life and death nature.
8. Acceptance: Learn to accept things you cannot change.
9. Consult a physician: Sometimes what appears to be a psychological problem may be physical.
10. Seek help: Seek counseling if stress cannot be dealt with effectively.
11. Don't strive for perfection: Perfectionists accomplish very little.
12. Personal time: Take quiet time each day uninterrupted.

Alternatives to stress do exist, but they demand a commitment and a life-style change often viewed as negative. A stressful administrator may remain and do nothing to improve conditions, remain and attempt to change the negatives of the system to help meet personal needs, or leave the field of education. When these alternatives are discussed the reaction is often defensive. Many pressures are associated with the security of the teaching profession. The importance of personal control and effectiveness within the workplace must be emphasized. When a job is structured in a way that limits self-control and chances for experiencing success and competence, that person is likely to experience frustration and burnout. Job
effectiveness of educators may rest on our ability to successfully implement approaches to cope with the phenomenon of stress.

Coping processes are constantly shaping the endocrine response to stressor conditions (Lazarus, 1977). The essential mediator of the General Adaptation Syndrome (Selye, 1976) may be psychological. This means that persons must somehow recognize their plight or sense that they are in trouble or there will be no GAS. Lazarus contends that each person maintains special motives, belief systems, and competencies to cope with problems; and each also arranges and interprets his or her commerce with the environment in particular ways. As a result of constant feedback and continuing efforts to cope with the situation or to regulate the emotional response, the person is also constantly reappraising his or her relationship with the environment, with consequent alterations in the intensity and quality of the emotional reaction. Expectations about his or her power to deal with the environment or external stressors and to master danger are a factor in determining whether the person will feel threatened or challenged by what happens.

People select the environment to which they must respond; shape their commerce with the environment; plan, choose, avoid, tolerate, postpone, demolish, or manipulate their attention; and also deceive themselves about what is happening, as much as possible, thus casting the relationship in ways that fit their needs and premises about themselves and themselves in their world.

Lazarus (1977) and Janis (1971) stated that much coping activity is anticipatory and as such leads the person to prepare against the
future possibility of harm. To the extent that the person prepares effectively, overcoming or avoiding the danger before the danger materializes, or is able to function adequately in the anticipated confrontation, he or she thereby changes the nature of the ultimate transaction. The person also changes the emotions that might have been experienced in the absence of such anticipatory coping.

Coping can precede emotion and influence the form or intensity, which in effect reverses the usual wisdom that coping always follows emotion or is caused by emotion. Lazarus's (1977) general position asserts that coping never follows emotion in anything but a temporal sense—a stance in direct opposition to the long-standing and traditional view that emotions, such as anxiety, serve as drives or motives for adaptive behavior. People use a variety of coping processes, depending on their personal characteristics, the nature of the environmental demands and contingencies, and how they are appraised. The person, appraising the personal and social requirements of an emotional situation, who manages his or her emotional reactions willfully rather than merely passively automatically responds to internal and environmental pressures.

Stress is in the eye of the beholder (McGrath, 1976). Emotional experiences, and even physiological and performance measures, are in part a function of the perceptions, expectations, or cognitive appraisal which the individual makes of the stressful situation. This general theme has several aspects, which McGrath organizes into three general areas: "(1) individual differences—one person's stress is another's challenge; (2) adaptation—yesterday's novelty is
today's routine; (3) learning—expectation is father to perception" (p. 68). Part of a person's ability to appraise a situation is based on prior experiences with stressful situations. The more a person has been able to achieve success regarding difficult or frustrating events in the past, the more that person is able to perceive the ability to cope with stress. A person who has succumbed to the debilitating effects of stress will probably sense a greater vulnerability to stress and may be as incapable of responding effectively. The external effects of stress and the personality dispositions of the person undergoing stress are key factors in understanding the stress phenomenon. Aspects of stress and coping will be noted in other chapters.

Various stress responses are utilized by school administrators to cope with stressful situations encountered in their professional positions. Each school administrator, through the use of his or her cognitive structure, responds to stressful events. As administrators fulfill their responsibilities, an increased awareness of response to stress can be developed. Responses proven to be successful in the management of a stressful event may be included in patterns of behavior used to respond to future events (Ramaekers, 1982).

