AN ABSTRACT OF THE THESIS OF

<u>Robert S. Zieminski</u> for the degree of <u>Doctor of Philosophy</u>

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Title: <u>Coping Behavior Employed by Oregon School Adminis-</u>

_____<u>trators in Dealing with Occupational Stress</u>_____

Abstract approved: **Redacted for privacy**
_____
          Dr. Edwin L. Anderson

     The purpose of this research was to investigate
Oregon private and public school administrators' concep-
tions of how they cope with job-related stress. Recommen-
dations for educational preparation and training programs
were offered. Coping behaviors that were most commonly
used and considered most effective were identified.

     A questionnaire entitled "School Administrator Coping
Behavior Profile for Occupational Stress," developed by
the researcher, was mailed to all Oregon private and pub-
lic intermediate, middle, junior high, and high school
principals, superintendent/principals, and superinten-
dents. Included in the profile were 24 coping behaviors
which were categorized into six factors.

In order to determine if the reported differences between demographic subgroups were statistically significant, one-way analysis of variance was computed at a .05 level of confidence on the conceived effectiveness of coping behaviors and coping behavior factors. Nonparametric analyses on behavior ranking and selected demographic groups were performed by means of the Chi-square statistic applied to contingency tables.

Survey results included:

1. The coping behavior reported to be most commonly used and most effective was "Maintain a sense of humor." "Talk with colleagues or others on the job" ranked second in use; "Engage in physical exercise" ranked second in effectiveness.

2. "Verbalization" and "self-awareness" were reported to be the most effective behavior factors.

3. "Interpersonal relations" and "time management" were reported as training program emphasis areas that would better enable the administrative candidate to deal with on-the-job stress.

4. For the frequency of occurrence of personally stressful on-the-job situations, the data indicated a significantly higher mean for the responses by administrators who reported working over 60 hours

per week than for administrators who reported working 40 - 45 hours per week.

5. For the effectiveness of the four behaviors associated with the "religion" factor, the data indicated significantly higher means for the responses from private school administrators than for public school administrators.

6. The data indicated significantly higher means for the responses from female administrators than for male administrators for the effectiveness of the behavior "Goals and priorities" and the "verbalization factor.

Coping Behavior Employed by Oregon School
Administrators in Dealing with
Occupational Stress

by

Robert S. Zieminski

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CHAPTER I

INTRODUCTION

Background

The costs of stress in business have involved losses
due to inordinate absenteeism, lowered productivity,
health insurance, early retirement, and death. American
industry, Gherman (1981) reported, annually spends $19.4
billion on premature employee death, $26 billion in dis-
ability and medical payments, and about $700 million for
recruiting replacements for executives lost to heart
disease. Research has recognized that the risk of incur-
ring numerous diseases as varied as "cancer and chronic
respiratory disease is increased in the presence of
stress" (McMichael, 1978, p. 128).

In a study of Oregon school administrators and occu-
pational sources of stress, Swent (1978) reported that
"6 out of every 10 administrators feel that 70 percent or
more of their total life stress results from their jobs"
(p. 142). Vetter (1976) examined the role of the school
principal and concluded:

The professional life of a principal is be-
coming less satisfying for many. In some
areas the resignation rate of principals
has risen; an indication that the pressures
are not worth the rewards (p. 22).

The occupational stress of school administration has

often been discussed (Vetter, 1976; Gmelch, 1978; Cotton,

Patterson, Browne, and Cotton, 1979; Ten Elshof, 1981) but

less often documented. The intent of the study has been

too offer additional documentation in this area in order

that insight may be gained regarding the effective hand-

ling of the pressures of an administrative position.

Purpose of the Study

The purpose of the study was to investigate Oregon

private and public school principals', superintendents',

and principal/superintendents' conceptions of how they

cope with job-related stress. The psychological and

physiological consequence of how a school administrator

deals with stress has implications for the entire school

organization. Professional impression, teacher and staff

support, student regard, job satisfaction, personal per-

formance, and productivity are some such implications.

Statement of the Problem

The study reported (1) what behaviors are used by

Oregon administrators to cope with stress and (2) what

implications can be drawn and recommendations offered in reference to educational preparation and inservice programs.

The following questions were investigated:

1. What are the most commonly used techniques employed by Oregon school administrators in dealing with occupational sources of stress?

2. Which coping methods are considered most effective by Oregon school administrators?

3. What relationships exist among Oregon school administrators' conceptions of coping techniques when compared on demographic variables such as level of administrative position, experience, age, sex, school and district size, hours worked per week, hours exercised per week, present health condition, rural/urban school setting, private/public school?

4. What preparation and inservice programs do Oregon school administrators feel can better equip the administrator to more effectively cope with on-the-job stress?

Significance of the Study

Since stress affects all the human aspects of the public administrator's life, Morrison (1977) described stress as a legitimate concern. Cooper (1981) regarded stress as a vitally important topic of study. Many

educational administrators who have resigned to enter other occupational fields have considered the pressures of administration not worth the rewards (Vetter, 1976). At a time when the professional life of the school administrator has become less satisfying for many, an investigation of coping behaviors employed by school administrators in dealing with occupational stress is significant.

The findings in this area may (1) better enable principals and superintendents to more effectively handle the daily on-the-job pressures and (2) give some insight into additional or more intensified preparation and in-service programs for administrators.

The manner in which an administrator handles stress has an effect upon the entire school environment--interpersonal relations, professional image, staff support and confidence. There is a need for research findings that will amplify the effectiveness of the school administrator and the efficacy of preparation programs that continually address school officials' concerns.

Although generally excluded from research samples, the inclusion of the private school administrator has added an additional dimension to the study.

Definition of Terms

The following definitions are provided in order to afford the reader a clearer understanding of certain

terms as they are utilized in the context of this study:

1. Coping behavior: an internalized part of each individual's personal makeup; essentially a personal skill to be used for and by an individual (Gherman, 1981, p. 13).

2. Stress: a fairly predictable arousal of psychophysiological (mind-body) systems which, if prolonged, can fatigue or damage the system to the point of malfunction and disease (Girdano and Everly, 1979, p. 5).

3. Stressor: an event of condition that may be purely physical, social, or psychological--including anticipation and imagination--and that triggers a stress reaction (Girdano and Everly, 1979, p. 14).

4. Stress reaction or stress response: a tri-phasic physiological syndrome consisting of alarm reaction, resistance stage, and exhaustion stage; also termed "general adaptation syndrome" (Selye, 1936).

Limitations of the Study

Procedures and parameters of the project have dictated limitations of the study as follows:

1. The population consisted only of Oregon school administrators. It may, therefore, be inappropriate to generalize their conceptions to other-than-Oregon school administrators.

2. The relevance of findings is directly related to the honesty with which the profile has been answered. Some respondents may have chosen, consciously or sub-consciously, to be less than honest.

3. The conceptions offered by the respondents may be relative to the time of the school year that the profile was completed.

4. The conceptions offered by the respondents may be relative to recent on-the-job and home experiences, such as lack of support by school board or friction with spouse at home.

CHAPTER II

REVIEW OF THE LITERATURE

The review of the literature is presented in seven sections. Initially, the definitions and concept of stress are examined. Stress-related disorders are then described, followed by a discussion of the stress response. Two stress models and two stress surveys are then introduced. The sixth section addresses the topic of coping with stress while the final section focuses on stress and the school administrator.

Definition of Stress

Few could offer a definition of stress that would meet with a reasonable degree of concurrence (Burgoyne, 1975). No one correct or agreed upon definition of stress exists. Each definition of stress is useful only to the degree that it is relative to the interpretation of data (Pepitone, 1967; Cox, 1978). Initially a specific biological concept pertaining to biochemical reactions in the body, stress has now taken on a wide assortment of meanings (Kiev and Kohn, 1979).

Selye defined stress as "the nonspecific response of the body to any demand made upon it" (1974, p. 14). In this definition, stress is the total organism's response

to change regardless of whether the change is viewed as pleasant or unpleasant. Selye (1976) distinguished between "distress"--damaging or unpleasant stress--and "eustress"--pleasant stress which causes less damage than distress.

Mechanic argued that the degree of stress is determined by "the discrepancy between the demands impinging on a person--whether those demands be external or internal, whether challenges or goals--and the individual's potential response to these demands" (1968, p. 301).

Kelly viewed stress as "a state of the total organism under difficult or extenuating circumstances" (1974, p. 531). Psychological stress has been defined in relation to the inability of the individual's coping techniques to reduce threat (Lazarus, 1966; Mechanic, 1968). Lazarus (1971) underlined the interactional relation between the stimulus (stressor) and individual as essential to an understanding of stress. For Lazarus, the reaction to a stressor is dependent upon how the individual interprets or appraises the significance of the situation.

The concept of stress is far from precise. For the purposes of this report, the following definition of stress has been accepted:

> A fairly predictable arousal of psycho-
> physiological (mind-body) systems which,
> if prolonged, can fatigue or damage the
> system to the point of malfunction and
> disease (Girdano and Everly, 1979, p. 5).

Manifestations of Stress

Stress has been related to diseases ranging from the common cold to cancer (Gherman, 1981). Among the diseases reported by Selye (1976) as being stress-induced were psychiatric disturbance, cardiovascular diseases, bronchial aliments, diabetes and gastrointestinal malfunctions. Physical disorders that can be attributed to emotional stress include backaches, skin reactions, peptic ulcers, migraine headaches and some respiratory disorders (Girdano and Everly, 1979). Anxiety, lowered self-esteem, and depression have been found to be among the mental ill-effects of stress (Cooper, 1981). Loss of appetite, sleeplessness, and sweating are other physiological manifestations related to stress (Burgoyne, 1975). Habitual cigarette smoking and coffee drinking were positively associated with chronic tendencies to perceive high stress (Conway, Ward, Vickers, and Rahe, 1981).

Cardiologists Friedman and Rosenman (1974) identified two behavior patterns based on personality characteristics. The "Type A" personality has a tendency to over work whereas the "Type B" personality has a more relaxed attitude toward the work schedule. The Type A person is competitive and aggressive. The Type B person is easy-going. Friedman and Rosenman's findings indicated a strong relationship between the Type A personality and the incidence of coronary heart disease (CHD).

Type A coping behaviors were found to include suppression of fatigue, a high need for achievement, and a sense of time urgency; recognized Type A symptoms included coronary heart disease, hypertension, increased cholesterol level, lack of exercise, smoking, and poor family relations (Friedman and Rosenman, 1974; Howard, Cunningham and Rechnitzer, 1977; Davidson and Cooper, 1981).

Holmes and Rahe (1967) developed a test, the Social Readjustment Rating Scale, to measure the effect of life events on somatic and psychiatric disorders. The scale consisted of 43 life events, pleasant and unpleasant, which were weighted according to the degree of life stress each event purportedly induced. For example, "death of spouse" was weighted 100 points, "divorce" weighted 73 points, and "vacation" weighted 13 points. Holmes and Rahe (1967) hypothesized that the higher the total number of points, the higher the degree of stress, and the higher the likelihood of the individual becoming seriously ill. More recently, Rahe (1978) has indicated that the total life readjustment score identified from predetermined weights for each life event does not incorporate individual differences and, for this reason, is not an appropriate measure to predict degree of life stress and ensuing illness.

The Stress Response

Selye was one of the first to take a physiological approach to investigating the changes that occur when the body tries to adapt to stress. The body's reaction to a stress-producing stimulus (stressor) was termed the "general adaptation syndrome" (G.A.S.) by Selye (1936). The syndrome was described as consisting of three stages: (1) the alarm reaction; (2) the resistance stage; and (3) the exhaustion stage.

During the alarm reaction stage, defense mechanisms in the body are activated. Large amounts of adrenalin, cortisone and other hormones are released by the glands. The ensuing stimulation initiates the "flight or fight" condition of the body wherein the rate of breathing, blood pressure and heart rate increase. There is an initial lowering of bodily resistance during the alarm reaction stage.

If the stressor is not overwhelming, the body resists and adapts to the stressor during the resistance stage. The signs of the prior stage fade and the body adjusts its internal activity. The body's adaptability was termed "adaptation energy" by Selye (1974).

After prolonged exposure to the stressor, the body's adaptation energy is exhausted and the body enters the exhaustion stage of the "general adaptation syndrome."

The signs of the alarm reaction stage reappear and, if exposure to the stressor continues, damage to specific bodily tissue will result.

Damage incurred during the exhaustion stage was termed "diseases of adaptation" by Selye (1974) and is often referred to as "stress-related diseases" (Freese, 1976). Some such "stress-related" disorders are peptic ulcers, hypertension, rheumatoid arthritis, cardiovascular-renal and allergic diseases, among others (Freese, 1976; McMichael, 1978).

Two Stress Models

For a model to be effective, McMichael (1978) indicated that it must communicate and inform by including essential ideas and excluding unnecessary detail. According to McMichael, stress research has been hindered by "the distracting legacy of earlier models" (1978, p. 129). The current literature does not provide evidence of research in the formulation of models for determining the costs of executive stress to the individual (Greenwood and Greenwood, 1979). The success of an executive, Greenwood and Greenwood have contended, is largely dependent upon the appropriateness of the executive's mental models and the ability to apply such models.

A model of personal factors that affect an individual's ability to function at work has been offered by

Gherman (1981), as shown in Figure 1. The model illus-
trates that the degree of stress and the ability to cope
with stress is a function of numerous variables found on
the job as well as away from the job. Gherman enumerated
the following personal factors as among those that influ-
ence an individual's ability to function at work: leisure
pursuits, social involvement, financial concerns, alcohol
consumption, health, children, relations with spouse,
alertness, attendance, motivation, attitude, productivity,
initiative, effectiveness, judgment, and energy level
(1981, p. 101).
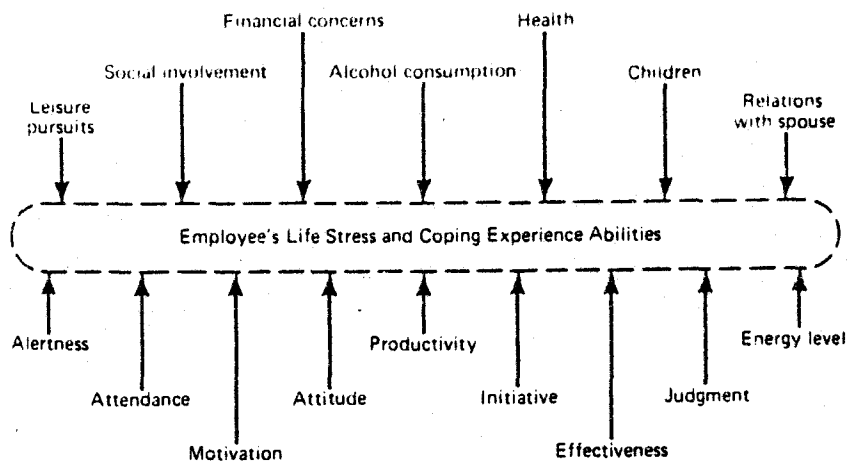
FIGURE 1. Model of personal factors affec-
ting an individual's ability to
function at work

The degree to which stress is experienced was pro-
posed to be a function of personality, role, knowledge,
and experience (Mumford, 1975; Kiev and Kohn, 1979).
The complex meanings inherent in social relationships

were suggested to be the most important sources of psycho-
logical stress (Folkman, Schaeffer, and Lazarus, 1979;
Greenwood and Greenwood, 1979).

A multidisciplinary approach to stress research was
supported by Cooper and Marshall (1976) who argued that
stress be investigated in a manner to include psychologi-
cal, physiological, and sociological dimensions. A model
of occupational stress has been presented by Davidson and
Cooper (1981), as illustrated in Figure 2.
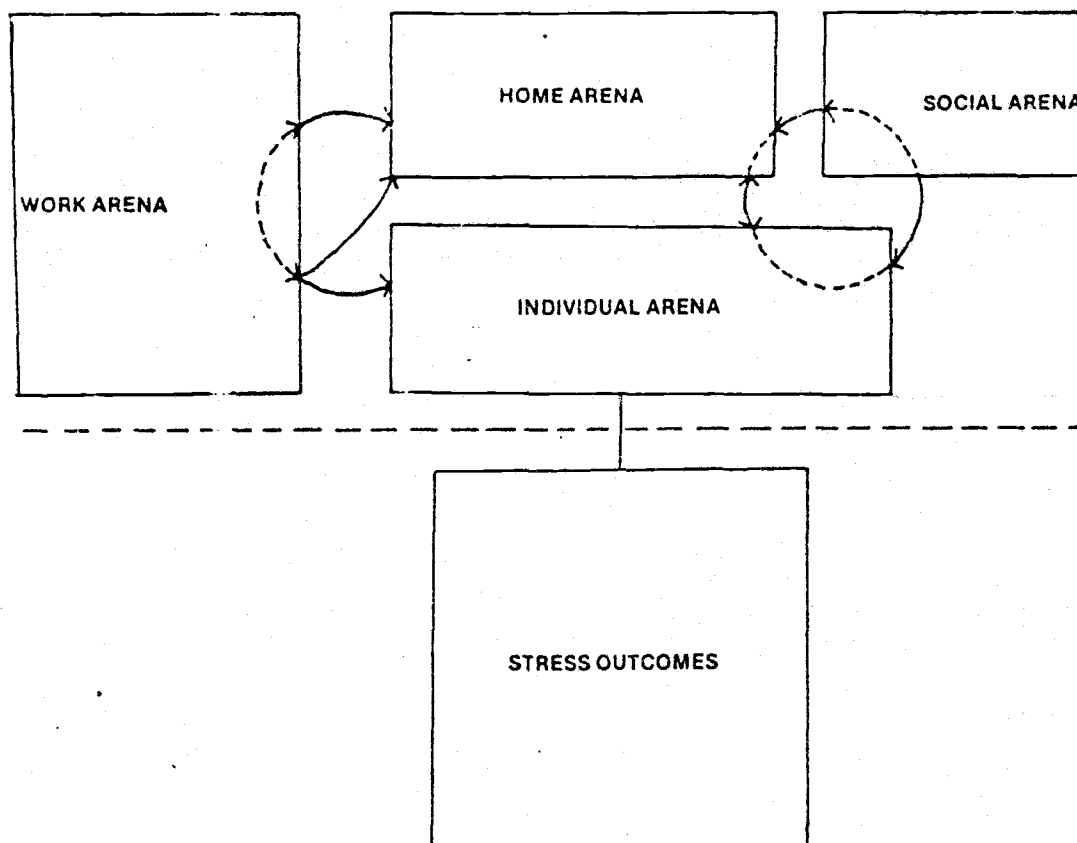
FIGURE 2. Model of occupational stress

Their multifaceted approach emphasized that work environment stressors can affect an individual at home and vice versa. The model incorporated three major settings for behavior--work, home, and social settings--which form an integrated whole of forces acting on the individual. A stressor from one area not only affects the individual but also the other stressor areas. The authors concluded that "stress, health, job performance, family and social networks, and individual differences form an integrated whole for any individual" (Davidson and Cooper, 1981, p. 573).