Research has demonstrated evidence that stressful life events play an important causative role in the natural history of many diseases (Wolff, 1950). The life event chart advocated by Meyer (1951) is a tool used in medical diagnosis. Life events may be an important part of the etiology of a disorder and these events need not be catastrophic or bizarre. A pathological condition could
develop from changes regarding environmental incidents.

A correlation between the intensity of stressful life events and reported health changes was demonstrated by Rahe (1974). These findings were not supported by Casey, Thorensen, and Smith (1970), who investigated the relationship between life change magnitude and reporting for sick call.

An instrument designed by Wyler, Masuda, and Holmes (1971) compared the magnitude of life change with seriousness of illness. Their research indicated that the greater the life change, the greater the lowering of resistance to disease and the more serious the disease that developed.

Ongoing work overload and elevated serum cholesterol were demonstrated by several authors to increase the incidence of coronary disease (French et al., 1974). In terms of chronic life events, Sales (1969) and House (1975) suggested that excessive work and responsibility, when approaching the individual's limit, precipitated the development of coronary disease.

Observing the relationship between acute life events (which are situational) and coronary disease, Parker, Benjamin, and Fitzgerald (1969) noted that death of a close relative appeared to be a catalyst. Myocardial infarctions were also preceded by rejection of a loved one or a sudden loss in self-esteem (Engle, 1970). Brenner's (1971) study showed that abrupt economic downturns were associated with increased mortality from heart disease and, conversely, that heart diseases declined in good economic times. A positive
relationship between mounting life change and sudden cardiac death was demonstrated by Rahe and Lind (1971).

Conclusion

A review of the literature in regards to life event changes as stressors which lead to medical problems appeared to have validity. Lack of research information existed regarding the importance of studying personality factors in relationship to stress and medical problems. A minimum of research has involved the personality dispositions of the school administrator as these affect their effectiveness as leaders. Studies have described the qualities and characteristics of an "effective" administrator, but these are usually based on analysis of student performance. An attempt to explore and identify administrators' personal capacities for coping with stress is warranted.
CHAPTER III

METHOD

Overview

The relationship between life stressors and stress related medical problems of school administrators was investigated in this study. The level of life stressors experienced by middle school administrators was determined by the Social Readjustment Rating Scale (SRRS). The number of medical problems experienced by school administrators was reported on the Medical Problem Checklist (MPC). Chi square was used for testing the correlation between life stressors and reported medical problems. This chapter describes the sources of the data for the investigation and the procedures used in the examination of the data. The following sections include: selection of subjects, instrumentation, data collection, and data analysis.

Selection of Subjects

School administrators included in this study were members of the Michigan Association of Middle School Educators (MAMSE). The Social Readjustment Rating Scale and the Medical Problem Checklist were given to participating school administrators in a field seminar that included teachers and other staff members.

An initial cover letter requesting permission to conduct the investigation was sent to the MAMSE seminar director. Enclosed with
the letter were copies of the materials to be used in the investigation. Administrators from MAMSE were asked to complete a demographic sheet and two survey instruments.

Details of the research project and survey instruments were discussed with the administrators prior to the distribution of materials. The participants were middle school public school administrators from Michigan school districts.

The sample was not randomly drawn due to administrator interest. The selectivity of the sample is an important methodological issue that must be taken into consideration. The sample may represent those who see the project as an opportunity to vent frustration. Cooperation and support were obtained from the majority of administrators. One hundred and ten school administrators completed the forms during the seminar and returned them anonymously to the director.

Instrumentation

The Social Readjustment Rating Scale developed by Holmes and Rahe (1967) and the Medical Problem Checklist developed by Lafferty (1978) were the instruments used to determine the relationships of life stressors to reported medical problems. Each school administrator completed a data sheet requesting biographic information.

Social Readjustment Rating Scale

The original SRRS developed by Holmes and Rahe (1967) measured stress by adding the total of weighted items indicating readjustment
of life changes required of an individual. A series of 43 life events involving a representative number of significant life changes were rated by 394 subjects.

A method was defined for quantifying the amount of change in life adjustment required by 43 items of life events. The method consisted of a paper and pencil test and the SRRS containing items to be weighted. One item, selected arbitrarily and assigned a numerical value, was used as the module. The subjects were asked to compare each of the items in turn with the module and determine numerically whether its required social readjustment was proportionally greater or lesser than that of the module. The arithmetic mean score derived for each item served as the number identifying the magnitude of change in adjustment required by the life event.

Values for the life events were obtained by dividing each life event mean by 10. Values for life changes ranged numerically from "death of spouse" (100 points) to "minor violations of the law" (11 points). Consensus was high concerning the relative order and magnitude of the means of items. This was demonstrated by the high coefficients of correlation between the discrete groups in the sample.

Of those persons with scores between 150 and 199, 3% had had a health change. This association rose to 51% for scores ranging between 200 and 299. For 300 points or more, 79% association was noted. These ranges of scores were used to describe a mild (150-199), moderate (200-299), and major (300 or more) life crisis. As life change scores increased, so did the percentage of illness associated with the life crisis. Rahe (1974) and Holmes and Masuda...
(1974) studied the relationship of life crisis magnitude to health changes.

The results suggest that because life-change events evoke adaptive efforts, they lower bodily resistance and enhance the probability of illness occurrence. These life events have one theme in common: The occurrence of each usually evokes or is associated with some adaptive or coping behavior on the part of the involved individual. The emphasis is on change from the existing steady state, and not on psychological meaning, emotion, or social desirability.

Reliability of the SRRS was demonstrated using 16 comparisons of mean item scorings of groups different in age, sex, marital status, education, social class, generation American, religion, and race; the range of correlation coefficients (Pearson's $r$) was .820 to .975, the average four being .945. Spearman's rank order correlation coefficients were almost identical (Holmes & Masuda, 1974).

The relationship of life crisis magnitude to health changes was studied by Rahe (1974). Validity was established when a 93% association between health changes and life crisis was found to be significantly greater than chance association. The chi-square value for the difference between that observed (93%) and that expected (35%) was 95.9, significant at the .001 level.

**Medical Problem Checklist**

The MPC included 18 medical problems selected by Lafferty (1978) because of their relationship to stress. On this checklist, a list of medical problems are assigned point value. Each item consistently
demonstrates a relationship to stress as represented by Holmes and Rahe (1967). Previous research by Holmes and Rahe (1967) provided validity and reliability. All items on the checklist consistently indicated a relationship to stress. Medical problems were evident in the research of Butler and Georrell (1978) where validity and reliability were represented. On the basis of these data the Medical Problem Checklist was developed by Lafferty (1978). Rahe (1974) reported that studies concerned with a wide variety of illnesses have yielded positive correlations between reported illness on the one hand and desirable as well as undesirable life events on the other.

Several instruments and approaches were examined in addition to the Social Readjustment Rating Scale and the Medical Problem Checklist selected. This was necessary in order to determine the most appropriate process to use in studying the phenomenon. These included:

1. An open-ended type of interview (Poupard, 1982). Although the interview has a number of advantages, it does have definite limitations as a research tool. Time constraints, subjectivity, and possible bias are its greatest weaknesses (Borg & Gall, 1983).

2. Review of critical incidents (Ramaekers, 1982). Fifteen critical incidents were selected as examples of stressful situations. A set of 15 critical incidents was rewritten in a common format. For each of the 15 critical incidents, 3 possible responses were prepared. Thus, for the initial set of 15 critical incidents, 45 possible responses were formulated. This initial set of critical incidents and responses was reviewed and evaluated by an expert jury.
3. Personality Factor Questionnaire (16 PF) (Cattell, Eber, and Tatsuoka, 1970). The 16 PF is an objectively scorable test devised by basic research in psychology to give the most complete coverage of personality in a brief time. The 16 PF is an inventory consisting of 15 personality scales and 1 general intelligence scale. The personality scales are nonhomogeneous in content and are constructed to assess a variety of traits for diverse psychological uses.