Two Stress Surveys

In a 1977 survey of Oregon school administrators regarding perceptions of occupational sources of stress, Swent (1978) modified five categorical placements of specific occupational stressors as proposed by Cooper and Marshall (1976). The modified placements were as follows:

1. Constraints intrinsic to administration

2. Administrative responsibility

3. Interpersonal relations

4. Intrapersonal conflict

5. Role expectations.

The findings of the survey indicated that the factor "administrative constraints" was perceived to be most stressful. From a total of 35 stressors (seven per

factor), three of the highest stressors belonged to the administrative constraint factor: (1) complying with federal, state and organization rules and regulations; (2) attending meetings; (3) completing paperwork on time. The "rules and regulations" stressor was the highest overall.

The Swent survey findings supported the popular belief that secondary administration is more stressful than elementary administration. Apparently, secondary administrators incur additional stress due to "more severe discipline problems, a longer work week due to extensive activity programs and more of a diversified relationship among staff members" (Swent, 1978, pp. 132-33).

The Oregon survey purported that 60 percent of administrators felt that 70 percent or more of their total life stress is related to their jobs. The top five stressors registered by administrators were:

1. Complying with state, federal, and organizational rules and policies

2. Feeling that meetings take up too much time

3. Trying to complete reports and other paper work on time

4. Trying to gain public approval and/or financial support for school programs

5. Trying to resolve parent/school conflicts.

Using a nationwide sample of members of the American
Management Associations, Kiev and Kohn (1979) investigated
sources of stress and coping techniques. The findings
indicated the three main causes of stress on the job were
as follows:

1. Heavy workload/time pressures/unrealistic deadlines

2. Disparity between what I have to do on the job and
   what I would like to do

3. The general "political" climate of the organization.

The Kiev and Kohn (1979) survey reported that stress-
producing factors outside the work environment primarily
included financial worries, problems with children, and
physical afflictions. Survey participants identified the
three most effective ways to cope with stress as follows:

1. Analyze the stressful situation and decide what is
   worth worrying about and what is not

2. Delegating work to subordinates

3. Setting priorities so as to meet the most important
   objectives.

Kiev and Kohn (1979) reported that for 73 percent of
top managment and 71 percent of middle management, the
most stressful situation was also the one that occurred
most frequently: work demands and time pressures. The
second highest ranked stress factor identified by 60 per-
cent of the managers was disparity between the

organization's expectations and the manager's own goals.

Coping with Stress

Laboratory, clinical, and field evidence has indicated that how an individual copes with a stressful situation is dependent upon how the individual interprets the situation (Folkman, Schaeffer, and Lazarus, 1979). How an individual interprets an event is dependent upon "concept of self, ego strengths, value system, and even heredity" (Girdano and Everly, 1979, p. 16). The effectiveness of coping behavior is determined by how the individual experiences stress (Howard, Rechnitzer, and Cunningham, 1975). Selye suggested that "what matters is not so much what happens to us, but the way we take it" (1976, p. 178).

Gherman defined coping behavior as "an internalized part of each individual's makeup; essentially a personal skill to be used for and by an individual" (1981, p. 13). Two main categories of coping behaviors—"direct action" and "palliation"—have been proposed by Lazarus (1974). Direct action refers to coping behavior which attempts to attack, avoid or meet the danger. Direct action includes analyzing the situation, reorganization of work, and reading related articles and books. Whereas direct action is preventive in nature, palliation aims to moderate the distress in a stressful situation. Lazarus (1974)

classified regular sleep, exercise, biofeedback, hypnosis,
meditation, and the use of alcohol and tranquilizers as
examples of palliation.

A belief in self-efficacy has been emphasized as an
essential resource in coping with stress (Bandura, 1977).
Folkman et al. (1979) presented five categories of coping
resources as follows: (1) health/energy/morale; (2) prob-
lem-solving skills; (3) social networks; (4) utilitarian
resources; and (5) general and specific beliefs. Based on
the average number of stress symptoms reported, Howard
et al. (1975) concluded that, for the group of managers
tested, the five most effective techniques for coping
with occupational stress were:

1. Build resistance by regular sleep, exercise--health
   habits

2. Compartmentalize work and nonwork life

3. Engage in physical exercise

4. Talk through with peers on the job

5. Withdraw physically from the situation.

The authors concluded that "the successful and un-
successful coping with job tension seems to be character-
ized by the difference between working smarter and working
harder" (Howard, Rechnitzer, and Cunningham, 1975, p. 325).

Palmer (1981) indicated that effectively coping
with role stress involved the ability to bring about
change in one's roles, behavior, and perceptions--

adjusting to a situation rather than trying to alter the situation. The capacity to handle stress, Kelly (1974) argued, is a function of (1) the individual, (2) the situation, and (3) the social context. Alleviation of stress can be achieved through exercise, support groups, diet, relaxation, guided fantasy, and planned activity (Ten Elshof and Tomlinson, 1981).

Stress and the School Administrator

The assessment center program developed by the National Association of Secondary School Principals has identified "stress tolerance" as one of twelve behavior dimensions that determine a principal's job ability (ERIC Clearinghouse on Educational Management, 1980). Role demands can threaten the personal identity of a school administrator and, according to Vetter (1976), how one manages job stress will vary with ability and personality. Managerial, clerical, and professional occupations involving minimal physical activity were recognized as more prone to occupational stress due to role conflict (Cooper and Marshall, 1976). Pressure, aggression, change, and conflict, more than ever before, present a challenge to the school administrator (Gmelch, 1978).

Cotton et al. (1979) portrayed the school principal as functioning between two or more conflicting groups with different norms, values, expectations, and interests.

This is the essence of the "marginal occupational role"--caught in the middle. The authors described the principal's dilemma:

> Principals have difficulty establishing
> and maintaining role marginality within
> the typical school district structure.
> When successful, they can experience per-
> sonal costs of stress, tension, anxiety,
> and even psychosomatic symptoms related
> directly to their role marginality (Cotton,
> Patterson, Browne, and Cotton, 1979, p. 223).

The principal, the authors contended, must retain role marginality in order to remain nonaligned. As illustrated by Figure 3 (Cotton, Patterson, Browne, and Cotton, 1979), the marginally-oriented principal is viewed as a "boundary spanner" whose effectiveness is contingent upon staying independent of the boundaries.
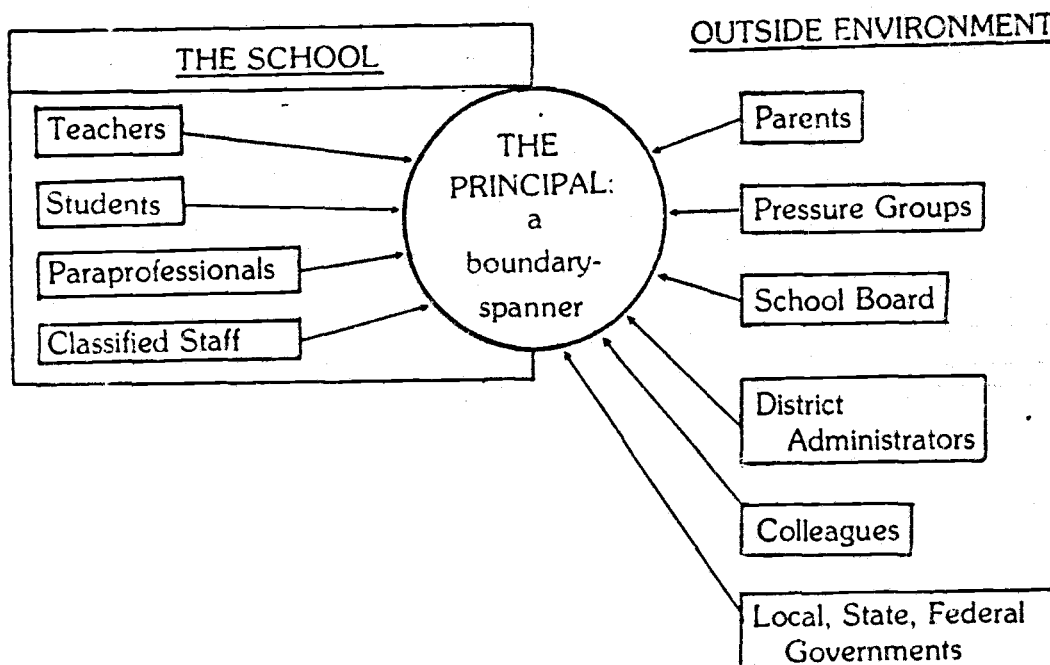
FIGURE 3. The principal as a boundary spanner

Four of the five top stressors for Oregon school administrators surveyed by Swent (1978) were related to the stress of time. Over half the administrators utilized some sort of physiological technique--physical exercise, travel, relaxation activities--to cope with job stresses; the level of health reported by Oregon administrators was inversely related to the reported level of stress (Swent and Gmelch, 1977).

In a study of Colorado high school principals, job satisfaction scores of principals were compared with stress scores. No significant relationship was found to exist, i.e., the findings did not support the hypothesis that principals with low job satisfaction experienced more stress than principals with high job satisfaction (Robe, 1980).

Whereas 60 percent of Oregon administrators reported that over 70 percent of their life stress resulted from their jobs (Swent, 1978), Colorado principals indicated personal finances as the major source of their life stress (Robe, 1980).

Summary

Less than clearly defined, the term "stress" has had a variety of meanings associated with it. The concept is complicated by the fact that the degree to which one experiences stress, as indicated in the literature, is a

function of numerous variables including perception,
personality, role, experience, knowledge, and sense of
self-worth. What is stressful to one individual may not
be stressful to another. Continued exposure without
adaptation to a perceived stressor manifests itself in
some form of fatigue or damage to the psycho-physiological
system. Hypertension, ulcers, diabetes, coronary heart
disease, backaches, migraine headaches, and depression
are among examples reported in the literature of such
fatigue and damage.

Initial bodily reaction to a stressor has been
termed the "flight or fight" condition and corresponds
to the alarm reaction or first stage of a tri-phasic
response labeled the "general adaptation syndrome"
(Selye, 1936). Stress-related disorders develop after
the body has entered the third phase--exhaustion stage--
of the tri-phasic stress response. Although quite popu-
lar as measuring tools, recent life events used as pre-
dictors of life stress and serious illness have been
recognized as less than appropriate measures.

The level of perceived stress and the intensity of
stress-related symptoms have been confirmed in the
literature to be functions of the behavior patterns
associated with personality type. To be effective, a
model for coping with stress, it has been argued, must

be individualized as well as internalized. What is effective coping behavior for one individual may not be effective for another.

The complexity of social relationships has been offered in the literature as the most important source of psychological stress. Supported by the literature is a multidisciplinary approach to stress research that includes the psychological, physiological, and sociological dimensions as well as home, work, and social arenas. A stressful situation at home, for example, carries over to the individual's work relationships.

Time pressures and financial concerns have been reported as the two main stress-producing areas for managers and school administrators. Although various categories of coping behaviors have been examined in the literature, there is no definitive placement of behaviors and the effectiveness of any particular coping behavior is considered dependent upon the individual as well as the situation.

CHAPTER III

METHODS AND PROCEDURES

The Population of the Study

The population of the study consisted of all Oregon

private and public intermediate, middle, junior high,

and high school principals, superintendent/principals,

and superintendents as found in the 1981-82 Oregon School

Directory. Of the 613 profiles mailed, 78 were interme-

diate or middle school principals, 81 were junior high

school principals, 206 were high school principals, 83

were superintendent/principals, and 165 were superinten-

dents. Private school administrators numbered 23 and

public school administrators 590. The population of 613

Oregon school administrators by level of position is

found in Table 1.

TABLE 1. Population by Level of Position

Category	Number
Intermediate or middle school principal	78
Junior high school principal	81
High school principal	206
Superintendent/principal	83
Superintendent	165
Private school administrator	23
Public school administrator	590

Certain names appeared more than once in the direc-
tory. For example, one individual was listed as a junior
high school principal as well as a high school principal.
In such cases, one profile was mailed and the adminis-
trator, for purposes of analysis, was categorized at the
higher level--for the above example, high school principal.

The Research Instrument

A questionnaire entitled "School Administrator Coping
Behavior Profile for Occupational Stress" was developed by
the researcher based on elements of survey of Oregon
school administrators (Swent, 1978) and components of a
nationwide study of managers (Kiev and Kohn, 1979). The
profile was tested on an initial group of 20 former or
current administrators--not part of the study's popula-
tion--and then revised and retested on a group of 35
current or former administrators--not part of the study's
population. The profile was then placed into the final
format which appears in Appendix A.

Included in the profile were 24 coping behaviors.
For purposes of the research, the behaviors were cate-
gorized into six factors, four behaviors per factor, as
found in Table 2. The designated factors were (1) relaxa-
tion, (2) self-awareness, (3) verbalization, (4) physical
response, (5) withdrawal, and (6) religion. Clearly
established categories of coping behaviors were not

characterized in the literature and placement of behaviors into classifications, in the literature, varied from author to author. The above classifications were accepted in order to identify general areas of related behavior for purposes of analysis.

The administrators were asked to judge the effectiveness of each behavior in dealing with on-the-job stress by responding to a five-point Likert-type scale with two additional options: "not applicable" (NA) and "not used" (NU). As explained in the profile instructions, NA refers to the fact that the behavior is not applicable to a particular respondent's situation whereas NU refers to the fact that, although the behavior is applicable, it is not used by the respondent. In addition, administrators were asked to (1) rank what they considered the three most effective coping behaviors, (2) express how frequently personally stressful on-the-job situations occur, and (3) rate a desired degree of emphasis in each of seven areas relevant to administrator training programs.

The profile concluded with a two-part open-ended question concerning additional coping behaviors and asked for suggested books, articles, or workshops that might prove helpful to school administrators in dealing with occupational stress.

TABLE 2.	Factor Classification of Coping Behaviors
Factor	Representative Behaviors
Relaxation	Relaxation exercises on the job Allot time for rest and relaxation each day Relaxation exercises away from the job Books on "how to relax"/"how to take charge of your life"
Self-awareness	Establish daily goals and set priorities to accomplish the most important objectives Delegate responsibility instead of carrying entire load Analyze stress-producing situation and decide what is worth worrying about and what isn't Develop sensitivity to my emotional responses to a stress-producing situation
Verbalization	Talk with spouse Talk with colleagues or others on the job Maintain a sense of humor Talk with friend(s)
Physical Response	Engage in physical exercise Build regular sleeping and eating habits Develop sensitivity to my physical responses to a stress-producing situation Work harder
Withdrawal	Avoid bringing work home at end of day Withdraw physically from situation temporarily/take a break Take a number of short vacations Engage in engrossing nonwork activity
Religion	Prayer Religious-affiliated retreats or discussion groups Spiritual readings Religious services

Data Collection Procedures

In February of 1982, the profile was mailed to all Oregon private and public intermediate, middle, junior high, and high school principals, superintendent/principals, and superintendents as found in the 1981-82 Oregon School Directory. Materials mailed were as follows: (1) cover letter (Appendix B); (2) profile (Appendix A); (3) return envelope; and (4) form to be completed for requesting a summary of the results of the study (Appendix C).

Of the 613 profiles that were mailed, 399 profiles were returned, of which 19 were judged invalid. Four administrators did not indicate a full-time position, six administrators indicated that the position was not full-time, and nine administrators listed positions other than those categorized for analysis. For purposes of the study, only full-time administrators were considered. The response rate of 62.0 percent is based on 380 profiles returned in usable form.

Statistical Treatment of the Data

In order to appropriately relate the findings of the study to a prior survey of Oregon school administrators, demographic subgroups, for the most part, corresponded to subgroups used by Swent (1978) in a 1977 survey of Oregon school administrators. The sample for

the present study was separated into subgroups by:

1. frequency of stressful work situations
2. age
3. private or public school
4. level of administrative position
5. district size
6. school size
7. sex
8. school setting
9. length of time in current position
10. length of time in administration
11. hours worked per week
12. hours exercised per week
13. current physical health
14. marital status
15. children living at home.

Frequency of occurrence of personally stressful on-the-job situations was graded on a five-point Likert-type scale ranging from "sometimes" to "quite frequently." The age subgroups were divided into classifications of under 30, 30-39, 40-49, 50-59, and 60 or over. Administrators indicated type of school by checking either "public" or "private."