4. The Matthews Burnout Scale for Supervisors (Matthews, 1985). This is a 50-item scale for use in evaluating employee burnout. Content-based items were tested for validity with a group of employees and their supervisors, previously identified as being on the extreme ends of the burnout continuum. Discriminant analysis was used to determine those items which were successful in identifying the two groups. The resulting questionnaires are content and construct valid. Subsequent study with employees and their supervisors from a wide variety of workplaces established that both scales have high reliabilities and may be used in the workplace and research. While content and construct validity in the resulting questionnaires were established, they did not identify possible medical problems relating from stress.

5. Stress Checklist Self-Assessment Instruments (Bellott, 1982). Three stress checklists were used as self-assessment instruments. The Bellott checklist emphasized self-awareness and monitoring of oneself and items were not tested for construct validity.

6. Stress Quotient Questionnaire (Parker, 1982). A 41-item questionnaire was used to identify stressful situations of
superintendents. A stress quotient (SQ) is determined and interpreted by subjects.

7. Teaching Events Inventory (TESI) (Cichon & Koff, 1980). A 36-item instrument developed to determine the sources and levels of task based stress experienced by teachers.

Data Collection

Administrators present at the MAMSE seminar during the spring of 1986 were advised of the nature of the study and told that their participation would be strictly voluntary. In addition, they were informed that their involvement in the study would contribute to a larger effort to assess the relationship of life stressors to medical problems of school administrators. Cooperation and support was obtained from the majority of administrators.

Participants received a packet containing a demographic sheet and two instruments with instructions. At each setting participants were asked to read the instructions carefully before responding. They were permitted to complete the instruments at the seminar and return the completed forms to the seminar director anonymously. All data were collected during a 2-day period (Spring 1986) seminar.

Data Analysis

The ratings for the two survey instruments were entered on tally sheets in order to determine the relationship between life stressors. In addition, demographic information was tallied.
Chi square ($\chi^2$), which is a nonparametric statistical test used when the research data are in the form of frequency counts, was the statistical procedure utilized in this study for determining relationships. Frequencies were in the form of a fourfold table. The categories into which frequencies fell were discrete rather than continuous. Under these conditions, chi square is the appropriate test of statistical significance.

Two categories were formed regarding life events and medical problems. After forming the two categories, the number of marked and unmarked responses for each category were noted. The question became whether there were sufficient numbers of marked responses in each category to warrant consideration. The null hypothesis to be tested is that there is no relationship between a specific life event and a reported medical problem. The chi-square statistic is used to test the null hypothesis. The .05 level of significance was established. A positive correlation means that an administrator with a high predictor (stress) score is likely to have a high criterion (medical problems) score. A negative correlation means that an applicant with a low predictor (stress) score is likely to have a high criterion (medical problems) score. The larger and more positive the $r$ the better the predictions will be.

The Social Readjustment Rating Scale obtained information about life stressors and the Medical Problems Checklist provided data about medical problems. Oakland Schools performed the statistical analysis; the findings are reported in Chapter IV.
CHAPTER IV

FINDINGS

Introduction

The purpose of this study was to examine the relationship of life stressors to reported medical problems. Subjects were middle school administrators who were members of the Michigan Association of Middle School Educators (MAMSE). Chapter I included a rationale for the problem regarding background and purpose. Chapter II involved a conceptual framework for defining stressors and stress as well as describing and critiquing writings pertinent to the methodological aspects discussed in Chapter III.

This chapter includes an analysis of data, a description of data processing, and a summary of the findings. Raw data were transferred to the FORTRAN coding forms from the survey and submitted to the Oakland Intermediate School District Central Data Processing Center for statistical treatment. Testing of selected life events with reported medical problems was accomplished by using the Statistical Package for the Social Sciences (SPSSX) computer program and its subprogram of cross-tabulations. There were 110 respondents and 109 completed the survey.
A profile of the respondents was constructed and frequencies of responses on the survey were computed. One hundred and ten school administrators responded to the survey. Of these, only 109 presented viable data. Data were obtained from 67 males and 42 females who supervised on an average of 20 teachers.

Table 1 summarizes frequency and percentage according to sex. The middle school administrators were represented by 67 males (60.9%) and 42 females (38.2%). The sex of one administrator was not determined (0.9%).

<table>
<thead>
<tr>
<th>Value label</th>
<th>Value</th>
<th>Freq.</th>
<th>%</th>
<th>Valid %</th>
<th>Cum %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1</td>
<td>67</td>
<td>60.9</td>
<td>61.5</td>
<td>61.5</td>
</tr>
<tr>
<td>Female</td>
<td>2</td>
<td>42</td>
<td>38.2</td>
<td>38.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td></td>
<td>0.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>110</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Note. Valid cases = 109; missing cases = 1.

Of those administrators who responded, 47 were in the 40-49 age category representing 42.7% of the sample. The 30-39 age bracket was represented by 42 (38.2%). The 50-59 age category included 19
(17.3%) administration, with only one subject (0.9%) in the over 60 age range (see Table 2).

Table 2

Age of Subjects

<table>
<thead>
<tr>
<th>Value label</th>
<th>Value</th>
<th>Freq.</th>
<th>%</th>
<th>Valid %</th>
<th>Cum %</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-39</td>
<td>2</td>
<td>42</td>
<td>38.2</td>
<td>38.5</td>
<td>38.5</td>
</tr>
<tr>
<td>40-49</td>
<td>3</td>
<td>47</td>
<td>42.7</td>
<td>43.1</td>
<td>81.7</td>
</tr>
<tr>
<td>50-59</td>
<td>4</td>
<td>19</td>
<td>17.3</td>
<td>17.4</td>
<td>99.1</td>
</tr>
<tr>
<td>60+</td>
<td>5</td>
<td>1</td>
<td>0.9</td>
<td>0.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td>1</td>
<td>0.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total 110 100.0 100.0

Note: Valid cases = 109; missing cases = 1.

The educational levels of the school administrators included master's and advanced degrees. The master's degree category involved 75 (68.2%) administration and 39 (29.1%) specialist or doctorate degrees. Three administrators (2.7%) did not respond to this question. Table 3 demonstrates the educational profile of the principals in the sample.

The income level of the principals was represented most by the $35,000 to $50,000 salary range with 52 (47.3%) of the administrators at that level. The next most frequent salary range was $25,000 to $35,000. Only 2 (1.8%) of the administrators failed to respond to
Table 3

Education Level

<table>
<thead>
<tr>
<th>Value label</th>
<th>Value</th>
<th>Freq.</th>
<th>%</th>
<th>Valid %</th>
<th>Cum %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master's</td>
<td>2</td>
<td>75</td>
<td>68.2</td>
<td>70.1</td>
<td>70.1</td>
</tr>
<tr>
<td>Advanced degree</td>
<td>3</td>
<td>32</td>
<td>29.1</td>
<td>29.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td></td>
<td>97.3</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The majority of administrators in the survey were male and approximately 45 years of age. Most of the administrators held a master's degree, although many had degrees beyond the master's level.
They supervised an average of 20 teachers with the majority getting paid $35,000 to $50,000 for their responsibilities.

Findings

The primary question investigated in this study was: Is there a correlation between stressful life events and reported medical problems of middle school administrators? Physical problems contained in the Medical Problem Checklist (MPC) were compared to stressful life events listed on the Social Readjustment Rating Scale (SRRS).

When categorizing life events with medical problems, several items were found to be statistically related. Data were classified into two categories. The relationship to total life events with medical problems comprised one set of data. The other category involved the relationship of specific medical problems with each life event.

Each medical problem was compared to each life event. A .05 level of significance was the decision point used. Chances of being wrong would occur only 5% of the time. Probability value of .05 or less was significant. The calculated value is determined by measuring the relationship between the two items using the chi-square method of testing.

In addition to demographic information, the administrators were asked to respond to the Social Readjustment Rating Scale in order to obtain information about life stressors and the Medical Problems Checklist which provided data about perceived medical problems. A copy of the information may be found in the appendix. The total data
set of responses is available for the answering of questions through the Western Michigan University Academic Computer Center.