Level of administration was divided into intermediate or middle principal, junior high principal, high school principal, superintendent/principal, and superintendent. District size was grouped by average daily membership (ADM) of 0-99, 100-499, 500-999, 1,000-2,999, and 3,000 and over. Also grouped by ADM were school sizes of 0-99, 100-249, 250-599, 600-999, and 1,000 and over. School setting was sorted by urban and rural.

Years in current position and years in administration were analyzed as divisions of 1-2, 3-5, 6-10, 11-15,

16-20, and over 20 years. The first two years were treated
as a division due to the additional challenges offered by
a new position. Hours worked per week were analyzed as
less than 40, 40-45, 46-50, 56-60, and over 60. Hours
exercised per week were divided into less than 1, 1-3, 4-6,
7-9, 10-12, and over 12. Current physical health was
graded on a five-point Likert-type scale ranging from
"poor" to "excellent." Administrators supplied data con-
cerning marital status and children living at home by
answering "yes" or "no" to, "Are you married?" and "Are
there any children living at home?"

For each behavior, mean score, standard deviation,
and frequency distribution were computed. Frequency dis-
tribution, percentage in each category, and cumulative
percentage were calculated for appropriate demographic
subgroups. "Not applicable" (NA) and "not used" (NU)
scores were not included in the total number for each
behavior item. NU scores were compiled for selected
demographic subgroups.

Mean scores for each coping behavior were calcu-
lated for the total sample of administrators and for
appropriate demographic subgroups. One-way analysis of
variance was used to test for significant differences
between individual coping behaviors and factors of be-
haviors when compared by:

1. frequency of stressful work situations
2. age
3. private or public school
4. level of administrative position
5. district size
6. school size
7. sex
8. school setting
9. length of time in current position
10. length of time in administration
11. hours worked per week
12. hours exercised per week
13. current physical health
14. marital status
15. children living at home.

The F statistic was utilized at the .05 level of confidence. When significant differences were indicated at this level, supplemental computations to determine where the actual differences existed were employed. Of the various multiple-comparison methods available, the Scheffé test was chosen by the researcher. Although there is some disagreement concerning which multiple-comparison tests are most appropriate, the Scheffé test has been recognized as a conservative tool that reduces the probability of a Type I error occurring (Bruning and Kintz, 1977).

When the data were in the form of frequency counts and nonparametric analyses were prescribed, the Chi-square statistic was applied in order to determine if the sampled situation was compatible with the expected situation based on sample frequencies.

CHAPTER IV

ANALYSIS OF THE DATA

Data reported in this chapter are divided into five sections as follows:

1. Information from the fifteen demographic questions on Part II of the profile

2. Mean scores and rankings for coping behaviors and coping behavior factors

3. Analysis of variance findings (significant F values at a .05 level of confidence) that resulted in significant differences confirmed by Scheffé multiple-comparison testing

4. Chi-square analyses for coping behaviors, coping behavior factors, and demographic groups

5. Means, rankings and analyses of the seven administrative training emphasis areas found in the final portion of the profile.

Demographics

Respondents are categorized by age in Table 3. Of the participating administrators, 73.2 percent were between the ages of 30 and 50 and 77.7 percent were 40 years or over.

TABLE 3.   Respondents by Age

Age	Under 30	30-39	40-49	50-59	60 or over
Frequency	2	83	144	134	17
Percent	.5	21.8	37.9	35.3	4.5
Cumulative percentage	.5	22.4	60.3	95.5	100.0

Data for respondents classified by public and private school are reported in Table 4. Public school administrators comprised 96.3 percent of the sample.

TABLE 4.   Respondents by School

School	Public	Private
Frequency	366	14
Percent	96.3	3.7

The level of position for responding administrators is indicated in Table 5. High school principals accounted for 33.4 percent and superintendents for 30.5 percent of the respondents. Combined, high school principals and superintendents represented 63.9 percent of the sample and 60.5 percent of the population.

TABLE 5.   Respondents by Level of Position

Position	Frequency	Percent
Intermediate (Middle) Principal	40	10.5
Junior High Principal	55	14.5
High School Principal	127	33.4
Superintendent/Principal	42	11.1
Superintendent	116	30.5

The data concerning the categories of respondents by district size are found in Table 6.   Administrators working in districts of 1,000 or more students constituted 64.3 percent of the sample; administrators employed by districts of less than 1,000 students formed 35.7 percent of the sample.

TABLE 6.   Respondents by District Size

District size	0-99	100-499	500-999	1,000-2,999	3,000 and over
Frequency	8	62	65	117	126
Percent	2.1	16.4	17.2	31.0	33.3
Cumulative percentage	2.1	18.5	35.7	66.7	100.0

The distribution of respondents according to school size is depicted in Table 7.   Schools with a population between 100 and 600 students accounted for 59.5 percent of participating administrators.   The discrepancy in the number of administrators who responded to district size

but not to school size is due to the fact that superinten-
dents are most often not associated with a specific
school.

TABLE 7. Respondents by School Size				
School size	0-99	100-249	250-599	600-999	1,000 and over
Frequency	8	61	102	59	44
Percent	2.9	22.3	37.2	21.5	16.1
Cumulative percentage	2.9	25.2	62.4	83.9	100.0

Classification of administrators by urban and rural
school settings is displayed in Table 8. Rural school
setting involved 67.3 percent of administrators.

TABLE 8. Respondents by School Setting		
School setting	Urban	Rural
Frequency	122	251
Percent	32.7	67.3

Information regarding respondent distribution by sex
is presented in Table 9. Male administrators represented
93.9 percent of the sample.

TABLE 9. Respondents by Sex		
Sex	Male	Female
Frequency	355	23
Percent	93.9	6.1

Characterization of respondents by the number of years in current position is reported in Table 10. More than one-quarter--26.9 percent--of administrators were in either the first or second year of their current position. More than one-half--57.3 percent--of administrators indicated that they held their current position for five years or less.

TABLE 10. Respondents by Number of Years in Current Position

Years in current position	1-2	3-5	6-10	11-15	16-20	over 20
Frequency	102	115	82	41	21	18
Percent	26.9	30.3	21.6	10.8	5.5	4.7
Cumulative percentage	26.9	57.3	78.9	89.7	95.3	100.0

Grouping of participants by number of years in administration is shown in Table 11. Nearly one-quarter--23.7 percent--of respondents have been administrators for over 20 years and 63 percent have been in administration for over ten years.

TABLE 11. Respondents by Number of Years in Administration

Years in administration	1-2	3-5	6-10	11-15	16-20	over 20
Frequency	7	50	83	86	63	90
Percent	1.8	13.2	21.9	22.7	16.6	23.7
Cumulative percentage	1.8	15.0	36.9	59.6	76.3	100.0

Data regarding distribution of respondents by number of hours per week are found in Table 12. Over 90 percent --90.2 percent--of administrators reported working more than 45 hours per week. More than half--57.6 percent-- indicated working more than 50 hours per week.

TABLE 12. Respondents by Number of Hours Worked per Week

Hours worked	Less than 40	40-45	46-50	51-55	56-60	over 60
Frequency	1	36	123	106	76	35
Percent	.3	9.5	32.6	28.1	20.2	9.3
Cumulative percentage	.3	9.8	42.4	70.6	90.7	100.0

Categorization of respondents by number of hours ex- ercised per week is displayed in Table 13. Less than one hour of exercise per week was indicated by 10.3 percent of administrators.

TABLE 13. Respondents by Number of Hours Exercised per Week

Hours exercised	Less than 1	1-3	4-6	7-9	10-12	over 12
Frequency	39	130	124	53	21	11
Percent	10.3	34.4	32.8	14.0	5.6	2.9
Cumulative percentage	10.3	44.7	77.5	91.5	97.1	100.0

Respondents were grouped by self-reported physical health as shown in Table 14. On a five-point continuum ranging from "poor" to "excellent" health, 80.7 percent

of administrators reported either a "4" or "5" where "5"
represented excellent health.

TABLE 14.   Respondents by Current Physical Health

Physical health	Poor 1	2	3	4	Excellent 5
Frequency	1	11	61	158	147
Percent	.3	2.9	16.1	41.8	38.9
Cumulative percentage	.3	3.2	19.3	61.1	100.0

Marital status of respondents is presented in Table
15.   Married administrators represented 94.5 percent of
the sample.

TABLE 15.   Respondents by Marital Status

Marital status	Married	Not married
Frequency	358	21
Percent	94.5	5.5

Information regarding children living at home is
found in Table 16.   Administrators with children living at
home comprised 64.7 percent of the sample.

TABLE 16.   Respondents by Children Living at Home

Children living at home	Yes	No
Frequency	244	133
Percent	64.7	35.3

Mean Scores and Rankings of Coping Behaviors and Coping Behavior Factors

The "School Administrator Coping Behavior Profile for Occupational Stress" included 24 behaviors which were grouped for purposes of analysis into six factors, four behaviors per factor. A clearly defined and established placement of coping behaviors regarding specific categories was not offered in the literature. The six factors of coping behaviors, selected for the study, were:

1. relaxation
2. self-awareness
3. verbalization
4. physical response
5. withdrawal
6. religion.

Percentage of respondents who indicated use of each behavior, mean scores and standard deviations for each behavior are reported in Table 17.

Means for the effectiveness of individual coping behaviors ranged from 2.66 for "Books" to 4.71 for "Sense of humor." Only two behaviors had mean scores lower than 3.0--"Books" and "Work harder." Variances for individual coping behaviors ranged from .55 for "Sense of humor" to 1.34 for "Work harder." With one exception, all 14 behaviors with a mean greater than 4.0 had a variance less than 1. Also with one exception, all ten behaviors with a mean less than 4.0 had a standard deviation greater

TABLE 17.   Coping Behavior Mean Scores, Standard
            Deviations, and Percentage Indicating Use
            of Individual Coping Behaviors

No.	Behavior	Mean	S.D.	Percentage Indicating Use
1	Talk with spouse	4.07	.93	79.7
2	Relaxation on job	3.42	1.14	28.1
3	Prayer	4.17	.89	39.7
4	Physical exercise	4.38	.78	83.5
5	Avoid work home	3.85	1.23	88.9
6	Sleep and eat habits	4.14	.95	87.3
7	Retreats or groups	3.57	1.17	24.9
8	Rest and relaxation	4.01	1.00	59.7
9	Goals and priorities	4.22	.84	90.8
10	Relaxation away job	4.28	.91	65.7
11	Talk with colleagues	4.13	.78	98.1
12	Physical sensitivity	3.86	.97	83.8
13	Work harder	2.78	1.34	88.9
14	Books	2.66	1.30	45.2
15	Spiritual readings	3.55	1.27	32.1
16	Withdraw physically	4.13	.93	87.3
17	Sense of humor	4.71	.55	98.9
18	Vacations	4.12	.82	65.2
19	Delegate	4.36	.83	97.1
20	Talk with friend(s)	3.71	1.04	85.2
21	Religious services	3.66	1.13	46.4
22	Nonwork activity	4.14	.91	84.7
23	Analyze	4.10	.96	88.6
24	Emotional sensitivity	3.93	1.00	88.4

than 1. Also with one exception, all ten behaviors with a mean less than 4.0 had a standard deviation greater than 1. Generally, the greater the reported mean for the effectiveness of the behavior, the smaller the variance. Inversely, the greater the variance the smaller the reported mean, i.e., there was a greater disparity in the responses for the behaviors reported low in effectiveness.

The coping behaviors ranked by effectiveness are presented in Table 18. The highest ranked behavior was "Sense of humor," with a mean of 4.71. This behavior also had the largest percentage of respondents who indicated use, 98.9 percent, and the lowest standard deviation with .55. The ten top behaviors ranked by effectiveness are spread over the six factors of coping behaviors. The withdrawal, self-awareness, verbalization, and physical response factors each had two of the top ten behaviors ranked by effectiveness. The religion and relaxation factors each had one of the top ten behaviors ranked by effectiveness.

The five highest ranked behaviors in effectiveness were:

1. Maintain a sense of humor

2. Engage in physical exercise

3. Delegate responsibility instead of carrying entire load

TABLE 18.	Coping Behaviors Ranked by Effectiveness		
No.	Behavior	Mean	Rank
17	Sense of humor	4.71	1
4	Physical exercise	4.38	2
19	Delegate	4.36	3
10	Relaxation away job	4.28	4
9	Goals and priorities	4.22	5
3	Prayer	4.17	6
6	Sleep and eat habits	4.14	7
22	Nonwork activity	4.14	7
11	Talk with colleagues	4.13	8
16	Withdraw physically	4.13	8
18	Vacations	4.12	9
23	Analyze	4.10	10
1	Talk with spouse	4.07	11
8	Rest and relaxation	4.01	12
24	Emotional sensitivity	3.93	13
12	Physical sensitivity	3.86	14
5	Avoid work home	3.85	15
20	Talk with friend(s)	3.71	16
21	Religious services	3.66	17
7	Retreats or groups	3.57	18
15	Spiritual readings	3.55	19
2	Relaxation on job	3.42	20
13	Work harder	2.78	21
14	Books	2.66	22

4. Relaxation exercises away from the job

5. Establish daily goals and set priorities to accomplish the most important objectives.

Coping behaviors ranked by the percentage of respondents who indicated using the behavior are presented in Table 19. The five highest ranked behaviors by use were:

1. Maintain a sense of humor

2. Talk with colleagues or others on the job

3. Delegate responsibility instead of carrying entire load

4. Establish daily goals and set priorities to accomplish the most important objectives

5. Avoid bringing work home at end of day/work harder.

While both ranked fifth by percentage of respondents indicating usage, 88.9 percent, "Avoid work home" and "Work harder" ranked twenty-first and fifteenth in effectiveness, respectively. "Talk with colleagues," second by percentage of respondents indicating usage (98.1 percent), was ranked eighth in effectiveness.

Kiev and Kohn (1979) reported that the effectiveness of coping behaviors, for the managers surveyed, was considerably lower than the usage of the behaviors. Use of a behavior does not necessarily indicate perceived effectiveness of the behavior. "Lack of effectiveness of coping strategies does not lead to decline in their use;

TABLE 19. Coping Behaviors Ranked by Use

No.	Behavior	Percentage in- dicating use	Rank
17	Sense of humor	98.9	1
11	Talk with colleagues	98.1	2
19	Delegate	97.1	3
9	Goals and priorities	90.8	4
5	Avoid work home	88.9	5
13	Work harder	88.9	5
23	Analyze	88.6	6
24	Emotional sensitivity	88.4	7
6	Sleep and eat habits	87.3	8
16	Withdraw physically	87.3	8
20	Talk with friend(s)	85.2	9
22	Nonwork activity	84.7	10
12	Physical sensitivity	83.8	11
4	Physical exercise	83.5	12
1	Talk with spouse	79.7	13
10	Relaxation away job	65.7	14
18	Vacations	65.2	15
8	Rest and relaxation	59.7	16
21	Religious services	46.4	17
14	Books	45.2	18
3	Prayer	39.7	19
15	Spiritual readings	32.1	20
2	Relaxation on job	28.1	21
7	Retreats or groups	24.9	22

managers may employ some of them for purposes other than dealing with stress-related problems" (Kiev and Kohn, 1979, p. 47).

The coping behavior, "Physical exercise," ranked second in effectiveness, and twelfth in usage (83.5 percent). Ranked sixth in effectiveness, the behavior "Prayer" was twenty-first in usage (39.7 percent).

After scoring each behavior on Part I of the profile, administrators were requested, on Part II, to rank the three most effective behaviors. Such a ranking involved eliminating all but three of the previously chosen effective behaviors and then ordering those three behaviors. Many administrators were either unable or chose not to decide upon the three most personally effective behaviors. The difficulty in judging effectiveness is complicated by the fact that the effectiveness of a coping behavior is contingent upon the situation (Fairhurst, 1975).

Frequency, percentage, and order of behaviors ranked first in effectiveness on Part II are displayed in Table 20. When asked to rank the three most personally effective behaviors, 290 administrators responded. The five behaviors ranked first were then:

1. Sense of humor

2. Physical exercise

3. Talk with spouse

4. Talk with colleagues

TABLE 20.	Order of Coping Behaviors Ranked First in Effectiveness			
No.	Behavior	Frequency	Percent	Rank
17	Sense of humor	36	12.4	1
4	Physical exercise	33	11.4	2
1	Talk with spouse	30	10.3	3
11	Talk with colleagues	25	8.6	4
3	Prayer	21	7.2	5
19	Delegate	20	6.9	6
22	Nonwork activity	20	6.9	6
23	Analyze	17	5.9	7
9	Goals and priorities	16	5.5	8
5	Avoid work home	14	4.8	9
10	Relaxation away job	12	4.1	10
16	Withdraw physically	8	2.8	11
6	Sleep and eat habits	7	2.4	12
18	Vacations	7	2.4	12
13	Work harder	6	2.1	13
8	Rest and relaxation	5	1.7	14
20	Talk with friend(s)	4	1.4	15
2	Relaxation on job	3	1.0	16
24	Emotional sensitivity	3	1.0	16
21	Religious services	2	.7	17
12	Physical sensitivity	1	.3	18
7	Retreats or groups	0	0.0	19
14	Books	0	0.0	19
15	Spiritual readings	0	0.0	19

5. Prayer

Of the five, three behaviors were not among the top five from Part I. Two of these three behaviors--"Talk with spouse" and "Talk with colleagues"--were from the verbalization factor. The other behavior--"Prayer"--was from the religion factor.

When behaviors ranked first, second or third in effectiveness were examined (Table 21), "Prayer" dropped from fifth to tenth. A larger percentage of administrators ranked "Prayer" first in effectiveness than second or third combined. For only two other behaviors did the number of administrators who ranked the behavior first in effectiveness exceed the number who ranked the behavior second or third combined--"Relaxation on job" and "Work harder."