The three most frequent responses ascertained from the administrators in the category of life events and in the category of medical problems reported were correlated using the chi-square method of testing. Overweight, high blood pressure, and depression were matched with the top three life events marked by administrators. These included: a change in responsibilities at work, death of a close family member, and recent marriage of the participant.

**Overweight**

Twenty pounds or more overweight was checked by 33 administrators. Change in responsibilities at work was indicated by 35 administrators. These were the most frequent responses generated. Seven administrators marked both categories. The chi square of 2.0381 and a significance factor of 0.1539 was not statistically significant. The distribution of the incidence of 20 pounds or more overweight was not significantly different among those who had a change of responsibility at work and those who did not have a change of responsibility at work.

The relationship between overweight marked by 33 persons and death of a close family member marked by 32 persons was not significant enough to warrant consideration. Both categories were checked by 12 people with a significance of 0.4308 and a chi square of 0.62074.
Overweight and marriage were both checked by 6 participants. A total of 33 persons checked overweight with 25 persons checking marriage. A chi square of 0.31816 and a 0.5727 significance was tabulated.

High Blood Pressure

Change in responsibilities at work was marked by 35 administrators and 17 persons checked high blood pressure. Of these only 6 administrators were the same people. A chi square of 0.0000 and a significance of 1.0000 is not significant.

High blood pressure was marked by 17 administrators and 32 administrators checked death of a close family friend. Only 4 people marked both death of a close family member and high blood pressure. The significance needs to be .05 for consideration and 0.7560 was the significance of these items.

Twenty-five administrators checked marriage and 17 checked high blood pressure. A total of 5 people checked both items. The chi square of 0.12519 and the significance of 0.7235 indicates little correlation.

Depression

Depression was checked by 15 administrators. A change in work responsibilities was checked by 35 persons. Both categories were checked by 8 people. The significance was 0.1167 and the chi square was 2.46121.
Death of a close family member was marked by 32 participants. Fifteen people marked depression and 8 people marked both death of a close family member and depression. The chi square of 3.46668 and significance of 0.0626 did not indicate a significant relationship.

There was no correlation between depression and recent marriage. Depression was checked by 15 participants and recent marriage by 26 participants. Only 4 administrators marked both categories resulting in a chi square of 0.00034 and a significance of 0.9854.

A relationship was established between depression and change in financial state, marked by 21 administrators. Both categories were marked by 7 people. A chi square of 6.21579 and a significance of 0.0127 was noted.

Secondary Question

A secondary question investigated in this study was: Is sex a factor in the number of life stressors and medical problems reported? Chi-square testing indicated that the sex of middle school administrators was not significant in the relationship between life events and medical problems. Medical problems with significant levels of .05 or less were not evident regarding the sex factor.

Summary

Chapter IV described the findings of data analysis compiled using the chi-square method of testing. Life stressors did not significantly increase the number of reported medical problems. An increase in the number of life stressors was not accompanied by a
specific increase in the number of reported medical problems at the .05 level of significance. Chi-square testing did not indicate that there is a relationship between life events and medical problems. The findings contradicted much of the research reviewed in Chapter II.
CHAPTER V

SUMMARY, FINDINGS OF THE STUDY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter is divided into four sections. A summary of the study is presented in the first section. The major findings of the study are reported in the second section. In the third section, the conclusions of the study are presented. Recommendations are given in the final section.

In preceding chapters the background of the problem, a review of related literature, the design and methodology of the study, and a presentation and interpretation of the research findings have been presented.

Summary

The purpose of this study was to identify the relationship between life stressors and reported medical problems of middle school administrators. Life stressors experienced by administrators were assessed by use of the Social Readjustment Rating Scale (SRRS). The number of medical problems experienced by middle school administrators was reported on the Medical Problem Checklist (MPC). Chi square was used for testing the relationship between life stressors and reported medical problems. The findings of this study do not confirm research findings reviewed in Chapter II.

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The Research Questions

One primary and one secondary research questions were investigated in this study. The primary research question was: Is there a correlation between stressful life events and reported medical problems of middle school administrators? The secondary research question was: Is the sex of the administrators a factor in the number of stressors and medical problems reported?