Frequency counts for effectiveness of coping behaviors ranked either first or first, second, third in effectiveness by level of position are shown in Table 22. "Sense of humor" was most frequently ranked first in effectiveness for intermediate or middle school principals and junior high school principals. For high school principals, the most frequently ranked first-in-effectiveness behavior was "Talk with spouse." For superintendent/principals, three behaviors were most frequently ranked for first in effectiveness--"Talk with spouse," "Prayer,"

TABLE 21. Order of Coping Behaviors Ranked First,
           Second, or Third in Effectiveness

No.	Behavior	Frequency	Percent	Rank
17	Sense of humor	129	44.5	1
4	Physical exercise	88	30.3	2
19	Delegate	67	23.1	3
1	Talk with spouse	63	21.7	4
9	Goals and priorities	63	21.7	4
11	Talk with colleagues	61	21.0	5
5	Avoid work home	55	19.0	6
23	Analyze	49	16.9	7
22	Nonwork activity	46	15.9	8
10	Relaxation away job	33	11.4	9
18	Vacations	33	11.4	9
3	Prayer	31	10.7	10
16	Withdraw physically	30	10.3	11
6	Sleep and eat habits	28	9.7	12
20	Talk with friend(s)	21	7.2	13
24	Emotional sensitivity	17	5.9	14
12	Physical sensitivity	14	4.8	15
8	Rest and relaxation	13	4.5	16
13	Work harder	11	3.8	17
21	Religious services	6	2.1	18
2	Relaxation on job	5	1.7	19
7	Retreats or groups	5	1.7	20
15	Spiritual readings	2	0.7	21
14	Books	0	0.0	22

TABLE 22. Frequency Counts for Coping Behaviors Ranked Either First or First, Second, Third in Effectiveness by Level of Position

No.	Behavior	POSITION				
		Inter. (mid.) Principal	Junior High Principal	High School Principal	Supt./ Principal	Superin- tendent
1	Talk with spouse	3/6*	4/9	11/22	5/9	7/17
2	Relaxation on job	1/1	0/1	1/1	0/0	1/2
3	Prayer	2/2	2/3	8/14	5/7	4/5
4	Physical exercise	1/6	7/15	10/32	3/10	12/25
5	Avoid work home	2/4	1/9	2/16	3/7	6/19
6	Sleep and eat habits	1/4	1/5	2/10	0/3	3/6
7	Retreats or groups	0/0	0/0	0/2	0/2	0/1
8	Rest and relaxation	0/1	0/1	2/6	1/1	2/4
9	Goals and priorities	0/6	2/7	8/24	5/14	1/12
10	Relaxation away job	3/3	1/4	4/12	2/5	2/9
11	Talk with colleagues	2/4	7/12	8/20	3/6	5/19
12	Physical sensitivity	0/1	0/0	1/7	0/2	0/4
13	Work harder	2/2	1/3	1/3	1/1	1/2
14	Books	0/0	0/0	0/0	0/0	0/0
15	Spiritual readings	0/1	0/0	0/0	0/1	0/0
16	Withdraw physically	0/3	1/4	3/12	2/4	2/7
17	Sense of humor	5/15	10/25	10/38	4/15	7/36
18	Vacations	1/3	0/2	1/5	0/4	5/19
19	Delegate	3/9	1/16	8/15	0/7	8/20
20	Talk with friend(s)	0/4	2/4	2/7	0/2	0/4
21	Religious services	0/0	0/0	1/2	0/1	0/3
22	Nonwork activity	1/3	1/8	5/14	1/3	12/18
23	Analyze	0/3	4/8	6/15	2/8	5/15
24	Emotional sensitivity	0/0	1/2	1/8	1/2	0/5

*First in effectiveness/first, second or third in effectiveness.

and "Goals and priorities." For superintendents, two
behaviors were most frequently ranked for first in effec-
tiveness--"Physical exercise" and "Nonwork activity."
Administrators at all five levels of position ranked
"Sense of humor" most frequently for first, second, or
third in effectiveness.

The data concerning the number and percentage of re-
spondents who indicated that they did not use particular
behaviors is presented in Table 23. "Not applicable" re-
sponses were disregarded and not tallied. Thus, a "not
used" response refers to applicable behaviors that were
not utilized by respondents. More than half of the re-
spondents stated that they did not use five behaviors:

1. Retreats or groups (68.2 percent)

2. Relaxation on job (67.4 percent)

3. Spiritual readings (60.5 percent)

4. Prayer (54.2 percent)

5. Books (50.3 percent).

Order of coping behavior factors is displayed in
Table 24. The verbalization factor ranked first with a
mean of 4.18, followed by the self-awareness factor with
a mean of 4.14. An inverse relationship was found be-
tween factor mean score and standard deviation.

TABLE 23.	Frequency and Percentage of Respondents Indicating "Not Used" for Individual Coping Behaviors		
No.	Behavior	Frequency	Percent
1	Talk with spouse	56	14.7
2	Relaxation on job	256	67.4
3	Prayer	206	54.2
4	Physical exercise	56	14.7
5	Avoid work home	31	8.2
6	Sleep and eat habits	42	11.1
7	Retreats or groups	259	68.2
8	Rest and relaxation	147	38.7
9	Goals and priorities	31	8.2
10	Relaxation away job	128	33.7
11	Talk with colleagues	6	1.9
12	Physical sensitivity	53	13.9
13	Work harder	28	7.4
14	Books	191	50.3
15	Spiritual readings	230	60.5
16	Withdraw physically	47	12.4
17	Sense of humor	1	0.3
18	Vacations	118	31.1
19	Delegate	9	2.4
20	Talk with friend(s)	50	13.2
21	Religious services	178	46.8
22	Nonwork activity	50	13.2
23	Analyze	38	10.0
24	Emotional sensitivity	37	9.7

TABLE 24.   Order of Coping Behavior Factors

Factor	Mean	S.D.	Rank
Verbalization	4.18	.54	1
Self-awareness	4.14	.62	2
Withdrawal	4.05	.68	3
Physical Response	3.73	.69	4
Relaxation	3.27	1.53	5
Religion	2.03	1.97	6

Analysis of Variance Results for Coping Behaviors and Coping Behavior Factors

In order to determine if the reported differences between demographic subgroups were statistically significant, one-way analysis of variance was computed. The reported effectiveness of both individual coping behaviors and coping behavior factors served as dependent variables throughout the analysis. The independent variables were the demographic subgroups. Depending upon the particular analysis, the reported frequency of personally stressful on-the-job situations served as either a dependent or independent variable in the analysis of variance. Finally, analysis of variance was performed between selected demographic groups where one group served as the independent variable and the other group as the dependent variable. The data were analyzed at the Oregon State University computer center by means of the Statistical Package for the Social Sciences.

In order to determine where the actual subgroup differences existed, the Scheffé multiple-comparison method was chosen. A conservative instrument, the Scheffé test reduced the possibility of a Type I error occurring, i.e., the Scheffé test increased the probability that, although real differences existed, the differences were not recognized by the instrument (Bruning and Kintz, 1977). Stringent post hoc analysis was ensured by utilizing the Scheffé multiple-comparison method.

The only analysis of variance findings reported are those differences statistically significant at the .05 level of confidence, confirmed by Scheffé multiple-comparison testing. Thus, significant differences at the 0.5 level of confidence that were not confirmed by the Scheffé method were not reported.

Data for the frequency of occurrence of personally stressful on-the-job situations are found in Table 25. "Frequently" to "quite frequently" were the responses chosen by 62.4 percent of the administrators for the frequency of occurrence of personally stressful on-the-job situations.

For the sake of brevity and clarity of reading, all analysis of variance tables and data are found in Appendix D. A brief summary for each analysis of variance confirmed by the Scheffé test at the .05 level of confidence follows:

TABLE 25.   Respondents by Frequency of Occurrence of
             Personally Stressful On-the-Job Situations

Frequency of Occurrence	Sometimes 1	2	Frequently 3	4	Quite Frequently 5
Frequency	63	61	109	55	42
Percent	19.1	18.5	33.0	16.7	12.7
Cumulative percentage	19.1	37.6	70.6	87.3	100.0

1. The effectiveness of "Avoid work home" with the fre-
   quency of occurrence of personally stressful on-the-
   job situations: An F probability of .008 was gener-
   ated. Scheffé analysis established a significant
   difference between between subgroups 1 ("sometimes")
   and 4 (between "frequently" and "quite frequently").
   Over the response range of "sometimes" to "quite fre-
   quently," a general decline in the mean for "Avoid
   work home" was identified. In general, an inverse
   relationship was found, i.e., the lower the frequency
   of occurrence of stressful situations, the higher the
   reported effectiveness of "Avoid work home."

2. The effectiveness of "Retreats or groups" with the
   frequency of occurrence of personally stressful on-
   the-job situations: An F probability of .006 was
   generated. Scheffé post hoc analysis indicated a
   significant difference between subgroups 1 ("some-
   times") and 4 (between "frequently" and "quite

frequently"). Over the response range of "sometimes" to "quite frequently," a general decline in the mean for "Retreats or groups" was identified. In general, an inverse relationship was found, i.e., the lower the frequency of occurrence of stressful situations, the higher the reported effectiveness of "Retreats or groups." As reported previously, "Retreats or groups" was used by less than one-quarter—24.9 percent—of the respondents.

3. The effectiveness of "Talk with colleagues" with the frequency of occurrence of personally stressful on-the-job situations: An F probability of .008 was generated. Scheffé testing identified a significant difference between subgroups 1 ("sometimes") and 3 ("frequently"). Administrators who reported "sometimes" had a significantly higher mean for the effectiveness of "Talk with colleagues" than administrators who reported "frequently."

4. The effectiveness of "Analyze" with the frequency of occurrence of personally stressful on-the-job situations: An F probability of .002 was generated. Scheffé analysis established significant differences between subgroup 4 and subgroups 1 ("sometimes"), 3 ("frequently"), and 5 ("quite frequently"). Subgroup 4, with a mean of 3.59 on "Analyze," was the only subgroup whose mean did not exceed 4.0.

5. The <u>frequency</u> <u>of</u> <u>occurrence</u> <u>of</u> <u>personally</u> <u>stressful</u>
   <u>on-the-job</u> <u>situations</u> <u>with</u> <u>hours</u> <u>worked</u> <u>per</u> <u>week</u>:
   An F probability of .001 was generated. Eliminating
   the "less than 40" hours-worked-per-week subgroup,
   due to large sample fluctuation, the Scheffé test re-
   vealed a significant difference between administra-
   tors working 40-45 hours and administrators working
   over 60 hours per week. The more hours an administra-
   tor worked per week the higher the reported mean for
   the frequency of stressful on-the-job situations.

6. The <u>effectiveness</u> <u>of</u> <u>"Prayer"</u> <u>with</u> <u>type</u> <u>of</u> <u>school</u>:
   An F probability of .045 was generated. Post hoc
   analysis identified a significant difference between
   public and private school administrators. Private
   school administrators reported a significantly higher
   mean for the effectiveness of "Prayer" as a coping be-
   havior. Of participating administrators, 39.7 percent
   indicated use of "Prayer" as a coping behavior.

7. The <u>effectiveness</u> <u>of</u> <u>"Avoid</u> <u>work</u> <u>home"</u> <u>with</u> <u>type</u> <u>of</u>
   <u>school</u>: An F probability of .048 was generated.
   Scheffé analysis indicated a significant difference
   between subgroups. Public school administrators re-
   ported a significantly higher mean for "Avoid work
   home."

8. The <u>effectiveness</u> <u>of</u> <u>"Retreats</u> <u>or</u> <u>groups"</u> <u>with</u> <u>type</u>

of school: An F probability of .001 was generated.
Post hoc analysis revealed a significant difference
between subgroups. Private school administrators
reported a significantly higher mean (4.78). Less
than one-quarter of participating administrators--
24.9 percent--indicated use of this coping behavior.

9. The effectiveness of "Spiritual readings" with type
of school: An F probability of .006 was generated.
Scheffé testing found a significant difference be-
tween subgroups. Private school administrators re-
ported a significantly higher mean of 4.50 for the
effectiveness of "Spritual readings" as a coping be-
havior. Of participating administrators, 32.1 percent
indicated use of this behavior.

10. The effectiveness of "Religious services" with type
of school: An F probability of .02 was generated.
Post hoc analysis established a significant differ-
ence between subgroups. Private school administra-
tors scored a significantly higher means of 4.38 on
the effectiveness of "Religious services" as a coping
behavior. Of all respondents, 46.4 percent indicated
use of this strategy.

11. The effectiveness of "Delegate" with level of posi-
tion: An F probability of .02 was generated.
Scheffé testing identified a significant difference

between the means of intermediate (middle) school principals and superintendent/principals. Intermediate (middle) school principals indicated a significantly higher mean (4.56).

12. The effectiveness of "Analyze" with level of position: An F probability of .0099 was generated. Post hoc analysis revealed a significant difference between the means of intermediate (middle) school principals and superintendent/principals. The significantly higher mean of 4.10 was reported by superintendent/principals.

13. The effectiveness of "Rest and relaxation" with school setting: An F probability of .03 was generated. Post hoc Scheffé analysis revealed a significant difference between urban and rural subgroups. Administrators in schools with a rural setting reported a higher mean of 4.13.

14. The effectiveness of "Relaxation away job" with school setting: An F probability of .02 was generated. The Scheffé analysis indicated a significant difference between subgroups. Administrators in schools with rural settings reported a higher mean of 4.36.

15. The effectiveness of "Retreats or groups" among male and female administrators: A higher mean of 4.50

was reported by female administrators. Less than
one-quarter--24.9 percent--of administrators indi-
cated use of "Retreats or groups" as a coping
behavior.

16. The effectiveness of "Goals and priorities" among
    male and female administrators: An F probability of
    .002 was generated. Scheffé testing indicated a
    significant difference between subgroups. Female
    administrators reported a higher mean of 4.74.

17. The effectiveness of "Talk with friend(s)" among
    male and female administrators: An F probability of
    .03 was generated. The Scheffé instrument identi-
    fied a significant difference between subgroups.
    The higher mean of 4.20 was reported by female
    administrators.

18. The effectiveness of the verbalization factor with
    the frequency of occurrence of personally stressful
    on-the-job situations: An F probability of .03 was
    generated. Scheffé analysis revealed a significant
    difference between subgroups 1 ("sometimes") and 3
    ("frequently"). Subgroup 1 reported a significantly
    higher mean (4.35) for the effectiveness of the
    verbalization factor of coping behaviors.

19. The effectiveness of the religion factor with the
    type of school: An F probability of .00 was

generated. Post hoc analysis indicated a significant difference between subgroups. Private school administrators reported a mean of 4.20 and public school administrators a mean of 1.95.

20. The effectiveness of the verbalization factor among male and female administrators: An F probability of .04 was generated. Scheffé testing found a significant difference between subgroups. Female administrators reported a higher mean of 4.40.

21. The effectiveness of the relaxation factor with the number of hours exercised per week: An F probability of .0001 was generated. Scheffé analysis established a significant difference between subgroup 1 (less than 1 hour) and all other subgroups. Subgroup 1 reported the lowest mean of 2.20. Over the response range of "less than 1 hour" to "over 12 hours," a continuous increase in the mean for the effectiveness of the relaxation factor was found. The greater the number of hours exercised, the greater the mean for the relaxation factor.

Chi-Square Results for Coping Behaviors, Coping Behavior Factors, and Demographic Groups

Nonparametric analyses on behavior rankings and selected demographic groups were performed by use of the Chi-square statistic applied to contingency tables. The

Chi-square instrument was utilized in order to determine
if behavior rankings and demographic groups were inter-
related (dependent). Based on sample frequencies, a
total of eight significant differences, at the .05 level
of confidence, were found to exist between groups. Con-
tingency-table data and Chi-square scores, significant
at the .05 level of confidence, are found in Appendix E.

In each of the contingency tables at least one cell
had an expected frequency of less than 5. Chi-square is
not satisfactory for multiple-cell contingency tables
when any expected cell frequency falls below 5 (Wert,
Neidt, and Ahmann, 1954; Christensen, 1977). Appropriate
combinations of subgroups did not remedy the situation,
i.e., subgroups could not be suitably combined to achieve
a minimum frequency of 5 for all cells.

A brief summary of the Chi-square analysis, signi-
ficant at the .05 level of confidence, follows:

1. Number of hours worked per week with frequency of
   occurrence of personally stressful on-the-job
   situations: Of the 189 administrators who reported
   working more than 50 hours per week, 70.9 percent
   indicated that stressful situations occurred at
   least "frequently." Of the 141 administrators who
   reported working 50 hours or less per week, 51.8
   percent indicated that stressful situations occurred

at least "frequently." Of the 42 administrators reporting "quite frequently," 73.8 percent worked more than 50 hours per week. Of the 30 administrators who indicated working more than 60 hours per week, 83.3 percent indicated that stressful situations occurred at least "frequently." The data appeared to support a direct relationship between the hours worked per week and the frequency of occurrence of stressful situations.

2. Number of hours worked per week with level of position: High school principals comprised 33.4 percent of the sample. Of the 111 administrators who reported working more than 55 hours, 49.5 percent were high school principals. Of the 35 administrators who reported working more than 60 hours per week, 57.1 percent were high school principals. Work weeks of more than 55 hours were reported by:

a) 17.5 percent of intermediate (middle) school principals

b) 20.0 percent of junior high school principals

c) 42.4 percent of high school principals

d) 22.0 percent of superintendent/principals

e) 26.7 percent of superintendents.

Disparity between sampled and expected frequencies occurred in the high school principal subgroup.

3. Number of hours worked per week with district size:
   Of the 216 administrators who reported work weeks of
   over 50 hours, 69.9 percent were employed by dis-
   tricts with student populations of 1,000 and over.
   Of the 133 administrators employed by districts with
   a population of less than 1,000, 48.9 percent re-
   ported working over 50 hours.

4. Number of hours worked per week with school size:
   Since superintendents are not generally associated
   with a specific school, the number of administrators
   who responded to "school size" was appreciably less
   than the number who responded to "district size."
   A total of 67 administrators indicated school size
   of less than 250 students. Of the 23 administrators
   who reported working less than 46 hours per week,
   52.2 percent indicated school size of less than 250
   students. Of the 84 administrators who reported
   working more than 55 hours per week, 76.2 percent
   indicated school size of 250 or more students.

5. Number of hours exercised per week with age: The
   age subgroups and the subgroup percentages that re-
   ported exercising four or more hours per week were:

   a) 30 to 39 (40.3 percent)

   b) 40 to 49 (48.0 percent)

   c) 50 to 59 (69.2 percent)

d) 60 or over (76.6 percent).

A direct relationship appeared to exist between exercising four or more hours per week and the age subgroup of the administrator. The higher the age subgroup, the higher the percentage of administrators who reported exercising four or more hours per week.

6. Number of hours exercised per week with school size: Of 228 administrators who indicated school size of less than 1,000 students, 6.6 percent reported exercising ten or more hours per week. Of 44 administrators who indicated school size of 1,000 students and over, 18.2 percent reported exercising ten or more hours per week.

7. Number of hours exercised per week with current physical health: Of 304 administrators who reported good (4) or excellent (5) health, 66.1 percent indicated exercising between three and six hours per week. Of 147 administrators who reported excellent (5) health, 61.2 percent indicated exercising more than three hours per week. Of 61 administrators who reported average (3) health, 42.6 percent indicated exercising more than three hours per week.

8. Current physical health with frequency of occurrence of personally stressful on-the-job situations: Of

63 administrators who indicated "sometimes," 60.3

percent reported "excellent" physical health. Of

108 administrators who indicated "frequently," 28.7

percent reported "excellent" physical health.

Mean Scores, Rankings, and Analysis of Administrative Training Emphasis Areas

Part III of the profile incorporated seven areas of

administration associated with the handling of occupation-

al stress:

1. Physical aspects of working environment

2. Time management

3. Self-awareness

4. Interpersonal relations

5. Compliance procedures and guidelines

6. Conflict resolution, negotiation

7. Community relation techniques.

In reference to the above areas, administrators were

asked, "Based upon your administrative training back-

ground, what degree of emphasis in the Oregon administra-

tive certification program do you feel would better en-

able the administrative candidate to deal with on-the-job

stress?" Administrators responded to a five-point Likert-

type scale where responses ranged from "de-emphasize" (1)

to "strongly emphasize" (5).

Means, standard deviations, and order of administrative training emphasis areas are found in Table 26. The highest mean (4.53) was reported for the "interpersonal relations" area. The "time management" area ranked second, followed by "conflict resolution, negotiation."

Analysis of variance was computed on the seven emphasis areas with level of position and years in administration. With one exception ("compliance procedures and guidelines" with years in administration), all categories of position and years in administration were found to be statistically indistinguishable with respect to the seven emphasis areas. Thus, other than the aforementioned exception, no significant F values at the .05 level of confidence were established.

TABLE 26. Order of Administrative Training Emphasis Areas

Emphasis area	Mean	Standard deviation	Rank
Interpersonal relations	4.53	.70	1
Time management	4.50	.61	2
Conflict resolution, negotiation	4.39	.69	3
Self-awareness	4.13	.69	4
Community relation techniques	4.01	.85	5
Compliance procedures and guidelines	3.50	.91	6
Physical aspects of working environment	3.13	.86	7

For analysis of variance on "Compliance procedures and guidelines" with years in administration, an F

probability of .04 was generated. All subgroups, except respondents in their first or second year of administration, reported a mean of less than 3.67. Administrators in their first or second year reported a mean of 4.0 on "Compliance procedures and guidelines." Post hoc Scheffé analysis did not identify a significant difference between subgroups.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this research was to investigate Oregon private and public school administrators' conceptions of how they cope with job-related stress. Recommendations for educational preparation and inservice programs for administrators were addressed. The following questions served as a focus for the study:

1. What are the most commonly used techniques employed by Oregon school administrators in dealing with occupational sources of stress?

2. Which coping methods are considered most effective by Oregon school administrators?

3. What relationships exist among Oregon school administrators' conceptions of coping techniques when compared on demographic variables such as level of administrative position, experience, age, sex, school and district size, hours worked per week, hours exercised per week, present health condition, rural/urban school setting, private/public school?

4. What preparation and inservice programs do Oregon school administrators feel can better equip the administrator to more effectively handle on-the-job stress?

A questionnaire entitled "School Administrator Coping Behavior Profile for Occupational Stress" was developed by the researcher and mailed to 613 Oregon school administrators. Included in the profile were 24 coping behaviors which were categorized into six factors. The factors were:

1. relaxation
2. self-awareness
3. verbalization
4. physical response
5. withdrawal
6. religion.

The administrators were requested to judge the effectiveness of each behavior by responding to a five-point Likert-type scale. In addition, administrators were asked to:

1. Rank what they considered the three most effective coping behaviors.
2. Express how frequently personally stressful on-the-job situations occur.
3. Rate a desired degree of emphasis in each of seven areas relevant to administrator training programs.

A basic overview of the Oregon school administrator is offered by the following selected demographic statements:

1. Of sample administrators, 77.7 percent were 40 years of age or older.

2. Of sample administrators, 63.9 percent were represented by high school principals and superintendents.

3. Schools with a population between 100 and 600

students accounted for 59.5 percent of participating administrators.

4. Of sample administrators, 67.3 percent worked in a rural school setting.

5. Male administrators represented 93.9 percent of the sample.

6. More than one-quarter (26.9 percent) of administrators were in either the first or second year of their current position.

7. Nearly one-quarter (23.7 percent) of respondents indicated more than 20 years of experience in administration.

8. Of sample administrators, 63.0 percent indicated more that ten years experience in administration.

9. More than half (57.6 percent) of administrators indicated working more than 50 hours per week.

10. Good or excellent health was reported by 80.7 percent of administrators.

11. Married administrators represented 94.5 percent of the sample.

12. Of sample administrators, 64.7 percent indicated having children living at home.

The top five coping behaviors considered effective by respondents and the corresponding factors were:

1. Maintain a sense of humor (verbalization)

2. Engage in physical exercise (physical response)

3. Delegate responsibility instead of carrying entire load (self-awareness)

4. Relaxation exercises away from the job (relaxation)

5. Establish daily goals and set priorities to accomplish the most important objectives (self-awareness).

The top five coping behaviors and the corresponding factors used by respondents were:

1. Maintain a sense of humor (verbalization)

2. Talk with colleagues or others on the job (verbalization)

3. Delegate responsibility instead of carrying entire load (self-awareness)

4. Establish daily goals and priorities to accomplish the most important objectives (self-awareness)

5. Avoid bringing work home at end of day (withdrawal)/ work harder (physical response).

The top five behaviors with corresponding factors specifically ranked first (Part II of the profile) by the respondents were:

1. Maintain a sense of humor (verbalization)

2. Engage in physical exercise (physical response)

3. Talk with spouse (verbalization)

4. Talk with colleagues (verbalization)

5. Prayer (religion).

The top five behaviors with corresponding factors ranked either first, second, or third (Part II of profile) were:

1. Maintain a sense of humor (verbalization)

2. Engage in physical exercise (physical response)

3. Delegate responsibility instead of carrying entire load (self-awareness)

4. Talk with spouse (verbalization)/establish daily goals and set priorities to accomplish the most important objectives (self-awareness)

5. Talk with colleagues (verbalization).

More than 50 percent of the respondents indicated that they did not use five behaviors:

1. Religious-affiliated retreats or discussion groups (68.2 percent)

2. Relaxation exercises on the job (67.4 percent)

3. Spiritual readings (60.5 percent)

4. Prayer (54.2 percent)

5. Books on "how to relax"/"how to take charge of your life" (50.3 percent).

The coping behavior factor considered most effective by administrators was verbalization. Second and third in effectiveness were self-awareness and withdrawal. The factor reported least effective was the religion factor.

Analysis of variance followed by the Scheffé multiple-comparison method at the .05 level of confidence identified a number of significant differences. Some selected significant differences were:

1. In general, the lower the frequency of occurrence of stressful situations, the higher the reported effectiveness of "Avoid work home." A significant difference was established between the subgroup of administrators that reported "sometimes" and the subgroup that reported more than "frequently" for the frequency of occurrence of stressful on-the-job situations.

2. Administrators who reported "sometimes" for the frequency of occurrence of stressful work situations had a significantly higher mean for the effectiveness of "Talk with colleagues" than those who reported "frequently."

3. The more hours an administrator worked per week the higher the reported mean for the frequency of stressful on-the-job situations. A significant difference was revealed between administrators working 40 to 45 hours and those working over 60 hours per week.

4. Significant differences were reported between public and private school administrators for five behaviors and one factor. Public school administrators reported a significantly higher mean for the

effectiveness of "Avoid work home." Private school administrators indicated significantly higher means for the effectiveness of:

a) "Prayer"

b) "Retreats or groups"

c) "Spiritual readings"

d) "Religious services"

e) Religion factor.

5. Intermediate (middle) school principals indicated a significantly higher mean than superintendent/principals for the effectiveness of "Delegate."

6. Superintendent/principals reported a significantly higher mean than intermediate (middle) school principals for the effectiveness of "Analyze."

7. Administrators working in a rural school setting reported significantly higher means for the effectiveness of "Rest and relaxation" and "relaxation away from the job" than did those working in an urban setting.

8. Female administrators indicated a significantly higher mean for the effectiveness of:

a) "Retreats or groups"

b) "Goals and priorities"

c) "Talk with friend(s)"

d) Verbalization factor.

9. The lowest mean for the effectiveness of the relaxation factor was reported by the subgroup of administrators that indicated exercising less than one hour per week. A significant difference was established between this subgroup and all other subgroups for the effectiveness of the relaxation factor.

Sample frequency counts were components of the Chi-square analysis and offered a further description of the Oregon school administrator:

1. The higher the age subgroup, the higher the percentage of administrators who reported exercising four or more hours per week.

2. Work weeks of more than 55 hours were reported by:

   a) 17.5 percent of intermediate (middle) school principals

   b) 20.0 percent of junior high school principals

   c) 42.4 percent of high school principals

   d) 22.0 percent of superintendent/principals

   e) 26.7 percent of superintendents.

3. For the frequency of occurrence of stressful on-the-job situations, 60.3 percent of administrators who reported "sometimes" indicated excellent health. Of those who reported "frequently," 28.7 percent indicated excellent health.

On Part III of the profile, respondents were asked to rate a desired degree of emphasis in each of seven areas relevant to administrator training programs. The highest mean was reported for the "interpersonal relations" area. "Time management" ranked second, followed by "Conflict resolution, negotiation." Significant differences were not found between subgroups on the emphasis areas when analysis of variance and Scheffé testing were applied.

On Part IV of the profile, respondents were offered the opportunity to respond in an open-ended manner to:

1. "Indicate any additional coping behaviors, not included in the profile, that you have found to be effective."

2. "Share with us any books, articles, workshops, etc. that you have found useful in dealing with on-the-job stress and that you feel might be appropriate to include in an administrative certification program."

Selected respondent comments and suggested books, workshops and periodicals are found in Appendix F. Of the 380 participating administrators, 116 (30.5 percent) offered comments and suggestions.

Conclusions

Analysis of the data supported the following selected conclusions:

1. Of the 24 coping behaviors incorporated into the profile, four were <u>used</u> by over 90 percent of the respondents:

    a) "Sense of humor" (verbalization factor)

    b) "Talk with colleagues" (verbalization factor)

    c) "Delegate" (self-awareness factor)

    d) "Goals and priorities" (self-awareness factor).

2. Of the 24 coping behaviors incorporated into the profile, the four coping methods <u>considered</u> <u>most</u> <u>effective</u> by Oregon school administrators were:

    a) "Sense of humor" (verbalization factor)

    b) "Physical exercise" (physical response factor)

    c) "Delegate" (self-awareness factor)

    d) "Relaxation away from the job" (relaxation factor).

    <u>Discussion</u>: In the conceptions of Oregon school administrators, an apparent discrepancy existed between behaviors used and behaviors considered effective in dealing with on-the-job stress. "Sense of humor" ranked first in usage and first in effectiveness. Other behaviors ranked high-in-use/lower-in-effectiveness. "Talk with colleagues" ranked second

in use and eighth in effectiveness. "Avoid work home" ranked fifth in use and fifteenth in effectiveness. "Work harder" also ranked fifth in use and twenty-first in effectiveness. Other behaviors ranked low-in-use/higher-in-effectiveness. "Physical exercise" ranked twelfth in use but second in effectiveness. "Relaxation away from the job" ranked fourteenth in use but fourth in effectiveness.

The data appeared to support the conclusion that, for Oregon school administrators, the high use of a behavior did not always imply conceived effectiveness of that behavior in dealing with on-the-job stress. Conversely, the conceived effectiveness did not always imply high use of the behavior.

Using data from a nationwide survey of managers, Kiev and Kohn (1979) reported that participants identified the four most effective ways to cope with stress as:

a. Analyze the stressful situation and decide what is worth worrying about and what isn't (ranked tenth by Oregon administrators)

b. Delegate responsibility instead of carrying entire load (ranked third by Oregon administrators)

c. Establish daily goals and set priorities (ranked fifth by Oregon administrators) to accomplish the most important objectives

d. Engage in physical exercise (ranked second by
   Oregon administrators).

"Maintain a sense of humor," ranked first in effec-
tiveness by Oregon administrators, was not a com-
ponent of the Kiev and Kohn survey.

3. Although not ranked among the first five behaviors
   for effectiveness (Part I of profile), "Talk with
   spouse," "Talk with colleagues," and "Prayer" were
   among the top five behaviors specifically chosen as
   first in effectiveness (Part II). Of the three
   aforementioned behaviors, only "Talk with spouse"
   and "Talk with colleagues" remained in the top five
   when chosen as either first, second or third in ef-
   fectiveness (Part II).

   Discussion: Most respondents (21 of 31) who chose
   "Prayer" as either first, second, or third in effec-
   tiveness ranked the behavior first. The data ap-
   peared to support the interpretation that, although
   ranked nineteenth by use, "Prayer" as a coping be-
   havior, when conceived to be effective, was con-
   ceived to be very effective relative to the other
   behaviors incorporated into the profile.

   "Talk with colleagues" ranked eighth in effec-
   tiveness on Part I and fifth on Part II when be-
   haviors were chosen as either first, second or third.

This discrepancy was not as large as the discrepancy that occurred for "Talk with spouse" which ranked eleventh in effectiveness on Part I but fourth on Part II. The low mean for "Talk with spouse" (Part I) might have been due to this behavior's first position on the profile, offering respondents no previous behaviors for comparison.

4. In general, the lower the frequency of occurrence of personally stressful on-the-job situations, the higher the reported effectiveness of "Avoid work home."

5. For the frequency of occurrence of personally stressful on-the-job situations, administrators who reported "sometimes" had a significantly higher mean for the effectiveness of "Talk with colleagues" than administrators who reported "frequently."

6. Administrators who reported working over 60 hours per week indicated a significantly higher mean for the frequency of occurrence of personally stressful on-the-job situations than administrators who reported working 40 - 45 hours per week. The more hours an administrator reported working per week, the higher the mean for the frequency of occurrence of personally stressful on-the-job situations.

Discussion: Suinn (1976) hypothesized that stress plays a key role in Type A behavior. The Type A

person has a tendency to overwork and to be physically inactive (Friedman and Rosenman, 1974). Working over 60 hours per week equates to over 12 hours per day for a five-day work week. Of administrators who indicated "hours worked per week," 35 (9.3 percent) reported working over 60 hours per week. This excessive number of work hours may be indicative of Type A behavior especially when statistically linked with increased frequency of occurrence of personally stressful on-the-job situations.

7. Significantly higher means were computed for responses by private school administrators than for public school administrators for the effectiveness of:

   a) "Prayer"
   b) "Retreats or groups"
   c) "Spiritual readings"
   d) "Religious services"
   e) Religion factor.

   Discussion: The difference in responses may be attributed to a relationship between respondents' affiliation with religiously oriented schools: of the 23 private schools, 16 appeared to have this association.

8. The data indicated a significantly higher mean for the responses from intermediate (middle) school principals than for superintendent/principals for

the effectiveness of "Delegate."

9. The data indicated a significantly higher mean for the responses from superintendent/principals than for intermediate (middle) school principals for the effectiveness of "Analyze."

Discussion: A low mean on "Delegate" and a high mean on "Analyze" for superintendent/principals might be accounted for by the fact that superintendent/principals quite often have no other administrator to delegate to, thus necessitating personal analytical behavior.

A satisfactory explanation for a high mean on "Delegate" and a low mean on "Analyze" for intermediate (middle) school principals was not apparent to the researcher.

10. A significantly higher mean for the effectiveness of "Rest and relaxation" and "Relaxation away from the job" was obtained from rural school administrators' responses when compared to urban area administrators' responses.

Discussion: Although studies have found that "the prevalence of hypertension is higher in urban than in rural areas," Davidson and Cooper reported:

> It is apparent that the literature on the overall health differences between urban and rural populations is somewhat inconsistent, and it is still difficult to demonstrate a relationship to which these differences can be attributed (p. 566, 1981).