The Review of Literature

The review of literature was focused upon five major topic areas: (a) definition of stress, (b) stressful life events, (c) physiological stress, (d) psychological stressors, and (e) stress coping and medical problems.

Stress is identified in three areas: (a) neustress, stress necessary for day-to-day adaptation which results in an internal steady state; (b) eustress, stress that is favorable where an improvement in physical and mental well-being occurs; and (c) distress, stress associated with unfavorable events which can cause strain and increase disease.

The question of life events and their possible negative effects upon body functioning has been addressed in this study. Findings of this investigation did not support the work of Selye (1975) regarding life experiences and health threatening consequences of stress.

The findings of this study differed from the findings reported in the review of literature. Rahe (1974) reported positive
correlation between reported illness and life events. Research by Douglass (1977) described changes in various stomach muscles of the body as a result of stress. Cherniss (1980) included headaches and ulcers as classic examples of physical symptoms pertaining to stress.

A relationship between life change and reported sick call was reported in the literature review. Changes noted by Wolff (1950) regarding environmental conditions such as stressful life events contribute to pathological conditions.

The Procedures

The subjects of this study were middle school administrators who were members of the Michigan Association of Middle School Educators. The Social Readjustment Rating Scale and the Medical Problem Checklist were instruments provided for data collection. These instruments were included in the Human Suggestions Evaluation System Level I: Life Styles Inventory.

Participants responded to a questionnaire regarding significant life changes over the past 3 years. The administrators also checked a list of medical problems occurring during the same time span.

The sample of 110 respondents were predominantly male (67 males vs. 42 females) and approximately 45 years of age. Most had earned a master's degree (68.2%) or a higher degree; 29.1% had earned either a specialist or doctoral degree. Most (52%) reported salaries between $35,000 and $50,000. Four percent had salaries over $50,000.
Findings of the Study

An analysis of the data provided in Chapter IV of this study yielded findings regarding the research questions. Chi-square testing of this study did not indicate a relationship between life stressors and medical problems of middle school administrators. An analysis of the data supported the primary research question, indicating that medical problems may be a result of mounting life stressors. The findings of this study were not consistent with other studies and supported conclusions noted in Chapter II. The premise regarding life stressors contributing to medical problems may not have validity.

The secondary research question was examined using a Pearson correlation coefficient. There was no significant relationship between the sex of middle school administrators and medical problems reported. The sex of the respondents was not a factor as evidenced by a .258 level of significance when correlating total life events and medical problems with the sex of the administrator.

Conclusions

Middle school administrators, regardless of sex, report medical problems which may not be related to stressful life events these administrators have experienced. There were a number of limitations in this study. Because limitations were present, caution should be used in interpreting the conclusions presented. The population of this study was limited to those administrators who were members of
the Michigan Association of Middle School Educators.

Responses on the Social Readjustment Rating Scale and the Medical Problems Checklist were restricted to a limited range. Participants' answers are assumed to be correct when a survey instrument is used. The life events and medical problems listed are selected by the researcher limiting the number of participant choices.

Middle school administrators did not experience medical problems at statistically significant levels after experiencing identified life changes. The secondary research question was not supported in this study. When the sex of the administrators was compared to total life events, there was no statistically significant difference.

Recommendations

Given the findings of this study do not confirm the findings of earlier studies, further research studies regarding the relationship of life stressors to medical problems may be needed. If such studies were to be conducted, they might investigate:

1. Multiple methods of collecting data.
2. Tracking a group of administrators over a long period of time.
3. In-depth longitudinal study to match all data from individuals.
4. The treatment of each individual as a case study. Multiple data collected for a number of individuals. These multiple case studies would be used as a basis for further conclusions about this research.
5. Developing the concept of distress for one may be eustress for another.

6. Examine length of recuperation for stressed individuals. Are there differences in recuperation time?

7. Use of a medical inventory rather than the Medical Problem Checklist or forced choice self-report instrument should be administered.

The presence of life stressors and medical problems has been, and will remain, of high interest to researchers and lay citizens. Further studies which explore new aspects of the relationship between medical problems and life stressors are warranted.
Appendix A

Life Events
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