A specific explanation for why administrators in rural school settings responded more positively for the effectiveness of "Rest and relaxation" and "Relaxation away from the job" was not apparent to the researcher.

11. The mean response for females was significantly higher than for males regarding the effectiveness of:

a) "Goals and priorities"

b) Verbalization factor.

Discussion: In a 1977 survey of Oregon school administrators, Swent (1978) reported:

a) Males perceived significantly more stress than females from time spent in meetings (.05 level of confidence)

b) Males perceived significantly more stress than females from evaluating staff members (.01 level of confidence)

c) Males perceived significantly more stress than females from resolving differences with their superiors (.01 level of confidence).

In reference to resolving differences with superiors, Swent reported, "... women perceived much less stress than did their male counterparts. No clear reason for this seemed evident" (p. 138, 178). The data analyzed for this study appeared

to support an explanation for all three of the afore-
mentioned Swent findings. Verbalization is an essen-
tial component of meetings, staff evaluation, and
resolving differences with superiors. The effective
use of "Goals and priorities" is an essential com-
ponent of meetings and staff evaluation. The Swent
findings may be explained by the significantly higher
means reported by female administrators for the con-
ceived effectiveness of "Goals and priorities" and
the verbalization factor.

12. Compared to all other subgroups of "Hours exercised
per week," a significantly lower mean on the relaxa-
tion factor was reported by the subgroup of adminis-
trators that indicated exercising less than one hour
per week.

Discussion: Of administrators who indicated "hours
exercised per week," 39 (10.3 percent) reported ex-
ercising less than one hour. Again, such lack of
exercise (compared to other respondents) and con-
ceived low effectiveness of the relaxation factor
may be interpreted as being indicative of Type A be-
havior particularly if the lack of exercise was due
to a sense of time urgency.

13. Of the seven administrative training emphasis areas
related to occupational stress on Part III of the
profile, the high means were reported for the

"interpersonal relations" and "time management" areas, respectively.

Discussion: In order to better enable an Oregon administrative candidate to deal with on-the-job stress, respondents identified "interpersonal relations" as the area to be most emphasized in certification programs. At first glance, this conclusion might appear to be contradictory to Swent's (1978) findings. However, this may not be the case. Swent (1978) reported that the factors of administrative stress most "bothersome" to Oregon administrators were, respectively:

a) Administrative constraints

b) Administrative responsibility

c) Interpersonal relations.

The stressors comprising Swent's (1978) administrative constraints and administrative responsibility factors appeared to involve interpersonal aspects. Stressors in the administrative constraints factor included:

a) "Having my work frequently interrupted by staff members who want to talk"

b) "Being interrupted frequently by telephone calls"

c) "Feeling that meetings take up too much time."

Stressors in the administrative responsibility factor included:

a) "Being involved in the collective bargaining process"

b) "Speaking in front of groups"

c) "Supervising and coordinating the tasks of many people"

d) "Evaluating staff members."

Thus, although Swent (1978) reported "interpersonal relations" as the third most "bothersome" factor of stressors, there was an apparent overlapping of interpersonal stressors in the factors utilized.

Recommendations

Relevant to school administrator preparation, certification, and further research in the area of occupational stress, the following recommendations are offered:

1. The development of educational opportunities for the school administrator that address and aim to diminish the apparent discrepancy that exists between behaviors used and behaviors considered effective in dealing with on-the-job stress.

   Discussion: A number of high-in-use/lower-in-effectiveness and low-in-use/higher-in-effectiveness

behaviors were reported by Oregon school adminis-
trators. Classes, seminars, and/or workshops that
offer the administrator an opportunity to identify
and analyze personal high-in-use/lower-in-effective-
ness and low-in-use/higher-in-effectiveness behaviors
are recommended.

2a. Further research focusing on the reported differ-
ences among male and female administrators, not only
on the "Goals and priorities" behavior and the ver-
balization factor, but also on administrative style
in general.

2b. The development of educational opportunities for
school administrators that address the reported dif-
ferences among male and female administrators.

Discussion: Oregon school administrators reported
the verbalization factor as the most effective in
dealing with on-the-job stress. Female administra-
tors reported a significantly higher mean for the
effectiveness of the verbalization factor. However,
female administrators represented only 6.1 percent
of the sample. Causes for gender imbalance in edu-
cational administration were hypothesized by Lyman
and Speizer (1980). A restructuring of institu-
tions was proposed by Sassen (1980) in order to en-
courage entry of more women into management. Further
research is recommended.

3. An emphasis on "interpersonal relations" and "time management" in the Oregon administrative certification program.

   Discussion: School administration is a people-oriented profession. The administrator functions between different groups--teachers, students, parents, superiors. Oregon school administrators ranked "Talk with colleagues" second by use and eighth in effectiveness.

   In order to better enable the administrative candidate to deal with on-the-job stress, respondents indicated that emphasis be placed on "interpersonal relations" and "time management."

4. Research and in-depth investigations of specific stressful situations of school administration.

   Discussion: Analysis of particular stressful situations--teacher strike, failure of levy, school closure, negotiated contract--and the coping behaviors employed by the school administrators would offer another dimension to studies of occupational stress.

5. Further research to establish the relationship between current physical health and the frequency of occurrence of personally stressful on-the-job situations.

Discussion: Of administrators who indicated "some-
times" for the frequency of occurrence of personally
stressful on-the-job situations, 60.3 percent re-
ported "excellent" physical health. Of administra-
tors who indicated "frequently," 28.7 percent re-
ported "excellent."

6. Further research to establish the relationship be-
tween the number of hours exercised per week and
age.

Discussion: A direct relationship appeared to exist
between exercising four or more hours per week and
the age subgroup of the administrator. The higher
the age subgroup, the higher the percentage of ad-
ministrators who reported exercising four or more
hours per week.

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APPENDICES

APPENDIX A

SCHOOL ADMINISTRATOR COPING BEHAVIOR PROFILE FOR OCCUPATIONAL STRESS

Below are a number of coping behaviors for dealing with on-the-job stress.
How effective is each behavior for you? For each behavior, please circle
NA (not applicable to your situation), NU (applicable to your situation but not used),
or the appropriate number response.

		not applicable	not used	ineffective		neither ineffective nor effective		effective
1.	Talk with spouse	NA	NU	1	2	3	4	5
2.	Relaxation exercises on the job	NA	NU	1	2	3	4	5
3.	Prayer	NA	NU	1	2	3	4	5
4.	Engage in physical exercise	NA	NU	1	2	3	4	5
5.	Avoid bringing work home at end of day	NA	NU	1	2	3	4	5
6.	Build regular sleeping and eating habits	NA	NU	1	2	3	4	5
7.	Religious-affiliated retreats or discussion groups	NA	NU	1	2	3	4	5
8.	Allot time for rest and relaxation each day	NA	NU	1	2	3	4	5
9.	Establish daily goals and set priorities to accomplish the most important objectives	NA	NU	1	2	3	4	5
10.	Relaxation exercises away from the job	NA	NU	1	2	3	4	5
11.	Talk with colleagues or others on the job	NA	NU	1	2	3	4	5
12.	Develop sensitivity to my physical responses to a stress-producing situation	NA	NU	1	2	3	4	5
13.	Work harder	NA	NU	1	2	3	4	5
14.	Books on "how to relax" "how to take charge of your life"	NA	NU	1	2	3	4	5
15.	Spiritual readings	NA	NU	1	2	3	4	5
16.	Withdraw physically from situation temporarily/ take a break	NA	NU	1	2	3	4	5
17.	Maintain a sense of humor	NA	NU	1	2	3	4	5
18.	Take a number of short vacations	NA	NU	1	2	3	4	5
19.	Delegate responsibility instead of carrying entire load	NA	NU	1	2	3	4	5

		not applicable	not used	ineffective		neither ineffective nor effective		effective
20.	Talk with friend(s)	NA	NU	1	2	3	4	5
21.	Religious services	NA	NU	1	2	3	4	5
22.	Engage in engrossing nonwork activity	NA	NU	1	2	3	4	5
23.	Analyze stress-producing situation and decide what is worth worrying about and what isn't	NA	NU	1	2	3	4	5
24.	Develop sensitivity to my emotional responses to a stress-producing situation	NA	NU	1	2	3	4	5

PART II

Using the corresponding number to the left of each behavior, please rank the three most effective behaviors for you by placing the appropriate number in the blanks below.

1st _____   2nd _____   3rd _____

Please circle appropriate number response:
In general, personally stressful on-the-job situations occur

sometimes		frequently		quite frequently
1	2	3	4	5

Please fill in or check appropriate blank:

1. Age: ___under 30   ___30 to 39   ___40 to 49   ___50 to 59   ___60 or over

2. School: ___ public school   ___ private school

3. Position:
   ___intermediate (middle) principal   ___junior high principal
   ___high school principal   ___superintendent/principal
   ___superintendent
                                              ___other _____
                                                        (please indicate)

4. Are you a full-time administrator?   ___Yes   ___NO

5. Size of district by ADM:
   ___0-99   ___100-499   ___500-999   ___1,000-2,999   ___3,000 and over

6. Size of school by ADM (if applicable):
   ___0-99   ___100-249   ___250-599   ___600-999   ___1,000 and over

7. School setting: ___urban   ___rural

8. Sex: ___male   ___female

9. Years in current position:
   ___1-2   ___3-5   ___6-10   ___11-15   ___16-20   ___over 20

10. Years in administration:
    ___1-2   ___3-5   ___6-10   ___11-15   ___16-20   ___over 20

11. Hours worked per week:
    ___less than 40   ___40-45   ___46-50   ___51-55   ___56-60   ___over 60

12. Hours of physical exercise per week:
    __less than 1   __1-3   __4-6   __7-9   __10-12   __over 12

13. Current physical health:
    (excellent) __ __ __ __ __ (poor)
                 5 4 3 2 1

14. Are you married?   ___Yes   ___No

15. Are there any children living at home?   ___Yes   ___No

Part III

Below are a number of areas associated with the handling of occupational stress. Based upon your administrative training background, what degree of emphasis in the Oregon administrative certification program do you feel would better enable the administrative candidate to deal with on-the-job stress? Please circle the appropriate response.

	De-emphasize		Neither Emphasize Nor De-emphasize		Strongly Emphasize
Physical Aspects of Working Environment: floor plan,color scheme,acoustics, air circulation,etc.	1	2	3	4	5
Time Management: priorities,goals, objectives	1	2	3	4	5
Self-Awareness: anticipate body reaction to stressful situation	1	2	3	4	5
Interpersonal Relations: one-on-one and group communication with students,staff, parents,community	1	2	3	4	5
Compliance Procedures and Guidelines: rules,policies,regulations associated with federal,state and district requirements	1	2	3	4	5
Conflict Resolution, Negotiation: maintain control of tense situation, facilitate agreeable ending	1	2	3	4	5
Community Relation Techniques: marketing approach to presenting the educational package to the community	1	2	3	4	5

Part IV

On reverse side, please 1) indicate any additional coping behaviors, not included in the profile, that you have found to be effective

2) share with us any books, articles, workshops, etc. that you have found useful in dealing with on-the-job stress and that you feel might be appropriate to include in an administrative certification program.

APPENDIX B

School of Education | Oregon State University | Corvallis, Oregon 97331

Dear Administrator:

As part of my doctoral research at Oregon State University, I am conducting a study relative to coping behaviors employed by Oregon school administrators in dealing with on-the-job stress. This is a follow-up study to research completed in 1978 by Dr. Boyd Swent at the University of Oregon. Dr. Swent's study identified sources of occupational stress. The current study is being directed by Dr. Edwin L. Anderson, my major professor, and by my doctoral committee.

As you know, the psychological and physiological consequences of how a school administrator handles stress has implications for the entire school organization. It is anticipated that the study will provide appropriate information to 1) better enable administrators to more effectively manage on-the-job stress and 2) offer some insight into additional or more intensified preparation and inservice programs for administrators.

We earnestly solicit your cooperation in completing the enclosed profile. Information is also enclosed concerning the procedure to follow if you would like to obtain a summary of the results. Your responses will be kept confidential, and all participants in the study will remain anonymous.

It would be helpful if we could receive your profile as soon as possible, preferably no later than the end of February 1982.

Thank you for your participation in this study.

Sincerely,

Robert Zieminski
Doctoral Candidate

Edwin L. Anderson
Associate Professor

APPENDIX C

Dr. Edwin L. Anderson
ADMINISTRATOR PROFILE
School of Education
Oregon State University
Corvallis , OR   97331

To receive a summary of the results of the study, complete this form
and send (UNDER SEPARATE COVER) to the address listed above.

_____

name   title

_____

address

_____

_____

_____

APPENDIX D

ANALYSIS OF VARIANCE TABLES
FOR COPING BEHAVIORS AND COPING BEHAVIOR FACTORS

(1)   Analysis of Variance on Effectiveness of "Avoid
      Bringing Work Home at End of Day" as a Coping
      Behavior with Frequency of Occurrence of
      Personally Stressful On-The-Job Situations

(2)   Analysis of Variance on Effectiveness of "Religious-
      Affiliated Retreats or Discussion Groups" as a
      Coping Behavior with Frequency of Occurrence of
      Personally Stressful On-The-Job Situations

(3)   Analysis of Variance on Effectiveness of "Talk
      with Colleagues or Others on the Job" as a Coping
      Behavior with Frequency of Occurrence of Personally
      Stressful On-The-Job Situations

(4)   Analysis of Variance on Effectiveness of "Analyze
      Stress-Producing Situation and Decide What is
      Worth Worrying About and What Isn't" as a Coping
      Behavior with Frequency of Occurrence of Personally
      Stressful On-The-Job Situations

(5)   Analysis of Variance on Frequency of Occurrence of
      Personally Stressful On-The-Job Situations with
      Hours Worked Per Week

(6)   Analysis of Variance on Effectiveness of "Prayer"
      as a Coping Behavior with Type of School

(7)   Analysis of Variance on Effectiveness of "Avoid
      Bringing Work Home at End of Day" as a Coping
      Behavior with Type of School

(8)   Analysis of Variance on Effectiveness of "Religious-
      Affiliated Retreats or Discussion Groups" as a
      Coping Behavior with Type of School

(9)   Analysis of Variance on Effectiveness of "Spiritual
      Readings" as a Coping Behavior with Type of School

(10) Analysis of Variance on Effectiveness of "Religious
      Services" as a Coping Behavior with Type of School

(11) Analysis of Variance on Effectiveness of "Delegate
      Responsibility Instead of Carrying Entire Load"
      as a Coping Behavior with Level of Position

(12) Analysis of Variance on Effectiveness of "Analyze
      Stress-Producing Situation and Decide What is
      Worth Worrying About and What Isn't" as a Coping
      Behavior with Level of Position

(13) Analysis of Variance on Effectiveness of "Allot
      Time for Rest and Relaxation Each Day" as a
      Coping Behavior with School Setting

(14) Analysis of Variance on Effectiveness of "Relaxa-
      tion Exercises Away from the Job" as a Coping
      Behavior with School Setting

(15) Analysis of Variance on Effectiveness of "Religious-
      Affiliated Retreats or Discussion Groups" as a
      Coping Behavior Among Male and Female Administrators

(16) Analysis of Variance on Effectiveness of "Establish
      Daily Goals and Set Priorities to Accomplish the
      Most Important Objectives" as a Coping Behavior
      Among Male and Female Administrators

(17) Analysis of Variance on Effectiveness of "Talk
      with Friend(s) as a Coping Behavior Among Male
      and Female Administrators

(18) Analysis of Variance on the Effectiveness of the
      Verbalization Factor with the Frequency of Occur-
      rence of Personally Stressful On-The-Job Situations

(19) Analysis of Variance on the Effectiveness of the
      Religion Factor with the Type of School

(20) Analysis of Variance on the Effectiveness of the
      Verbalization Factor Among Male and Female
      Administrators

(21) Analysis of Variance on the Effectiveness of the
      Relaxation Factor with the Number of Hours
      Exercised Per Week

(1) ANALYSIS OF VARIANCE ON EFFECTIVENESS OF "AVOID BRINGING WORK HOME AT END OF DAY" AS A COPING BEHAVIOR WITH FREQUENCY OF OCCURRENCE OF PERSONALLY STRESSFUL ON-THE-JOB SITUATIONS			
Frequency of Occurrence of Stressful Situations	Frequency	Mean	Standard Deviation
1 sometimes	54	4.35	.73
2	57	3.93	1.19
3 frequently	102	3.73	1.23
4	45	3.58	1.39
5 quite frequently	36	3.66	1.57
Total	294	3.85	1.24

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	4	21.11	5.28	3.53
Within groups	289	431.66	1.49	
Total	293	452.71		

* $p < .01$ $p = .008$

(2) ANALYSIS OF VARIANCE ON EFFECTIVENESS OF "RELIGIOUS-AFFILIATED RETREATS OR DISCUSSION GROUPS" AS A COPING BEHAVIOR WITH FREQUENCY OF OCCURRENCE OF PERSONALLY STRESSFUL ON-THE-JOB SITUATIONS

Frequency of Occurrence of Stressful Situations	Frequency	Mean	Standard Deviation
1 sometimes	15	4.53	.92
2	16	3.50	1.10
3 frequently	27	3.37	1.24
4	13	3.08	1.38
5 quite frequently	10	3.10	.74
Total	81	3.53	1.22

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	4	20.32	5.08	3.95
Within groups	76	97.85	1.29	
Total	80	118.17		

* $p < .01$ $p = .006$

(3) ANALYSIS OF VARIANCE ON EFFECTIVENESS OF "TALK WITH COLLEAGUES OR OTHERS ON THE JOB" AS A COPING BEHAVIOR WITH FREQUENCY OF OCCURRENCE OF PERSONALLY STRESSFUL ON-THE-JOB SITUATIONS

Frequency of Occurrence of Stressful Situations	Frequency	Mean	Standard Deviation
1 sometimes	61	4.34	.75
2	60	4.27	.55
3 frequently	107	3.93	.90
4	56	4.11	.78
5 quite frequently	42	4.05	.83
Total	326	4.11	.80

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	4	8.63	2.16	3.50
Within groups	321	198.17	.62	
Total	325	206.80		

* $p < .01$ $p = .008$

(4) ANALYSIS OF VARIANCE ON EFFECTIVENESS OF "ANALYZE
STRESS-PRODUCING SITUATION AND DECIDE WHAT IS WORTH
WORRYING ABOUT AND WHAT ISN'T" AS A COPING BEHAVIOR
WITH FREQUENCY OF OCCURRENCE OF PERSONALLY STRESS-
FUL ON-THE-JOB SITUATIONS

Frequency of Occurrence of Stressful Situations	Frequency	Mean	Standard Deviation
1 sometimes	55	4.24	.92
2	53	4.13	.96
3 frequently	98	4.18	.80
4	51	3.59	1.17
5 quite frequently	39	4.27	.97
Total	296	4.09	.97

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	4	16.05	4.01	4.48
Within groups	291	260.49	.90	
Total	295	276.54		

* p < .01   p = .002

(5) ANALYSIS OF VARIANCE ON FREQUENCY OF OCCURRENCE OF PERSONALLY STRESSFUL ON-THE-JOB SITUATIONS WITH HOURS WORKED PER WEEK			
Hours Worked per Week	Frequency	Mean	Standard Deviation
less than 40	1	1.00	0
40 - 45	31	2.35	1.05
46 - 50	109	2.63	1.24
51 - 55	92	3.01	1.27
56 - 60	67	3.01	1.30
over 60	30	3.47	1.17
Total	330	2.86	1.27

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	5	31.73	6.35	4.13
Within groups	324	497.86	1.54	
Total	329	529.59		

* p < .01   p = .001

(6) ANALYSIS OF VARIANCE ON EFFECTIVENESS OF "PRAYER"
AS A COPING BEHAVIOR WITH TYPE OF SCHOOL

School	Frequency	Mean	Standard Deviation
Public	139	4.13	.88
Private	12	4.67	.89
Total	151	4.17	.89

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	1	3.19	3.19	4.08
Within groups	149	116.34	.78	
Total	150	119.52		

* p < .05   p = .045

(7) ANALYSIS OF VARIANCE ON EFFECTIVENESS OF "AVOID BRINGING WORK HOME AT END OF DAY" AS A COPING BEHAVIOR WITH TYPE OF SCHOOL

School	Frequency	Mean	Standard Deviation
Public	324	3.88	1.22
Private	14	3.21	1.25
Total	338	3.85	

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	1	5.94	5.94	3.96
Within groups	336	504.66	1.50	
Total	337	510.60		

* p < .05   p = .048

(8) ANALYSIS OF VARIANCE ON EFFECTIVENESS OF "RELIGIOUS-
AFFILIATED RETREATS OR DISCUSSION GROUPS" AS A
COPING BEHAVIOR WITH TYPE OF SCHOOL

School	Frequency	Mean	Standard Deviation
Public	86	3.44	1.15
Private	9	4.78	.44
Total	95	3.56	1.17

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	1	14.54	14.54	11.78
Within groups	93	114.76	1.23	
Total	94	129.31		

* p < .01   p = .001

(9) ANALYSIS OF VARIANCE ON EFFECTIVENESS OF "SPIRITUAL
     READINGS" AS A COPING BEHAVIOR WITH TYPE OF SCHOOL

School	Frequency	Mean	Standard Deviation
Public	110	3.45	1.26
Private	12	4.50	.90
Total	122	3.55	1.27

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	1	12.03	12.03	7.93
Within groups	120	182.17	1.52	
Total	121	194.20		

* p < .01   p = .006

(10) ANALYSIS OF VARIANCE ON EFFECTIVENESS OF
"RELIGIOUS SERVICES" AS A COPING BEHAVIOR
WITH TYPE OF SCHOOL

School	Frequency	Mean	Standard Deviation
Public	163	3.60	1.13
Private	13	4.38	.87
Total	176	3.66	1.13

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	1	7.39	7.39	5.95
Within groups	174	216.16	1.24	
Total	175	223.55		

* p < .05   p = .02

(11)   ANALYSIS OF VARIANCE ON EFFECTIVENESS OF "DELEGATE
       RESPONSIBILITY INSTEAD OF CARRYING ENTIRE LOAD"
       AS A COPING BEHAVIOR WITH LEVEL OF POSITION

Level of Position	Frequency	Mean	Standard Deviation
Intermediate (Middle) Principal	39	4.56	.55
Junior High Principal	55	4.47	.69
High School Principal	125	4.32	.90
Superintendent/Principal	37	3.97	1.12
Superintendent	113	4.40	.75
Total	369	4.36	.83

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	4	8.32	2.08	3.07
Within groups	364	246.75	.68	
Total	368	255.06		

* $p < .05$ $p = .02$

(12) ANALYSIS OF VARIANCE ON EFFECTIVENESS OF "ANALYZE
STRESS-PRODUCING SITUATION AND DECIDE WHAT IS
WORTH WORRYING ABOUT AND WHAT ISN'T" AS A COPING
BEHAVIOR WITH LEVEL OF POSITION

Level of Position	Frequency	Mean	Standard Deviation
Intermediate (Middle) Principal	18	2.89	1.37
Junior High Principal	25	3.48	1.04
High School Principal	61	3.80	1.12
Superintendent/Principal	20	4.10	.79
Superintendent	52	3.67	1.10
Total	176	3.66	1.13

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	4	16.65	4.16	3.44
Within groups	171	206.90	1.21	
Total	175	223.55		

* $p < .01$ $p = .0099$

(13) ANALYSIS OF VARIANCE ON EFFECTIVENESS OF "ALLOT
      TIME FOR REST AND RELAXATION EACH DAY" AS A
      COPING BEHAVIOR WITH SCHOOL SETTING

School Setting	Frequency	Mean	Standard Deviation
Urban	79	3.82	1.06
Rural	144	4.13	.94
Total	223	4.02	.99

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	1	4.88	4.88	5.04
Within groups	221	214.01	.97	
Total	222	218.89		

* $p < .05$ $p = .03$

(14) ANALYSIS OF VARIANCE ON EFFECTIVENESS OF "RELAXATION EXERCISES AWAY FROM THE JOB" AS A COPING BEHAVIOR WITH SCHOOL SETTING			
School Setting	Frequency	Mean	Standard Deviation
Urban	80	4.08	1.08
Rural	165	4.36	.81
Total	245	4.27	.91

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	1	4.30	4.30	5.24
Within groups	243	199.45	.82	
Total	244	203.76		

* p < .05   p = .02

(15) ANALYSIS OF VARIANCE ON EFFECTIVENESS OF
      "RELIGIOUS-AFFILIATED RETREATS OR DISCUSSION
      GROUPS" AS A COPING BEHAVIOR AMONG MALE AND
      FEMALE ADMINISTRATORS

Sex	Frequency	Mean	Standard Deviation
Male	88	3.53	1.15
Female	6	4.50	.55
Total	94	3.60	1.15

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	1	5.24	5.24	4.11
Within groups	92	117.40	1.28	
Total	93	122.64		

* p < .05   p = .046

(16) ANALYSIS OF VARIANCE ON EFFECTIVENESS OF
"ESTABLISH DAILY GOALS AND SET PRIORITIES
TO ACCOMPLISH THE MOST IMPORTANT OBJECTIVES"
AS A COPING BEHAVIOR AMONG MALE AND FEMALE
ADMINISTRATORS

Sex	Frequency	Mean	Standard Deviation
Male	320	4.18	.85
Female	23	4.74	.45
Total	343	4.21	.84

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	1	6.83	6.83	10.01
Within groups	341	232.63	.68	
Total	342	239.46		

* p < .01   p = .002

(17) ANALYSIS OF VARIANCE ON EFFECTIVENESS OF "TALK
WITH FRIEND(S)" AS A COPING BEHAVIOR AMONG MALE
AND FEMALE ADMINISTRATORS

Sex	Frequency	Mean	Standard Deviation
Male	302	3.67	1.03
Female	20	4.20	1.06
Total	322	3.70	1.04

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	1	5.29	5.29	4.98
Within groups	320	340.09	1.06	
Total	321	345.38		

* p < .05   p = .03

(18) ANALYSIS OF VARIANCE ON THE EFFECTIVENESS OF THE VERBALIZATION FACTOR WITH THE FREQUENCY OF OCCURRENCE OF PERSONALLY STRESSFUL ON-THE-JOB SITUATIONS

Frequency of Occurrence of Stressful Situations	Frequency	Mean	Standard Deviation
1 sometimes	63	4.35	.53
2	61	4.20	.48
3 frequently	109	4.08	.58
4	56	4.10	.50
5 quite frequently	43	4.18	.56
Total	332	4.17	.54

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	4	3.20	.80	2.76
Within groups	327	94.73	.29	
Total	331	97.94		

* $p < .05$ $p = .03$

(19) ANALYSIS OF VARIANCE ON THE EFFECTIVENESS OF
THE RELIGION FACTOR WITH THE TYPE OF SCHOOL

School	Frequency	Mean	Standard Deviation
Public	366	1.95	1.94
Private	14	4.20	1.39
Total	380	2.03	1.97

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	1	68.44	68.44	18.54
Within groups	378	1395.21	3.69	
Total	379	1463.66		

* p < .01   p = .00

(20)	ANALYSIS OF VARIANCE ON THE EFFECTIVENESS OF THE VERBALIZATION FACTOR AMONG MALE AND FEMALE ADMINISTRATORS		

Sex	Frequency	Mean	Standard Deviation
Male	355	4.16	.54
Female	23	4.40	.50
Total	378	4.18	.54

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	1	1.19	1.19	4.18
Within groups	376	107.51	.29	
Total	377	108.70		

* p < .05   p = .04

(21) ANALYSIS OF VARIANCE ON THE EFFECTIVENESS OF
THE RELAXATION FACTOR WITH THE NUMBER OF HOURS
EXERCISED PER WEEK

Hours Exercised	Frequency	Mean	Standard Deviation
less than 1	39	2.20	1.90
1 - 3	130	3.28	1.53
4 - 6	124	3.36	1.44
7 - 9	53	3.45	1.43
10 - 12	21	3.77	1.08
over 12	11	4.15	.52
Total	378	3.27	1.54

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio *
Between groups	5	61.44	12.29	5.51
Within groups	372	829.44	2.23	
Total	377	890.88		

* p < .01   p = .0001

APPENDIX E

CHI-SQUARE ANALYSIS SIGNIFICANT AT THE .05 LEVEL

(1) "Number of hours worked per week"
with "frequency of occurrence of personally stressful
on-the-job situations"

(2) "Number of hours worked per week"
with "level of position"

(3) "Number of hours worked per week"
with "district size"

(4) "Number of hours worked per week"
with "school size"

(5) "Number of hours exercised per week"
with "age"

(6) "Number of hours exercised per week"
with "school size"

(7) "Number of hours exercised per week"
with "current physical health"

(8) "Current physical health"
with "frequency of occurrence of personally stressful
on-the-job situations"

(1) "Number of hours worked per week" with "frequency of occurrence of personally
stressful on-the-job situations"

STRESS

COUNT ROW PCT COL PCT TOT PCT	sometimes 1	2	frequently 3	4	quite frequently 5	ROW TOTAL
WORK less than 40 1	1 100.0 1.6 .3	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	1 .3
40-45 2	8 25.8 12.7 2.4	8 25.8 13.3 2.4	12 38.7 11.0 3.6	2 6.5 3.6 .6	1 3.2 2.4 .3	31 9.4
46-50 3	25 22.9 39.7 7.6	26 23.9 43.3 7.9	32 29.4 29.4 9.7	16 14.7 28.6 4.8	10 9.2 23.8 3.0	109 33.0
51 55 4	13 14.1 20.6 3.9	18 19.6 30.0 5.5	32 34.8 29.4 9.7	13 14.1 23.2 3.9	16 17.4 38.1 4.8	92 27.9
56 60 5	13 19.4 20.6 3.9	6 9.0 10.0 1.8	25 37.3 22.9 7.6	13 19.4 23.2 3.9	10 14.9 23.8 3.0	67 20.3
over 60 6	3 10.0 4.8 .9	2 6.7 3.3 .6	8 26.7 7.3 2.4	12 40.0 21.4 3.6	5 16.7 11.9 1.5	30 9.1
COLUMN TOTAL	63 19.1	60 18.2	109 33.0	56 17.0	42 12.7	330 100.0

RAW CHI SQUARE =   36.09496 WITH   20 DEGREES OF FREEDOM. SIGNIFICANCE =   .0150
CONTINGENCY COEFFICIENT =   .3140

NUMBER OF MISSING OBSERVATIONS =   50

(2)   "Number of hours worked per week" with "level of position"

		POSITION					
COUNT ROW PCT COL PCT TOT PCT		intrmd (middle) 1	high school 2	sup 3	jhs prin 4	sup/prin 5	ROW TOTAL
WORK less than 40	1	0 0 0 0	0 0 0 0	1 100.0 .9 .3	0 0 0 0	0 0 0 0	1 .3
40-45	2	7 19.4 17.5 1.9	2 5.6 1.6 .5	12 33.3 10.3 3.2	7 19.4 12.7 1.9	8 22.2 19.5 2.1	36 9.5
46-50	3	13 10.6 32.5 3.4	36 29.3 28.8 9.5	39 31.7 33.6 10.3	20 16.3 36.4 5.3	15 12.2 36.6 4.0	123 32.6
51-55	4	13 12.3 32.5 3.4	34 32.1 27.2 9.0	33 31.1 28.4 8.8	17 16.0 30.9 4.5	9 8.5 22.0 2.4	106 28.1
56-60	5	6 7.9 15.0 1.6	33 43.4 26.4 8.8	24 31.6 20.7 6.4	7 9.2 12.7 1.9	6 7.9 14.6 1.6	76 20.2
over 60	6	1 2.9 2.5 .3	20 57.1 16.0 5.3	7 20.0 6.0 1.9	4 11.4 7.3 1.1	3 8.6 7.3 .8	35 9.3
COLUMN TOTAL		40 10.6	125 33.2	116 30.8	55 14.6	41 10.9	377 100.0

RAW CHI SQUARE =   35.01399 WITH   20 DEGREES OF FREEDOM.   SIGNIFICANCE =   .0200
CONTINGENCY COEFFICIENT =   .29152

NUMBER OF MISSING OBSERVATIONS =   3

(3) "Number of hours worked per week" with "district size"

DISTSIZE

COUNT ROW PCT COL PCT TOT PCT	0-99 1	100-499 2	500-999 3	1,000- 2,999 4	3,000 and over 5	ROW TOTAL
WORK less than 40 1	1 100.0 12.5 .3	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	1 .3
40-45 2	1 2.8 12.5 .3	9 25.0 14.8 2.4	10 27.8 15.6 2.7	10 27.8 8.6 2.7	6 16.7 4.8 1.6	36 9.6
46-50 3	2 1.6 25.0 .5	24 19.7 39.3 6.4	21 17.2 32.8 5.6	39 32.0 33.6 10.4	35 29.5 28.6 9.6	122 32.5
51-55 4	1 .9 12.5 .3	12 11.3 19.7 3.2	15 14.2 23.4 4.0	38 35.8 32.8 10.1	40 37.7 31.7 10.7	106 28.3
56-60 5	3 3.9 37.5 .8	11 14.5 18.0 2.9	12 15.8 18.8 3.2	17 22.4 14.7 4.5	33 43.4 26.2 8.8	76 20.3
over 60 6	0 0 0 0	5 14.7 8.2 1.3	6 17.6 9.4 1.6	12 35.3 10.3 3.2	11 32.4 8.7 2.9	34 9.1
COLUMN TOTAL	8 2.1	51 16.3	64 17.1	116 30.9	126 33.6	375 100.0

RAW CHI SQUARE = 65.48229 WITH 20 DEGREES OF FREEDOM. SIGNIFICANCE = .0000
CONTINGENCY COEFFICIENT = .38557

NUMBER OF MISSING OBSERVATIONS = 5

(4) "Number of hours worked per week" with "school size"

SCHSIZE

COUNT ROW PCT COL PCT TOT PCT	0-99 1	100-249 2	250-599 3	600-999 4	1,000 and over 5	ROW TOTAL
WORK less than 40 1	1 100.0 12.5 .4	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	1 .4
40-45 2	0 0 0 0	11 50.0 18.6 4.0	5 22.7 4.9 1.8	5 22.7 8.5 1.8	1 4.5 2.3 .4	22 8.1
46-50 3	2 2.3 25.0 .7	18 20.9 30.5 6.6	34 39.5 33.3 12.5	20 23.3 33.9 7.4	12 14.0 27.3 4.4	86 31.6
51-55 4	0 0 0 0	15 19.0 25.4 5.5	34 43.0 33.3 12.5	15 19.0 25.4 5.5	15 19.0 34.1 5.5	79 29.0
56-60 5	4 7.1 50.0 1.5	10 17.9 16.9 3.7	18 32.1 17.6 6.6	15 26.8 25.4 5.5	9 16.1 20.5 3.3	56 20.6
over 60 6	1 3.6 12.5 .4	5 17.9 8.5 1.8	11 39.3 10.8 4.0	4 14.3 6.8 1.5	7 25.0 15.9 2.6	28 10.3
COLUMN TOTAL	8 2.9	59 21.7	102 37.5	59 21.7	44 16.2	272 100.0

RAW CHI SQUARE =   56.52930 WITH   20 DEGREES OF FREEDOM. SIGNIFICANCE =   .0000
CONTINGENCY COEFFICIENT =   .41481

NUMBER OF MISSING OBSERVATIONS =   108

(5) "Number of hours exercised per week" with "age"

AGE

COUNT ROW PCT COL PCT TOT PCT	under 30 1	30-39 2	40-49 3	50-59 4	60 or over 5	ROW TOTAL
EXERCISE less than 1 1	0 0 0 0	14 35.9 17.1 3.7	19 48.7 13.2 5.0	5 12.8 3.8 1.3	1 2.6 5.9 .3	39 10.3
1-3 2	0 0 0 0	35 26.9 42.7 9.3	56 43.1 38.9 14.8	36 27.7 27.1 9.5	3 2.3 17.6 .8	130 34.4
4-6 3	1 .8 50.0 .3	21 16.9 25.6 5.6	37 29.8 25.7 9.8	58 46.8 43.6 15.3	7 5.6 41.2 1.9	124 32.8
7-9 4	0 0 0 0	6 11.3 7.3 1.6	23 43.4 16.0 6.1	22 41.5 16.5 5.8	2 3.8 11.8 .5	53 14.0
10-12 5	1 4.8 50.0 .3	3 14.3 3.7 .8	6 28.6 4.2 1.6	9 42.9 6.8 2.4	2 9.5 11.8 .5	21 5.6
over 12 6	0 0 0 0	3 27.3 3.7 .8	3 27.3 2.1 .8	3 27.3 2.3 .8	2 18.2 11.8 .5	11 2.9
COLUMN TOTAL	2 .5	82 21.7	144 38.1	133 35.2	17 4.5	378 100.0

RAW CHI SQUARE =   45.24035 WITH   20 DEGREES OF FREEDOM.   SIGNIFICANCE =   .0010
CONTINGENCY COEFFICIENT =   .32697

NUMBER OF MISSING OBSERVATIONS =   2

(6) "Number of hours exercised per week" with "school size"

```
                    SCHSIZE
          COUNT  I                                              1,000
          ROW PCT I  0-99    100-249   250-599   600-999    and over    ROW
          COL PCT I                                                      TOTAL
          TOT PCT I    1   I     2   I     3   I     4   I     5   I
EXERCISE  --------I--------I--------I--------I--------I--------I
    less than 1  1 I    0   I     7   I    11   I     4   I     4   I     26
                 I    0   I  26.9   I  42.3   I  15.4   I  15.4   I      9.6
                 I    0   I  11.7   I  10.9   I   6.8   I   9.1   I
                 I    0   I   2.6   I   4.0   I   1.5   I   1.5   I
                 -I--------I--------I--------I--------I--------I
    1-3          2 I    2   I    25   I    33   I    20   I    15   I     95
                 I   2.1   I  26.3   I  34.7   I  21.1   I  15.8   I     34.9
                 I  25.0   I  41.7   I  32.7   I  33.9   I  34.1   I
                 I    .7   I   9.2   I  12.1   I   7.4   I   5.5   I
                 -I--------I--------I--------I--------I--------I
    4-6          3 I    3   I    16   I    34   I    18   I    15   I     86
                 I   3.5   I  18.6   I  39.5   I  20.9   I  17.4   I     31.6
                 I  37.5   I  26.7   I  33.7   I  30.5   I  34.1   I
                 I   1.1   I   5.9   I  12.5   I   6.6   I   5.5   I
                 -I--------I--------I--------I--------I--------I
    7-9          4 I    0   I     9   I    17   I    14   I     2   I     42
                 I    0   I  21.4   I  40.5   I  33.3   I   4.8   I     15.4
                 I    0   I  15.0   I  16.8   I  23.7   I   4.5   I
                 I    0   I   3.3   I   6.3   I   5.1   I    .7   I
                 -I--------I--------I--------I--------I--------I
    10-12        5 I    3   I     2   I     3   I     1   I     6   I     15
                 I  20.0   I  13.3   I  20.0   I   6.7   I  40.0   I      5.5
                 I  37.5   I   3.3   I   3.0   I   1.7   I  13.6   I
                 I   1.1   I    .7   I   1.1   I    .4   I   2.2   I
                 -I--------I--------I--------I--------I--------I
    over 12      6 I    0   I     1   I     3   I     2   I     2   I      8
                 I    0   I  12.5   I  37.5   I  25.0   I  25.0   I      2.9
                 I    0   I   1.7   I   3.0   I   3.4   I   4.5   I
                 I    0   I    .4   I   1.1   I    .7   I    .7   I
                 -I--------I--------I--------I--------I--------I
        COLUMN       8        60       101        59        44        272
         TOTAL      2.9      22.1      37.1      21.7      16.2      100.0
```

RAW CHI SQUARE =   35.42944 WITH   20 DEGREES OF FREEDOM. SIGNIFICANCE =   .0179
CONTINGENCY COEFFICIENT =   .33948

NUMBER OF MISSING OBSERVATIONS =   108

(7) "Hours exercised per week" with "current physical health"

```
                        HEALTH
        COUNT    I
        ROW PCT  I   poor                                      excellent    ROW
        COL PCT  I                                                          TOTAL
        TOT PCT  I     1  I     2  I     3  I     4  I     5  I
EXERCISE       --I--------I--------I--------I--------I--------I
  less than 1  1  I     1  I     4  I     7  I    14  I    13  I     39
                  I   2.6  I  10.3  I  17.9  I  35.9  I  33.3  I   10.3
                  I 100.0  I  36.4  I  11.5  I   8.9  I   8.8  I
                  I    .3  I   1.1  I   1.9  I   3.7  I   3.4  I
               ---I--------I--------I--------I--------I--------I
       1-3     2  I     0  I     2  I    28  I    56  I    44  I    130
                  I     0  I   1.5  I  21.5  I  43.1  I  33.8  I   34.5
                  I     0  I  18.2  I  45.9  I  35.7  I  29.9  I
                  I     0  I    .5  I   7.4  I  14.9  I  11.7  I
               ---I--------I--------I--------I--------I--------I
       4-6     3  I     0  I     3  I    19  I    56  I    45  I    123
                  I     0  I   2.4  I  15.4  I  45.5  I  36.6  I   32.6
                  I     0  I  27.3  I  31.1  I  35.7  I  30.6  I
                  I     0  I    .8  I   5.0  I  14.9  I  11.9  I
               ---I--------I--------I--------I--------I--------I
       7-9     4  I     0  I     2  I     6  I    21  I    24  I     53
                  I     0  I   3.8  I  11.3  I  39.6  I  45.3  I   14.1
                  I     0  I  18.2  I   9.8  I  13.4  I  16.3  I
                  I     0  I    .5  I   1.6  I   5.6  I   6.4  I
               ---I--------I--------I--------I--------I--------I
      10-12    5  I     0  I     0  I     1  I     6  I    14  I     21
                  I     0  I     0  I   4.8  I  28.6  I  66.7  I    5.6
                  I     0  I     0  I   1.6  I   3.8  I   9.5  I
                  I     0  I     0  I    .3  I   1.6  I   3.7  I
               ---I--------I--------I--------I--------I--------I
      over 12  6  I     0  I     0  I     0  I     4  I     7  I     11
                  I     0  I     0  I     0  I  36.4  I  63.6  I    2.9
                  I     0  I     0  I     0  I   2.5  I   4.8  I
                  I     0  I     0  I     0  I   1.1  I   1.9  I
               ---I--------I--------I--------I--------I--------I
        COLUMN        1       11       61      157      147      377
         TOTAL       .3      2.9     16.2     41.6     39.0    100.0
```

RAW CHI SQUARE = 34.11303 WITH 20 DEGREES OF FREEDOM. SIGNIFICANCE = .0254
CONTINGENCY COEFFICIENT = .28806

NUMBER OF MISSING OBSERVATIONS = 3

(8) "Current physical health" with "frequency of occurrence of personally stressful on-the-job situations"

HEALTH	COUNT ROW PCT COL PCT TOT PCT	STRESS sometimes 1	 frequently 2	 3	 4	quite frequently 5	ROW TOTAL
poor 1		0 0 0 0	0 0 0 0	0 0 0 0	1 100.0 1.8 .3	0 0 0 0	1 .3
2		0 0 0 0	1 12.5 1.6 .3	4 50.0 3.7 1.2	2 25.0 3.6 .6	1 12.5 2.4 .3	8 2.4
3		7 12.7 11.1 2.1	10 18.2 16.4 3.0	23 41.8 21.3 7.0	5 9.1 8.9 1.5	10 18.2 23.8 3.0	55 16.7
4		18 13.1 28.6 5.5	27 19.7 44.3 8.2	50 36.5 46.3 15.2	28 20.4 50.0 8.5	14 10.2 33.3 4.2	137 41.5
excellent 5		38 29.5 60.3 11.5	23 17.8 37.7 7.0	31 24.0 28.7 9.4	20 15.5 35.7 6.1	17 13.2 40.5 5.2	129 39.1
COLUMN TOTAL		63 19.1	61 18.5	108 32.7	56 17.0	42 12.7	330 100.0

RAW CHI SQUARE = 28.81731 WITH 16 DEGREES OF FREEDOM. SIGNIFICANCE = .0252
CONTINGENCY COEFFICIENT = .28339

NUMBER OF MISSING OBSERVATIONS = 50

APPENDIX F

SELECTED RESPONDENT COMMENTS

On Part IV of the profile, respondents were offered the opportunity to respond in an open-ended manner to:

1. "Indicate any additional coping behavior, not included in the profile, that you have found to be effective."

2. "Share with us any books, articles, workshops, etc. that you have found useful in dealing with on-the-job stres and that you feel might be appropriate to include in an administrative certification program."

This appendix is divided into four parts:

      1. Responses to Part IV (1)

      2. Responses to Part IV (2)

      3. Other relevant responses

      4. Summary of suggested books, workshops and periodicals.

1. Responses to Part IV (1)

(1) "I try to fight my battles only if they're worth it
and forget the things I can't control."

(2) "When especially stressed, I leave work early to
return at night or evening or weekend."

(3) "This is a people industry. Future administrators
need more help with people relations and less with
paper functions of managmenet."

(4) "Always remember that tomorrow will come regardless
of what I may do; remember that we exist only for
the youngsters--without them we'd all be gone."

(5) "The ability to cope with stress is contingent upon
the individual's acceptance of him/herself. Coping
skills, self-concept skills, and role-playing should
be an integral part of any administrative program."

(6) "Hire good people--let them do their job."

(7) "Recognize that in 25 years nobody will know what
happened or really care!"

(8) "Put your financial house in order."

(9) "Being able to separate work time and family time is
of vital importance."

(10) "The following two areas have greatly reduced or
practically eliminated stress in this
administration."

1. Through a combination of acquiring outstanding
employees and inservice training sessions, de-
velop a staff who works well together and with
the administration. Develop mutual respect.

2. Develop a consistent cohesive school-wide dis-
cipline plan: 'Assertive Discipline'. Bene-
fits include: Students, parents, teachers and
the administration are more relaxed due to
specific organizational guidelines. Students
display a high level of self-discipline.
Teachers teach more minutes each period. Sub-
stitutes are able to follow the plan with ease.
Parents and teachers are accepting and appreci-
ative of the plan."

(11)   "Spend time with family and try to forget job
        stresses."

(12)   "Simple--make up your mind that stress will not
        bother you."

(13)   "Administrative jobs should be eight to nine hours
        per day and less than 50 hours per week with rea-
        sonable work expectations!"

(14)   "Emphasize in administrative training the need to
        become involved in daily or at least three times
        per week, physical activity that forces the mind
        off the job."

(15)   "Do not become emotionally involved. As an adminis-
        trator your job is to identify the problem, to iso-
        late it, and to effect its solution ... the most
        alarming thing that can happen is that you may
        discover you are the problem. ... If you have to
        fire yourself remain unflappable."

(16)   "The most important characteristic of administrators
        who handle difficult problems well is their own
        self-concept. If the administrator feels or allows
        himself to be personally threatened, he then is
        subject to stress."

(17)   "'Board Notes', summary minutes of each Board of
        Education meeting mailed to district taxpayers [are
        suggested]."

(18)   "All [school] board members should have some basic
        training--perhaps by the district or by the
        principal."

(19)   "I feel that the stress is what makes the job inter-
        esting and challenging. If it weren't for the
        stresses involved the job would be boring--there-
        fore, the stresses help keep me alert, happier and
        thus healthier."

(20)   "Naps."

(21)   "It is surprising how [much] milking, cleaning the
        barn, jogging and other physical activities relieve
        stress."

(22)   "I have found it effective to be able to recognize
        stress in myself--physically and emotionally--so
        that I can figure out where it is coming from and
        why."

(23) "I cannot overemphasize the importance of maintaining a sense of humor at <u>all</u> times. I really feel it is a key to success ..."

(24) "Select personal priorities: (a) your health, (b) your family."

(25) "Mingle with the students--learn who they are, have a personal touch. ... Have <u>short</u> meetings. ... Above all, keep a good sense of humor."

(26) "School administration is a stressful enterprise, ... that contributes, in part anyway, to the 'magic' of leadership"

(27) "I raise cattle not only for profit but because the type of work done is strictly physical."

(28) "Problems are challenges--without [them] we'd have no job."

(29) "As an administrator, you do not have the luxury of letting your emotions show. ... If you react to stress too visibly it tends to 'shake' others and they then react. ... Calm begets calm, stress begets stress."

(30) "Thanking people for helping helps ... remembering to give others a chance to demonstrate their competence."

(31) "[Recommend] training workshops for school board members."

(32) "A community advisory group that meets on the first and third Thursdays at 7:00 a.m. to discuss the high school and how they can help our programs [is suggested]."

(33) "Develop a 'relevant other' group--such as school board members--that can realistically relate to the problem areas confronted."

2. Responses to Part IV (2)

(1) "Gardner's book, <u>Self-Renewal</u>, is probably the best book I can offer, especially for administrators who have not had much training in interpersonal relations, stress management, etc."

(2) "American Management Association has fine publications--monthly magazine plus periodic publications."

(3) "Self-awareness programs designed to emphasize that stress is a result of how one 'chooses' to react [are needed]."

(4) "Conflict Management Workshop by COSA, November 12-13, 1981."

3. Other Relevant Responses

(1) On Part II of the profile, one respondent indicated that stressful situations occurred "quite frequently" and then commented, "But only [for the] past three years of 11 years as administrator ... I quit today!"

(2) "I have been climbing the educational administrative ladder for 14 years. ... To do this required 50-70 hours of work per week. ... The experience, however, took its toll, both physically and mentally. I woke up one morning and realized that my tenseness was not going away on weekends ... I looked at my children one Saturday and realized that I had not seen them awake since the previous Sunday because of five straight evening activities. I had gained weight and my anxiety attacks began and then became more frequent. I decided then and there that I had to establish some meaningful priorities. I decided that my family would come first ... [to] aid me in my battle with stress, I read extensively on the subject and attended numerous workshops. The three most helpful books that I have found are The Time Trap by Mackenzie, The Relaxation Response by Benson, and Fit or Fit."

(3) "One district in Oregon has experienced 19 heart attacks in the last eight years of a total of only 30 administrative staff!"

(4) In reference to emphasis areas for administrative training: "[Emphasize] internship activities for significant periods of time [and] data processing uses in education [such as] computer-assisted instruction, use in management."

(5) "May not have been too successful in coping with stress--have had two heart attacks and open-heart by-pass surgery."

(6) "An area that needs more attention in the adminis-
trative certification program is curriculum con-
struction, improvement of instruction through a
strong evaluation program ..."

(7) "The job of a school administrator is to maintain
a balance in the dynamic personal and professional
pressures which are inherent in an educational in-
stitution. We are the focal point of organization-
al stress ... people must enjoy the position or
not be in it ... complaining about the very nature
of the job is paradoxic."

(8) In reference to the frustrations of administration:
"The huge allotment of time consumed in meetings ...
witnessing the 'eight to four' attitude of my own
team (counselors and deans)."

4. Summary of Suggested Books,
Workshops and Periodicals

BOOKS

Assertive Discipline, Lee Canter

Be the Person You Were Meant to Be, Jerry Greenwald

Coping with Difficult People, Robert M. Bramson

Documenting Teacher Dismissal: A Guide for the Site Ad-
ministrator, William C. Carey

Fit or Fat, Covert Bailey

I Ain't Much Baby, But I'm All I Got, Jess Lair

Self-Renewal, John Gardner

The Hurried Child: Growing Up Too Fast Too Soon, David
Elkind

The Magic of Thinking Big, David Schwartz

The Relaxation Response, Herbert Benson

The Time Trap, R. Alec Mackenzie

Type A Behavior and Your Heart, Meyer Friedman and Ray
H. Rosenman

Unwinding: How to Turn Stress into Positive Energy,
    Christine Leatz

Your Mind Can Drive You Crazy Only If You Let It, James
    Takacs

WORKSHOPS

American Business and Management Seminars

Carl Rogers' Group Counseling Sessions

"Externship in Educational Administration" offered by the
    University of Oregon (1980)

Transactional Analysis Workshops, Harold F. Zuckerman,
    Oakland, California

Oregon Schools' Workshop on personal motivation (Summer,
    1981)

Madeline Hunter Workshops

"In Basket" Workshop offered by University of Oregon

COSA Workshops

PERIODICALS AND OTHER

American Management Association Magazine and Materials

NASSP Bulletin

National School Board Journal

"Increasing Human Effectiveness", a tape series by Bob
    Mowad

Tapes by Wayne Dyer

Tapes on stress and time management by Ivan Fitzwaters

"Take Tomorrow", a poem by Fra Giovanni